



Environmental Appeal Board

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DECISION NO. 2019-WSA-002(a)

In the matter of an appeal under section 105 of the *Water Sustainability Act*, S.B.C. 2014, c. 15

BETWEEN:	Gary Ware	APPELLANT
AND:	Assistant Water Manager	RESPONDENT
BEFORE:	A Panel of the Environmental Appeal Board Darrell LeHouillier, Chair	
DATE:	Conducted by way of written submissions concluding on March 23, 2020	
APPEARING:	For the Appellant: Gary Ware For the Respondent: Livia Meret, Counsel	

APPEAL

[1] Gary Ware appeals an order (the "Order") issued on October 1, 2019, under section 93 of the *Water Sustainability Act*, S.B.C. 2014, c. 15 (the "WSA"). The Order was issued by Tracy Meldrum, an Engineer and Assistant Water Manager (the "Water Manager") with the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (the "Ministry"). The Appellant is one of three registered owners of a property located adjacent to the Nicola River in Merritt, BC.

[2] The Order states that the owners of the property modified the channel and floodplain of the Nicola River by adding a soil berm without authorization. Among other things, the Order requires the property owners to retain a professional engineer to submit to the Water Manager an assessment of the functional viability of the unauthorized works, and the incremental flood risk to other property owners resulting from the unauthorized works. If the Water Manager accepts recommendations in the assessment report, the property owners must complete the required actions and file an assurance from a professional engineer that work was completed according to the accepted design and work plan.

[3] The Appellant submits that the berm prevents flooding on the property. He requests that the Board order that the berm "not have to be engineered or removed".

- [4] Under section 105(6) of the *WSA*, the Board may, on appeal:
- (a) send the matter back, with directions, to the ... water manager ... who made the order being appealed,
 - (b) confirm, reverse or vary the order being appealed, or
 - (c) make any order that the person whose order is being appealed could have made and that the board considers appropriate in the circumstances.

BACKGROUND

[5] The Appellant's property is within an area designated as a floodplain in the City of Merritt's Zoning Bylaw 2187. The Appellant resides on the property and cultivates garlic on the property. A second home on the property is occupied by a family member.

[6] In 2017, in anticipation of flooding from the Nicola River, and after talking to Jeptha Ball, a Flood Safety Engineer and Deputy Inspector of Dikes with the Ministry, the Appellant decided to build a soil berm along edge of the driveway and homes on the property. The Nicola River flooded, and water came over the berm. The Appellant used sandbags to reduce the amount of flooding around the homes. After that experience, he decided to build a higher berm.

[7] In early 2018, the Appellant built up the existing berm by adding dirt. Flooding occurred again. This flood was higher than in 2017, and the buildings on the property were flooded. Water reached near to the top of the ground floor in the homes. The Appellant says this was an extremely stressful and difficult time. After that experience, he acquired more dirt and again raised the berm along the driveway and homes. In addition, he decided to use dirt to raise the edge of his field near the Nicola River.

[8] The flood in 2018 also affected the Appellant's next door neighbor, Mr. Smoluk. Following the 2018 flood, Mr. Smoluk built a soil berm on his property on top of—or in place of—sandbags that were previously placed to protect against flooding.

[9] According to an affidavit sworn by the Water Manager in support of her submissions on this appeal, the berms on Mr. Smoluk's and the Appellant's properties "are connected and behave functionally as one structure." Together, their total length "is in excess of 550 metres of artificial stream channel which is acting in a way such to protect multiple properties."

[10] On November 7, 2018, Ministry staff inspected the site after receiving a complaint about unauthorized dikes being built along the Nicola River. They spoke to the Appellant and inspected the berms on both the Appellant's and Mr. Smoluk's properties. They photographed the berms in three locations. The Ministry's Compliance and Enforcement Report states that it was "not immediately clear whether authorizations were needed" for the berms, and a dike inspector or similar specialist would need to be contacted "to determine whether there are any contraventions."

[11] On August 1, 2019, the Water Manager and Mr. Ball inspected the site with the Appellant in attendance. They took photos and measured the berm on the Appellant's property to be approximately 1.5 metres high and 5 metres wide. They observed that it extended along the full extent of the Appellant's property, from Garcia Street to the west and southwest. According to the Water Manager's affidavit, "[n]ear Garcia Street, the stream side toe of the earthen berm is located in the stream bank at the top of the bank."

[12] Section 11(2) of the *WSA* provides that changes in and about a stream may only be made in accordance with the terms and conditions of a change approval, the regulations, the terms and conditions of an authorization, or an order. Section 11(1) requires an application for a change approval to be made in accordance with section 12. In the present case, there is no dispute that the Appellant made no such application before building the berm. The Appellant's position is that he built the berm on his property and not within a "stream", and no approval or other authorization under the *WSA* was required.

The Order

[13] On October 1, 2019, the Water Manager issued the Order pursuant to section 93(2)(e)(i) of the *WSA*. This subsection authorizes the Water Manager, who is designated as an Engineer under the *WSA*, to order "a person who makes changes in and about a stream or any person who derives a benefit from the changes in and about a stream to restore or remediate those changes".

[14] The Order states that the "stream channel and associated floodplain" of the Nicola River "have been modified by the addition of soil berms without authorization" on the property, and those activities "are likely to cause detrimental impacts to other land owners". In summary, the Order requires the Appellant and the other registered owners of the property to:

1. retain a professional engineer qualified in flood risk and design of flood control structures to submit for the Water Manager's acceptance an assessment on the functional viability of the unauthorized works on the property and the incremental flood risk to other property owners resulting from the unauthorized works;
2. submit the assessment report including design drawings and workplan to the Water Manager no later than December 1, 2019 for review;
3. once the Water Manager has accepted the recommendations, undertake and complete the required actions within 90 days of acceptance;
4. file with the Water Manager, within 30 days of completion of the works, an assurance from a professional engineer that the work has been completed in all material respects with the accepted design and workplan; and
5. retain onsite a copy of the Order and the design accepted by the Water Manager where work is being done so it is available for inspection by Ministry officials.

[15] On October 1, 2019, the Water Manager issued an order to Mr. Smoluk that is almost identical to the Order.

The Appeal

[16] I have summarized the Appellant's grounds of appeal, based on his Notice of Appeal and submissions, as follows:

1. The berm is not a "change in and about a stream" because it does not alter the bed, bank, channel or flow of a stream, and is above the natural boundary of the Nicola River.
2. The berm will protect the property and buildings on it from flooding when spring run-off is high.
3. The berm does not constrict the stream channel and will not cause detrimental effects on neighbouring properties.

[17] Mr. Smoluk also appealed the order that was issued to him. Mr. Smoluk's appeal is addressed in a separate decision issued concurrently with this decision (*Vincent Smoluk v. Assistant Water Manager* (Decision No. 2019-WSA-001(a)) [*Smoluk*]).

Events after the Order was issued

[18] On October 22, 2019, the Water Manager again attended the site, along with the Appellant, his son, Mr. Smoluk, and a Flood Safety Engineer/Inspector of Dikes from the Ministry. According to the Water Manager's affidavit, the Appellant asked if he could remove the fill material and restore the stream bank instead of hiring an engineer to assess the viability of the structure and its risks to others. The Water Manager advised that she would be agreeable to amending the Order to allow him to do so; however, the Board has not been notified of any amendments to the Order.

[19] After the appeal was filed, the Water Manager consented to a stay of the Order until April 15, 2020. The Water Manager was aware that the Appellant and the City of Merritt (the "City") were discussing the possibility of the City using part of the Appellant's property to re-align the stream channel to protect the road where Voght Street abuts the Nicola River. The Water Manager says she agreed to the stay based largely on the idea that the City's engineer may be able to assist the Appellant in developing a solution to the underlying risk of flooding.

[20] By the deadline for the Appellant's final reply submissions on the appeal, the City and the Appellant had not yet developed a solution that would resolve the appeal.

LEGISLATION AND SUBMISSIONS

[21] The phrase "changes in and about a stream" is defined in section 1 of the *WSA* as follows:

- (a) any modification to the nature of a stream, including any modification to the land, vegetation and natural environment of a stream or the flow of water in a stream, or
- (b) any activity or construction within a stream channel that has or may have an impact on a stream or a stream channel;

[22] This definition uses the words “stream” and “stream channel”, which are also defined in section 1 of the *WSA*. “Stream” is defined to mean:

- (a) a natural watercourse, including a natural glacier course, or a natural body of water, whether or not the stream channel of the stream has been modified, or

- (b) a natural source of water supply,

including, without limitation, a lake, pond, river, creek, spring, ravine, gulch, wetland or glacier, whether or not usually containing water, including ice, but does not include an aquifer;

[23] “Stream channel” is defined as:

... the bed of the stream and the banks of the stream, both above and below the natural boundary and whether or not the channel has been modified, and includes side channels of the stream;

[24] The Appellant submits that although the Order states that the “stream channel and associated floodplain have been modified” by the berm, he did not alter the bed or bank of the Nicola River, either above or below the natural boundary. Rather, he added dirt to the perimeter of his field which is neither a stream nor part of the stream channel of the Nicola River.

[25] The Appellant notes that the *WSA* defines “stream channel” to mean “the bed of the stream and the banks of the stream, both above and below the natural boundary and whether or not the channel has been modified, and includes side channels of the stream”. He also notes that the *Land Act*¹ defines “natural boundary” as:

the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself.

[26] The Appellant submits that the *WSA* does not mention floodplains, and floodplains are not covered by the *WSA*.

[27] The Appellant says, after raising the berm in 2018, he became aware that working in and about a stream may require an approval under section 11 of the *WSA*. However, he submits that he did not make “changes in and about a stream”, as defined.

¹ Section 1(1) of the *WSA* adopts the meaning of “natural boundary” provided in section 1 of the *Land Act*.

[28] The Appellant maintains that if he had made changes in and about a stream, the "Department of Fisheries" (i.e., Fisheries and Oceans Canada) ("DFO") would have issued an order to him as well, but staff from the DFO inspected the site in 2018 and told him they had no concerns.

[29] The Appellant also says that in 2017, he told Mr. Ball what he was planning to do on the property to prepare for flooding, and Mr. Ball said he could do what he wanted to protect his property as long as it did not impact anyone upstream or downstream.

[30] In support of his submissions, the Appellant provided photographs of the perimeter of his field at various locations, and of the floods that occurred in 2017 and 2018.

[31] The Water Manager submits that the Nicola River is a "stream" within the meaning of the *WSA*. Although some changes in and about a stream are authorized by Part 3 of the *Water Sustainability Regulation*, B.C. Reg. 36/2016 (the "*Regulation*"), without the need for an approval, the *Regulation* does not authorize placing fill in a stream channel or diverting a stream. These changes in and about a stream require an approval under section 11 of the *WSA*. The Water Manager emphasizes that the definition of "stream channel" includes the banks of the stream "above ... the natural boundary" to its full extent (i.e., to the top of the bank) "whether or not the channel has been modified, and includes the side channels of the stream".

[32] The Water Manager maintains that the berm consists of extensive earth works placed directly on top of the existing stream bank above the natural boundary of the Nicola River. The berm extends the stream bank vertically and creates an artificial stream channel where none would normally exist. In support of those submissions, the Water Manager provided an affidavit sworn by her on February 20, 2020, attached to which are several photographs of the berm taken on November 7, 2018, and August 1, 2019.

[33] In response to the Appellant's comments that the DFO is not concerned about the berm, the Water Manager submits that while fisheries values are an important part of aquatic ecosystems, they are not the only value protected by the *WSA*. As indicated in the definition of "changes in and about a stream", the water and vegetation in a stream are also protected. Similarly, the *WSA* and section 44 of the *Regulation* protect the "aquatic ecosystem", which is defined in the *WSA* to mean the "natural environment of a stream, including the stream channel, the vegetation in the stream and the water in the stream ...".

[34] Regarding the Appellant's discussion with Mr. Ball in 2017, the Water Manager distinguishes between the Appellant's berm constructed in 2017 versus the berm he constructed in 2018. The Water Manager submits that Mr. Ball's comments to the Appellant in 2017 should not be taken as authorizing the Appellant's works in 2018. In support of those submissions, the Water Manager provided an affidavit sworn by Mr. Ball on February 21, 2020. Mr. Ball attests that he may have advised that the Appellant could carry out temporary works to protect buildings during a flood event, but he would not have advised the Appellant that he could construct permanent works without authorization. Mr. Ball states that the

Appellant should have removed the works built in 2017 within six months of the flood, and not raised them.

[35] In reply, the Appellant argues that the term "side channel" is not defined in the *WSA*, and his property is not a side channel. He submits that if his property was a side channel, then he would be contravening the *WSA* every time he works his land. He submits that "side channel" refers to old stream beds, such as two nearby oxbow lakes that receive water from the river in the Spring and then dry up when the river is low in late Summer.

[36] Regarding aquatic ecosystem values, the Appellant reiterates his submission that he did not disturb the stream channel below or above the natural boundary, and DFO staff would have told him if he had done anything to compromise the ecosystem. He maintains that he has not harmed the ecosystem, habitat, or fish in the Nicola River. The Appellant submits that the top surface of his field is not part of a stream or a stream channel, his field is not a side channel, and the *WSA* does not mention floodplains. He wonders, therefore, how raising the edge of his field could be considered an unauthorized change in and about a stream.

[37] Regarding his conversation with Mr. Ball in 2017, the Appellant acknowledges that Mr. Ball did not advise him that he could construct permanent flood protection.

[38] Throughout their submissions, the parties disagreed on whether the berm may have any detrimental effects on the stream or neighbouring properties as a result of water being displaced. The Water Manager contends that the berm may have such detrimental effects, whereas the Appellant says his neighbour, Mr. Smoluk, agreed with him building the berm. The Appellant says that further downstream property owners will be protected by constriction points in the river.

[39] The Water Manager also questions whether the berm is built well enough to withstand future flood events.

ISSUES

[40] The appeal raises the following issues:

1. Is the berm an unauthorized "change in and about a stream" within the meaning of the *WSA*?
2. Should the Order be varied or reversed as requested by the Appellant because the berm will cause no detrimental effects on the stream or neighbouring properties?

[41] If I find that the berm is not a change in and about a stream, the Order may be reversed on that basis alone, and there would be no need to decide issue 2.

DISCUSSION AND ANALYSIS

[42] The Appellant has argued that the floodplain is not part of the stream, and the Water Manager has not asserted that it was. For the reasons described in *Smoluk*, I conclude that the floodplain at issue in this appeal does not form part of

the “stream”, as defined in the *WSA*. The question is whether the construction of the berm was an unauthorized “change in and about a stream”.

1. Is the berm an unauthorized “change in and about a stream” within the meaning of the *WSA*?

[43] As I noted previously, there are two prongs to the definition of “changes in and about a stream”, as defined in the *WSA*:

(a) any modification to the nature of a stream, including any modification to the land, vegetation and natural environment of a stream or the flow of water in a stream, or

(b) any activity or construction within a stream channel that has or may have an impact on a stream or a stream channel.

[44] Because the stream channel is more easily defined and understood, I begin my analysis with that concept.

Is the berm a construction within the stream channel of the Nicola River that may have an impact on the stream channel?

[45] The *WSA* defines a stream channel as the bed and banks of a stream, including side channels of the stream, above and below the natural boundary of the stream, and regardless of whether the channel has been modified.

[46] As I have also noted in *Smoluk*, a stream channel is a morphological feature made up of a bed and banks, containing the natural boundary of a stream. The natural boundary has a lengthy definition imported from the *Land Act*, but broadly speaking it marks the common high water mark in a waterway year-to-year, evident based on changes in stream banks, vegetation, and soil. The stream channel is defined such that its banks extend above and below the natural boundary and, as such, the natural boundary is not helpful in determining the boundaries of the stream channel.

[47] Similarly, a “side channel” is defined by a bed and banks. While “side channel” is not a defined term under the *WSA*, it is necessarily a similar morphological feature. Because the floodplain is not bounded by banks, it does not meet the requirements of a side channel. In short, a floodplain and a side channel are distinct features.

[48] I acknowledge that the Water Manager has argued that the berm will create an artificial side channel; however, insufficient evidence has been presented to establish that new channels have been created by the berm, such that the contours of the natural (or previously modified) stream channel of the Nicola River has been affected. It is the network of channels comprising the stream channel that I must consider in this appeal.

[49] In assessing the boundary between the stream channel and the floodplain beyond, which I have concluded is not a part of the “stream” at issue in this appeal, I considered the ordinary meaning of relevant terms. Neither “floodplain” nor

“stream bank” are defined in the *WSA* or the *Regulation*. According to the Merriam-Webster Dictionary, “floodplain” means “level land that may be submerged by floodwaters”. The Merriam-Webster Dictionary provides several definitions of “bank”, but the most relevant in the context of a stream is “the rising ground bordering a lake, river, or sea or forming the edge of a cut or hollow”. Based on those definitions, a key characteristic of a floodplain is “level land”, whereas a key characteristic of a stream bank is “rising ground”. The boundary between the two is, therefore, the point at which the rising ground of the stream bank levels off into the floodplain.

[50] Although the definition of “stream channel” includes “side channels”, a side channel would still be a channel marked by sloped banks. The same distinguishing boundary between stream channel and surrounding land applies for side channels.

[51] I find that at least portions of the berm are a construction within the stream channel of the Nicola River. Photographs submitted to the Board establish that, at least in some areas, soil was placed on top of the pre-existing stream banks to increase their height, changing the dimensions of the stream channel.

[52] For clarity, I find that any infilling of the channel, up to its uppermost demarcation, amounts to a construction or activity within a stream channel. Extending the naturally existing banks also changes the morphological structure of the stream channel and amounts to construction or activity within a stream channel.

[53] Such structural changes, in this case, “may” have an impact on the stream or its channel. I note that this threshold, set by the definition of “a change in and about a stream”, is a low one. A change in the height of a stream channel may affect the flow of water in the river during freshet in some years because, assuming that the berm is strong enough to contain the water, a greater volume and depth of water will remain in the new channel created by the berm, whereas in the past the water would have spilled over the pre-existing bank and onto the floodplain. This was the whole point of the berm, so it seems to be a point of agreement between the parties.

[54] While the Appellant has argued that downstream constriction points mean that no other riparian property owners will be affected by his berm, this is not the applicable test to consider in assessing whether the berm amounts to a “change in and about a stream” under the second prong of that term’s definition. Accordingly, I conclude that some portions of the berm, at least, amount to “changes in and about a stream” by application of the second prong of the definition of that term.

Is the berm a modification to the nature of the Nicola River, including any modification to the land, vegetation and natural environment of the Nicola River or the flow or water within the Nicola River?

[55] The first prong of the definition of “changes in and about a stream” is ambiguous because “nature” has various meanings. As I have explained in *Smoluk*, there are two meanings that arguably make sense in this context. I have used

definitions from Collins Unabridged English Dictionary, although a survey of other sources revealed similar definitions. "Nature" could refer to:

- the basic character or quality of a stream (as in, "It is the nature of the river to wind its way from east to west ..."), or
- the non-anthropogenic environment of a stream (as in, "Nature in the area is comprised of flood plains, trees, and other features ...").

[56] The first reading is correct. It provides that one prong of the definition of "changes in and about a stream" are changes to the basic character or quality of that stream, including changes to the land, vegetation, and natural environment of the stream or to the flow of water in the stream. This gives meaning to each term and creates no internal inconsistency or internal duplication. It also provides a definition consistent with the overall legislative intent, of balancing competing private and governmental interests in the use and stewardship of water resources within British Columbia (see paragraphs 42-44 in *Smoluk*).

[57] By contrast, applying the second definition would mean that the Legislature defined the nature through which a stream flows as including its "land, vegetation and natural environment". A stream's nature, using this definition, and its natural environment, are one and the same. This interpretation creates a confusing duplication of near-identical terms that do not offer any clarification.

[58] As a result, any change to the land, vegetation, and natural environment of a stream may amount to a change in and about a stream if it modifies a basic characteristic or quality of the stream at issue. Therefore, the first main issue in this case is answered if the construction of the berm amounts to a modification of the land, vegetation, or natural environment of a stream such that it constitutes a modification of the basic character or quality of a stream.

[59] As I noted in *Smoluk*, "Natural environment" is not a defined term under the *WSA*. It is mentioned at one other point in the *WSA*, to define "aquatic ecosystem", in relation to a stream. The definition of "aquatic ecosystem" is:

... in relation to a stream, means the natural environment of the stream, including

- (a) the stream channel, the vegetation in the stream and the water in the stream,
- (b) fish, wildlife and other living organisms insofar as their life processes
 - (i) are carried out in the stream, and
 - (ii) depend on the natural environment of the stream;

[60] I am entitled to presume that the same term will be used to mean the same thing within the same (or even similar) pieces of legislation. Here, "natural environment" is used in two definitions, both relating to streams. I consider that the Legislature intended for these to have the same meaning.

[61] Reading both instances together provides a context useful for interpreting the term. In one instance, "natural environment" appears in a list, alongside the land, vegetation and flow of water of a stream, to give meaning to the term "nature

of the stream". In the other, "natural environment" is, in turn, defined by some of its constituent elements: the stream channel, the vegetation in the stream, the water in the stream, and living organisms that carry out life processes in the stream or rely on the stream to carry out their life processes.

[62] The near overlap in terms is significant. In the context of "nature of a stream", a stream's natural environment includes the stream channel, but not the "land ... of a stream", which is another item, apart from "natural environment", in the list. This suggests that "land of a stream" is not the same as "the stream channel" or even the "natural environment". The use of both terms together suggests that they do not overlap entirely. As a result, I conclude that "land of a stream" extends beyond the stream channel (which the *WSA* defines to be part of the "natural environment"), or else there would be no reason to include it in the definition of "nature of a stream" alongside "natural environment" and, thus, in the definition of "changes in and about a stream".

[63] As noted in *Smoluk*, I must give the legislation a broad and purposive reading. While I concluded in that case that there is no clear, overarching legislative intent that can inform the balancing of individual and government rights for the purposes of stewardship and use of water resources, a review of specific provisions within the *WSA* overall supports this interpretation.

[64] Section 46(1)(b) of the *WSA*, for example, prohibits individuals from allowing "debris"—a defined term including material I would expect to be found in the berm, such as rocks, clay, and silt—or other matter or substances to be introduced "... into a stream, a stream channel or an area adjacent to a stream". This expresses a clear legislative intention that land areas adjacent to streams are to be protected under the *WSA*.

[65] There is some uncertainty as to how far an "area adjacent to a stream", "land of a stream", "vegetation of a stream", and similar words extend; however, I do not need to resolve those questions for the purposes of this appeal. Here, the portion of the berm I am now considering was built within a few feet of the stream channel, significantly modifying the land adjacent to the stream. I am satisfied that a modification to the land in such proximity to a stream falls within the definition of "land of a stream".

[66] I find that altering the ground surface to redirect flood waters away from one side of a river over the length of a property alters a basic characteristic of the land of the stream. The whole purpose of the berm is to affect the way flood waters move within the land of the stream and, on a balance of probabilities, I conclude the berm will have such an effect on the basic character or quality of the land of the stream. There is no evidence that it this alteration will have a detrimental impact, but that is not required by this prong of the definition. This prong of the definition simply addresses a "modification" to the nature of a stream. One of the purposes of the Order is to obtain information to determine any detrimental impacts. The terms of the Order are considered in issue 2.

Was the berm authorized?

[67] Regarding the Appellant's conversation with Mr. Ball before the flood in 2017, it is clear from both Mr. Ball's affidavit and the Appellant's submissions that Mr. Ball never advised the Appellant that he could install a permanent berm to protect against flooding. Their discussion appears to have been about the Appellant's plan to build the smaller berm that he constructed in 2017, which Mr. Ball understood to be a temporary flood protection measure.

[68] Under Part 3 of the *Regulation*, a berm that protects against flooding is an authorized change in and about a stream in certain circumstances. Specifically, section 39(1)(o) states that "the construction or placement, under the direction of the Crown in right of British Columbia, a municipality or a regional district, or an agent of any of them, of ... flood protection works during an emergency declared under the *Emergency Program Act* that involves flooding" is an authorized change in and about a stream. In those circumstances, there is no need for an approval under section 11 of the *WSA*. However, there is no evidence that the berm in this case was constructed under the direction of any of those levels of government or their agents.

[69] Significantly, in response to the evidence of Mr. Ball, the Appellant has confirmed that the construction of a permanent berm was unauthorized. As a result of this and the lack of any demonstrated approval (including by Mr. Ball, for the reasons above), I conclude that part of the berm was an unauthorized modification to the "nature of the stream" and part of the berm was an activity within the "stream channel". Therefore, the berm is an unauthorized "change in and about a stream" as defined under the *WSA*.

Conclusion

[70] I find that the berm is an unauthorized "change in and about a stream" within the meaning of the *WSA*.

2. Should the Order be varied or reversed as requested by the Appellant because the berm will cause no detrimental effects on the stream or neighbouring properties?

[71] In an appeal under the *WSA*, my authority under section 105(6) extends beyond ensuring the validity of the Order: I am able to make any order that the Water Manager could have made. I will therefore consider whether the content of the Order was reasonable in the circumstances.

[72] Although opinion evidence was offered in the affidavits provided by the Water Manager and Mr. Ball that the berm does or may alter the hydrological conditions of the river, this appears to be in the nature of expert evidence. As the Water Manager did not give advance notice of expert opinion evidence, as required by the Board's Rules, it would be unfair to admit this evidence. However, this evidence is not needed in this case as the parties agree that the berm is intended to function as a means of redirecting flood waters once they rise to a certain level.

[73] Even if I did admit this as expert opinion evidence, there is insufficient information for me to make any conclusive findings on the extent of the berm's effects on stream flow, water displacement, the incremental flood risk to neighbouring properties. There is likewise insufficient information for me to determine the functional viability of the berm including whether it will withstand future flood events. The purpose of the Order is to have an engineer examine those very questions and make recommendations for the Water Manager's consideration.

[74] As I have already noted, I did not find that downstream property-owners would be insulated from any hydrological effects of the berm by constriction points spanning the Nicola River. I did not find the Appellant's opinion on this to be persuasive for the reasons I already provided. I am left with uncertainty as to the effects the berm will have on the water flow within the Nicola River, including during freshet and/or flooding events.

[75] I sympathize with the Appellant's desire to protect his property from flooding. He asserts that he should not have to endure more flooding and should not have to remove the berm. However, the Order does not state that the berm must be removed. The Order requires an engineer to assess the functional viability of the berm and the incremental flood risk to other property owners, and prepare design drawing and a work plan for the Water Manager's review. The Appellant may worry that an engineer might recommend removal of some or all of the berm, but that is not a foregone conclusion from the wording of the Order.

[76] I find that it is in the interests of both the public and the Appellant to have an engineer examine the functional viability of the berm and make recommendations to the Water Manager, as required in the Order. This will provide information to help assess whether the berm is built to withstand future floods, or whether there is a risk it may fail, which could endanger public safety and/or the safety of the Appellant and other people residing on his property. In addition, it is in the public interest to have an engineer determine whether the berm presents any incremental flood risk to other property owners (and a risk to their safety) and make recommendations to the Water Manager, as required by the Order.

[77] I emphasize that this appeal only relates only to the Order made under the *WSA*. I will not comment on the *Dike Maintenance Act* and whether it may apply to the Appellant's berm or on whether the berm may, in the future, offend other portions of the *WSA* or other legislation.

Conclusion

[78] I conclude that there is insufficient evidence to conclude that the berm will cause no detrimental effects on the stream or neighbouring properties, as asserted by the Appellant. I also agree with the rationale underlying the Order. As a result, I find that the Order should not be varied or reversed as requested by the Appellant.

DECISION

[79] In making this decision, I have fully considered all of the evidence and submissions made, even those not specifically referred to in this decision.

[80] Based upon the findings above, the appeal is dismissed and the Order is confirmed.

"Darrell LeHouillier"

Darrell LeHouillier, Chair
Environmental Appeal Board

May 20, 2020