

ALBERTA ENVIRONMENTAL APPEALS BOARD

Decision

Date of Decision – August 28, 2018

IN THE MATTER OF sections 91, 92, and 95 of the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12, and section 115 of the *Water Act*, R.S.A. 2000, c. W-3;

-and-

IN THE MATTER OF appeals filed by Lars Larsen with respect to the decision of the Director, Red Deer-North Saskatchewan Region, Alberta Environment and Parks, to issue Approval No. 00255428-00-002 under the *Water Act* to Lafarge Canada Inc.

Cite as: Preliminary Motions Decision: *Larsen v. Director, Red Deer-North Saskatchewan Region, Alberta Environment and Parks, re: Lafarge Canada Inc.* (28 August 2018), Appeal No. 15-021-ID1 (A.E.A.B.).

BEFORE:

Mr. Alex MacWilliam, Panel Chair;
Dr. Alan Kennedy, Board Member; and
Ms. Meg Barker, Board Member.

WRITTEN SUBMISSIONS BY:

Appellant: Mr. Lars Larsen, represented by Mr. Richard Secord, Ackroyd LLP.

Approval Holder: Lafarge Canada Inc., represented by Ms. Shauna Finlay, Reynolds, Mirth, Richards & Farmer LLP.

Director: Mr. Muhammad Aziz, Director, Red Deer-North Saskatchewan Region, Alberta Environment and Parks, represented by Ms. Nicole Hartman, Alberta Justice and Solicitor General.

EXECUTIVE SUMMARY

Alberta Environment and Parks (AEP) issued Approval No. 00255428-00-002 under the *Water Act* to Lafarge Canada Inc. for the purposes of constructing and maintaining an end pit lake to be used for recreational purposes and construction of flood protection works.

Mr. Lars Larsen appealed the issuance of the Approval. Lafarge brought a preliminary motion asking the Board to dismiss Mr. Larsen's appeal on the basis he is not directly affected by AEP's decision to issue the Approval.

After reviewing the Notices of Appeal and the submissions provided by the participants, the Board determined that Mr. Larsen is directly affected by AEP's decision to issue the Approval.

The Board also determined the following issues will be heard at the hearing:

1. Will the construction and maintenance of the end pit lake and river flood protection works, as allowed under the Approval, impact surface water quality and quantity, including but not limited to the Freeman River and the end pit lake itself, and the aquatic resources in the Freeman River?
2. Will the construction and maintenance of the end pit lake and river flood protection works and the mining operations impact groundwater quantity and quality?
3. Are the terms and conditions of the Approval reasonable to protect the surface and groundwater in the area and the aquatic environment in the Freeman River?

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I. INTRODUCTION

[1] This is the Environmental Appeals Board's reasons for its decision regarding preliminary matters in respect of an appeal of Approval No. 00255428-00-002 (the "Approval") issued under the *Water Act*, R.S.A. 2000, 2000, c. W-3. The Approval was issued to Lafarge Canada Inc. (the "Approval Holder" or "Lafarge") by Alberta Environment and Parks ("AEP") for the purposes of constructing and maintaining an end pit lake for recreational use as a result of reclamation of a sand and gravel pit and for constructing flood protection works. The Approval relates to a sand and gravel operation on NE 34-61-6-W5M and SE 3-62-6-W5M in Woodlands County.

[2] The Environmental Appeals Board (the "Board") received a Notice of Appeal from Mr. Lars Larsen (the "Appellant"). The Board also received a preliminary motion from Lafarge asking the Appellant's appeal be dismissed on the basis he was not directly affected by AEP's decision to issue the Approval.

[3] The Board received written submissions on the directly affected status of the Appellant and the issues for the hearing. AEP took no position on the issue of the directly affected status of the Appellant. The Approval Holder argued the Appellant was not directly affected, given the location of his property in relation to the project site and the type of activities allowed for under the Approval. After reviewing the submissions, the Board determined the Appellant was directly affected, given the proximity of his land to the project site and his use of the natural resources in the area, including the Freeman River, for his business.

[4] The Board determined the issues for the hearing to be:

1. Will the construction and maintenance of the end pit lake and river flood protection works, as allowed under the Approval, impact surface water quality and quantity, including but not limited to the Freeman River and the end pit lake itself, and the aquatic resources in the Freeman River?
2. Will the construction and maintenance of the end pit lake and river flood protection works and the mining operations impact groundwater quantity and quality?

3. Are the terms and conditions of the Approval reasonable to protect the surface and groundwater in the area and the aquatic environment in the Freeman River?

II. BACKGROUND

[5] On August 14, 2015, the Director, Red Deer-North Saskatchewan Region, Alberta Environment and Parks (the “Director”), issued the Approval to Lafarge.

[6] On August 28, 2015, the Board received a Notice of Appeal from the Appellant appealing the decision to issue the Approval.

[7] On August 28, 2015, the Board wrote to the Appellant, Approval Holder, and the Director (collectively, the “Participants”) notifying the Approval Holder and Director of the appeal and requesting the Appellant provide further information about his appeal. The Appellant provided the additional information on September 21, 2015.

[8] The Board held a mediation meeting on December 14, 2015. An interim resolution was reached and discussions continued between the Parties.

[9] On September 17, 2016, the Approval Holder requested the matter proceed to a hearing. The Board requested the Participants provide the Board with any preliminary motions they wished to raise.

[10] On October 14, 2016, the Board set the schedule to receive submissions on the following preliminary motions:

1. Is Mr. Larsen directly affected by the Director’s decision to issue to Lafarge *Water Act* Approval No. 00255428-00-00 for the construction and maintenance of an end pit lake for recreational use?
2. What issues should be heard at a hearing, if one is held? The issues for the hearing must: (a) be contained in Mr. Larsen’s Notice of Appeal, (b) relate to Lafarge’s Approval, and (c) be within the Board’s jurisdiction.

[11] The Board received written submissions from the Parties on these motions between October 28, 2016, and December 9, 2016.

III. DIRECTLY AFFECTED

A. Submissions

1. Appellant

[12] The Appellant noted his Statement of Concern relating to the Approval application was accepted by the Director on the grounds he was directly affected by the application.

[13] The Appellant explained he lives within one and one-half miles from the northern portion of the project site and within a mile of the property boundary. The Appellant said he runs a hunting and outfitting business that provides guided fishing, hunting, and sightseeing trips to the community and outsiders “seeking to be one with nature” on the Freeman and Athabasca Rivers. The Appellant explained his business relies on the Freeman River that runs through his property and the wildlife and fishery in the Freeman River and in the area. The Appellant stated the fishing and hunting aspects of his business contribute to his income and are significant sources of livelihood for him and his family.

[14] The Appellant stated he relies on the water well on his land to supply his daily water needs. He explained the water well is fed by groundwater which is connected to the Freeman River, and any impact or interference with the groundwater or water table would impact the Appellant and his family. The Appellant said the dugout on his land is also fed by groundwater, so his livestock would be impacted by any adverse effects on the groundwater that feeds the dugout.

[15] The Appellant noted the Approval Holder recognized the water table in the area ranges from three metres to 9.8 metres below ground surface. The Appellant stated the Approval Holder intends to dewater the mining pits to the base of the excavation, which is greater than 10 metres below ground surface, and store the groundwater in two recharge ponds onsite for eventual seepage back into the surrounding environment. The Appellant said the recharge ponds will be surrounded by berms five metre high and, according to the Approval Holder, the retention of water onsite would have minimal impacts on groundwater levels and surface water

flows along the Freeman River and groundwater availability within the immediate vicinity of the pit.

[16] The Appellant questioned the validity of the dewatering strategy and its “minimal” impact on surface water flows and groundwater availability considering the groundwater assessment report did not provide sufficient details as to how eventual seepage or release of the groundwater into the environment would balance the negative effects of dewatering. The Appellant said the lack of evidence or rigorous assessment of the dewatering strategy taking into consideration the Freeman River, made it difficult to understand the extent the dewatering strategy would affect flows to the Appellant’s water well and dugout as well as flows to aquatic habitat that are reliant on groundwater. The Appellant stated it is difficult to accept that his water well, dugout, and the aquatic environment he relies on for his livelihood and sustenance would not be adversely, or only minimally, impacted.

[17] The Appellant questioned the reliability of the groundwater flow model developed on behalf of the Approval Holder.

[18] The Appellant noted the modelling done by the Approval Holder’s consultant, WNM Environmental Science & Engineering (“WNM”), to assess the projected seepage from the end pit lake to the Freeman River lacked key figures to determine the accuracy of the results. The Appellant said a model error of 10 percent was noted, and this excessive model error could adversely affect simulated flow values in and out of the end pit lake. The Appellant noted discrepancies between assessment results reached by WNM and Westwater Environmental Ltd. The Appellant questioned the efficacy of the water balance assessment and resulting estimated volumes of groundwater discharge back into the river, given the discrepancies and the excessive model error.

[19] The Appellant stated the Approval Holder did not conduct a suitable baseline assessment of the interaction between local groundwater and adjacent surface water bodies. The Appellant noted Lafarge’s consultants determined the pumping of groundwater during the excavation operation should not affect water wells in the area or groundwater discharge into the Athabasca and Freeman Rivers. The Appellant said the Approval Holder did not conduct a rigorous assessment of the balance between the local groundwater and surface water which

would have helped to determine how conditions would be changed, the degree of change, and the degree of risk posed to groundwater dependent ecosystems.

[20] The Appellant said there are more deficiencies in the report prepared by Lafarge's consultant, validating the Appellant's concerns about the potential for adverse impacts to his water well, dugout, and the aquatic environment he relies on for his livelihood. The Appellant stated the deficiencies also question the validity of the Approval. The Appellant noted there was no clear indication of how groundwater quality would be preserved and protected from mining operations and residual effects.

[21] The Appellant noted the Approval application states the southern portion of the proposed pit bordered the Freeman River and there was a need for river protection works to protect the area from lateral river migration and flooding during operations and after reclamation.

[22] The Appellant stated the construction of the end pit lake and river flood protection works will directly and adversely affect his use of his land and the environment he relies on. The Appellant explained his residence is upstream of the Freeman River which runs across his land. The Appellant said the width of the river has been increasing over the years, limiting the land space he has for agricultural, recreational, and business activities. The Appellant explained the Freeman River constantly creates new flow channels underground and on the surface, thereby increasing land erosion in the area. The Appellant noted the Approval Holder's consultants confirmed the variation and change in flow in the reports submitted with the Approval application.

[23] The Appellant stated that any construction that would affect current groundwater and surface flow channels would cause more flow channels to be created, possibly on the Appellant's lands, increasing the risk of erosion on his lands and loss of productive land. The Appellant said the construction of the embedded groynes upstream of the Freeman River around the perimeter of the pit to prevent lateral migration into the pit will cause the river's flow to be diverted into other areas, including the Appellant's land.

[24] The Appellant stated the proposed pit area is within floodplain zones of the Freeman and Athabasca Rivers. The Appellant said the proposed river protection works focused on preventing lateral water migration into the pit area, but failed to consider cumulative impacts the protection works in a floodplain would have on other residents whose properties abut the Freeman River.

[25] The Appellant said the impact of the river protection works on the environment, wildlife, and aquatic organisms were not adequately addressed by the Approval Holder. The Appellant stated the environmental risk is high and could be minimized by moving the project further away from the Freeman River. The Appellant said the addition of groundwater barriers and dewatering activities are inadequate, considering the Approval activities occur within the floodplain area. The Appellant stated moving the Approval activities and the entire gravel mining operation away from the flood plain area would minimize environmental risk.

[26] The Appellant explained that flooding is one of his major concerns. The Appellant said he wants to ensure any adverse or potential adverse effects on the Freeman River or its flow channels are identified and avoided and any mitigation strategy implemented will effectively reduce adverse impacts. The Appellant stated the mitigation strategies presented in the reports submitted with the Approval application are deficient and lack examination of the risks making the mitigation strategies unreliable.

[27] The Appellant's consultant raised concerns about:

1. the inadequate assessment of environmental risks to sensitive and threatened fish species found in the Freeman River;
2. potential impacts to wildlife and the wildlife corridor;
3. impacts to the stability of the sites;
4. potential adverse impacts on water quality;
5. cumulative effects;
6. potential contamination of the end pit lake by heavy metals, making it unsuitable as fish habitat; and
7. the absence of site-specific studies to establish baseline data on wildlife, wildlife use of the area, fisheries, and rare plants in the area.

[28] The Appellant said the baseline data would have helped assess the risks posed to wildlife, fishes, and plants and to assess the adequacy of the mitigation measures. The Appellant argued the lack of the baseline data questions the validity of the claim the project will have minimal or no impact on wildlife, fishes, rare plants, and the environment.

[29] The Appellant stated the construction of the end pit lake and associated river protection works in winter will pose a risk to endangered and threatened species of fishes in the Freeman River, including the Arctic Grayling, which is identified as being at high risk. The Appellant explained there are 17 species of fish in the Freeman River with different species spawning in every season. The Appellant said any winter construction will endanger the winter spawning of the burbot. The Appellant argued the Approval will likely endanger or threaten critical habitats for these species, especially where the Approval Holder did not consider the impacts of its project on these species and did not undertake to make necessary changes to its project to avoid the impacts.

[30] The Appellant argued the Approval directly and adversely affects him, the community, wildlife, fishes, and the environment.

2. Approval Holder

[31] The Approval Holder submitted the Appellant failed to establish he is directly affected.

[32] The Approval Holder explained its Application 001-252845 resulted in the issuance of a registration for the construction, operation, and reclamation of a pit located in NE 34-61-6 W5M and SE 3-62-6-W5M (the "Registration").

[33] The Approval Holder said that, as part of the Registration application, the following issues were considered:

1. gravel pit de-watering and groundwater and surface water flow studies;
2. wildlife and fish impact;
3. stability of the site;
4. potential adverse impacts on water quality; and
5. other assessments.

[34] The Approval Holder stated the appeal is restricted to the Approval and cannot be used as a collateral attack on the activities allowed pursuant to the Registration. The Approval Holder explained its activities under the Registration fall into a separate and distinct approval process under EPEA because of the size of the gravel pit, its scope, and it is located on private land. The Approval Holder stated the operational requirements, including pit water monitoring, are not appealable as they fall within the activities regulated by the Registration.

[35] The Approval Holder stated the Director only required Lafarge obtain a *Water Act* Approval for the construction and maintenance of the end pit lake for recreational use and for the construction of river flood protection works on the lands owned by Lafarge, subject to certain conditions. The Approval Holder stressed the terms and conditions pertaining to the Approval are the only issues that may be heard by the Board.

[36] The Approval Holder argued the Appellant did not provide any plausible evidence that he is directly affected. The Approval Holder stated there is neither a reasonable probability, nor is it plausible the approved activities in the Approval will affect or vary the Appellant's rights or cause him harm. The Approval Holder explained all activities will be on private property at least one mile away from the Appellant's property, and the Appellant's property is approximately 60 feet higher than the lands where the approved activities will occur. The Approval Holder stated the approved activities are not expected to have anything more than a negligible impact to the land, wildlife, and waterways.

[37] The Approval Holder argued the Appellant's speculation and mere conjecture cannot establish the basis for a decision requiring proof on a balance of probabilities.

[38] The Approval Holder stated there is no evidence to establish a plausible case that the Appellant is personally directly affected by the building and existence of the end pit lake for recreation purposes or the creation of flood protection measures on private lands. The Approval Holder explained the project area is currently cultivated with virtually no natural vegetation contained within the site. In its technical submissions, the Approval Holder said the end pit lake will act as a filter to improve water quality from surface water compared to the runoff from farmland currently entering the Freeman River. The Approval Holder also said the flood protection works will prevent further erosion of the river bank at the south end of its lands and

reduce sedimentation entering the Freeman River. The Approval Holder stated there will be better protection for the aquatic life than what exists currently.

[39] The Approval Holder stated there is no evidence to show the creation of the end pit lake or the creation of the buffers will harm the natural resource the Appellant uses or will harm his use of the natural resource. The Approval Holder said the area does not support a diverse wildlife population, since it is actively cultivated with virtually no natural vegetation within the site, and the baseline data collected indicated there would be little impact to wildlife as part of the operation.

[40] In response to the Appellant's submission, the Approval Holder explained the following:

1. Site specific studies conducted: A pre-disturbance assessment was deemed to not be required due to a lack of any native patches of significance within the project site. Fish and wildlife did not raise any concerns about the project and no wildlife assessment was requested. The Guide to the Code of Practice for Pits considered wildlife during the registration process.
2. Hydrology: The river protection works is to protect Lafarge lands from further erosion, and any impacts to the Appellant's property due to the Approval Holder's activities are unlikely to occur. Groundwater-surface interaction was considered in the Updated Report on Groundwater Assessment for the Proposed Phelan Pit (Westwater 2009). The proposed development is entirely within existing farmland, which is expected to inundate during extreme flood events, such as a 1:200 year flood event. No instream work is planned and project activities related to aquatic ecology are expected to be fully mitigated, so no adverse effects on the aquatic environment are anticipated. Baseline fish and fish habitat data are available from AEP.
3. Cumulative effects: AEP has not finalized the requirements of the Cumulative Effects Management System, which will be tied to the Land Use Framework Regional Plan, which has not been started.
4. Water quality: Groundwater-surface interaction was considered in the 2009 Updated Report.
5. Buffer: Six different scenarios were discussed in the groundwater modelling conducted. Adjustments will be made as to how the end pit lake will be reclaimed to maintain its level through natural processes, and operations experience will be incorporated into the model for continuous improvement to make the best informed decision.

6. Stability of site: This was not raised in the Appellant's Notice of Appeal and cannot be considered, and the Board does not have jurisdiction to consider other sand and gravel pit operations. The Appellant's property is upstream and at a higher elevation than the Lafarge lands, and a flood event due to the project activities would not occur at the Appellant's location. Measures are proposed to mitigate potential adverse effects to fish, fish habitat, and water quality in adjacent watercourses.
7. End pit lake reclamation: The end pit lake will be filled at the end of the operations largely using local groundwater and, based on available chemistry data, heavy metal contamination in the end pit lake is unlikely.

[41] In response to the Appellant's comments regarding the groundwater flow model and the error rate in excess of the norm, the Approval Holder explained the discrepancy was a mistake and the correct value was 10 percent as stated in the text and related figure, not the 21.529 percent stated in the table in the report provided by its consultant.

[42] The Approval Holder said the modeling took into account extreme drought and flooding.

[43] The Approval Holder explained the analysis of the pit to pit dewatering strategy and groundwater quality was considered by AEP during the review of the Registration application. The Approval Holder explained it did not have to obtain an approval under the *Water Act* for pit to pit dewatering because the exemption for an activity within a water body was included in Section 1(f) of Schedule 3 of the *Water (Ministerial) Regulation*, was applied to approvals, and was not specifically addressed in the Approval application.

[44] The Approval Holder said the Appellant's concerns about the mining operations affecting the groundwater do not relate to the Approval. The Approval Holder explained the river protection works will be constructed in the dry and will interact with river environment only if the Freeman River migrates laterally toward the project. It said the protection works would prevent further migration and reduce sediment loads to the Freeman River. The Approval Holder said there was no plan for any disturbance outside the pit boundary so there should be no adverse impacts on the riparian areas during construction. The Approval Holder stated that no flooding or erosion effects would be expected to occur at the Appellant's property, upstream on the Freeman River.

[45] The Approval Holder argued the Appellant cannot establish he is directly affected and, therefore, the Board cannot hear the Appellant's appeal.

[46] The Approval Holder argued the Appellant failed to provide any basis for the Board to grant him standing. The Approval Holder stated the Appellant's submission combines what issues can be properly heard by the Board with issues that cannot be heard because they relate to the Registration. The Approval Holder argued the Appellant is attempting to collaterally attack the Registration.

3. Director

[47] The Director took no position on whether the Appellant is directly affected by the Director's decision to issue the Approval.

4. Appellant's Rebuttal

[48] The Appellant disagreed that his appeal is a collateral attack on the Registration activities and that Lafarge's construction and maintenance of the end pit lake is a distinct and separate activity from the construction and operation of the gravel pit. The Appellant stated the end pit lake is the result of the gravel pit, and the gravel pit is one operation that requires different authorizations during its different stages, such as the Registration during mining operations and the Approval for the end pit lake construction.

[49] The Appellant stated the end pit lake results from and is part of the gravel mining itself, and the Approval Holder's application for the gravel mining project supports this conclusion. The Appellant stated it was clear in the documents that some form of end pit lake construction was initiated during the mining process. The Appellant said the construction of the end pit lake would be done during the gravel mining operations while the finishing work will be done at the end of the gravel mining operation as part of the reclamation of the pit. The Appellant argued all gravel mining construction activities impact the end result, which is the end pit lake.

[50] The Appellant submitted the construction of the end pit lake, which includes the gravel mine excavation or construction activities, is included in the Approval and, therefore, all construction activities relating to the creation of the gravel pit and its associated impacts on the aquatic environment, wildlife, and on the Appellant are within the jurisdiction of the Board as matters related to the construction of the end pit lake. The Appellant stated that issues relating to the lack of assessment of the risks to the aquatic environment from the construction of the gravel pit and the dewatering activities are issues within the Board's jurisdiction.

[51] The Appellant stated the Approval granted approval for the construction of river protection works including groynes and a rock trenchfill structure for a sand and gravel extraction operation on Lafarge lands. The Appellant said the river protection works will be constructed before and during gravel mining operations and maintained as part of the operational maintenance of the end pit lake.

[52] The Appellant submitted the issues he raised in his Notice of Appeal related to river flood protection works, contamination of the Freeman River, and potential flooding of his lands as a result of such works and are all related to the Approval and are within the jurisdiction of the Board.

[53] The Appellant stated that, if the Board finds the construction of the end pit lake does not form part of the gravel mining operation and issues involving the creation of the gravel pits are not properly before the Board, then, by virtue of section 95(2)(d) of the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12 ("EPEA"),¹ the Board should consider any new information presented by the Appellant that is relevant to the decision being appealed and which was not available to the Director when he made his decision. The Appellant said new information from his experts should be considered as matters properly before the Board.

¹ Section 95(2)(d) of EPEA states:

"Prior to conducting a hearing of an appeal, the Board may, in accordance with the regulations, determine which matters included in notices of appeal properly before it will be included in the hearing of the appeal, and in making that determination the Board may consider the following:...

(d) whether any new information will be presented to the Board that is relevant to the decision appealed from and was not available to the person who made the decision at the time the decision was made...."

[54] The Appellant noted his expert pointed to the inadequacy of the reports submitted by the Approval Holder, the lack of risk assessment of gravel pit construction (end pit lake) and pit dewatering activities on groundwater and the Freeman River, and the erroneous application of the exemption in section 1(f) of Schedule 3 of the *Water (Ministerial) Regulation*, Alta. Reg. 205/98.² The Appellant said his expert found the only modelling done in support of the Approval Holder's application related to the end pit lake itself and not the construction of the end pit lake through gravel extraction. The Appellant noted his expert believed the application should have been considered deficient.

[55] The Appellant said his expert pointed out the Director erred when he accepted the Approval Holder's position that a licence was not required to undertake pit to pit dewatering activities, and the Director did not consider the risk of not assessing the impacts dewatering poses to the aquatic environment. According to the Appellant's expert, the Approval Holder did not complete enough of an assessment to answer the question of adverse impact to the aquatic environment resulting from the construction process, and dewatering activities will occur

² Section 1(f) of Schedule 3 of the *Water (Ministerial) Regulation* provides:

"The following diversions of water and any operations of works associated with those diversions do not require a licence:...

- (f) a diversion of water for the purpose of dewatering a sand and gravel site or construction site if
 - (i) the water diverted as a result of the dewatering is
 - (A) moved into and retained in an on-site pit, without using the water, or
 - (B) diverted back into a water body without using the water, if the water is equal to or of the same quality as the water that was originally diverted,
 - (ii) the dewatering site, the water body and the on-site pit referred to in subclause (i) are hydraulically connected,
 - (iii) there is no adverse effect on the aquatic environment or on a household user, licensee or traditional agriculture user, and
 - (iv) in the case of a construction site,
 - (A) there is no adverse effect on any parcel of land, and
 - (B) the maximum duration of the dewatering operation is 6 months or less for the entire construction project...."

throughout the life of the project, which is beyond the six months stipulated as the maximum duration under the exemption.

[56] The Appellant stated he is directly affected by the Director's decision to issue the Approval.

[57] The Appellant submitted that requiring him to show with certainty or to call evidence to show how his rights will be affected forces him to succeed on the principal issues in the hearing before he has a right to appear in it. The Appellant argued this would be contrary to the principles of fairness in the administrative process. The Appellant stated he is only required to show, on the balance of probabilities, the possibility of impacts or adverse effects on him, his property, or the environment he relies on. The Appellant said he has to show the harm is possible, based on the location of his land, the proximity of his land to the project activity, the potential for adverse impacts to occur, and his use of the land and the environment. The Appellant stated evidence to support assertions of effects of impacts is not required at the preliminary stage.

B. Legal Basis

[58] The Board has discussed the issue of directly affected in numerous prior decisions. The Board received guidance on this matter from the Court of Queen's Bench in *Court v. Director, Bow Region, Regional Services, Alberta Environment* (2003), 1 C.E.L.R. (3d) 134, 2 Admin L.R. (4d) 71 (Alta. Q. B.) ("*Court*").

[59] In the *Court* decision, Justice McIntyre referred with approval to prior decisions of the Board and summarized the following principles regarding standing:

“First, the issue of standing is a preliminary issue to be decided before the merits are decided. See *Re: Bildson*, [1998] A.E.A.B. No. 33 at para. 4. ...

Second, the appellant must prove, on a balance of probabilities, that he or she is personally directly affected by the approval being appealed. The appellant need not prove that the personal effects are unique or different from those of any other Albertan or even from those of any other user of the area in question. See *Bildson* at paras. 21-24. ...

Third, in proving on a balance of probabilities, that he or she will be harmed or impaired by the approved project, the appellant must show that the approved project will harm a natural resource that the appellant uses or will harm the

appellant's use of a natural resource. The greater the proximity between the location of the appellant's use and the approved project, the more likely the appellant will be able to make the requisite factual showing. See *Bildson* at para. 33:

What is 'extremely significant' is that the appellant must show that the approved project will harm a natural resource (e.g. air, water, wildlife) which the appellant uses, or that the project will harm the appellant's use of a natural resource. The greater the proximity between the location of the appellant's use of the natural resource at issue and the approved project, the more likely the appellant will be able to make the requisite factual showing. Obviously, if an appellant has a legal right or entitlement to lands adjacent to the project, that legal interest would usually be compelling evidence of proximity. However, having a legal right that is injured by a project is not the only way in which an appellant can show a proximity between its use of resources and the project in question.

Fourth, the appellant need not prove, by a preponderance of evidence, that he or she will in fact be harmed or impaired by the approved project. The appellant need only prove a potential or reasonable probability for harm. See *Mizera* at para. 26. In *Bildson* at para. 39, the Board stated:

[T]he 'preponderance of evidence' standard applies to the appellant's burden of proving standing. However, for standing purposes, an appellant need not prove, by a preponderance of evidence, that he will in fact be harmed by the project in question. Rather, the Board has stated that an appellant need only prove a 'potential' or 'reasonable probability' for harm. The Board believes that the Department's submission to the [A]EUB, together with Mr. Bildson's own letters to the [A]EUB and to the Department, make a prima facie showing of a potential harm to the area's wildlife and water resources, both of which Mr. Bildson uses extensively. Neither the Director nor Smoky River Coal sufficiently rebutted Mr. Bildson's factual proof.

In *Re: Vetsch*, [1996] A.E.A.B.D. No. 10 at para. 20, the Board ruled:

While the burden is on the appellant, and while the standard accepted by the Board is a balance of probabilities, the Board may accept that the standard of proof varies depending on whether it is a preliminary meeting to determine jurisdiction or a full hearing on the merits once jurisdiction exists. If it is the former, and where proof of causation is not possible due to lack of information and proof to a level of scientific certainty must be made, this leads to at least two inequities: first that appellants may have to prove their standing twice (at the preliminary meeting stage and again at the hearing) and second, that in those cases (such as the present) where

an Approval has been issued for the first time without an operating history, it cannot be open to individual appellants to argue causation because there can be no injury where a plant has never operated.”³

Justice McIntyre concluded by stating:

“To achieve standing under the Act, an appellant is required to demonstrate, on a *prima facie* basis, that he or she is ‘directly affected’ by the approved project, that is, that there is a potential or reasonable probability that he or she will be harmed by the approved project. Of course, at the end of the day, the Board, in its wisdom, may decide that it does not accept the *prima facie* case put forward by the appellant. By definition, *prima facie* cases can be rebutted...”⁴

[60] What the Board looks at when assessing the directly affected status of an appellant is how the appellant will be individually and personally affected. The more ways in which the appellant is affected, the greater the likelihood of finding that person directly affected. The Board also looks at how the person uses the area, how the project will affect the environment, and how the effect on the environment will affect the person’s use of the area. The closer these elements are connected (their proximity), the more likely the person is directly affected. The onus is on the appellant to present a *prima facie* case that he or she is directly affected.⁵

³ *Court v. Alberta (Director, Bow Region, Regional Services, Alberta Environment)* (2003), 1 C.E.L.R. (3d) 134 at paragraphs 67 to 71, 2 Admin. L.R. (4d) 71 (Alta. Q.B.). See: *Bildson v. Acting Director of North Eastern Slopes Region, Alberta Environmental Protection*, re: *Smoky River Coal Limited* (19 October 1998), Appeal No. 98-230-D (A.E.A.B.) (“Bildson”); *Mizera et al. v. Director, Northeast Boreal and Parkland Regions, Alberta Environmental Protection*, re: *Beaver Regional Waste Management Services Commission* (21 December 1998), Appeal Nos. 98-231-98-234-D (A.E.A.B.); and *Vetsch v. Alberta (Director of Chemicals Assessment & Management Division)* (1997), 22 C.E.L.R. (N.S.) 230 (Alta. Env. App. Bd.), (*sub nom. Lorraine Vetsch et al. v. Director of Chemicals Assessment and Management, Alberta Environmental Protection*) (28 October 1996), Appeal Nos. 96-015 to 96-017, 96-019 to 96-067 (A.E.A.B.).

⁴ *Court v. Director, Bow Region, Regional Services, Alberta Environment* (2003), 1 C.E.L.R. (3d) 134 at paragraph 75 (Alta. Q.B.).

⁵ See: *Court v. Alberta (Director, Bow Region, Regional Services, Alberta Environment)* (2003), 1 C.E.L.R. (3d) 134 at paragraph 75, 2 Admin. L.R. (4d) 71 (Alta. Q.B.).

[61] The Court of Queen's Bench in *Court*⁶ stated an appellant only needs to show there is a potential for an effect on that person's interests. This potential effect must still be within reason, plausible, and relevant to the Board's jurisdiction for the Board to consider it sufficient to grant standing.

C. Analysis

[62] The issue before the Board is whether the Appellant is directly affected by the Director's decision to issue the *Water Act* Approval.

[63] In assessing the information currently before the Board, the Board notes the flood protection works will be constructed outside the channel of the Freeman River. If the work was conducted and the structures placed in the channel, there would be a high potential of it impacting the river. However, the structures will be placed 30 metres from the Freeman River, leaving a wide buffer that would only have a possible impact if flooding went past the 30 metre buffer. Based on these facts, the Board does not consider the placement of the flood protection works as specified in the Approval adequate to find the Appellant directly affected.

[64] The Appellant raised the possibility that his groundwater could be impacted due to the Approval activities. The activity that might have an impact on groundwater is the filling in of the end pit lake, which the Approval Holder stated will be filled primarily with groundwater. However, in this case, the Appellant is upstream of the project site, so it is difficult to see how his groundwater would be impacted. This argument would not demonstrate the Appellant is directly affected.

[65] The Appellant lives in close proximity to the proposed project and the Freeman River is common to both the Appellant's land and the Approval Holder's project site. Impacts to the Freeman River as a result of the proposed activities could potentially impact the Appellant or his land. The Board recognizes the Appellant lives upstream from the project site, but concerns were raised regarding the potential for altered flows on the Freeman River that could potentially impact the Appellant's property. At this stage of the appeal process, the Board is not making any

⁶ *Court v. Alberta (Director, Bow Region, Regional Services, Alberta Environment)* (2003), 1 C.E.L.R. (3d) 134, 2 Admin. L.R. (4d) 71 (Alta. Q.B.).

assessment on the risks associated with the project; it is the potential impacts the Board is considering.

[66] In addition, the Appellant explained he runs a business that relies on the Freeman River and surrounding area for fishing, hunting, and guiding expeditions. If the proposed project, including the construction of the end pit lake or the construction of the flood protection works, has an adverse impact on the river, this could impact the Appellant's livelihood.

[67] As stated above, the more ways in which the appellant is affected, the greater the likelihood of finding that person directly affected. In this case, the Appellant lives and owns property in proximity to the project site. The Appellant and Approval Holder both have immediate access to the Freeman River. The Appellant requires sufficient groundwater of adequate quality for his household and agricultural use. In addition, the Appellant uses the natural resources in the area for his hunting, fishing and guiding business. These uses support the Appellant's assertion that he is directly affected by the issuance of the Approval. The Appellant is not required to prove the adverse impact will occur to any of these uses. He only needs to demonstrate there is a potential for an adverse impact to occur.

[68] For the reasons set out above, the Board accepts the Appellant is directly affected by the construction of the end pit lake allowed for in the Approval. Accordingly, the Appellant has standing to bring his appeal.

IV. ISSUES

A. Submissions

1. Appellant

[69] The Appellant noted he raised a number of issues in his Notice of Appeal including the lack of assessment of the cumulative impacts of the project, inadequate self-monitoring and reporting, siltation and erosion issues from the project, the location and impact of the proposed dyke/road, potential flooding and stream flow changes, and inadequate modelling of flood events and flow rates. The Appellant stated the following should be considered as issues for the hearing:

1. groundwater and water quality impacts: reassessment of the impacts of the project should include a more rigorous determination of the balance between groundwater and surface water prior to the project starting, a base comparison of water quality in the river and groundwater, identification and full assessment of all potential risks to groundwater including contamination from mine operations, and the possible impacts from heavy metals that may be released to the groundwater and end pit lake recreation area;
2. environmental risk assessment: including identifying and analyzing impacts to wildlife, fisheries including sensitive and threatened species of fish and supporting aquatic organisms, amphibians, plants, and assessing the stability of the site and slopes around Freeman River;
3. cumulative effects of the project on the Freeman River, the Appellant, the Athabasca River, and surrounding residents: including assessing the impacts of locating stockpiles of crushed gravel near the Freeman River and the influences caused by other upstream operators;
4. flooding and flood protection measures: including an assessment of increased risk of flooding from the project on the Appellant's lands and other landowners' lands, the sufficiency of the flood protection works to protect the Appellant, other residents, wildlife, and aquatic organisms, and an assessment of the impacts of locating flood protection works in a floodplain, and impacts of the flood protection measures on potential future flooding of the area;
5. monitoring: including the consideration of: (i) the effectiveness and sufficiency of monitoring conditions to identify adverse impacts of the project on the environment, aquatic organisms, wildlife, and residents; (ii) whether additional monitoring conditions are required and should be imposed to provide a more robust data set to detect and respond to impacts; and (iii) the monitoring program referenced in the Approval should be provided to the Appellant and the community for assessment against the stated performance criteria and mitigation triggers; and
6. mitigation: including modelling results (groundwater flow, contaminant transport and fate), monitoring strategies, and contingency plans for dealing with adverse impacts to groundwater discharge back to the Freeman River, failures of any upstream dams on the Freeman River, floods resulting from ice jams, and assessment of the adequacy of the measures to prevent siltation of the river during construction.

2. Approval Holder

[70] The Approval Holder stated the Appellant's submission combined the Approval with the non-appealable EPEA Registration relating to the gravel pit construction, operation, and reclamation. The Approval Holder argued the Appellant did not raise any issue that may be properly heard by the Board.

[71] The Approval Holder noted the following matters raised by the Appellant that should not be considered by the Board:

1. a reassessment of the project or the impact of the mining operations which form part of the activities allowed under the Registration;
2. mere speculation regarding the potential impact on wildlife, fisheries, and aquatic organisms arising from the end pit lake and flood protection works is insufficient to create an appealable issue;
3. cumulative impacts of the project and assessment of the impacts of locating stockpiles of crushed gravel near the Freeman River and the influences caused by other upstream operations which are challenges to the Registration activities, not the Approval, and are outside the Board's jurisdiction;
4. the Appellant did not identify any risk or effect arising from the Approval regarding the flood protection works that are to be constructed in the dry area outside of the river margins and would not be exposed to the river unless lateral channel migration occurs and the design will be revisited during detailed design to take into consideration the 2011 flood;
5. monitoring of the project is outside the Board's jurisdiction and the Appellant's submission was unclear whether his issues with monitoring related to the Registration or the Approval; and
6. contaminant transport and groundwater flow as it relates to pit dewatering form part of the Registration, not the Approval, and the Appellant's submissions on mitigation failed to disclose what the appealable issue is in relation to the Approval.

3. Director

[72] The Director submitted the hearing must be limited to issues directly related to the terms and conditions of the Approval.

[73] The Director stated a number of concerns raised by the Appellant should not be considered by the Board, including:

1. the negative effects of dewatering;
2. how groundwater quality will be preserved and protected from mining operations;
3. environmental risks associated with extraction of sand and gravel;
4. contamination from mine operations; and
5. impacts of locating stockpiles of crushed gravel near the Freeman River and the influences caused by other upstream operations.

[74] The Director stated these concerns relate to the sand and gravel operation authorized under the Registration and do not form part of the Approval activities. The Director noted the dewatering that will occur as part of the sand and gravel operation is exempt from requiring a licence pursuant to section 1(f) of Schedule 3 of the *Water (Ministerial) Regulation*, and is not appealable. The Director noted that Registrations are not appealable.

[75] The Director said that only the impacts from the end pit lake and flood protection works may be considered as issues for the hearing. The Director noted the end pit lake is part of reclamation, which occurs after the completion of the sand and gravel operation.

[76] The Director acknowledged the Registration and Approval are connected, but said the impacts that would have occurred because of the sand and gravel operation regardless of the Approval, should not be considered by the Board unless the activities allowed under the Approval increase the risk of the impacts occurring.

[77] The Director submitted the two letters provided by the Appellant's consultants did not provide evidence of impacts and, for the most part, did not relate to the Approval activities. The Director said the letters propose additional studies and question the adequacy of various reports submitted to the Director rather than providing evidence of potential environmental impacts. The Director said the letters contained little information or analysis relating to the Approval activities but instead focused on the sand and gravel operation.

[78] The Director noted that only one paragraph in one of the letters addressed the end pit lake when it referred to fish that might inhabit the end pit lake itself, and not to the fish in the Freeman River where the Appellant operates his business.

[79] The Director said the other letter did not provide any information as to the potential impacts of the end pit lake, but instead questioned the level of assessment conducted. The Director noted the consultant did not identify any specific effects of the Approval activities.

[80] The Director noted the Appellant did not frame any issues for the Board to consider, but he used his submission to outline specific concerns that might be raised at the hearing.

[81] The Director noted the Appellant identified impacts on the groundwater in his water well as an issue for the hearing. The Director argued the potential risk to groundwater from the sand and gravel operation should not be considered as an issue for the hearing. The Director explained the boundary of the Appellant's property is 2.4 kilometres from the boundary of the Approval site, which is outside the recommended radius of 1.6 kilometres for groundwater field-verified surveys. The Director also noted that, according to the Alberta Maps Elevation Grid, the elevation of the Appellant's property is 25 metres higher than the Approval site.

[82] The Director stated the Appellant would have the onus of demonstrating the Approval activities could impact the groundwater quantity or quality in his well and that the Approval, as issued, does not reasonably mitigate those impacts.

[83] The Director noted the Appellant suggested an environmental risk assessment as an issue for the hearing. The Director submitted that hearing issues related to environmental impacts should focus on potential effects of the Approval activities on the aquatic environment. The Director submitted the hearing should not consider all possible impacts on wildlife and the environment that are beyond the scope of the *Water Act* Approval.

[84] The Director stated there is no evidence to suggest the Approval activities could increase the risk of flooding on the Appellant's property. The Director explained the purpose of the flood protection works is to prevent the sand and gravel pit from being inundated during flood events and to prevent the river from forming new channels through the pit during flooding. The Director said the bank protection works are intended to prevent the river channel from eroding the bank laterally and ultimately breaking through the sand and gravel pit or end pit lake. The Director noted the report submitted by the Approval Holder indicated there were no increased flood levels at the upstream end of the Approval site as a result of the perimeter berm being built.

[85] The Director stated that if the issue of flooding and flood protection measures is included as an issue at the hearing, the Appellant has the onus of demonstrating the Approval activities would increase the risk of flooding his property. The Director argued the Appellant should also have the onus of demonstrating a causal connection between an increased risk of flooding and the Approval activities separate from the naturally occurring impacts, including new flow channels or increased land erosion in the area.

[86] The Director stated the issues that should be heard at the hearing are:

1. What are the risks to the aquatic environment from the construction and maintenance of an end pit lake and the construction of the flood protection works?
2. Do the terms and conditions of the Approval reasonably monitor and mitigate those risks?

4. Appellant's Rebuttal

[87] The Appellant argued the project is not located solely on the Approval Holder's private land since the road allowance, which the Approval Holder intends to mine, is public land.

[88] The Appellant stated the distance and elevation of his property relative to Lafarge's property or the location of the project activities are irrelevant. The Appellant said the Board should look at the impact of the activities to the Appellant, his property, and the environment he uses. The Appellant said the construction of the end pit lake results from the construction of the gravel pit, and the gravel pit construction involves dewatering before actual mining occurs. The Appellant said the risks to groundwater from the end pit lake and gravel pit construction and the dewatering activities were not assessed. The Appellant explained he depends on the same groundwater and aquifers that will be intercepted during dewatering, and any impact to the groundwater on the Approval Holder's property would likely have an adverse effect on the Appellant. The Appellant stated that, without proper assessment of the risks, any adverse effect cannot be ruled out as being negligible. The Appellant argued the Approval Holder's reliance on "anticipation" or "expectation" of no impacts is not sufficient and should not be used as a basis to dismiss the Appellant's concerns.

[89] The Appellant stated the Approval Holder did not address what would happen if the river channel changes and water penetrates the pit through another portion of the Lafarge lands other than where the river protection works are installed. The Appellant said the Approval Holder failed to address what the impacts would be on surrounding lands, including the Appellant's, when lateral river migration reaches the river protection works and causes a backflow of water into the Freeman River and possibly upstream to the Appellant's land.

[90] The Appellant said the baseline data regarding wildlife were not provided as part of the Approval Holder's application. The Appellant said the baseline fish information should have been included to indicate the types of fish present, including threatened species, thereby showing potential risk to fish based on species present. The Appellant submitted the absence of these baseline data questions the validity of any claim the project will have minimal or no impact on wildlife, fish, rare plants, and the environment.

[91] The Appellant said the Approval Holder did not address the issue of impacts on wildlife migration and migratory paths for wildlife, and the possible presence of wetlands in the area that a field study would have addressed. The Appellant stated the fact there are some areas close to the pit that have some natural vegetation and are forested should have necessitated a minimal field study to identify and eliminate any impacts to wildlife or their migratory paths. The Appellant argued that, without field checks or studies, the Approval Holder cannot conclusively state there is no impact on wildlife, rare plants, or fish from its activities.

[92] The Appellant said a variety of threatened and endangered species of fish live in the Freeman River and some migrate through the river channels created by the Freeman River. The Appellant explained some species spawn in the winter months while others spawn in the spring, summer, and fall. The Appellant said introducing contaminants through the construction and placement of the river protection works increases the risk to these fishes, but the risk had not been assessed and properly analyzed by the Approval Holder. The Appellant stated any adverse effects that reduce the fish population in the Freeman River would affect the Appellant's business and reduce his income.

[93] The Appellant suggested the Director's submission regarding the issues that should be heard at the hearing confirmed the issue of environmental risks to the aquatic habitat and its ecosystem had not been assessed and addressed by the Approval Holder.

[94] The Appellant stated the Approval Holder failed to address the cumulative impacts and risks of the river protection works especially when lateral river migration touches or circumvents the river protection works. The Appellant noted the Approval Holder did not address maintenance of the river protection works once the end pit lake is transferred to Woodland County. The Appellant said the Approval Holder did not appreciate the impact its activities would have on the environment outside of its lands and the entire aquatic and terrestrial ecosystems that rely on the proper functioning of the floodplain and riparian zones.

[95] The Appellant's consultant noted the riparian zone is typically one of the most productive, biologically active parts of the ecosystem. He stated mining, among other disturbances, alters the distribution and abundance of aquatic organisms. The Appellant's consultant explained that when changes occur on floodplains and riparian areas, the effects themselves are direct, even though the changes appear to be affecting only the land. He said hydrological changes in the river channel can occur upstream as well as downstream.

[96] The Appellant's consultant explained that, because the pits are in the floodplains, many effects of instream gravel mining are likely, but they are delayed until the floodplain pits capture the active channel. He said the changes would likely have strong negative effects on fish habitat or it would be felt wherever fish use the area, such as the Athabasca River and the Freeman River upstream from the site.

[97] The Appellant's consultant noted it is important to know how the end pit lake will be maintained for its recreational value and for the safety and protection of the natural riverine system which it is a part of by virtue of its groundwater connections. He further stated that, with the protective works in place and during periods of flood, the river will deliver its water and sediments elsewhere in the floodplain, but the consequences of the shift are unknown and need to be addressed.

[98] The Appellant's consultant said that, if the protective works are breached or circumvented during a flood, the mine pit or end pit lake could capture the flow of water and transport sediment to the Freeman River. He said the unknown consequences could be serious for habitat downstream and upstream due to channel incisions extending kilometres in both directions.

[99] The Appellant stated the Approval Holder did not address the issue of contamination of the river through the construction of the river protection works.

[100] The Appellant noted that, in the Woodlands County Groundwater Study, his property and the Approval Holder's property were identified as areas that have high risk of groundwater contamination. According to the Appellant, the authors of the study noted the available information used was limited and questionable, so they advised field verification and a groundwater monitoring program be completed on a case-by-case basis to confirm the conclusion reached in the study.

[101] The Appellant stated the Approval Holder's experts did not identify or analyze the potential for groundwater contamination from the Approval activities, including the gravel pit. The Appellant said groundwater contamination during construction of the gravel pit, end pit lake, and the installation of the river protection works could migrate to the Freeman River through groundwater flowing from the Approval Holder's lands downstream towards the Freeman River. The Appellant said the Approval Holder did not assess the potential for groundwater contamination and impacts of the contamination to the Freeman River.

[102] The Appellant said he identified impacts to the environment and erosion of his lands as some of the grounds of appeal in his Notice of Appeal. He stated stability of the site is an environmental issue and is affected by erosion.

[103] The Appellant said the Approval Holder's comment that project activities would not cause a flood event at the Appellant's property showed a lack of understanding and evaluation of the risks arising from the Approval activities within a floodplain and in an area that is ecologically sensitive.

[104] The Appellant agreed the completion of the end pit lake, including the sloping and contouring, and the maintenance of the end pit lake will occur following the completion of the sand and gravel operation. However, the Appellant argued the actual construction of the end pit lake, including the excavation and dewatering, will start prior to the completion of the sand and gravel operation. The Appellant stated a major section of the sand and gravel mining operation area is the end pit lake area, and the end pit lake area includes the area that will be mined during the gravel mining operation. The Appellant argued the impacts or adverse effects arising from the construction of the gravel pit fall within the Approval activities, as the gravel pit construction and end pit lake construction are the same activity.

[105] The Appellant agreed the issues submitted by the Director should be included as issues for the hearing, however he believed all of the issues he raised in his submission should also be considered. The Appellant stated his concerns regarding monitoring and mitigation should be included as an issue, and a full identification, assessment, and analysis of the risks, including the gravel mine construction activities, should be conducted before considering whether the monitoring and mitigation conditions are sufficient.

[106] The Appellant stated the construction of the end pit lake is the same activity as the construction of the gravel pit with the same impacts. Therefore, according to the Appellant, the impacts of the construction of the gravel pit are within the jurisdiction of the Board.

[107] The Appellant stated his submissions are not speculative or mere conjecture but are supportable. The Appellant noted he is not required at this preliminary stage of determining standing to provide evidence regarding his concerns.

B. Analysis

[108] For a matter to be considered at the hearing, the matter must be: (1) identified in the Notice of Appeal; (2) within the Board's jurisdiction; and (3) connected to the Director's decision being appealed.

[109] The Board's jurisdiction is established by the governing legislation, namely the Water Act and EPEA and their respective regulations. In essence, the Board's jurisdiction is restricted to environmental matters and it cannot consider municipal planning decisions or decisions made by entities other than the Director.

[110] In this case, Lafarge is conducting its sand and gravel operations under an EPEA Registration. It required the *Water Act* Approval for two aspects of its operations: (1) to construct and maintain the end pit lake; and (2) to construct river flood protection works. Although the Board appreciates the connection between the Registration and the Approval, each regulatory instrument controls different aspects of the operation. The Director's decision to issue the Registration is not an appealable decision. The Board's jurisdiction is limited to the activities allowed under the Approval. Therefore, the only issues that can be considered by the Board must relate to the construction and maintenance of the end pit lake and the construction of the river flood protection works, except for groundwater impacts. In addition, the issues must have been raised in the Appellant's Notice of Appeal, be connected to the Director's decision, and fall within the Board's jurisdiction.

[111] The construction of a gravel pit occurs in sequential steps. The overburden from one pit is used to fill-in and start the reclamation process of the previous pit. At the end of the life cycle of the gravel pit, the last pit cannot be filled as there is no additional overburden. This results in an "end pit" which, in this case, will be reclaimed as a lake to be used for recreational purposes. The end pit lake is more than an excavated pit since it must be constructed to specific standards set by the Director to ensure it will be environmentally sustainable as a recreational lake. The standards prescribed in the Approval can be considered by the Board at an appeal hearing. The location and scope of what will eventually become the end pit lake is dealt with in the Registration and is not within the Board's jurisdiction in an appeal of the Approval.

[112] The Appellant believes the end pit lake could have a detrimental effect on the surface water quality in the area. The issue of surface water quality resulting from the construction and maintenance of the end pit lake and river flood protection works is within the Board's jurisdiction, was raised in the Appellant's Notice of Appeal, and is relevant to the Approval.

[113] The Appellant raised concerns as to the potential impacts to the quality and quantity of the groundwater resulting from the proposed project. Any such impacts from the end pit lake or flood protection works can be considered by the Board at a hearing. The Board notes the Director incorporated the mining activities into the Approval as it relates to potential impacts to neighbouring wells.⁷ As a result, the Board has the jurisdiction to consider provisions in the Registration that are necessarily incidental to comply with the Approval as issued. Doing so does not open the Registration in its entirety. Therefore, based on this limited aspect of the mining operations, the Board will consider the impacts of the mining operations, if any, on the quantity and quality of the groundwater as an issue at the hearing. This does not open the entire mining operation up for consideration by the Board.

[114] The Appellant's concerns regarding the river flood protection works are validly before the Board. The concerns raised by the Appellant include: (1) the potential flooding of his property as a result of the flood protection measures; (2) potential lateral river migration resulting from the flood protection works that might change the surface water flows, including changing the course of the Freeman River through his property; (3) whether the mitigation measures will protect the Appellant, wildlife, and aquatic organisms; and (4) an assessment of the impacts of locating the river flood protection works on a floodplain. These concerns were raised in the Appellant's Notice of Appeal, and they are directly related to the Approval itself.

[115] The Appellant raised a concern about the effectiveness of the monitoring. Monitoring of the mining operations is not a valid issue before the Board. However, monitoring of the end pit lake and the flood protection measures as contemplated in the Approval under "Monitoring and Reporting" are within the Board's jurisdiction and will be considered as an issue at the hearing. The Board notes the Approval requires the Monitoring Program Proposal be provided to the Director by May 1, 2017.

⁷ Clause 3.8 of the Approval states:
"The Approval Holder, in the event that mining activities impact neighbouring wells, shall supply residents with interim potable water."

Condition 3.9 states:
"If disturbance of neighbouring wells is a result of mining activities the Approval Holder, shall cease operations until solution is determined and testing demonstrates that neighbouring wells are no longer impacted."

[116] The Appellant expressed concerns regarding the mitigation measures that are required in the Approval to deal with adverse impacts to groundwater. The Appellant questioned the adequacy of the measures to prevent siltation of the river during construction and the impacts from flooding resulting from ice jams. The Approval requires the Approval Holder to minimize siltation and erosion to ensure water quality is protected. This issue is clearly related to the Approval, was included in the Appellant's Notice of Appeal, and is within the Board's jurisdiction to consider. This is a valid issue for the hearing and will be considered as part of the Board's consideration of whether the terms and conditions of the Approval adequately protect the environment.

[117] Concerns regarding impacts on aquatic species can be considered by the Board, since most of the potential impacts raised by the Appellant are associated with water quality being adversely affected which, in turn, would impact fish species and their habitat. This is an issue properly before the Board.

[118] The Appellant argued the hearing issues should include an assessment of potential impacts to wildlife and wildlife habitat, including wildlife corridors. These issues are related to the operation of the gravel pit itself, which is governed by the Registration. These are not issues related to the activities allowed for under the Approval and cannot be heard by the Board.

[119] The Appellant raised cumulative effects as a potential issue for the hearing. Cumulative effects are to be considered as part of the regional plans being developed across the province. At this time, no regional plan has been developed for the area in which the project is located. There are no existing guidelines for the Board to compare to in order to assess cumulative effects. There would be no remedy the Board could recommend relating to cumulative effects. Therefore, the Board cannot consider cumulative effects as an issue for the hearing.

[120] The location of gravel stockpiles near the Freeman River is not part of the Approval. Therefore, this issue, and any related cumulative effects concerns, cannot be considered by the Board.

[121] Issues relating to failure of upstream dams are speculative. There is no indication any of the dams will fail and there was no clear explanation why this would be a factor to consider when reviewing the Approval. Accordingly, these issues will not be considered by the Board.

[122] The Appellant believed the baseline data collected for the mining operation was insufficient. The entire mining operation is not part of the Approval and the required information would have been part of the Registration information. The Board cannot order an environmental assessment be completed for the project, so there is no remedy the Board could provide to address this issue. Therefore, it cannot be considered by the Board as an issue for the hearing.

[123] The Board will hear arguments related to the potential impacts to surface water quality and quantity in the area, the adequacy of the monitoring provisions in the Approval, adequacy of mitigation measures to be undertaken, the potential for flooding and lateral river migration, and impacts resulting from construction of the end pit lake and river flood protection works on a floodplain. The Parties are reminded these issues relate solely to the end pit lake and flood control measures, and not to the actual mining operations.

[124] The Board will also hear arguments on whether the mining activities will impact groundwater quality and quantity and whether the conditions in the Approval adequately protect the groundwater.

[125] Accordingly, the issues for the hearing will be the following:

1. Will the construction and maintenance of the end pit lake and river flood protection works, as allowed under the Approval, impact surface water quality and quantity, including but not limited to the Freeman River and the end pit lake itself, and the aquatic resources in the Freeman River?
2. Will the construction and maintenance of the end pit lake, river flood protection works, and the mining operations impact groundwater quantity and quality?
3. Are the terms and conditions of the Approval reasonable to protect the surface and groundwater in the area and the aquatic environment in the Freeman River?

[126] The Parties are reminded that, pursuant to section 95(4) of EPEA, the Board will not consider any other issues.⁸

V. CONCLUSION

[127] The Board finds the Appellant is directly affected by the Director's decision to issue the Approval.

[128] The issues for the hearing will be:

1. Will the construction and maintenance of the end pit lake and river flood protection works, as allowed under the Approval, impact surface water quality and quantity, including but not limited to the Freeman River and the end pit lake itself, and the aquatic resources in the Freeman River?
2. Will the construction and maintenance of the end pit lake and river flood protection works and the mining operations impact groundwater quantity and quality?
3. Are the terms and conditions of the Approval reasonable to protect the surface and groundwater in the area and the aquatic environment in the Freeman River?

Dated on August 28, 2018, at Edmonton, Alberta.

"original signed by"
Alex MacWilliam
Board Chair

"original signed by"
Alan Kennedy
Board Member

"original signed by"
Meg Barker
Board Member

⁸ Section 95(4) of EPEA provides:
"Where the Board determines that a matter will not be included in the hearing of an appeal, no representations may be made on the matter at the hearing."