

Comment Index

Welshtown Quarry Expansion Project – Additional Information

Publication date: March 17, 2022

Government

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2	Environment and Climate Change – Sustainability and Applied Science (Groundwater)	February 22, 2022
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7	Nova Scotia Office of L'nu Affairs	February 25, 2022

Mi'kmaq of Nova Scotia

Number	Source	Date Received
1	Kwilmu'kw Maw-Klusuaqn Negotiation Office (KMKNO)	February 28, 2022

Public

Number	Source	Date Received
1	Anonymous	January 29, 2022
2	Anonymous	January 31, 2022
3	Anonymous	February 16, 2022
4	Anonymous	February 20, 2022
5	Anonymous	February 22, 2022
6	Anonymous	February 25, 2022



Date: February 15, 2022

To: Renata Mageste da Silva, Environmental Assessment Officer

From: , Hydro and Flow Unit, Regulatory Review Biologist, Fish and Fish
Habitat Protection Program

Subject: Welshtown Quarry Expansion EA Project – Additional Information Addendum

Dear Renata Mageste da Silva:

Fisheries and Oceans Canada (DFO), Fish and Fish Habitat Protection Program (FFHPP) received the Nova Scotia Environmental Assessment Addendum registration documents submitted for the Welshtown Quarry Expansion Project in Shelburne County. The project is to expand on the existing quarry that is currently less than four hectares (ha) to a total 35.3 ha. Quarry operations are anticipated to remain the same, with the full development of the quarry occurring over a 40-year period.

The study area is located on a watershed divide between the Birchtown Brook and Roseway River Watersheds. The westside of the site drains into the Birchtown Brook, with the eastern side draining into the Roseway River. Water within the quarry will be redirected using drainage ditches towards the south east, connecting to a lower section of the Roseway River. No watercourses that contain fish habitat are present within the boundary of the project; however, an unnamed, fish-bearing tributary to the Roseway River (referred to as Tributary 1) runs parallel to the project area, along the southern boundary.

DFO-FFHPP is responsible for administering the fisheries protection provisions of the *Fisheries Act (FA)* and *Species at Risk Act (SARA)* for aquatic species at risk. The fisheries protection provisions of the *FA* includes: section 34.4 which prohibits the death of fish by means other than fishing; section 35 which prohibits the harmful alterations, disruption, or destruction (HADD) of fish habitat; and section 36.3 which prohibits the deposition of deleterious substances into water frequented by fish or in any place where it may enter such water. *SARA* prohibits: the killing, harming, harassment, possession, capturing, or taking of a species listed as extirpated, endangered, or threatened; the damage or destruction of a residence; or the destruction of any part of the critical habitat of such a listed species, unless authorized by the minister.

Below you will find the comments from DFO-FFHPP regarding the above mentioned project:

- As the drainage ditches being used to redirect water from the quarry connect to lower reaches of the Roseway River, the ditches will need to be designed to include barriers to

fish passage to avoid the potential access and stranding of fishes in the drainage ditches following high flow events;

- Riparian boundaries should be established to ensure a vegetative buffer is present to filter runoff prior to encountering watercourses; and,
- Areas of Wetland 12 considered contiguous to Tributary 1 may provide direct and indirect benefits to fish and fish habitat. Consideration should be given to the benefits contiguous wetland areas have, the expected degree of impacts towards the contiguous wetlands, and measures to be implemented to mitigate any impacts to fish and fish habitat.

Should the EA be granted conditional approval, DFO will be requesting additional information be provided through the Nova Scotia of Environment Watercourse Alteration Approval process to determine if the project will result in the HADD to fish and fish habitat and require an authorization under the *FA*.

From: Check, Gordon G <Gordon.Check@novascotia.ca>

Sent: February 22, 2022 5:08 PM

To: Mageste da Silva, Renata <Renata.MagestedaSilva@novascotia.ca>

Subject: RE: Welshtown Quarry Expansion Project, Addendum registration: comments due February 25, 2022

Hi Renata,

I have no additional comments to make on the Additional Information Addendum for the Welshtown Quarry Expansion EA Project.

Note that that there were no significant groundwater issues of concern identified in my initial EA review and that I also see no additional EA concerns from the information provided in the Addendum.

Regards,

Gordon



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Environment

Date: February 23, 2022
To: Renata Mageste da Silva, Environmental Assessment Officer
From: Environmental Health Consultant, NSE-EHFS
Subject: Welshtown Quarry Expansion Project

Scope of review:

The focus of this Environmental Assessment Addendum Review from the NSE Sustainability and Applied Science Division's Regional Environmental Health Consultant is potential impacts on human health. In general, the scope of this review includes the assessment of the potential for the proposed undertaking/project to adversely affect human health in all phases of the project. Any recommendations provided below are meant to supplement the actions that are outlined in the EA submission documents.

Documents reviewed:

The documents outlined below formed the basis for this EA review, and is referred to as the 'EA submission' through the rest of this memorandum:

- Addendum to Environmental Assessment Registration Document – Welshtown Quarry Expansion Project, including Addendum Appendices A-E. Report Prepared by Dexter Construction Company Ltd. Registered Jan 26, 2022 and accessed from <https://novascotia.ca/nse/ea/Welshtown-Quarry-Expansion-Project/>

Review

A reviewed of the addendum information has not resulted in additional concerns from and environmental health perspective beyond the original comments provided in the December 2, 2020 review.

Date: February 24, 2022

To: Renata Mageste da Silva, Nova Scotia Environment & Climate Change - EA Branch

From: Wetland Specialist, Water Resources Management Unit

Subject: Welshtown Quarry EARD Addendum - Wetlands

Scope of Review:

The following review of the Welshtown Quarry Expansion Project Environmental Assessment Registration Document (EARD) Addendum (Dexter Construction Company Limited, January 2022) is specific to the mandate of the NSECC Wetlands Program within the Sustainability and Applied Sciences (SAS) Division. The review considers whether the environmental concerns associated with wetlands and the proposed mitigation measures to be applied have been adequately addressed within the EARD Addendum. The recommendations provided below are meant to supplement the actions outlined in both the original EARD, and the EARD Addendum submission documents.

Reviewed Documents:

- Dexter Construction Company Limited. 2022. *Addendum to Environmental Assessment Registration Document – Welshtown Quarry Expansion Project: Welshtown, Shelburne County, Nova Scotia.*

General Comments & Recommendations:

- A variety of wetland concerns were expressed in the comments on the original EARD submission – these remain largely unaddressed in the current EARD Addendum.
- It is noted in the Water Balance Assessment that the upstream contributing area to Wetlands 3 & 4 will be significantly reduced upon full development of the quarry site (Appendix C, Figure 2). Monitoring for indirect hydrological impacts to these wetlands should be a future consideration, if the Project receives conditional approval.
- The NS-ECC Wetlands programs has no further concerns related to the EARD Addendum for the proposed undertaking.

From: d'Entremont, Adam N <Adam.dEntremont@novascotia.ca>

Sent: February 24, 2022 2:17 PM

To: Mageste da Silva, Renata <Renata.MagestedaSilva@novascotia.ca>

Cc: Hoben, Heather T <Heather.Hoben@novascotia.ca>; Cuthbert, Robert W
<Robert.Cuthbert@novascotia.ca>

Subject: RE: Welshtown Quarry Expansion Project, Addendum registration: comments due February 25, 2022

Hi Renata

The Yarmouth office has reviewed the EA (original) and the amendments and have no comments to provide.

Many Thanks

Adam

Date: February 25th, 2022

To: Renata Mageste da Silva, Environmental Assessment Officer

From: Surface Water staff, Water Resources Management Unit

Subject: Welshtown Quarry Expansion Project EA - Additional Information
Addendum

Scope of review:

This review from the Water Resources Management Unit Surface Water staff with the Nova Scotia Environment and Climate Change (NSECC), Sustainability and Applied Science Division for the following Welshtown Quarry Expansion Project – Environmental Assessment Addendum focuses on the following subjects:

- Surface water quantity
- Surface water quality
- Potential adverse effects and proposed mitigations with respect to surface water quantity and quality.

The recommendations provided below are meant to supplement the actions outlined in the Addendum to EA Registration Documents (EARD Addendum) and the original EA Registration Documents (EARD).

Documents reviewed:

- Dexter Construction Company Limited. Welshtown Quarry Expansion Project, Welshtown, Shelburne County Nova Scotia – Addendum to Environmental Assessment Registration Document. January 2022
- Dexter Construction Company Limited. Welshtown Quarry Expansion, Welshtown, Shelburne County Nova Scotia. Registration Document for a Class 1 Undertaking Under Section 9(1) of the Nova Scotia Environmental Assessment Regulations. November 2020.

Comments

General

- General quarry development plan, quantitative water balance assessment, fish and fish habitat assessment, and water management plan were included in the

EARD Addendum.

- The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) states water spray will be used for dust suppression at the site when required. Water for dust control will typically be either drawn from surface water runoff retained in the site settling pond, or from surface water runoff retained in the fractured quarry floor. Another alternative is to import water through water trucks. It is stated the water usage for dust control is anticipated to be below 23,000 liters per day on average and will not be withdrawn from a source, at a frequency, or at a volume that would require a water withdrawal approval. No further information is provided on the additional source of water if water stored in the fractured quarry floor and settling pond is not sufficient for dust control. No information is provided on how the wastewater from dust control will be addressed. In addition, the Welshtown Quarry Water Management Plan states a dust suppressant (ex. calcium chloride) would typically be used for dust control on unpaved roads and work areas rather than water since a single application of dust suppressant will generally be effective for several days. No information is provided on the potential impacts of using chloride-based dust suppressants to surrounding water resources and/or environment, nor details provided on associated mitigation measures and how the waste of dust control suppressant will be addressed, if there is any.
- The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) states if aggregate washing is required, all wash water will be retained onsite through a closed-loop approach. It is stated wash water will not be withdrawn from a source at a frequency, or at a volume that would require a water withdrawal approval if aggregate washing is required. The Welshtown Quarry Water Management Plan also states a series of permanent or temporary wash ponds would be constructed on site, and water retained onsite in the settling pond would be used to fill/replenish the wash ponds when necessary. The aggregate wash water will be then circulated through the series of wash ponds and reused for aggregate washing. No information is provided on whether water retained in the proposed settling pond is sufficient for refill/replenish wash ponds, considering portion of retained water would be used for dust control purpose. If not, what is the additional sources of water for refill/replenish wash ponds. In addition, no further information is provided on the proposed wash ponds, including locations, design capacity, cleaning and maintenance approach, wastewater disposal if there is any and how will the ponds be addressed in the quarry reclamation phase.
- The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) states a settling pond will be constructed in the southeastern portion of the proposed quarry expansion area to collect and temporarily retain surface water runoff prior to discharge towards Roseway River. Considerations for settling pond design were provided in the plan and a surface monitoring location at the outfall of the settling pond to collect information for validating and improving settling pond performance. No information is provided on the detailed settling pond design, and the interaction between the settling pond and wash ponds for aggregate washing mentioned in the plan.

- The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) states the Nova Scotia Environment and Climate Change Erosion and Sedimentation Control Handbook for Construction Sites will be used as a guide for proposed quarry site erosion and sediment control (ESC). The plan also provides general ESC considerations. Figure 1 in the Welshtown Quarry Water Management Plan notes runoff diversion berms on the existing quarry site and proposed settling pond location. No further details are provided on proposed ESC measures, including location, design, method of maintenance, associated drawings, and how will these ESC measures be implemented with progressive quarry development and reclamation mentioned in the EARD Addendum.

Surface Water Resources

- The EARD Addendum identified three watercourses near the proposed quarry property and Fish and Fish Habitat Assessment (Appendix E, EARD Addendum) were conducted in all three watercourses, including
 - A first order unnamed stream previously identified in the EARD, tributary to Roseway River (referred as Tributary 1). The EARD Addendum states Tributary 1 possibly originates in a wetland southwest of the Welshtown Quarry property. The tributary flows north, before sharply turning near the south boundary of the quarry property to flow east and southeast, eventually passing through a culvert at the Upper Clyde Road before discharging into Roseway River (Figure 1, Appendix E of the EARD Addendum);
 - Tributary 2 originates from southwest of the quarry property near highway 103, flowing north and northeast before joining Tributary 1 and continuing as combined flow into Roseway River (Figure 1, Appendix E of the EARD Addendum). This watercourse is not included in provincial mapping;
 - Tributary 3 originates from southwest of the quarry property near Highway 103, flowing north and northeast before joining Tributary 1 and continuing as combined flow into Roseway River (Figure 1 Appendix E of the EARD Addendum). This watercourse is shown on provincial mapping and originates far south of the quarry property, passing through Highway 103 and flowing along Highway 103 before it turns and merges into Tributary 1.
- The EARD identified and delineated Wetland 12 as a sphagnum slope swamp and was suspected as a contributor of flow to Tributary 1, although the presence of Tributary 1 was not confirmed at the time during site visits in 2020. The Fish and Fish Habitat Assessment (Appendix E, EARD Addendum) states Wetland 12 lies between the quarry and Tributary 1 and is one of headwater sources to Tributary 1. The closest approach from Tributary 1 to the proposed quarry expansion area is approximately 50 m.

Surface Water Quantity

- The EARD Addendum states Wetland 12 extends from the base of the quarry berm to Tributary 1 and intermittent runoff from the berm provides the main water source to Wetland 12, in addition to local surface and groundwater. No further information is provided on the local surface and groundwater feeding into

Wetland 12. The EARD Addendum also indicates water draining from the slope swamp would be a contributor of flow to the upper-mid portions of Tributary 1 but would be an insignificant amount. No information is provided to quantify this amount.

- The EARD Addendum states that quarry drainage is directed to an established drainage corridor which eventually connects to Tributary 1 almost immediately before it discharges to Roseway River. The Welshtown Quarry Development Plan (Appendix B, EARD Addendum) indicates surface water runoff from nearly all of the disturbed area will be directed to the east of the quarry property through all phases of the proposed quarry expansion via established site drainage corridors and ultimately flows into Roseway River. No further information is provided on whether the existing surface water management system is sufficient to effectively direct increased surface water runoff to the east of the quarry property. Accordingly, no information is provided on how the surface water management will evolve and/or being improved with proposed quarry expansion and the proposed progressive reclamation plan.
- The Welshtown Quarry Development Plan (Appendix B, EARD Addendum) states small amounts of runoff originating on perimeter slopes may flow offsite to vegetated areas throughout all phases of proposed quarry expansion. The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) states small amounts of surface water originating near the perimeter of the site will be directed offsite to vegetated areas around the site. No information is provided on the expected locations of these small amounts of runoff to occur and how they will be directed to vegetated areas throughout development of proposed expansion.
- The EARD Addendum states minimal runoff from the proposed quarry expansion area is directed to the upper reaches of Tributary 1 and small amounts of runoff originating on perimeter slopes may flow offsite to vegetated areas. The Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum) states limited future quarry development (2.4 ha) will be within the catchment area (50.7 ha) of Tributary 1, and small amount of runoff from the perimeter slopes of the quarry site would still contribute flow to the catchment area of Tributary 1. The impacts due to any potential change in flow to Tributary 1 as a result of quarry development was then concluded to be negligible. However, as indicated in Figure 3 of the Welshtown Quarry Water Balance Assessment, Wetland 11 and Wetland 12 are within the abovementioned 2.4 ha future quarry development area, and the EARD Addendum states there was presence of suspended sediment residues at the ground surface at the upslope end of Wetland 12, indicating transport of sediment into the area from quarry berm runoff. Although the location of the ground surface with sediment presence was not provided or noted on maps in the EARD Addendum, this infers a potential of sediment release from the quarry site and/or quarry perimeter slopes into Wetland 12 and hence into Tributary 1.
- The Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum) states it does not distinguish groundwater recharge and groundwater

that contributes to surface water resources as baseflow from the infiltration, since the proposed quarry expansion will not enter the deep bedrock groundwater table, and overall is not anticipated to significantly impact or alter groundwater. Therefore, limited information is provided on groundwater-surface water interaction as required in the NSECC Minister's Request for Additional Information Letter.

- The Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum) studied two infiltration scenarios as impervious and pervious quarry floors, representing minimum and maximum estimated infiltration on the quarry floor. The two infiltration scenarios were then applied to different quarry development phases (existing and short term, mid-term, and full development, and reclamation). It is noted in Table 2 of the Welshtown Quarry Water Balance Assessment that infiltration for quarry full development phase (439,989 m³) is noticeably larger than the infiltration for the existing quarry floor (411,757m³) under impervious quarry floor scenario. Although quarry full development will introduce increased catchment area from the neighbouring watershed (Catchment B as noted in the Welshtown Quarry Water Balance Assessment), the increased catchment area should be completely impervious which indicates no infiltration under impervious quarry floor scenario. No information is provided on the rationales led to the increased infiltration in a scenario with increased impervious quarry area. Figure 2 of the Welshtown Quarry Water Balance Assessment indicates a natural area will also be re-delineated into the quarry catchment area from Catchment B. No information is provided on whether this natural area contributes to the increased infiltration as abovementioned. If so, how will this re-delineation occur with quarry full development, since this natural area locates beyond the proposed quarry expansion area as shown in Figure 2 of the Welshtown Quarry Water Balance Assessment.
- The Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum) estimates the increase of surface water runoff under quarry full development phase to be within the range of 11.5% to 18.3% (pervious to completely impervious quarry floor), without consideration of progressive reclamation as mentioned in the EARD Addendum. The Welshtown Quarry Water Balance Assessment states runoff from the quarry is largely through an established drainage corridor that enters Tributary 1 in almost immediately before the watercourse discharges to Roseway River. Minimal runoff from the quarry would directly contribute to flow in Tributary 1, and consequently any change in runoff/infiltration resulting from the proposed quarry expansion is expected to have minimal impact on the flow within Tributary 1. No further details are provided to quantify the abovementioned minimal runoff, nor information provided on how the established drainage corridor acts to minimize runoff directly into Tributary 1. In addition, no information is provided on whether additional surface water management measures are required to cope with the estimated increase of surface water runoff, considering progressive quarry development and reclamation.
- The Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum) estimated a reduction in both infiltration and surface runoff in the

neighbouring watershed (Catchment B as noted in the Welshtown Quarry Water Balance Assessment) as 4.4% and 4.3%, respectively, in quarry full development phase. It states the estimated changes in runoff/infiltration within Catchment Area B are minimal and within expected seasonal fluctuations, and consequently any impact on Catchment B is expected to be negligible. No information is provided on the seasonal fluctuation of runoff/infiltration for comparison purpose. In addition, as shown in Figure 33 in the Biophysical Assessment Report (Appendix D, EARD) and Figure 1 through Figure 3 in the Welshtown Quarry Water Balance Assessment, Wetland 3 and 4 locate immediately downslope to the western boundary of the proposed quarry expansion area. No information is provided on whether the upland area in the proposed quarry expansion area acts as headwater supply to Wetland 3 and 4. Accordingly, no information is provided on the potentially impacts of headwater supply to Wetland 3 and 4, due to permanently re-delineating the upland area as proposed quarry development area into another watershed.

- Two surveyed quarry drainages, one near southwest corner and another near northeast corner of the quarry property, were noted to the east boundary of the quarry property on provided plans and/or figures in the EARD Addendum (Site Development Plan in Appendix B and Figure 1 through Figure 3 in Appendix C, EARD Addendum). Figure 1 of the Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) indicates these two drainages confluence before connecting to Tributary 1. No information is provided on whether the established drainage corridor refers to both drainages, and if so, how the surface water runoff from the quarry site will be split into the two drainages. The Welshtown Quarry Water Management Plan states a settling pond will be constructed in the southeastern portion of the proposed quarry expansion area to collect and temporarily retain surface water runoff prior to discharge towards Roseway River. Figure 1 of the Welshtown Quarry Water Management Plan also indicates the proposed settling pond location on the drainage near southwest corner of the quarry property, which will not be able to intercepts and retain any runoff to the drainage near northeast corner of the quarry property. No information is provided on whether all future surface water runoff will be directed into the drainage near southwest corner of the quarry property, and if so, what are the measures to be implemented to direct surface water runoff into this drainage.
- The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) states quarry site will be constructed in a way that the initial 3-5 feet below the quarry floor (sub-drill) will be fractured bedrock, and thus allow temporary retainment of surface water runoff originating onsite within the quarry floor. Surface water retained in the quarry floor will be discharged to the east of the quarry through an established drainage corridor. The quarry floor will be contoured where necessary so that surface water runoff does not infiltrate the fractured quarry floor and will flow to the established drainage corridor. No further information is provided on the proposed or estimated capacity of fractured quarry floor for retaining surface runoff through quarry development, based on the Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum).

- Additional water quality measurements were conducted on June 2nd and 3rd, 2021 at eleven locations as indicated in the Fish and Fish Habitat Assessment (Appendix E, EARD Addendum) for the three abovementioned watercourses,
 - Tributary 1
 - DS1 at the furthest downstream point (Upper Clyde Road)
 - DS2 at the junction with Tributary 3
 - DS3 at a natural deflector
 - DS4 at the junction with Tributary 2
 - US1 at the undercut bank of downstream of a pool of unidentified fish
 - US2 at a location easily accessible from the Welshtown Quarry property
 - US3 at further upstream point nearest to Wetland 12
 - Tributary 2
 - T2A at junction with Tributary 1
 - T2B at potential fish barrier (old bridge foundation)
 - T2C at upstream of Tributary 2
 - Tributary 3
 - T3A at junction with Tributary 1

- Water quality measurements consisted of field sampling and measurements with a YSI Model 85 handheld oxygen meter for temperature, dissolved oxygen, and specific conductivity. Water quality measurement results for dissolve oxygen (DO) in comparison to the Canadian Council of Ministers of the Environment Water Quality Guidelines for the Protection of Aquatic Life (CCME Guidelines) were within acceptable ranges, except at US2 (4.8mg/L) and T3A (2.8mg/L). It is noted DO measured at a similar location (WS4) on Tributary 1 in the Biophysical Assessment Report (Appendix D, EARD) to US2 was 4.8mg/L on the July 8th, 2020 Environmental Assessment site visit.

- Water quality measurements were conducted in June, which experiences, on average, the second lowest monthly precipitation in any given year (Figure 3, EARD). The precipitation data obtained from the weather station in the vicinity (Shelburne Sandy Point, 43°42'00.000" N, 65°19'00.000" W, operated by Environment and Climate Change Canada) show a total precipitation of 79.5 mm and 35.9 mm in May and June 2021, respectively, which are significantly less than typical precipitations in such months, indicating a drier weather condition than average. Water quality measurements conducted during such a drier weather in a month with the second least precipitation of a year do not represent the average flow conditions and water quality accordingly. In addition, records at the Shelburne Sandy Point station show preceding precipitations through May 29th – 31st with the amounts of 21.1 mm, 2.5 mm, and 14.4 mm, respectively. No information is provided on whether the period and amount of preceding precipitation are sufficient to generate surface water runoff to occur, and if so, whether the runoff generated has been settled before the day water sampling was conducted. Accordingly, no information is provided on the flow conditions within which water quality measurements were conducted.

- No information is provided in the EARD Addendum on whether pH measurements and laboratory analysis for total suspended solids (TSS) were

conducted for the additional water quality measurements. Similar to the EARD, general chemistry and metals laboratory analysis were not conducted on the collected water quality samples.

- The Welshtown Quarry Water Management Plan (Appendix D, EARD Addendum) proposes to monitor surface water quality on a quarterly basis for TSS and pH. Additionally, for the first-year water samples will also be analyzed for general chemistry and metals to establish baseline water quality and identify potential contaminants of concern. As mentioned in the Welshtown Quarry Water Management Plan, quarterly sample collection frequency is consistent with Dexter's experience in operating similar rural NS quarries. The proposed surface water monitoring locations include,
 - SW-1, upstream (background) on Tributary 1, south of the quarry;
 - SW-2, site discharge from established drainage corridor;
 - SW-3, downstream on unnamed watercourse (Tributary 1), prior to discharge into Roseway River.

- The Welshtown Quarry Water Management Plan also states that surface water quality monitoring will be conducted as per the Terms and Conditions of NSECC Industrial Approval and is intended to validate the effectiveness of environmental controls and strategies implemented at the site and assess potential changes in surface water quality around the site.

- The Fish and Fish Habitat Assessment (Appendix E, EARD Addendum) states logging activity in Wetland 12 between Tributary 1 and the Welshtown Quarry property occurred likely between the July 8th, 2020 Environmental Assessment site visit and the June 2nd and 3rd, 2021 site visits near water sampling location US3. The Fish and Fish Habitat Assessment also states the logging activity will impact function of Wetland 12 and may result in suspended sediments or contaminants derived from quarry activities impacting the adjacent freshwater habitat, through surface runoff. As indicated in the same assessment, natural vegetation within Wetland 12 and the immediate surrounding area should be maintained for proper wetland function. Regardless of the logging activity, any potential impacts to Wetland 12 and thus Tributary 1 from proposed quarry activities must be avoided, or otherwise approved by NSECC providing sufficient compensation and/or mitigation measures.

Recommendations

The following recommendations are presented for consideration in the development of conditions for any approvals that may follow the EA process, if the EA is successful.

Operational Issues/Other Permitting Processes

- Evaluation on the estimated amount water usage for dust control from different sources, including water retained in the fractured quarry floor (and change of retaining capacity through quarry development if there is any), water drawn from proposed settling pond, and any additional water introduced through water

trucks, submitted to NSECC for review and acceptance. Potential sources for introducing water should be identified in this evaluation. This evaluation should also include any proposed methods for wastewater treatment and/or disposal from dust control. It is recommended to follow industrial best practices for the use and storage of chloride-based dust suppressants, including but not limited to, Environment Canada and Climate Change Best Practices for the Use and Storage of Chloride-Based Dust Suppressants (February 2007), and include proposed methods for waste control and disposal from the usage of dust suppressant, if there is any.

- Details of aggregate wash pond(s) design submitted to NSECC for review and acceptance. Information to be provided should include locations, design capacity, closed-loop design, cleaning and maintenance approach, wastewater disposal if any, and how will the pond(s) be addressed in the quarry reclamation phase. Potential water sources for refilling/replenishing wash pond(s) should be identified. Information on the interaction between wash pond(s) and proposed settling pond should also be included.
- Details related to final settling pond designs (by a qualified professional engineer) is required as part of any NSECC industrial approval application for the works, including a plan to monitor compliance during the different operational phases of the year, including times of shut-down. Designs must at minimum include considerations for appropriate removal of TSS and minimizing impacts to surrounding water resources. Information on the interaction/connection with aggregate pond(s) system should also be provided.
- A detailed erosion and sediment control plan is to be developed by a qualified professional and is required to be submitted as part of any industrial approval application for NSECC review and approval prior to construction and operation activities, including clearing, grubbing, and stripping. The plan should include application of appropriate erosion and sediment control measures and the approaches to maintain effectiveness of these measures. Design details of ESC measures and associated drawings are recommended to be included. This ESC plan should also include specific considerations to prevent erosion and release of sediment into the wetland immediately at south of the quarry property (Wetland 12) and subsequently into the unnamed watercourse south of the quarry property (Tributary 1).
- Detailed site surface water management plan must be developed by a qualified professional engineer and submitted to NSECC for review and acceptance. The plan should include detailed design of surface water management measures (e.g., berm, ditches) and be capable of minimizing impacts and alterations to nearby surface water resources due to increased surface runoff from proposed quarry development as estimated in the Welshtown Quarry Water Balance Assessment (Appendix C, EARD Addendum). This plan should consider retaining capacity of the stated fractured quarry floor, and the interaction of the fractured quarry floor with surface water management measures through quarry development. The plan may consider delineating the expanded quarry area and application of additional surface water management measures to cope with

increased surface water runoff and maintain the existing site drainage pattern with progressive quarry development and reclamation. This plan should consider specific and/or additional surface water management measures to manage surface water near the south boundary of the quarry property where a wetland (Wetland 12) exists immediately south to the boundary. In addition, approaches to maintain the effectiveness of surface water control measures should also be included. It is recommended to consider climate change factors into the site surface water management plan, given the long lifespan (40 years) of the proposed quarry development.

- A comprehensive surface water quality monitoring program being developed and submitted to NSECC for review and acceptance, in addition to the proposed quarterly based surface water quality monitoring for TSS and pH and additional monitoring for general chemistry and metals in the first year to set up baseline water quality. This plan should include considerations to monitor surface water quality in the wetland immediately south to the south boundary of quarry property (Wetland 12) and at a downstream point on the unnamed watercourse (Tributary 1) from the quarry property with a risk-based approach associated with quarry activity (e.g., during operation, rain season, inactivity such as shut-down) to monitoring potential impacts of quarry development to the wetland and watercourse and to provide information to improve mitigation. This plan should also consider whether monitoring water quality in the drainage near northeast corner of the quarry property should be conducted if the drainage receives discharge from quarry site. It is recommended to setup appropriate monitoring timing windows and frequencies for water quantity to support on-going evaluation of the mitigations in place for the proposed works from a water quantity perspective and to validate conclusions provided in the EARD and EARD Addendum surrounding insignificant impacts to water quantity in surrounding water resources.
- A site-specific contingency plan should be developed that includes prevention and response methods for spills and inadvertent releases. This plan should be submitted to NSECC for review and acceptance prior to construction and operation activity.

Date: January 25, 2022
To: Renata Mageste da Silva, Nova Scotia Environment
From: Nova Scotia Office of L'nu Affairs
Subject: Welshtown Quarry Expansion Project

The Nova Scotia Office of L'nu Affairs (OLA) has reviewed the Additional Information Addendum of the Environmental Assessment Registration Document for the proposed Welshtown Quarry Expansion Project, submitted by Dexter Construction Company Ltd. on January 26, 2022. The following review considers whether the information provided will assist the Province in assessing the potential of the proposed project to adversely impact established and/or asserted Mi'kmaw Aboriginal and Treaty rights.

Appendix D-E Fish Habitat and Stream Survey

Appendix D-E states that the unnamed stream adjacent to the project is part of the Roseway River system and is known to support various fish species including brook trout, and possibly Atlantic salmon, yellow perch, and the introduced chain pickerel and smallmouth bass. The section further states that waters within the project area are acceptable for trout survival and potentially provides habitat for fish. Moreover, it is noted that there is potential for sediments or contaminants derived from quarry activities to impact the freshwater habitat from surface runoff.

The Mi'kmaq of Nova Scotia continue to rely on fish for Food, Social, and Ceremonial (FSC) purposes and to provide a moderate livelihood. As such, potential impacts to fish and fish habitat may potentially have an adverse impact to Aboriginal and Treaty rights. Surface and groundwater monitoring programs should be incorporated into the terms and conditions of the EA Approval, if approved, to monitor water quality.

-----Original Message-----

From: [@gmail.com](#)>
Sent: January 29, 2022 8:05 PM
To: Environment Assessment Web Account <EA@novascotia.ca>
Subject: Dexters rock Quarry

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

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To Whom this Concerns

I would like to say off the top

We were never told about the Rock Quarry development in our community , there is more than 3 houses here as you were told .

someone from your office needs to come here when this rock Crusher is in operation.

This is not healthy , lack of sleep from noise till 11pm , and start up at 6am . And the dust off the road when trucks go by here .my front of my home off this secondary road ,

This is not acceptable for our health , lack of rest , interferes with our body's , work performance , mental health (damaging)

As for the environment it is damaging our water , our homes from blasting , not to mention wildlife , owls are nesting in this area , beavers are here , there is bogs in the quarry site , which is the heart for all wildlife , I have been living here for 20 yrs and have seen 3 moose sitings in the Quarry area , snapping turtles , a few other species of turtles ,and most turtles are going into endangered .Rock Quarries are a big part of this reason .the Forrest are destroyed , when does it stop ?

As for rock Quarry this we do not need this in our community , to destroy us ,pollute us , kill us ,take out lives away ., this is mentally stressful to know our windows will never be open to enjoy a beautiful. Summer day ,fresh air is gone , quite community gone .

I live from this site . Never been notified about any blasting , last blast jarred my door and has not close properly ,I will never get the value for my home to ever sell it .

Between the Quarry and the dump who will want to buy it .

I am a senior citizen I deserve to live a healthy life in my own home .

Save our wildlife at least

Sent from my iPhone

[@gmail.com](#)>

Sent: January 31, 2022 3:38 PM

To: Environment Assessment Web Account <EA@novascotia.ca>

Subject: ADDENDUM TO WELSHTOWN QUARRY EXPANSION PROJECT REGISTRATION DOCUMENT

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

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After reviewing the Jan 2022 Addendum to Environmental Assessment Registration Document submitted by Dexter Construction Co. Ltd. regarding the Welshtown Quarry Expansion Project, as well as the letter from the Minister of Environment dated 21 Dec 2020 to Dexter, I would like to offer some comments regarding the additional information requested and provided. Bold text is quoted from the Minister's letter and italicized text is quoted directly from Dexter's Addendum.

“b) A quantitative water balance analysis based on appropriate inputs and site grading ...”

Dexter's response that “... Watershed catchment areas were determined for each of the site development phases, and each development phase was evaluated under two infiltration scenarios to provide a range of potential outcomes resulting from the proposed quarry expansion. Overall, the Water Balance Assessment concludes that the proposed quarry expansion is expected to have a negligible impact on the local hydrological regime.”

The entire statement is somewhat alarming. Dexter Construction has created two infiltration scenarios to, according to Appendix C, “*represent the range of possible outcomes from existing / natural infiltration (most likely) to 100% impervious (worst case, no infiltration)*.” So Dexter admits that it really has no idea which watershed catchment areas will be affected? When what's at stake is the potential damage to or loss of a reliable, plentiful and clean supply of drinking water, shouldn't Dexter be required to know with 100% certainty what will happen to the watershed? Any impact on the water balance or any aspect related to the watershed cannot be considered negligible. A further statement at Appendix C, “The proposed quarry expansion will not enter the deep bedrock groundwater table, and overall is not anticipated to significantly impact or alter groundwater.” Any impact, anticipated or not, significant or not, is still an impact. It affects the lives of people, it is permanent and it cannot be undone.

“c) Additional details regarding the site water management plan for all the planned phases ...”.

“d) A detailed methodology and discussion on proposed water quality monitoring ...”.

“e) Identification of sources of water proposed to be used for dust suppression, including ...”.

In its response, Dexter Construction states *“A Water Management Plan has been prepared for the Project. The Water Management Plan includes details regarding site water management, proposed surface water and groundwater monitoring programs, and discussion on anticipated water usage at the site. Based on conversations with the various regulatory stakeholders, this plan was developed as a “concept plan”. Specific design details will be determined as part of the subsequent Industrial Approval process.”*

Again, we’re talking about the potential to significantly alter and possibly harm people’s lives. A Water Management Plan that contains the words *proposed, anticipated* and *details will be determined* is not a Water Management Plan – it’s a guesstimate. And one that brings concerns rather than reassurances.

“f) Baseline fish and fish habitat studies for wetland 12 and associated watercourse, and update to assessment as appropriate, based on the results of the assessment.”

Dexter Construction responds that *“The Roseway River is significantly larger than the minimal input from the unnamed watercourse, so any impacts on the Roseway River are expected to be negligible.”*

There should not be any impacts whatsoever - negligible or not. The point is that some impacts are anticipated, and although they may be negligible today or five years from now, will they still be considered negligible after 40 years of runoff?

Appendix B of the addendum refers to the progressive reclamation of the quarry site. I won’t dispute that reclamation can be done well – there are many examples all over the planet where site reclamation has been successful. But what about reclamation of the human component of this project? For the next 40 years or so, people living near the Welshtown Quarry will be subjected to:

- underground blasting and resultant damage to their property
- constant noise from heavy equipment used in clearing vegetation, drilling bedrock, crushing rocks to make aggregate, and loading, weighing and hauling aggregate products from the site
- damage to their mental health from the effects of constant noise
- damage to their physical health from dust created during blasting, drilling, etc., as well as from the exhaust fumes created by heavy equipment
- potential alteration and irreversible damage to their watershed
- significant devaluation of their property, reducing future resale opportunities, and
- loss of enjoyment of their property and the rural lifestyle they chose.

On 18 Nov 2020, I submitted the following comments to you, the Town of Shelburne and the Municipality of the District of Shelburne in response to Dexter's original application to expand the Welshtown Quarry. I am re-attaching these comments as they are still pertinent.

I have read through the registration document submitted by Dexter Construction Company Limited regarding the proposed expansion of the Welshtown Quarry from four hectares to 35.3 hectares. The potential physical, environmental and psychological hazards of living within proximity of an operating quarry, openly acknowledged and delineated in the document, should be given serious consideration by all departmental personnel who will be involved in the approval process of this submission. Italicized text is quoted directly from the registration document.

- *"... excavation will not take place below the current quarry floor elevation and therefore will not intercept the deep bedrock water table." "The actual depth of the bedrock water table at the quarry site is not known, but it has not been encountered during previous quarry operations, and it is not anticipated that the quarry expansion will reach the bedrock water table." "A groundwater monitoring program for water supplies will be implemented to establish baseline groundwater quality and provide on-going monitoring to ensure that any possible effects of the quarry are identified." "A contingency plan is expected to be established to manage any spill or release occurrences potentially impacting groundwater in the area."*

Anticipating that the quarry expansion will not reach the bedrock water table and knowing with certainty are two very different things. If the bedrock water table were to be breached, or any spill or release occur, there would be no going back for the residents of the area who have, thus far, enjoyed plentiful and safe water.

- *"The quarry and associated movement of trucks and equipment would continue to provide a minor and periodic source of noise in the area." "... operation of a portable crusher and heavy equipment may take place periodically and temporarily add to noise levels when the quarry is in operation ...". "Blasting occurs typically one to two times per year ...". "Quarry activities are not expected to change from the previous scope of operations, however various project activities have the potential to generate dust, combustion emissions, noise, and light. In particular, operation of heavy equipment (e.g. earth movers, crushers), rock drilling and blasting, as well as onsite routine operations contribute to increased dust and particulate levels."*

Day-to-day operations in the existing four hectare quarry have already led to diminished enjoyment of their property by the area's residents. An expansion and commensurate increase in blasting for an additional 40 years will effectively remove any quality of life for the residents who originally settled in the area to enjoy the peace, quiet and healthy air that rural living offers. Although I live within the Town of Shelburne which is approximately 2 kms away from the existing quarry, I can hear the noise generated by

blasting, equipment and the movement of trucks throughout the summer. Residents I have spoken with who live next to the existing quarry speak of constant noise all through the summer, and not being able to open windows or sit outside because of the noise and dust caused by operations at the existing quarry, which is currently only a fraction of the size of the proposed expansion. Blasting causes changes in air pressure, as well as flying dust and debris which can damage buildings, trees, as well as other natural and man-made objects within the blast zone. There have been documented cases of stress waves from blast charges causing damage to the foundations of the homes of nearby residents. Further expansion of the quarry will necessarily entail increased blasting over a greater area, causing potential or further potential damage to residential properties nearby. In addition, various realty studies show that property values for residential properties near asphalt plants can decrease by over 50 percent.

- *“... a portable asphalt plant may operate at the site periodically ...”.*

Asphalt is derived from various grades of crude oil and one of the most common human exposures to asphalt is by inhalation. It has been proven that exposure to asphalt fumes can cause headaches, skin rashes, sensitization, fatigue, reduced appetite, throat and eye irritation, cough and skin cancer. Chronic exposure of inhaled asphalt fumes may lead to lung or stomach cancer. Studies at the US National Institute for Occupational Safety and Health show that products containing asphalt are carcinogenic to laboratory animals and that exposure to humans should be limited. Surveys taken of residents living near asphalt plants report that nearly 50 percent have experienced deteriorating health conditions, including high blood pressure, sinus problems, shortness of breath and headaches. A US Environmental Protection Agency assessment on hot mix asphalt facilities reveals that some plants emit 770 - 2,000 hazardous air pollutants per year. Asphalt processing may be responsible for air pollutants such as hexane, phenol and formaldehyde.

I add my voice to those opposed to the quarry expansion and strongly urge the Minister of Environment to deny conditional environmental assessment approval to Dexter Construction Company Limited to expand the Welshtown Quarry.

Shelburne, NS B0T 1W0

[@gmail.com](#)

-----Original Message-----

From: @eastlink.ca
Sent: February 16, 2022 9:47 AM
To: Environment Assessment Web Account <EA@novascotia.ca>
Subject: Welshtown Quarry Expansion Project

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

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> I am a resident of Welshtown with concerns about the Welshtown Quarry Expansion Project:

>

> 1) Well Water- disrupting the movement and the quality of my well water.

>

> 2) Radon Gas- we live in a high risk area with potential for radon gas affecting our indoor air quality. Blasting could increase levels, causing lung cancer and other health issues.

>

> 3) Ecosystems and Wildlife- can you ensure that they are not destroyed?

>

> 4) Silica - breathing in dangerous substances such as crystalline silica from the dust particles.

>

> 5) Blasting- When the quarry was in use, between the end of November and first of December 2021, I experienced my whole house shaking from the vibration of the blasting. Residents were NOT informed of the intent to blast.

> I understand that there has to be quarries but this quarry being close to residential properties is causing negative impact to one's who live close by.

>

Thank You

Shelburne, NS

From: @eastlink.ca>
Sent: February 20, 2022 7:27 PM
To: Environment Assessment Web Account <EA@novascotia.ca>
Subject: WELSH TOWN QUARRY EXPANSION

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

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Here we are again writing to hopefully gain the attention we need to object to the quarry expansion happening in our backyard. I've read through the addendum provided by Dexter's Construction. These "unnamed waterways" sound really insignificant but just because they are unnamed they are anything but insignificant. The "hanging culvert" that flows to the Roseway River isn't always a hanging culvert. Currently and in the Spring and times of heavy rain all the water flows directly from the Quarry Site along the "unnamed waterways and quarry drainage" into the Roseway River. The Quarry drainage shown on the diagrams runs directly to the pond behind our house and filters down and provides our water source. The runoff from the Quarry site must settle somewhere. They say the brook trout can't get to the Roseway River but the brook trout can easily run to and from the Roseway River when the waters are high. Brook trout in a County that is being overrun by pickerel need to be protected. The Pond behind our house used to have lots of frogs and dragonflies. They are dwindling in numbers. A blue heron sometimes frequents the pond or used to. The water level in the pond is lower now. Can we attribute this to dry summers or have the waterways already been affected by the Quarry? Are they diverting water flow? Has the quality of the water been changed? Who will keep a check on these things? Dexter's? We've already determined there are lies in the original EA package.

In November 2021 another blast was conducted without notice to residents. It even made Facebook with Town of Shelburne residents wondering what it was. Was it an earthquake they ask? One Town of Shelburne resident noted that the dishes on their shelves rattled. It's a good thing we have doors on our shelves. Again, I was not home but at work downtown Shelburne distracted on the phone but still felt and heard the blast from that far away. My husband was home and said the house shook, once again leaving us to wonder if the blast has compromised our foundation with minute cracks or done other unseen damage. The DOE employee in Yarmouth confirmed we are very very close to the 800 metre setback for blasting. I don't think 800 metres is sufficient distance to blast in a residential area. Was the first blast back in 2019 outside of the setback?

We already live in an area deemed high risk for indoor radon (as can be seen on the Department of Natural Resources Radon risk map). Why is blasting allowed to disrupt radon gas in an area already deemed high risk? I had posed a question to Dexter's at a meeting back in 2020 as to whether or not this increases risk and they did not have an answer. What will happen if it is found to increase the radon level in our homes? I have a baseline radon test from 2018 and am currently conducting another test. Why should I need to complete a test again and foot the costs? Will I feel the need to complete a test every time they blast? Radon can be released into the air but also travels via water and the EA report states waterways are subterranean. Is this causing an increase in radon gas near us slowly making its way into our homes? A friend with knowledge of geology believes it is.

The work at the Quarry this past November, reminded us all how terrible it is to be living with a quarry in our backyard. The nonstop noise and increased traffic was very noticeable in November, December and January, months when most of us don't even have our windows open. What enjoyment will we have in warmer months? Surprisingly the rock crushing can be heard quite loudly by Residents on McGill Point Road and Lower Ohio Road within the boundaries of the Town of Shelburne. It can also be heard at Island's Provincial Campground and Dock Street, Town of Shelburne.

How far will the fumes from the asphalt plant travel? What are the related health concerns? How long will the "temporary asphalt plant " operate? Who will ensure it regulates to code? Are the current codes even acceptable?

Will we be able to ever open our windows and enjoy our property? Who will monitor our health, water supply, air quality, asphalt fumes, radon gas levels, mental health due to the ongoing stress and noise? What will be done in the event of an increase or detrimental change?

Since we only had ten days to respond last time, here are some of my additional comments and concerns in regard to the original EA document:

Clause 4.2. "No public concerns regarding the project have been received to date." This is because no one was aware of the potential expansion. We thought the one summer it was operated at full capacity was a one time period and did not want to get into an altercation with our neighbours who are the land owner's leasing the existing quarry property of which we did not realize or know the details and still don't.

Clause 5.2 The existing quarry was over the four hectares size before they have been approved for the expansion. An expansion request to ten times the size with a one time approval is ridiculous. The expansion brings the quarry boundary closer to our homes. Clear cutting of additional woodland will lessen any boundary and increase noise levels and allow for easier transmission of dust and interruption of waterways .

Clause 3.0 "The existing active area includes on-site related facilities including a scale house as well as a staging area for a portable asphalt plant...." Not only will we be required to deal with all of the negative impacts of the quarry but now we will be required to put up with an asphalt plant? The quarry is bad enough. What are the health concerns with an asphalt plant?. We will not be able to ever open our windows and I'm sure the fumes will infiltrate our homes. This is not acceptable under any circumstance.

Clause 5.2..."During crushing activities the site may be operated 24 hours per day, possibly 7 days per week. **WHAT?** No time for enjoyment of property by the residents? This is ridiculous. We have lived in the area for 30 plus years with full enjoyment of our property with the exception of the one year Dexter's ran the quarry full tilt and now we are expected to forgo any peace and quiet, live with detrimental health concerns, possible water contamination or loss of water, environment and animals, lower home values. Not just for a short period of time but for the next 40 to 50 years? An application for 40 to 50 years? Environment conditions that were acceptable in 1970 are certainly not acceptable now. How can they even believe that to be acceptable. Are they trying to push this through and have it

“grandfathered” in as they are aware the Government is reviewing all Environmental issues and policies?

6.1. Wind patterns...blow directly over my home across the Roseway River to the Town of Shelburne which boundary is located as close as 400 km from the Quarry entrance and to the Islands Provincial Campground contrary to the EA report. The main downtown area of the Town of Shelburne is approximately 2 km

Clause 6.1.3. “...however nearby residents of Upper Clyde Road interviewed noted that light from the quarry was not noticeable while it was in operation.” I’m not sure who the residents were that were interviewed although I have my suspicions , but they did not interview us . I can tell you that The LIGHT IS VISIBLE from the quarry site.

Clause 7.4.7 Fish and Fish Habitat..... “Fish passage at the main outflow of a stream near the quarry into the Roseway River is blocked by a hanging culvert and there is not suitable upstream fish habitat “. I invite you to visit the hanging culvert this time of year or in the Spring or any time of high water. At that time there is definitely sufficient water flow. The stream is a brook and brook trout were found during the initial study and the addendum.

Clause 6.1.3 “ambient noise levels reflect traffic as well a lesser source from traffic and operations of the quarry “. The noise level from the quarry nonstop beeping and rock crushing is anything but lesser. Imagine lying in bed and you are woken up to the sound of truck backing up and rock crushing at 6 am and the noise and beeping continues nonstop for the next 15 -16 hours. This is in November and you don’t even have your windows open. At 10 o’clock pm on a cold November night you hope the dog will stay out with you for another few minutes so you can finally enjoy the peace and quiet. This was our experience during the recent activity at the Quarry.

Clause 6.1.3 “and air quality is expected to be good due to the rural location and predominantly forested setting”. They don’t even know if it is good? I’ve got major concerns as to where the minute quarry dust is ending up. Crystalline silica is know to cause silicosis. We saw an increase in dust when the quarry was operated in 2019 and it is known to cause serious health problems. Are we slowing breathing in this dust year after year? What will an asphalt plant do to our air quality? They’ve only made assumptions that it is good. Who is going to monitor whether or not it is?

Clause 6.1.4 “This watercourse although visible on Provincial mapping is mainly subterranean and only occasionally visible at the surface”. It’s visible on provincial mapping because it is not insignificant. I invite you to visit my home and view the watercourse. It is quite visible and floods in times of heavy rain so much so that our basement used to flood and we had the DOT increased the size of the culvert to handle the flow of water from the top of the hill or “current quarry site”.

14. Clause 6.2.3 Water Quality.... “Overall surface water quality at the Welshstown Quarry site is good”. Sounds like a generalization to me. The water testing was completed when the Quarry was not in operation. Regular testing at numerous sites needs to be completed when the quarry is in operation and when it is not. Also regular testing of concerned residents wells at Dexter’s Expense.

15. Figure 29 page 33... shows owls located within the quarry site when the quarry is not in operation. I understand owls are protected in Nova Scotia. There are also breeding birds but not identification is

provided. Are owls protected or not? I'm sure they would vacate with every blast if it doesn't injure or kill them on impact.

16. Clause 6.2.9 Species at risk. We will have to rely on their observations but it was noted that Eastern blue-eyed grass is present. "There are no animals **per se** of particular conservation concern in the study area, however, Canada Lynx, American Marten and Eastern Moose mainland population, which are all currently listed as "endangered " under Nova Scotia Endangered Species Act, are of concern due to low numbers and MAY OCCASIONALLY OCCUR. " What does this mean? They are they but insignificant to Dexter's? We have witnessed the presence of mainland moose. Once again, they are trying to downplay these concerns with wording "per se".

Bird species occurring Chimney Swift listed federally as Threatened and Provincially as Endangered).....the Common Night Hawk (listed as Threatened under the Federal Species at risk and Provincial Endangered Species Act and is listed as Special Concern by COSEWIC).

Again in regard to the lichen species we will have to rely on their survey. Several rare lichen species were observed and are detailed and listed in the report on page 43.

Other animals of conservation concern potentially occurring at the site include BATS. We used to have a healthy bat population here which was very active. From the EA "and all at risk bat species may intersect with the study site BECAUSE it supports good bat feeding habitats as well as the possibility of the large outcrops being used as a hibernacula for habituating bats."

What is being done to protect all of these endangered and rare species?

17. Clause 6.3.3 Water Supply and Residential Wells. "Two homes on groundwater wells are located within 1km of the study area."

This is a outright blatant lie. There ARE OVER 20 HOMES WITHIN 1 km and ALL are on groundwater wells including ours. A simple look at Google maps can confirm this. Did anyone even attend the site to complete this document?

18. Clause 7.3.10 " contingency plan will be maintained to mitigate reasonable impacts". What exactly does this mean? They don't have a plan?

19. Clause "There are no permanent streams within 100 metres of the study area". This contradicts figure 30

20. What and when will the remediation of the property begin? 40 years from now?

As you can read my husband and I Object to any expansion of the Quarry site.

Shelburne, Nova Scotia

From: [@hotmail.com](#)>
Sent: February 22, 2022 1:49 PM
To: Environment Assessment Web Account <EA@novascotia.ca>
Cc: [@hotmail.com](#)>
Subject: Welshtown Quarry Expansion Project

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

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I am a resident of Welshtown. This Quarry borders on both sides and behind my property, with that being said I have great concerns about the Expansion of the Quarry listed below.

- 1) Air Quality- Silica dust causes lung disease. The trucks, transporting the fill, should be covered to reduce the dust flow.
- 2) Radon Gas- we live in a high area for potential of radon gas affecting our indoor air quality; therefore, our homes should be tested annually at Dexter's expense.
- 3) Asphalt Fumes- increase the risk of developing headaches, rashes, cough and possibly cancer. I would not be able to open my windows, enjoy the great outdoors, or even sit on my deck. I love to hang my clothes out on the line and that will be taken from me as well. This will greatly affect our quality of life.
- 4) Water Quality and Quantity- when blasting can you ensure that my water level will remain the same and the quality will be the same? There should be frequent water testing at Dexter's expense and carried out by the home owner.
- 5) Mental Health- My anxiety was bad when they were here working in the fall of 2021. The beeping of the trucks all hours of the day and night and the dump box banging sounded like it was right in my bedroom. I experienced the whole house shaking from the blast that we were not aware was happening. As a result, we should be notified and if any damage is done to our homes it should be Dexter's responsibility to repair. Noise levels should be tested annually.
- 6) Wildlife- I enjoy looking out and seeing deer and other wildlife in my yard. The noise and blasting will destroy their habitat and take away our enjoyment.
- 7) Decreasing Property Values - No body would want a property in an area where you can't enjoy the peace and quiet of your own home.

I feel this Quarry is in my backyard, and I am losing my privacy and quality of life.

Shelburne, NS

-----Original Message-----

From: @bellaliant.net>
Sent: February 25, 2022 1:12 PM
To: Environment Assessment Web Account <EA@novascotia.ca>
Subject: Welshtown Quarry Expansion Project

**** EXTERNAL EMAIL / COURRIEL EXTERNE **** Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

To Whom it May Concern

I am a resident of the Upper Clyde Road, not far from the location of the Welshtown Quarry. I have several concerns regarding the expansion of this project. I am very concerned for our well and drinking water, both from contamination of the water and diversion of the water that feeds our drilled well. The explosion that occurred the last time they blasted was huge. Houses shook and the blast was so loud that my neighbour thought that the overpass had collapsed. I saw a map from the Dept of Energy and Mines depicting the potential for Radon in indoor air. The risk for radon in our area is HIGH. Why would the Dept of Environment grant permission for a company to blast in this area to start with? This is a residential area and the quarry is very close. I can hear the crusher operating from inside my home with the windows closed. I have been informed that Dexter's want to work 24/7 at this site. It is bad enough to hear the beeping of the trucks backing up early in the morning into late at night. I definitely do not want to hear it all spring, summer and fall into the evening and through the night. We have two Brooks that run through our property. They were tested last year and were found to be Live. I am worried that this could change. I know that Quarries are essential but common sense should prevail. They should not be permitted this close to a residential area. Definitely there needs to have a change to the number of metres they need to be from residences when blasting. This impacts way more than just a few people. There are a lot of houses on this road not just two or three.

I would like to see the following:

Frequent water testing of residents wells completed by us at Dexter's expense. Radon tests completed annually at Dexter's expense. Checks on foundations for cracks from blasting. Specific work hours - not 24/7. No grandfathering of approval. Much further than 800 metres from residences when blasting. Checks done on the waterways to ensure they are not affected. Also it would be nice to be informed when blasting will take place.

Thank you