

Review Panel Manager

Grassy Mountain Coal Project Ref #80101

Canadian Environmental Assessment Agency

22Flr,160 Elgin St. Ottawa ON K1A0H3

From : Jim Rennie

<personal information removed>

January 4, 2019

GRASSY MOUNTAIN COAL PROJECT ENVIRONMENTAL ASSESSMENT REF # 80101

The proponent's Environmental Assessment for the Grassy Mountain Coal Project, although voluminous in words and tables, does not adequately assess some important environmental impacts of the project.

My original Statement of Concern, filed January 8, 2016 is attached for reference, and I feel those main environmental concerns are not fully addressed in the proponent's EIA.

Mine pit outline and truncation of tributary streams

The mining proposal to mine out and remove portions of tributaries to Gold Creek will have serious impacts on water flow and water quality with negative impacts on the cutthroat trout population. The remedial proposal to discharge water from a sediment settling pond into Gold Creek does not compensate for the flow of cold groundwater truncated by the mine. This impact is not adequately assessed in the EIA. It is given a brief mention of one sentence on page A58. The Hatfield consultant's report on water quality issues in Volume 4 does not consider that discharge water from settling ponds will not be of the same water quality or temperature as the existing cold groundwater flows into Gold Creek that will be truncated by the mine.

Existing spoil piles and fish kill occurrence July 2015

As noted in my attached original Statement of Concern, there was a significant fish kill on July 17, 2015 in Gold Creek, following spills of waste coal and other materials from an old waste spoil pile on the east flank of Grassy Mountain. **See Table 1 and Figure 1 attached that document the impact of the spills on the fish population in 2 surveyed stretches of Gold Creek. The historical fishery data and impact of the spill was forwarded to regulatory authorities, the proponent, and Alberta Fish and Wildlife. This data should be included in the regulatory decision process and the Registry for public hearing for the project.**

There are a number of these old spoil piles on the steep east flank of Grassy Mountain and all of them are problematic for a re-occurrence of spills and fish kills when the proposed mine operation disturbs them by blasting and encroachment of the ultimate pit area into the old spoil piles. I could find no recognition of the problem, no evaluation or proposed solution to this problem in the EIA.

Furthermore, Figure A.7.2-1 in the proponent's proposal shows an area labelled " Initial East Rock Disposal Area" that magnifies the problem by depositing waste rock on the east flank of Grassy Mountain immediately above Gold Creek. Spills of waste coal fines are likely from this rock disposal area with more fish kills resulting.

Remediation or Offset

With respect to remediation, enhancement or " offset" , I feel it is unacceptable to allow a mining company to contravene the federal protection order protecting cutthroat trout(subsection 58(4) and 58(5) of the Species at Risk Act) , damage both Gold Creek and Blairmore Creek for 25 years , and then attempt to remedy the damage at some future date.

It should be noted that previous enhancement mitigation work done by Alberta Environment in the 1990's on the nearby Crowsnest River and Castle River have all been failures. The main reason for the failure was a lack of long term maintenance. Who is going to do long term maintenance on remediation or "offset' proposed by the proponent long after the proposed mine closes ? Likely nobody.

Conclusion

Please ensure that the attached historical fishery data and impact of the July 17 2015 spill and fish kill are included in the Registry for the regulatory decision process. I feel the proposed Grassy Mountain Coal Project should be denied for environmental reasons.

Yours Sincerely,

<Original signed by>

<personal information removed>

STATEMENT OF CONCERN AND OBJECTION - AMENDED

Application No. 1844520 and 1844522

Riversdale Resources / Benga Mining Ltd. – Grassy Mountain Coal Project

Statement of Concern Originally Filed : January 6, 2016., amended January 8, 2016

Filed by : Jim Rennie, Lethbridge AB

Summary of Concerns

- The Alberta Westslope Cutthroat Trout Recovery Plan specifically lists a portion of Blairmore Creek and one tributary as critical habitat, and all of Gold Creek and its tributaries as critical habitat for endangered cutthroat trout. (i)
- There is a federal protection order protecting cutthroat trout, prohibiting damage to their environment and to the fish . This protection order, subsection 58(4) and 58(5) of the *Species at Risk Act* and the Alberta Population annexed order SOR/2014-241 is applied to provincial lands.
- The proposed Grassy Mountain project **contravenes the protection order** because it proposes to *dig up and remove sections of some Gold Creek tributaries and put sediment storage ponds on others*, resulting in alteration and damage to these tributaries. Alteration to water flow and water quality in Gold Creek would be inevitable, with damage to the fish population.(ii)
- The project contravenes the objectives of the Alberta Westslope Cutthroat Recovery Plan.
- Benga Mining was being investigated by the DFO for their activities on Grassy Mountain that may have contributed to spills of coal waste and other materials into Gold Creek in July 2015.(DFO apparently determined that Benga was not at fault but a pre existing spoil pile on the east flank of Grassy Mountain released a spill of coal waste). There are a number of these old spoil piles posing risk for recurring fish kills if they are disturbed . **A significant fish kill of trout in Gold Creek resulted from the spills in July 17, 2015. Supporting documents attached** .(iii).

} Updated

In consideration of the above factors, the Riversdale / Benga Mining applications 1844520 and 1844522 should be denied.

APPENDIX

(i). The Alberta Westslope Cutthroat Trout Recovery Plan specifically lists Gold Creek and its tributaries as critical habitat for cutthroat trout. In Benga Mining's application for approval, the Aquatic Resources consultant lists only the Gold Creek mainstem and small portions of the tributaries as critical habitat. This is an obvious attempt at trying to change the listed classification and circumvent the Protection Order. Any alteration of the tributaries will affect the critical habitat for cutthroat trout.

(ii) The Application for Approval proposes to *mine out and remove portions of tributaries* to Gold Creek and Blairmore Creek *and put sediment ponds on some tributaries*, as shown in the Application, Volume 4, Consultant Report #6- Aquatic Resources. The map in Figure 2 "Local Study Area" of Report #6 shows the extent of the proposed ponds on the tributaries. The outline of "ultimate pit extent" *shows where the upper portions of tributaries to Gold Creek would be mined out and removed.*

(iii) Supporting documents relating to observations of an apparent fish kill in Gold Creek following spills of waste coal and other materials off Grassy Mountain in July, 2015 were filed with Alberta Fish & Wildlife office and Federal Department of Fisheries and Oceans (DFO). Copies of the reports are on the attached pages to this statement of concern, as well as historical fishery notes from Gold Creek dating back to 1993. See attached Table 1 and Figure 1.

Adversely affected person

I fish Gold Creek regularly, and have been fishing there every year for the last 22 years, so I am a regular user of the fishery resource that will be affected by the proposed Grassy Mountain mine.

My family has a cabin in Beavermines, close to Crowsnest Pass. Gold Creek is one of the very few remaining quality cutthroat trout fisheries in Alberta, a fact which has a positive impact on our enjoyment and the recreational value of our property. Any further degradation of recreational opportunities in Crowsnest Pass area would have a negative impact on our enjoyment of the property and its resale value should we

choose to sell it.

In this statement of concern I have attached some important information to include in the decision process. This data was not included by Benga Mining in their application. The historical fishery data I have attached for Gold Creek goes back to 1993 and pre-dates any information available from Alberta Fish & Wildlife as well.

<Original signed by>

Sincerely, _

Location of property : Beavermines, 00401 First Avenue. Lot 2 Block 7 Plan 8410592

Contact info :

Jim Rennie

<personal information removed>

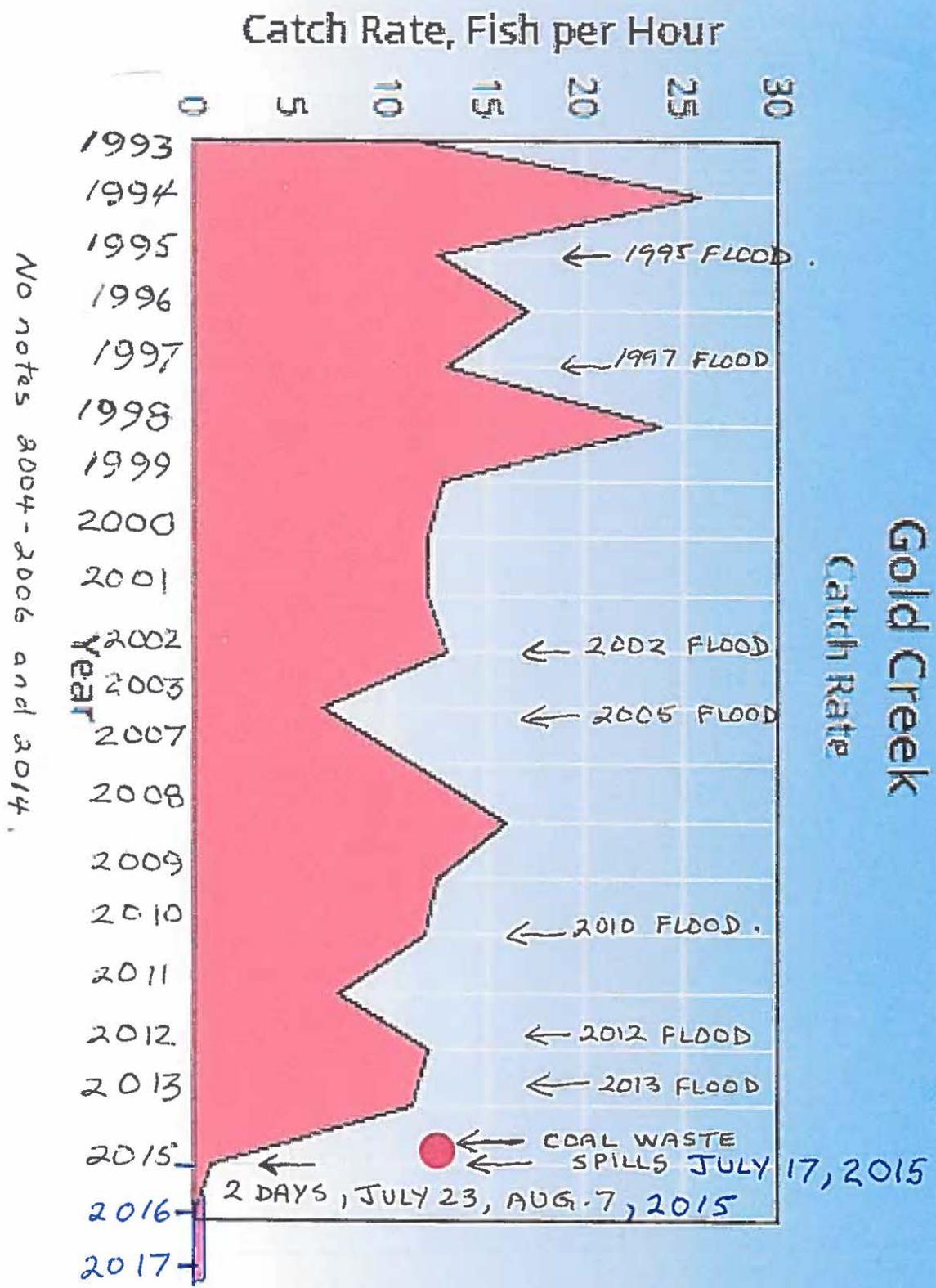


FIGURE 1.

FIGURE 1.

TABLE 1 : GOLD CREEK CATCH NUMBERS AND CATCH RATES

YEAR	DATE	#FISH	FISH / HOUR	OTHER
1993	Aug.1	36	18	Loc.A
1993	Sep.6	53	15.1	Loc.A
1994	Jul.13	53	26	Loc.A
1995	Jul.29	34	11.3	Loc.A After the flood
1995	Aug.30	21	14	Loc.A After the flood
1996	Aug.28	43	17.2	Loc.A
1997	Aug.13	13	13	1 Hr. Above the falls
1998	Aug.14	43	28.6	Loc.A
1998	Aug.22	71	20.2	Loc.A
1999	Aug.25	29	12.9	Loc.A
2000	Aug.10	48	12	Loc.B
2001	Fished Gold Creek, but no notes taken			
2002	Jul.10	28	11.2	Loc.B After the flood
2002	Aug.23	44	14.7	Loc.B After the flood
2003	Jul.23	23	6.6	Loc.B
2004 – 2006	Fished Gold Creek, no notes			
2007	Jul.23	45	11.3	Loc.A and B. Good numbers
	after the 2005 flood			
2008	Jul.24	40	16	Loc.B
2009	Jul.28	31	12.4	Loc.B

	DATE	# FISH	FISH/HOUR	OTHER.
2009	Oct.6	19	12.6	Loc.B
TABLE 1 (cont'd)				
YEAR	Date	#FISH	FISH /HR	OTHER
2010	Jul.9	15	10.0	Loc.B After the flood
2010	Jul.16	32	12.8	Loc.B
2010	Jul.26	41	23.4	Loc.B
2010	Aug.19	13	6.5	Loc.B
2010	Sep.28	16	8.0	Loc.B
2010	Oct.14	30	10.9	Loc.B
2011	Jul.7	High water after local rain, poor water conditions after flood		
2011	Aug.3	17	8.0	Loc.B bigger fish gone
2011	Aug.9	24	10.6	Loc.A, bigger fish gone
2011	Aug.30	8	4	Loc.B, poachers had removed some fish and cut down overhanging cover.
2012	Jul.23	28	14.0	Loc.A After the flood
2012	Aug.21	28	14.0	Loc.A
2012	Sep.26	18	8.2	Loc.A
2013	Aug.14	28	11.2	Loc.B After the big flood
2014	July	Fished Gold Creek, caught many fish, no notes. all cutthroats.		
2015	* July 17	: Spill of waste coal and other materials into Gold Creek. The creek water was black all the way downstream past highway 3 bridge.		

	DATE	#FISH	FISH/HOUR	OTHER.
2015	Jul.23	1	0.5	Loc.A. Searched for visible fish, found only one other
2015	Aug.7	1	1	Loc.B. searched for visible fish, found only 2 others.
2016	Sept.29	2	1	Loc.A. searched for visible fish, found none.
2017	July 13	2	0.5	Loc.A. searched for visible fish, found none.

Loc.A co-ordinates: Downstream : 49.626443 deg and -114.386232. Upstream 49.63038deg and -114.386232 deg

Loc.B co-ordinates : 200m upstream and downstream from : 49.619551deg and -114.385081

JULY 23, 2015

Hi, Matthew : As discussed on the phone, here are my observations from yesterday on Gold Creek.

Location :Downstream point 49.626443 deg and -114.386232 to upstream point at 49.63038 deg and -114.386232.

July 23,2015, 12.30 PM to 2.30 PM. Water conditions low and clear 9 deg C, sunny, air temp 20 deg C. Fish would be easily visible in these conditions.

I caught one brook trout @ 10 cm. and observed one cutthroat trout @ approx. 20cm. No other fish seen despite excellent visibility conditions.

The absence of trout in this stretch of Gold Creek is alarming. I have fished this location at least 2 or 3 times each summer for the last 25 years and it always has numerous visible cutthroat trout, typically 4 to 6 fish per pool, and a total of 100 visible trout in this section of creek. To see no fish is alarming.

I did notice that the access road on the East side of Gold Creek has been recently upgraded to a standard that would support heavy truck traffic. Also, some green spray erosion control stuff has been sprayed onto the road shoulder in a few places . What is going on ?.

I hope this is helpful, and please let me know if there is anything else I can do.....Jim Rennie.

- SURVEY done after the July 17 coal waste spill but before I knew about the spill.
- Loc. A in table 1.
- Sent to Matthew Coombs, Alberta Fish & Wildlife

AUGUST 7, 2015

Hi, Matthew : I did another visual survey on Gold Creek after learning about the spill of waste coal into the creek. This stretch of creek is downstream from the first survey on July 23, and is separated from that stretch by a small waterfall. I specifically looked for dead fish and survivors.

Date : August 7, 2015. Location Gold Creek, approx. 49.619551 deg and - 114.385081. Two observers, one in the water and one up on the bank. 11AM to 12 noon. Water was very low and clear, temperature 7 deg C. Sunny, air temp 19 deg C. Excellent visibility, any fish present would be visible. We found no dead fish. We observed a total of 3 cutthroat trout, a fraction of the number of fish that would normally be found in this stretch of creek. I caught and released one of these fish, a 25 cm cutthroat trout in apparently good condition. The other 2 trout seen were approximately the same size.

Invertebrates : I turned over about 25 rocks from prime riffle locations. Approx. 1/2 of the rocks had reasonable numbers of cased caddis larvae on them. 2 rocks had a few stonefly nymphs and only one had tiny baetis or callibaetis mayfly nymphs. I have no previous baseline numbers to compare this with.

Sediment : In one location there was some fairly recent sediment on the stream rocks in 1 foot of calm water that looks like dark brown to black silt, but it is sticky and gummy. I took a small sample of this stuff, about 2 cc. I will contact a lab to see if there is anything we can do with this to analyze for toxins. If you have any ideas, please let me know.

The lack of trout is alarming, but there are a few survivors, at least in this particular location.....Cheers, Jim Rennie.

- Loc. B in Table 1.

- Sent to Matthew Coombs, Alberta Fish & Wildlife.