



Environmental Appeal Board

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DECISION NO. EAB-WSA-19-A007(a)

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

BETWEEN:	Dario Rossi, Cora Rossi, Rocky Rossi and Samantha Rossi	APPELLANTS
AND:	Assistant Water Manager	RESPONDENT
AND:	City of Abbotsford	THIRD PARTY
AND:	Gurmail Kang, Gurdev Kang and Karen Kang (collectively, the "Kangs")	THIRD PARTIES
BEFORE:	A Panel of the Environmental Appeal Board Darrell Le Houillier, Chair	
DATE:	Conducted by way of written submissions concluding on March 27, 2020	
APPEARING:	For the Appellants: Dominic Baccante For the Respondent: Stephen E. King, Counsel For the Third Parties: City of Abbotsford Aniz Alani The Kangs Hira Kang	

APPEAL

[1] Dario Rossi, Cora Rossi, Rocky Rossi and Samantha Rossi appeal an order (the "Order") issued on December 4, 2019, under section 93 of the *Water Sustainability Act*, S.B.C. 2014, c. 15 (the "WSA"). The Order was issued by Cher King-Scobie, Assistant Water Manager (the "Water Manager") with the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (the "Ministry"). The Order relates to the Appellants' five-acre parcel of land in Abbotsford, British Columbia (the "Property"), which has an unnamed watercourse running through it.¹ The watercourse enters the Property from a culvert under

¹ The Appellants refer to the watercourse as a "ditch", while the Respondent refers to it as a "stream", within the meaning of the *WSA*.

Ranch Avenue, a public road abutting the southern border of the Property. It is this watercourse that is the subject of the Order.

[2] The Order requires the Appellants to immediately remove unauthorized material (sandbags, sand and rock piles) from the bed and banks of a “stream”, described as “a tributary to Howes Creek”, on the grounds that the unauthorized material “backed up” water in the culvert under Ranch Avenue onto a property owned by the Kangs on the opposite side of Ranch Avenue, as well as along the roadside ditches. The Order also requires the Appellants to provide photographs showing that the material had been removed from the stream and that the flow in the channel was unrestricted.

[3] The Appellants appeal this Order to the Board on various grounds, including:

- the Order was based upon an illegal inspection of the Property by Ministry staff;
- the watercourse is a ditch not a “stream” under the WSA; and
- the law entitles them to place sandbags in the ditch on their Property to protect it from nuisance water and/or surface water flooding.

[4] The Appellants ask the Board to order “the unconditional dismissal” of the Water Manager’s Order, and of all allegations made in her Order. The Respondent asks that the Order be confirmed.

[5] On February 5, 2020, the Board granted Third Party status to the City of Abbotsford (the “City”). The City owns and maintains Ranch Avenue, which may be directly affected by the Appellants’ actions and the outcome of the appeal. The Board further found that the City has information relevant to the appeal. The City supports the position of the Respondent and argues that the Appellants actions have resulted in increased flooding of a neighbouring property, belonging to the Kangs.

[6] In letters dated February 5 and 21, 2020, the Kangs were also granted Third Party status in the appeal. The Kangs’ property is upstream (to the south) of the material placed by the Appellants and has been, or may be, directly impacted by the Appellants’ actions. The Kangs argue that the sandbags placed in the watercourse result in flooding to their property.

[7] 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.

[8] The Board scheduled a written hearing of the appeal.

[9] Prior to completion of the hearing, the Water Manager rescinded her Order based on an administrative issue with her delegated authority, essentially giving the Appellants the remedy they requested from the Board (i.e., that the sandbags remain in the watercourse). This seemed to render the appeal moot. However, the Water Manager also indicated that she might issue another section 93 order to the Appellants in the future, leaving the Appellants unhappy with the result.

[10] The Board provided the parties with the opportunity to make submissions on whether the Board should exercise its authority to hear an appeal that seemed to be moot. Specifically, the Board asked the parties whether there were any issues still in dispute and whether scarce resources should be expended to make a decision on those issues when the requested remedy had already been obtained.

[11] After considering the parties' submissions, the Board concluded that it should proceed to hear and decide the following two issues raised by the Appellants:

- (1) whether the unnamed watercourse on the Property is properly classified as a "stream" as defined in the *WSA*; and
- (2) whether the Appellants' sandbags are causing flooding on the Kangs' property.

[12] The Board found that resolution of these two issues justified the expenditure of scarce resources. Notably, deciding these issues could prevent—or limit the scope of—an appeal of any future, similar order by the Water Manager. However, as the Order has already been rescinded, the Board's decision cannot either uphold, vary or set aside the Order.

[13] In making this decision, I have not considered the Water Manager's authority to issue the Order as the Order has been rescinded. For the same reason, I have not considered whether the inspection of the Property was illegal or whether any common law remedies apply (e.g., nuisance or a property owner's right to address flooding). My decision is limited to the two issues identified for determination, which only require an understanding of the facts and the law as they relate to the definition of a "stream" under the *WSA*, and whether the sandbags are causing flooding on the Kangs' property.

BACKGROUND

[14] The Property is located in a rural subdivision developed in the 1970s within an Agricultural Land Reserve. The Appellants took possession of the five-acre Property in August of 2016. They live on the Property and operate a small farm. The general area is relatively flat (little change in elevation).

[15] The watercourse at issue flows through a 900-millimeter diameter City-owned concrete culvert under Ranch Avenue, and enters the southeast corner of the Property. The culvert drains from the Kangs' property, across Ranch Avenue. It flows in a northerly direction and, after veering west on the Property, exits its northwest corner.

[16] According to the Appellants, the Property has been negatively impacted by flooding since they took possession in 2016. They state that water comes from the

City's culvert under Ranch Avenue and two roadside ditches. During certain times of the year, there is so much water flowing through the culvert that it rises over the banks of the watercourse and causes "severe flooding of our entire property." They state that the flooding has impacted the functioning of their septic field and resulted in sewage backing up into their basement. In addition, the flooding has caused "catastrophic failure of our home's perimeter drainage, triggering recurrent flooding of their basement."

[17] The Appellants believe that the Kangs have contributed to this flooding by placing large quantities of soil on their property, thus elevating the land. This was done to address flooding issues caused by the watercourse on their own property.

[18] The Appellants submit that the City has refused to address drainage problems in the area.

[19] To protect the Property from the impacts of continuous flooding from the watercourse, the Appellants placed seven sandbags in the watercourse, downgradient from the culvert, sometime prior to October 11, 2019. The sandbags were intended to "partially slow down the volume per unit time that has entered in the Appellants' property thus giving the soil an opportunity to dissipate water through absorption, mitigating the rate of flooding so that it doesn't reach the house, but it still floods part of the land."² There is no dispute that the Appellants did not receive permission from the Ministry to place the sandbags in the watercourse.

[20] On October 22, 2019, Cameron Stooshnoff, Surface Water Protection Officer with the Ministry, inspected the Property after receiving a report regarding sandbags placed in an unnamed tributary to Howes Creek.

[21] On December 4, 2019, the Water Manager issued the Order that has now been rescinded.

ISSUES

[22] There is no dispute that the Property is subject to flooding at certain times of the year. Although the parties disagree on the cause(s) of the flooding, who is responsible for the flooding and who should fix the problem, these are not the issues before me. The issues that I have agreed to decide in this appeal are as follows:

1. Whether the watercourse on the Property is a "stream" under the WSA.
2. Whether the Appellants' sandbags are causing flooding on the Kangs' property.

[23] In support of their submissions on these two issues the Water Manager relies upon an affidavit made by her on March 6, 2020, and an affidavit made by Mr. Stooshnoff on March 9, 2020.

² pages 7-8 Appellants' final response, March 26, 2020

[24] The Appellants rely upon: six affidavits/sworn statements by some of the Appellants, and others, made on various dates in March 2020; a letter from Madrone Environmental Services Ltd.; and a January 16, 2020 unsworn statement by Roxanne Perry, a neighbouring land owner. As some of the affidavits/sworn statements do not provide evidence relevant to the two narrow issues before me, I have not referred to them in this decision.

[25] The Appellants also provided short videos taken on three dates: March 27, 2018, February 1, 2020 and February 10, 2020. The March 2018 video shows flooding of the watercourse (over its eastern bank) as it flows through the Kangs' property and the high water in the roadside ditches in front of their property. The February 1, 2020 video shows the watercourse where it enters the Appellants' Property through the culvert and flows over the sandbags at issue in the appeal. The February 10, 2020 video shows the watercourse behind the Kangs' property (south of the Kangs' property), in the area of blueberry fields, and where it enters the Kangs' property.

DISCUSSION AND ANALYSIS

1. **Whether the watercourse on the Property is a "stream" under the WSA?**

[26] "Stream" is defined in section 1 of the WSA 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.

[27] As the Appellants' main submissions on this issue were provided in their reply to the Water Manager's and City's submissions, I will refer to them after I describe the other parties' positions and evidence.

The Water Manager's submissions & evidence

[28] The Water Manager is employed as a Manager, Streams and Floods, South Coast Region. She is designated as Assistant Water Manager and appointed as Deputy Inspector of Dikes with the Ministry. She has worked in the field of water management for over 20 years, and has a Ph.D. in planning, with a specialization in municipal flood management.

[29] Based on her training and experience in stream assessment and management, the Water Manager concludes that the watercourse is an unnamed tributary to Howes Creek. This conclusion is based on the information provided by Mr. Stooshnoff, information from documents such as topographical maps, aerial photographs of the area, mapping information for the area proximate to the

Property, and her observations of the attributes associated with streams. Based upon this information, she argues that the watercourse meets the definition of “stream” in the *WSA*.

[30] The Water Manager gave her evidence in an affidavit, attaching a number of maps, aerial photographs and other documents. The Water Manger overlaid the outline of the Property on the maps and photographs, although in some cases the Property boundaries were already evident.

[31] Referring first to an iMapBC map, which shows the area at a landscape scale (small scale map), the Water Manager notes that there are two named watercourses in the area proximate to the Property. Both are identified on various maps as Howes Creek and Bertrand Creek. Howes Creek is the most proximate to the Property. The Water Manager submits that the portion of the watercourse that traverses the Property is within the Howes Creek watershed.

[32] Next, the Water Manager considered the City’s web map of the area at a scale of 1:9,097.24. She identified the watercourse bisecting the Property as the southern arm of Howes Creek. From the features depicted on the map, the Water Manger concluded that the headwaters of the watercourse are located several properties to the south of the Property. The watercourse flows northward through three properties before reaching a marsh area. She states that the marsh area is corroborated by the change in vegetation evident from the aerial photographs. The watercourse continues to flow northward out of the marsh area.

[33] After the marsh area, the Water Manager notes that the watercourse continues to flow northward but is referred to on the map as a “channelized watercourse”, as it is currently used as a blueberry farm (this farm is located upgradient—south of—the Kangs’ property). After the blueberry farm, the channel is once again referred to as a natural watercourse on the map legend. The Water Manager submits that this is the watercourse that flows through the Property and downstream until the watercourse drains into the mainstem of Howes Creek.³

[34] The Water Manager also referred to and relies upon a series of aerial photographs of the area from 1954 through to 2004, which predate the Appellants’ purchase of the Property. She also relies upon an aerial photograph “montage” showing the Property in 204, 2012, 2014 and 2018. In each of these photographs, the Water Manager notes there is some observable watercourse channel on the Property. She states that, “since 1954, water has been carried through a discernable and visible channel from an upstream defined wetland and headwater area at some times during the year”, and that the “historical photographs show a visible and permanent stream channel on the landscape, including, through the Appellants’ Property” (paragraphs 28 & 29). The Water Manager points out alterations made to the channel on the Property between 1982 and 1994 but notes that the alterations did not change the entry of the stream onto the Property or its exit from the Property. A 2003 aerial photograph shows the watercourse becoming more channelized.

³ Water Manager’s affidavit, paragraph 26

[35] In response to the Appellants' claim that the watercourse is a "ditch", the Water Manager points out that the WSA and its regulations do not define "ditch": it tends to be used as a term to describe human-made drainage channels. While she agrees that portions of the watercourse have been altered over the years, she submits that the evidence shows that there has been a natural watercourse draining the headwaters and a marsh area to the south of the Property since at least 1954. The maps and aerial photographs show that a watercourse has existed within the Property and, she submits, the natural watercourse meets the definition of a "stream". As such, if the Appellants wish to address the consequences of flooding on their Property, they may make an application for a change approval for channel maintenance with the Agricultural Land Reserve, or consider one of the other options outlined by the Water Manager in her submissions.

[36] In response to the Appellants' video evidence, the Water Manager states that it was captured in such a way that there is insufficient detail or evidence that would change her view that the watercourse is a "stream" under the WSA.

[37] As a result of his inspection in October of 2019, Mr. Stooshnoff concluded that the watercourse on the Property is a stream under the WSA; specifically, an unnamed tributary to Howes Creek. In his affidavit, Mr. Stooshnoff states that he reviewed the videos provided by the Appellants and the submissions of the Kangs, but they did not change his view that the watercourse is a stream.

The City's submissions & evidence

[38] The City agrees with and adopts the Water Manager's submissions that the watercourse meets the definition of "stream" under the WSA. It agrees that the watercourse is an unnamed tributary to Howes Creek.

[39] The City adds that this tributary is approximately 1,700 metres in length, flowing in a northerly direction for approximately 1,370 metres before veering west where it becomes confluent with Howes Creek, approximately 300 metres further downstream. This is shown on the City's map referenced by the Water Manager. The City states that the tributary currently crosses seven agricultural properties and one forested property before it is conveyed under Ranch Avenue via the City's culvert.

[40] The City provided a historic subdivision plan for the ten-lot subdivision that includes the Property. It points out that the watercourse is depicted on the Property in the subdivision plan. The City also provided a map and eight aerial photographs of the subdivision and surrounding area taken in the years 1954, 1977, 1982, 1994, 1998, 2004, 2016, and 2020. The City notes that there have been changes to the upstream land uses to facilitate agricultural activities over the years, including the removal of forest cover and infill of existing wetlands and ponds.

The Appellants' submissions & evidence

[41] The Appellants submit definition of stream in the WSA is very broad and prone to subjective interpretation. The definition relies on personal opinion and interpretation of observations in the field; it does not require reproducible scientific

methodology or measurable parameters that would ensure consistency in applying the definition. They note that the Water Manager never made it clear where the alleged tributary begins or what data or criteria she used to arrive at her conclusion. For these reasons, the Water Manager's training and experience, by themselves, do not guarantee that she will correctly identify a stream or a tributary to a stream and, in the present case, she did not. They also submit that her belief and opinion may be the result of "confirmation bias".

[42] The Appellants also note that "tributary" only appears twice in the WSA and is not defined. They submit that there is no indication that "stream" and "tributary to a stream" are interchangeable. Further, the definition of "stream" does not provide any guidance in defining and recognizing a tributary. The Appellants argue that the subjective nature of the Water Manager's conclusion that the watercourse is a stream under the WSA is evident from her repeated use of the word "opinion", "belief", and "believes", in her affidavit. In contrast, the Appellants have retained professionals who have concluded that the watercourse is flowing within a "constructed drainage". For instance, the Appellants' spokesperson, Mr. Baccante, has worked for both the Ontario and British Columbia governments as a biologist where he has been involved with fisheries research (Ontario) and stream restoration and classification activities with Fish and Wildlife Management in the Peace Region (British Columbia).

[43] In addition, the Appellants submitted a five-page report by Gordon Butt, Senior Geoscientist with Madrone Environmental Services Ltd. ("Madrone"), dated September 5, 2018. The Madrone report states at page 3:

The ditch on your property has clearly been constructed; it is visible (and full of water) as of the earliest air photo image easily available (2004). On that imagery the ditch extends across the northern edge of the neighbouring property to the west and then into the forested area to the north (235 Bradner; Rosswood Farms). It does not appear to be connected. It is even less clear on the 2018 imagery. Elevations on Google Earth are not sufficiently accurate but do show that your property is lower than Howes Creek where the ditch would enter it near the northwest corner of 28419. (page 3)

[44] This report was not tendered as expert opinion evidence in accordance with the Board's Rules.

[45] In a separate reply submission, Dario Rossi states: "There are archived records attesting that the ditch on our property has been completely moved or relocated several times." He states that when the ditch was set near the eastern property line, it did not flood. It is also a "long term and known fact" that the ditch on the property is set at the lowest level, and that the water is directed to their ditch from roughly a five square kilometer radius.

[46] Further, Dario Rossi states that he has video evidence showing the water "does not effectively exit through the intended direction and does not adequately flow out of their property, to date." This evidence was not provided to the Board.

[47] In response to the Water Manager's evidence, the Appellants' provided a map of the Property, and its surroundings, which does not show a defined or recognizable watercourse in that location. They state that their map was created in

Habitat Wizard, which uses the same Provincial data layers as iMapBC, and are used by professionals and consultants who regularly submit their work to the Province.

[48] In further support of their argument that the watercourse is a ditch, not a stream, the Appellants rely on evidence contained in a number of affidavits/sworn statements. In affidavit #1 made by Dario Rossi on March 25, 2020, Mr. Rossi describes the watercourse on the Property as being completely dry between April and October each year. During rainy season, he states that the watercourse does not serve any other purpose than collecting water from the surrounding properties and flooding the Property.

[49] In affidavit #1 made by Ralph Braun on March 25, 2020, Mr. Braun describes a meeting he attended with some members of the Rossi family, numerous City staff, and others, at the Abbotsford City Hall in May of 2019 to discuss flooding at the Property. Mr. Braun states that Rob Isaac, the City's spokesperson at the meeting, said that the City's preferred solution was to "dig out the existing ditch, which at present splits the farm in half, proposing to make the ditch in the Rossi's property wider and deeper, suggesting this would move the water to the Howes Creek." He recalls that Dario Rossi said this would only accommodate more water, not alleviate flooding, as a geo-elevation problem remained. This is because the geo-elevations recorded by his surveyors and qualified professionals showed that Howes Creek is set much higher in elevation to the Property and water will never flow up hill.

[50] Regarding the elevations, the Appellants state that the watercourse has a negative slope towards their Property. They state:

The slope is such that before the water would make its way towards Howes Creek the whole property would be under water. The Respondent's [Water Manager's] claim that this ditch provides an ecologically-functional water connection to Howes Creek is based on historical land forms that no longer exist because of urban development. The management of water drainage in this area has not kept up to the development of roads and land, and it needs to be updated to match existing conditions. The only purpose for this ditch currently is to flood the Appellant's [sic] property.

[51] Alfred Daigneault owns K-Mac Excavating. In his affidavit made on March 19, 2020, Mr. Daigneault explains that he was hired by Dario Rossi on September 9, 2019 to remove sediment and grass from the bottom of what he describes as "an existing ditch" on the Property. The next day, an employee with the City's Engineering Department produced a drawing with information about the Property. It showed that the ditch was titled "Howes Creek". When Mr. Rossi told the City employee that the drawing was incorrect—that the ditch is a constructed ditch that was previously located along the border of the east property line— Mr. Daigneault recalls the employee responding that it was only a "typo" error. Mr. Daigneault recalls Mr. Rossi asking that "Howes Creek" be removed from the drawing because the watercourse is obviously a constructed ditch. He recalls the employee replying that he could not remove the typo but agreed that it was a ditch and not Howes Creek. Mr. Daigneault states that the City employee had come to the Property that

day to clean the grass and sediment from the ditch, but Mr. Daigneault had already done so.

[52] The Appellants submit that the Board should not accept the Water Manager's conclusion that the watercourse is a stream for a number of reasons:

- there is no determination on where the alleged tributary begins;
- there have been, and continue to be, significant modifications to the water flow south of the Property (e.g., the blueberry farm south of the Kangs' property as shown in the February 10, 2020 video);
- the elevation of the Property in the northwest corner is such that, before water can exit, the water level "would have to be so high that it floods most of his land, including the house, farm buildings, septic field and other structures"; and
- the fact that others have changed the Howes Creek watershed over the decades suggest that the Ministry has not been applying the same definition to the watercourse as it is now (e.g., portions of it have been moved and deleterious substances have entered the watercourse upland of the Property).

[53] Regarding the last bullet, the Appellants note that the Ministry not taken enforcement action against others in and about the watercourse as a result of the following activities: the blueberry farm diverts flow to the watercourse, the Kangs' have added soil to their land beside the watercourse, and others have removed forest cover upland from the blueberry farm, etc.

The Panel's findings

[54] For convenience, the definition of "stream" is repeated as follows:

- (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.

[55] The Appellants note that the definition of "stream" does not require reproducible scientific methodology or measurable parameters that would ensure consistency in its interpretation and application. As a result, the Water Manager's conclusion is based on personal beliefs, opinions and observations. Importantly, in this case they submit that her beliefs and opinions were flawed by confirmation bias: the Water Manager interpreted information to confirm her initial belief that the watercourse is a stream.

[56] I agree with the Appellants' that the definition is broad and is not based on a scientific method or formula. However, the definition does include one critical word before the words "watercourse", "body of water", or "source of water supply"; the

word is “natural”. This word is not defined in the *WSA*, so I interpret it according to its ordinary meaning as found in the dictionary. The most appropriate meaning of “natural” in the context of this legislation is “existing in or produced by nature; not artificial” (Merriam-Webster Dictionary, online) or, as defined in another source “existing in or caused by nature; not made or caused by humankind”⁴. Thus, the critical question to my determination of whether the watercourse is a stream is whether it is human-made or created/produced naturally. I note that the definition allows for a stream’s channel to have been modified; the key question is whether, despite any subsequent alterations, there was originally a naturally created/produced watercourse in or around the place where the watercourse at the heart of this appeal now lies, operating as a watercourse before being altered to its present location and configuration.

[57] To make this determination, I have considered all of the evidence afresh. Even if the Water Manager’s conclusion was flawed as a result of confirmation bias, which is not apparent from the evidence, I have conducted a new hearing and have independently reviewed the evidence.

[58] Based on the totality of the evidence, I find that the watercourse was not made by human activity; it is natural. Although portions of the stream have been modified by humans over time (e.g., by realigning the channel, cleaning out the channel and steeping the banks), and the stream is sometimes dry, the definition in the *WSA* includes the words “whether or not the stream channel of the stream has been modified” and “whether or not usually containing water”. Just because a stream has been modified, or is intermittent or ephemeral, does not remove it from being a Crown asset under section 5 of the *WSA*⁵ and a public resource to be protected.

[59] Further, even if the Ministry has not taken enforcement action against people who have made changes in and about the stream without approval (e.g., for diversions of the stream, the addition of soil beside the stream, etc.), this is not an indication that the watercourse was made by humans; it does not affect my analysis of the evidence and issue before me. My finding that the watercourse is a stream may well have implications for other property owners, but this is not relevant to my decision in this case.

[60] The most compelling evidence that the stream is natural, not human-made, comes from the aerial photographs. In particular, the City’s black and white photograph from 1954, as well as the 1977 and 1982 photographs. From these photographs I can see a discernable channel in the general location of the current channel. The stream channel follows the path described by the Water Manager in her evidence. These photographs show the progression of change in the area over time; they show the channel prior to land clearing for agriculture and the subdivision development. In the early photographs the channel does not exhibit

⁴ https://www.lexico.com/definition/oxford_english_dictionary

⁵ Section 5(1) states: “The property in and the right to the use and flow of all the water at any time in a stream in British Columbia are for all purposes vested in the government, except insofar as private rights have been established under authorizations.”

straight lines that would indicate a constructed channel. Rather, the channel follows an irregular path.

[61] The portions that have been modified by humans over the years exhibit straight lines and/or dramatic changes in direction/location. The locations of these modifications are consistent with the Water Manager's description of human-caused modifications along the route. I have not been told whether those modifications were authorized or unauthorized changes in and about a stream, and this is not for me to determine in this case.

[62] Although the Appellant relies upon the Madrone report as confirmation that the stream is a "ditch", I note two things. First, it appears that Madrone was retained to investigate the sources and/or causes of flooding on the Property, not to assess whether the watercourse is a "stream" under the WSA or whether the watercourse was a naturally-occurring stream before any modifications were done to its stream channel. Second, Madrone did not have the benefit of the early aerial photographs. In fact, the report specifically states at the end that the "acquisition of historic air photos may provide more information of land use prior to 2004 (eg: was there a creek on your property that was replaced by the constructed ditch?)".

[Emphasis added]

[63] As the report was not an assessment of whether the watercourse is natural or human-made, and the reference to "ditch" was based on more recent aerial photographs (a 1999 aerial photograph provided by the Appellants, and the 2004 aerial photograph), it is not helpful to my decision on this issue. When you compare the 1999 and 2004 aerial photographs with previous ones, it is apparent that the stream had been modified by humans at various locations and, in particular, at least two changes to the stream on the Property: one change occurred sometime prior to a 1998 aerial photograph; the other sometime prior to the 2004 photograph. Given that changes had been made to the channel on the Property long before the Appellants' moved there in 2016, it is not surprising that the Appellants, Madrone, some City employees, and others, thought the channel was human-made. However, because their observations of the Property are limited in time and scope, they do not help me to determine whether the watercourse through the Property is "natural"; i.e., whether it was caused/produced by natural actions.

[64] In this same vein, I note that Mr. Daigneault's account of a conversation with the City employee regarding a "typo" on the City map is not determinative of this issue. According to Mr. Daigneault, that City employee was on the Property to deal with grass and sediment in the watercourse on behalf of the City; not to assess the nature and characteristics of the watercourse for the purposes of determining whether it was a "stream" as defined in the WSA. The City employee's opinion has not been directly provided and is based on uncertain information. His credentials and analysis are unclear. I give that evidence negligible weight.

[65] Despite the modifications to the stream on the Property, I note that two things did not change over the years; where the water entered the Property and the general location of its exit. The stream's entry onto and exit from the Property are visible in all of the aerial photographs before me. They are also shown on the 1973 subdivision plan, where the watercourse is shown as a dotted line. The very

fact that the watercourse is shown on that plan is noteworthy, as it must have been important enough to warrant its inclusion on the plan. I find that the dotted line showing the watercourse on the Property reflects its path prior to construction and development. The watercourse is shown entering the Property from the southeast corner, heading north and then curving towards the west and exiting in the the northwest corner. From there, it is shown going through the lot to the west of the Property, exiting that property's northern boundary and emerging again in the northern corner of the next lot (lot 1 on the plan). This path is consistent with other maps and aerial photographs that show the watercourse heading from lot 1 in a southwesterly direction outside of the subdivision into Howes Creek, which flows in a southerly direction towards the US border.

[66] The Appellants argue, however, that the north end of the Property is lower in elevation than Howes Creek so it cannot be connected. As water cannot flow uphill the water on the Property cannot be a tributary to Howes Creek. Mr. Butt states at page 3 of the Madrone report that a contour map suggests that there is a small rise between the north side where the ditch exits the Property and the point where the watercourse enters Howes Creek, near the northwest corner of 28419 Ranch Avenue. Mr. Butts states that the topography supports the Appellants' observation that flow is stagnant in the winter when the ditch is full. The Appellants also point out that the definition of stream does not include the word "tributary".

[67] Although the definition of "stream" does not include the word "tributary", it does not need to. The definition of stream uses general terms such as "a natural watercourse", "a natural body of water", and a "natural source of water supply". Provided the watercourse fits within one or more of these descriptions, it is a "stream" for the purposes of the WSA, regardless of whether it is the main channel or a tributary. If the definition of stream did not capture tributaries, a number of the WSA's purposes would be defeated, including the ability to issue water licences on a tributary and the ability to issue orders to protect the resource (see also the purposes listed in the Board's decision in *Vincent Smoluk v. Assistant Water Manager*, (Decision No. 2919-WSA-001(a), May 20, 2020)). An interpretation that excludes tributaries would also be inconsistent with section 8 of the *Interpretation Act*, R.S.B.C. 1996, c. 238, which requires that I read the WSA in a liberal and remedial manner.

[68] The Appellants argue that any ecologically-functional water connection to Howe Creek is based on historical land forms that no longer exist because of urban development. They maintain that management of water drainage in this area has not kept up to the development of roads and land, and it needs to be updated to match existing conditions, emphasizing that the only purpose for this watercourse on the Property now is to flood the Property. Although the Appellants' submit that the watercourse on the Property is not connected to Howes Creek, and the Madrone report provides some support for this, this is not determinative of whether the watercourse is a stream under the WSA. The question is whether the watercourse is "natural"—did it exist before all of these changes? If so, it is a stream under the WSA.

[69] I agree with the Water Manager and the City that the historical aerial photographs support a finding that the watercourse is natural. These aerial

photographs also support a finding that the watercourse on the Property was connected to Howes Creek. There is evidence of a channel connected with Howes Creek. I also agree with the following summary by Water Manager of the aerial photographs:

- water has been carried through the watercourse in a discernable and visible channel from a defined wetland area for parts of the calendar year;
- there is a visible and permanent “stream channel” on the landscape, including the Property; and
- over the years, there has been increased channelization and alteration of the watercourse in some areas on or near the Property.

[70] There is insufficient topographical and hydrological evidence for me to make a conclusive finding on whether the stream on the Property is *currently* connected to Howes Creek; however, I do not need to make a decision on this point in order to find that the watercourse on the Property is part of a natural watercourse that has been modified.

[71] In addition to the photographic evidence, my finding that the watercourse is “natural” is supported by some of the Appellants’ evidence regarding the topography. Mr. Butt notes in the Madrone report that the Property has a “topographical depression that originally extended through the eastern part” of the Property and the neighbouring lot to the east. It extended south across Ranch Avenue into the fields of the neighbour to the south (the Kangs). He describes this as a low-lying wet area. As water tends to flow into, or collect, in low-lying areas, a natural stream on the Property is consistent with this evidence. This is also consistent with Dario Rossi’s statement that the ditch (watercourse) on the Property is set at the lowest level, and that the water is directed to their ditch from roughly a five square kilometer radius.

[72] For the purposes of deciding this issue, I find that the evidence is sufficient to establish that, on a balance of probabilities, the portion of the watercourse on the Property is a “natural watercourse” and, therefore, a “stream” under the WSA. The fact that the channel has been modified does not change my finding that it is, in law, a “stream” under the WSA. That this stream may not drain into Howes Creek is irrelevant to this definition. The Appellant’s videos, while providing a helpful to my understanding of the “lay of the land” (placement of the sandbags in the watercourse and the area to the south of the Kangs’ property where the blueberry fields are located), do not change my findings on this issue.

[73] Finally, I note that the Appellants identified their spokesperson, Mr. Baccanti, as having professional qualifications and a different opinion from the Water Manager on this issue. Mr. Baccanti’s professional experience and qualifications were provided to me and include some experience with stream classification. However, Mr. Baccanti was not qualified as an expert in the appeal under the Board’s Rules and did not provide sworn, or unsworn, evidence in the appeal on this issue. I do not have any evidence from Mr. Baccanti that would change my findings.

2. Whether the Appellants' sandbags are causing flooding on the Kangs' property.

The Appellants' submissions and evidence

[74] The Appellants submit that flooding of the Kangs' property was occurring long before the Appellants placed the seven sandbags in the watercourse. In support, Dario Rossi describes in his affidavit a conversation he had with Mrs. Kang in the summer of 2019. According to Mr. Rossi, Mrs. Kang told him that the Kangs' property, and the crawlspace of their house, had "always been subject to flooding during the raining seasons", although she acknowledged that their flooding was not as bad as the Appellants'.

[75] Mr. Rossi also states that the Kangs' property has been "historically and recurrently" subjected to severe flooding. Mr. Rossi states that this flooding has been ongoing for over 30 years and occurs concurrently with the flooding of other neighbouring properties. In this regard, he states that the flooding that occurred in October of 2019 was not unusual, although he also notes that heavy rainfall in December 2019 and January 2020 (60 days of continuous rain) made flooding worse.

[76] Roxanne Perry has lived on a Ranch Avenue property next door to the Kangs' for 30 years. In her written, unsworn statement dated January 16, 2020, Ms. Perry corroborates the Appellants' claim that flooding of the area, including her property, has occurred since she moved in 30 years ago.

[77] The Appellants also refer to their March 2018 video. They explain that the purpose of the video was to show that flooding of the Kangs' property, and the Appellants' Property, was occurring at least two years before the sandbags were placed in the watercourse. Ms. Perry states that she is aware of the Appellants' sandbags and, based on her 30 years of experience living along Ranch Avenue, she believes that "the placement of these bags has not made any difference whatsoever to the flooding regime that we have been experiencing in this neighbourhood for decades."

[78] In terms of causes of the flooding on the Kangs' property, the Appellants point to two likely sources: the culvert under Ranch Avenue, and the Kangs' own actions.

[79] Ms. Perry states that the culvert was placed under Ranch Avenue in or about 2000. The Appellants have measured the culvert, as well as the cross section of the ditch downgrade from the culvert. Based on the Government of British Columbia's website regarding "High Water Estimation Method for Stream Culverts", the Appellants submit that the existing culvert is undersized and forms a partial blockage to high flows. They submit, therefore, that the undersized culvert is a factor causing some of the flooding of the Kangs' property, and others, on the south side of Ranch Avenue. They maintain that this contributed to flooding of those properties before placement of the sandbags.

[80] Regarding the Kangs' own actions, Mr. Rossi states that, before the sandbags were placed, the Kangs filled depressions on their property with large amounts of

soil, moved the watercourse and changed the topography a number of times. Rocky Rossi is Dario's son. In Rocky Rossi's affidavit #1 made on March 19, 2020, he confirms that the Kangs' filled the depressions in their property, moved their ditch and changed their topography, and said that the sandbags didn't change anything; the Kangs' property flooded the same as in previous years. He states that their sandbags are not the cause of the water on the Kangs' property, nor can it "flood at higher elevation". Ms. Perry states that the Kangs added significant amounts of soil to their property in 2018/2019 which has "resulted in increased flooding of our land".

[81] The Appellants submit that the videos and Ms. Perry's statement support a finding that the placement of the sandbags have done nothing to change the flooding regime, and that the additional soil placed by Mr. Kang on his property, and various modifications he has made to the drainage over time, have actually concentrated more water ending up in both his house and the Property.

The Water Manager's submissions and evidence

[82] The Water Manager does not specifically assert, in her affidavit or submissions, that the Appellants' sandbags caused, or are causing, flooding on the Kangs' property. Her evidence and submissions relate to general principles regarding blockages in a stream. She submits that the hydrological effect of creating artificial blockages in a stream channel is to potentially cause the transfer of water, energy and risk to other properties, including riparian owners. In her affidavit, the Water Manager explains that the presence of foreign objects in a stream can constrict the natural stream channel, slowing down the movement of water through the stream channel and restricting the flow through the area where the foreign objects are placed, causing water to potentially back up and flood areas. Blockages within a channel have the potential to cause the transfer of water and increase the risks of flooding to other properties, including riparian properties in proximity to streams with blockages.

[83] Mr. Stooshnoff states in his affidavit that he attended the Property on October 22, 2019. He observed the Appellants' sandbags downstream from the culvert. He observed that the flow of water was being restricted near to the culvert, onto the neighbouring property to the south (across Ranch Avenue) and along the southeast and southwest roadside ditch. He provided photographs of these areas. He also observed that the sandbags did not prevent all flow downstream. He observed that water was "flowing over the sandbags and continued downstream" (affidavit, paragraph 12(e)).

The City's submissions and evidence

[84] The City notes that the land at Ranch Avenue is fairly flat (a very low gradient), so flows are easily impacted by beaver dams, vegetation blockages and sedimentation.

[85] Based on its observations before and after the placement of the sandbags in the watercourse on the Property, the City believes that the Appellants' actions are causing flooding of the Kangs' property. It bases this belief on the following:

Observations prior to placement of the sandbags

- In January of 2019, before the Appellants placed the sandbags in the stream, the City hand-cleaned the channel from the Property boundary downstream to the confluence with the Howes Creek main channel.
- On September 10, 2019, City staff met with one of the Appellants and asked to remove sediment and grass from the channel to assist in flow conveyance. The Appellant refused to allow the work to proceed on the Property.
- The City, with permission from downstream landowners, removed accumulated grass and sediments and lowered the invert elevations of the channel downstream of the Property. The works were done with permission from the Province. These works were intended to improve flow conveyance and extend approximately 950 metres downstream of the Appellants' west property line. Neighbours of the Appellants have stated that the stream has not flowed that well in years.

Observations after placement of the sandbags

- In October 2019, after the instream works and prior to a large precipitation event, the Appellant placed the sandbags across the channel of the watercourse on the Property.
- Due to the flow restriction from the sandbags, the City states that it is difficult to tell if their work to alleviate flooding on the Property were successful; however, based on the works undertaken by the City to improve flow conveyance, the City expects that, in the absence of the sandbags, the localized upstream flooding would be ameliorated.
- Since the sandbags were placed, the City has received calls and complaints regarding upstream flooding and private property damage.

The Kangs' submissions and evidence

[86] The Kangs have lived at their property since April 2016. Over the years, they have witnessed the watercourse filling up and overflowing towards the southwest area of their property, and along the length of the watercourse.

[87] To resolve the overflow and their uneven field, the Kangs brought in soil to raise the field and level it. They have been working with the City to obtain the required permits. This has decreased the amount of pooled water along the watercourse but, they submit, did not impact the flow northward through the culvert.

[88] The Kangs state that when the Appellants placed the sandbags in the watercourse on the Property, their problems increased. Water that would normally pass through the culvert started to pool onto their property along the whole length

of the watercourse. There was also standing water to the top of the ditch running in front of their neighbour's lot to the east of their property, and onto Ranch Avenue itself. The Kangs state that they have never witnessed this amount of water before. Afterwards, they observed the foundation of their house start to sink and crack, and water seeped into their crawlspace. They state that this is the first time it has happened to them.

[89] The Kangs state that they have also observed more standing water in the southwest area and their neighbour's back property. In prior years, they state that the main source of flooding occurred as a result of heavy rainfall, which would diminish after one rain-free day. Since the sandbags were placed, they say the water remains for about a week until it gradually seeps away. During this time, the water slowly enters their crawlspace.

[90] With the sandbags in the watercourse, the Kangs say that the water has been backing up onto their whole property. Other neighbours are placing their own sandbags to prevent further flooding, which is causing the Kangs residence to flood. They are considering doing the same. The Kangs state that they are concerned that all of these individual actions will have a "domino effect" and would like another solution for all of the impacted Ranch Avenue property owners.

[91] In response to the Appellants' March 2018 video, the Kangs explain that the video was taken before they had leveled the soil on their property. Once they spread the soil, there was a significant change in the drainage, as the property no longer retained the same amount of water after a rainfall than it did previously. However, the water still flowed north as it did before they placed the soil on the property. Therefore, "At no point during this stage did we block or decrease the water flow north of our property, hence cause an accumulation of water south of our property."

[92] The Kangs submitted photographs of the Appellants' sandbags and the flooding in and around the Kangs' property on the following dates: January 31 – February 1, 2020, February 22, 2020, and March 13, 2020.

The Panel's findings

[93] As a starting point, it is clear to me that the Kangs' property, like the Property, is subject to localized flooding. The Madrone report shows both properties are within a "depression" where water will collect and remain. Therefore, if the question is whether the Appellants' actions are the only—or sole—cause of flooding on the Kangs' property, based on the evidence, my answer is "no". However, if the question is whether the Appellants' actions contribute to flooding on the Kangs' property, my answer is "possibly".

[94] An undersized culvert can result in water backing up, as the Appellants point out. For the same reason, and possibly compounding such a problem, sandbags placed on the north side of the culvert to slow the flow headed north could result in water backing up on the south side of the culvert. Having said that, the extent to which such a "backing up" of water could or would impact the Kangs' property is unclear from the evidence before me. There is a roadside ditch that runs in front of

the Kangs' property which may distribute the flow elsewhere, thus moderating or eliminate the impact further up the stream on their property.

[95] From my review of Mr. Stooshnoff's photographs of the Kangs' property taken on March 22, 2019 and the Appellants' video taken in March 2018 (over 1.5 years earlier), the Kangs' property was flooded in a similar location. To make a determination on the impact of the sandbags on the Kangs' property, assuming without finding there is one, I would need more compelling evidence, and likely expert evidence. Mr. Stooshnoff's observations on October 22nd are insufficient to make this finding. He also noted—and the photographs show—a good flow of water over the sandbags northward down the stream. In addition, it is unclear how much the culvert size, the addition of soil on the Kangs' property, and the placement of sandbags on neighbouring properties (as described by the Kangs), is contributing to the flooding on the Kangs' property. There may well be a "domino effect" occurring.

[96] Therefore, while the Appellants' sandbags *may* be contributing to flooding of the Kangs' property, the impacts of these other features/activities need to be investigated and assessed before determining that the Appellants' sandbags caused, or contributed to, the flooding on the Kangs' property.

[97] In conclusion, while I accept the logic of the Water Manager's evidence that the Appellants' placement of sandbags in the stream on the Property could back up the flow onto the Kangs' property, there is simply insufficient evidence before me to make that finding.

CLOSING COMMENTS

[98] I understand that the Appellants have spent considerable time and money trying to address the flooding on the Property and are frustrated at the lack of assistance and coordinated support by various levels of government. My findings do not preclude the Appellants from protecting their Property, but it does mean that they will require approval from the Ministry to make changes in and about the stream. This approval is required to protect the stream, but it is also to protect other nearby property owners from the impacts of unauthorized works and activities on a stream.

[99] All parties have noted that activities within the stream can affect nearby properties, and this is why a coordinated approach to stream management is required. The Appellants point out that others are not treating it as a stream and are not complying with the legislation. This is unfortunate, if true. However, it is an enforcement issue for the Ministry. Further unauthorized works in and about the stream only exacerbate the issue, leading to a "domino effect", as described by the Kangs.

[100] I understand that this is not the answer that the Appellants want. Based on the submissions of the parties, I agree with the Appellants and the Kangs that flooding in the area is a problem that extends beyond their respective properties and likely requires the involvement of the City, the Province, or both. While this is not a matter that I have any authority to direct, I encourage everyone to try to work towards a solution to the larger problem.

DECISION

[101] In making this decision, I considered all of the relevant and admissible evidence and the submissions of the parties, whether or not specifically reiterated in this decision.

[102] As described previously the decision under appeal has been rescinded.

"Darrell LeHouillier"

Darrell LeHouillier
Chair

May 22, 2020