

Victor and Barbara Koch  
<personal information removed>

January 6, 2019

Review Panel Manager  
Grassy Mountain Coal Project  
160 Elgin Street, 22nd Floor  
Ottawa ON K1A 0H3

Dear Panel Manager:

RE: Reference No. 80101

Regarding the above Coal Project we have the following concerns and questions:

From Section C - Project Description

C.2.11.6 Train Loadout and C.2.12 Minimizing Noise and Visual Impacts

We quote Riversdale's response (dated February 16, 2018) to one of our Statements of Concern:

*... a noise barrier will also be established in the form of trees, between the train load out and the highway ...*

In a follow up letter to Riversdale, we asked how many trees would be planted, how wide the "noise barrier" would be and what plan and funds are in place to maintain the barrier.

Riversdale's response to us in a letter dated, May 3, 2018, states:

*The tree screen is currently in the planning stage. A phased approach will be implemented in conjunction with the construction of the load out. The design of the load out and the visual/noise screen is in the Advanced engineering stage with the Project engineering team.*

Section C.2.11.6 does not include any description or details of a visual/noise screen or any data on how effective a tree screen would be as a "visual/noise screen".

From the Environmental Impact Assessment Section A

#### A.11.11 Socio-Economics

*...support local municipalities in discussions with the province to acquire additional funding for services and infrastructure...*

Has this additional funding been acquired to upgrade the Highway 3 mine access and load out site? We do not believe Alberta taxpayers should have to fund a project that is in Canada to benefit a foreign Company and shareholders.

#### A.12.1 Conservation and Reclamation Summary

*The conservation and reclamation planning focuses on the 27 year mining and reclamation plan...*

We question that Riversdale plans to own this mine for a 27 year term, given these two additional developments:

From the Riversdale website, a newsroom announcement dated August 29, 2018 states:

*...completed a share placement to Hancock Corporation Pty Ltd, ... Hancock will become a 19.99% shareholder in Riversdale...*

From the Crowsnest Pass Herald, December 12, 2018, from the article Riversdale Update:

*...Riversdale is in the process of conducting a quality drilling program... to ship overseas to prospective clients to test.*

We have concerns that this mine will simply be abandoned.

From the Environmental Impact Assessment Summary

#### E.9.3.8 Migratory Birds

In the Supplemental Information Request Addendum #7 (May 2018)  
under Species at Risk Summary

#### Wildlife Species

*...incidental flyovers of birds (e.g. golden eagles) are not included, Unless accompanied by a sign of habitat usage...*

Despite Crowsnest Pass being a recorded flyway for Golden Eagles and other raptors (see the attached link: <http://eaglewatch.ca/the-eagles-journey/golden-eagle-flyway/>), this Summary did not mention raptors and the effects the project would have on migration patterns.

Yours truly,

<Original signed by>

Victor and Barbara Koch

May 3, 2018

Victor and Barbara Koch  
<personal information removed>

Re: Statement of Concern #30112  
Coal Mining Application for Proposed Grassy Mountain Coal Project  
Application No. 1844520 & 1902073 (formerly 1844522)  
Location: TWP 8&9, RNG 3&4, W5M

Dear Victor and Barbara Koch,

We received your follow-up questions dated March 12, 2018 in regard to our response to your Statement of Concern No. 30112.

Please find the answers to your questions below. We hope that this response covers the additional questions you have raised but as we've expressed, we welcome the opportunity to meet with you to discuss further.

Sincerely,

<Original signed by>

Gary Houston  
VP, External Affairs

### Environment – Water and Fish

*"We disagree with the phrase, "clean coal stockpile". I quote from the Wikipedia article, "Coal pollution mitigation" – clean coal, is a series of systems and technologies that seek to mitigate the pollution and other environmental effects normally associated with the burning (though not mining or processing) of coal."*

To clarify, Riversdale is proposing a metallurgical (used to make steel) coal mine which significantly differs from thermal (used for energy) coal mine. Clean coal is the industry term used to describe the coal product from the mine after it has been washed to remove any soil or rock.

*Could you give us more details of your system for actually directing water to the proper holding ponds? Will this system be in place before any further mine construction begins? How often will the water from the "management ponds" be tested?*

Water will be directed throughout the mine site through natural and engineered channels. A system of pumps and piping will be developed to direct water from containment ponds to other locations within the mine site. More information can be found in Volume 1, Section C5 of the Environmental Impact Assessment (EIA). Water testing will follow regulatory requirements set by both the Alberta Energy Regulator (AER) and the Canadian Environmental Assessment Agency (CEAA) and depending on what water parameters are being measured.

*Can you guarantee that there will be no cross-contamination by water runoff into the fourth sedimentation pond? There will be roads, ditches, traffic (and related leaks/spills), air-borne dust and chemicals all contributing to the mix that flows into that pond. Will the water from the sedimentation pond be tested before any actual mining construction begins as this would act as a benchmark for water quality? Why won't this pond water be tested before it's released?*

The source of the water directed to the sedimentation ponds will be from surface runoff and groundwater interception from the pit and will not be exposed to selenium enrichment. This water may contain suspended solids that will require removal prior to release to the environment. All roads and water way crossings will be subject to Alberta Water Act and watercourse crossing regulations. Prior to any release to the environment, *all* water must be treated and tested to ensure water quality guidelines and standards are met.

*How can releasing the "treated" water "downstream" from West Cutthroat Trout habitat area not affect the fish? Is there a guarantee that the fish are going to stay in their "area"? What's stopping the fish from using the whole creek*

There are a set of waterfalls on the Blairmore Creek adjacent to the mine site. These waterfalls create a physical barrier preventing fish migration upstream or downstream. It is this barrier that allows the westslope cutthroat trout (WSCT) to have a near pure (95-99%) population on the upstream side.

***Have your proposed testing and treatment methods for contamination been proven effective? There are no details given about your methods for treating the contaminated water. What facility/system will be in place?***

The removal of selenium from water, because of exposure of waste rock, can be achieved by circulating the process affected water through an anoxic (free of oxygen) environment. This removal process is well understood, and the principle/process of most active selenium water treatment plants. The proposal is to create the anoxic environment for selenium removal in a section of the mine after it has been backfilled called a saturated backfill zones. The saturated backfill zone will be engineered to be able to control oxygen levels and rate of selenium removal to meet the regulatory water quality requirements.

***How are you going to develop a "fish monitoring system"? Who is actually going to do it? The fish in question are already stressed to the brink of extinction.***

The westslope cutthroat trout (WSCT) are endangered because other trout species, like rainbow trout, have been introduced into the environment and are effectively displacing the WSCT. In the case of Gold Creek and Blairmore Creek, there are physical barriers in the streams that prevent the invading species to migrate upstream. A detailed Fish Habitat Offsetting Plan is currently under development building upon the Preliminary Habitat Offsetting Plan (CR#6, Addendum, Appendix A4) and incorporating the necessary information requested by provincial and federal government departments. Essentially, this plan will improve conditions upstream of the barriers so that the WSCT can spawn and over-winter more efficiently. The Fish Habitat Offsetting Plan, and the associated monitoring plan will be subject to approval by the Department of Fisheries and Oceans.

### Quality of Life

***Noise: Is the 2dBA level an average number and continuous, or the highest noise level? Will the train leaving Blairmore be during the day or night? Train noise is the only "noise" mentioned in your response. Operational noise (truck and equipment engines, back-up beepers, conveyor belts, blasting) and light pollution aren't even mentioned. What will be done to reduce the impact of the other industry-related noises?***

### **Loadout/train noise**

The noise modelling results presented in the EIA indicate that the Project noise levels during the night-time and day-time, with the addition of the Ambient Sound Levels (ASLs), will be below the Permissible Sound Levels (PSLs) for all residential and theoretical 1,500 m receptors. For most of the receptors, the predicted day time noise increase is less than 2.0 dBA which is considered a minimal increase. The maximum increase was predicted to be +2.5 dBA. A final schedule for coal loading will be determined in conjunction with the rail provider.

Mitigations for other sources of noise are presented in the Noise mitigation section, and mitigations for light pollution are provided in the Air Quality assessment. See operational noise mitigations below:

## Operational

**Rock Disposal Area Sequencing:** At approximately Mining Year 02, there will be increased equipment operating in the south disposal area (CR #2, Figure 1). As the Mining years progress, the elevation of the south disposal area will increase and the activity will move closer to the two residential receptor locations to the east of the Mine Permit Boundary. For these two receptors, the dominant Project noise sources will be the haul trucks accessing the south disposal area as well as the dozers operating on the disposal area. To achieve noise levels below the PSLs for these two residential receptor locations, there are two specific operational noise mitigation measures that Benga will undertake. These include:

- route the haul trucks (conveying waste rock and coal) along the western slope of the south disposal area such that the south disposal area itself provides noise shielding between the operating equipment and the residential receptors to the east; and
- install and maintain a 15 m tall earthen berm along the eastern edge of the south disposal area. The earthen berm will be constructed and maintained during the day-time (when required) and the 15 m earthen berm will increase in overall elevation as the height of the south disposal area increases.

**Blasting Noise and Vibration:** A portion of the mining operations will involve use of explosive charges to loosen the raw materials. There are no specific noise or vibration level limits for blasting in the AER Directive 038, nor are there any specific other provincial or federal criteria. Despite the lack of specific criteria or guidelines, the following blasting procedures will be adhered to minimize potential noise and vibration impacts associated with blasting:

- blasting to occur only on weekdays during typical day-time hours;
- minimal blasting during cloud cover; and
- blasting to be limited to smaller more localized blasts, which reduces the number of explosives used at any one time.

**Light Duty Vehicle Back-up Alarms:** Common sources of industrial noise for residents are safety back-up alarms used on industrial equipment. As with the low frequency noise, the relative impact of the back-up alarms is difficult to predict since the orientation of the trucks and surrounding topography, both of which are constantly changing, will have a considerable influence on the noise levels. If, during active operations at the mine, concerns are raised by residents, specific noise mitigation measures can be put in place.

For example, the alarm noise can be replaced during night-time activities with a flashing light, which provides the necessary safety warning while eliminating the noise. During the day-time there are directional back-up alarms available that focus the noise to areas directly behind the vehicle and minimize the omni-directional noise radiation or back-up alarms with varying tones which provide the necessary safety warnings while minimizing the impact on receptors further away.

**Equipment Mechanical Condition Mitigation:** There will be on-site maintenance shops to ensure that equipment is kept in good repair which will ensure that machinery noise is minimized. When new equipment is purchased, it is also important to consider the noise levels of the equipment during the procurement process and to consider manufacturers options which result in lower noise levels.

***How can a loadout be “fully enclosed” when rail cars need to be brought in to be loaded from the mine conveyor? High winds occur frequently in this area, so how will coal dust be contained during the actual loading process?***

The Train Load-Out (TLO) bin feed conveyor (CV-851) will be an enclosed and cladded conveyor to minimise visual impact and minimise noise. The load-out structure will also be enclosed, however, you are correct that the train cars need to enter and exit through “doors”. In order to minimize dust, the TLO system will be a flood loading arrangement which allows coal to flow into the rail car through a chute that will form the correct profile of coal into the railcars below. This system avoids dropping the coal which could create coal dust in the air.

Benga conducted an air modelling assessment specifically for the load out and based on the proposed design. Overall, there is very little change in dust (less than 1.5%) in the communities from current conditions due to the load out facilities.

***How many trees will be planted? How wide will this “noise barrier” be and how tall will these trees be? What plan (and funds) are in place to maintain this barrier (replant the dead ones)?***

The tree screen is currently in the planning stage. A phased approach will be implemented in conjunction with the construction of the Load Out.

***How high is this loadout going to be? This “noise hedge” has to be taller than the load out area in order to be effective.***

The design of the load-out and the visual/noise screen is in the advanced engineering stage with the Project engineering team.

### Recreational Activities

***“Impact not significant”***

***We disagree with this statement for the following reasons:***

- 1. Traffic will increase and there is only one access to the mine site***
- 2. This mining operation will be ongoing 24 hours a day and 7 days a week. There will be noise, lights and traffic day and night.***

### ***Significance***

For the purpose of the EIA, ‘not significant’ means effects are predicted to be within the range of natural variability and below guidelines or threshold levels.

### **Traffic**

Using standardized assumptions, traffic volumes on Highway 3 are expected to increase by a similar magnitude as has been experienced in the recent past. Under these assumptions, the volume of traffic travelling along Highway 3 near the Town of Blairmore will increase to approximately 7,450 average annual daily traffic (AADT) in 2019.

Project-related traffic, as measured at the proposed mine access road to Highway 3 near Blairmore, is expected to average 50 AADT during the construction period, peaking in the range of 80 AADT in early 2018, mostly due to equipment and materials deliveries. This traffic is expected to move east and west along Highway 3 and represents an increase of approximately 1% to current traffic levels. During operations, the average contribution to traffic volumes along Highway 3 both east and west of the Project access road is estimated in the range of 130 AADT. This represents approximately a 2% increase over current traffic levels. This data falls within the range of being *not significant*.

### ***Peace and quiet for the tourists lodging and camping in the area.***

All lodging and registered campsites are located far enough away from the mine site that noise and light pollution are deemed *not significant*.

### ***Will you be setting up a construction camp for the workers building the mine or will these workers contribute to the local economy by renting or buying properties and other essentials (like groceries and gas)?***

As part of the EIA application, Benga has projected there to be a temporary construction camp for some of the workers building the mine infrastructure during the 2-year construction window. Benga is committed to supporting local businesses throughout the life of mine and is intending to promote a long-term operations work force that is based in the community and adds to the local economy. These families will buy or build homes and will eventually also pay taxes to the municipality. This kind of organic growth is looked on positively in most municipalities and is an indicator of a healthy and sustainable local economy.

### ***How does Riversdale plan to prove that their company will bring this Project to the production phase?***

As per our previous response dated February 16, 2018, Benga completed an Engineering Feasibility Study on the Project in October 2015. The Project has been designed to ensure it is economically sustainable such that employees and other stakeholders, including the local community and nearby Aboriginal Groups, can be confident it will continue to operate throughout its 20+ year life and hence make key decisions accordingly. Members of our Riversdale team have relocated from locations throughout Canada and internationally to work on this Project.

### ***What guarantee will there be that you won't sell this mine as soon as or before it's operational?***

It is not Riversdale's intention to sell The Grassy Mountain Coal Project (the Project) but this is not a guarantee. However, the Project is provincially regulated by the Alberta Energy Regulator (AER) under the Environmental Protection and Enhancement Act (EPEA) and the Coal

Conservation Act (CCA). In addition, the Project is federally regulated by the Canadian Environmental Assessment Agency (CEAA) under the Canadian Environmental Assessment Act.

In the event there is a change in ownership of the Project, the new owner will become the Mine Permit holder and will be legally bound to uphold all provincial and federal regulatory requirements for the Project, including all environmental and reclamation-related commitments that were made in the application. The new Mine Permit holder would also have to ensure compliance with the terms and conditions of the Operating Approval and Project environmental standards once the Project has been approved by AER and CEAA.

***What dollar amount will this (financial security) be and who holds it in trust? When is this "security" paid? Before construction of the mine?***

The Mine Security Financial Programs (MSFS) is administered by the Alberta Energy Regulator. The AER is also responsible for setting the amount and type of financial security that must be put in place by the mine owner. Benga will follow the MSFP process.

As the timing of the mine approval is uncertain, Benga proposes to submit the required MFSP report a minimum of 90 days prior to the expected permit approval. At that time, the calculation of the asset value associated with the Project and the offsetting environmental liability will be possible. The amount of security and the manner of calculating the liability to asset relationship will be assessed by the AER based on the MFSP report and will be reviewed on an annual basis.

Victor and Barbara Koch  
Box 614  
Blairmore, AB  
T0K 0E0

March 12, 2018

Riversdale Resources  
Box 660  
Blairmore, AB  
T0K 0E0

Attn: Mr. Gary Houston

Dear Mr. Houston:

Re: Letter dated February 16, 2018  
Statement of Concern No. 30112

We have received your letter and attached response to our Statement of Concern and have these follow-up questions:

Environment - Water and Fish

We disagree with the phrase, "clean coal stockpile". I quote from the Wikipedia article, "Coal pollution Mitigation" — "clean coal, is a series of systems and technologies that seek to mitigate the pollution and other environmental effects normally associated with the burning (though not mining or processing) of coal,".

Could you give us more details of your system for actually directing water to the proper holding ponds? Will this system be in place before any further mine construction begins? How often will the water from the "management ponds" be tested?

Can you guarantee that there will be no cross-contamination by water runoff into the fourth sedimentation pond? There will be roads, ditches, traffic (and related leaks/spills), air-borne dust and chemicals all contributing to the mix that flows into that pond. Will the water from the sedimentation pond be tested before any actual mining construction begins as this would act as a benchmark for water quality. Why won't this pond water be tested before it's released?

I quote from a Letter to the Editor written by Andrea Johancsik, dated December 21, 2016, in the Crowsnest Pass Herald, "Teck's coal mines in BC have increased selenium concentrations in the Elk River Basin up to 10 times higher than naturally occurring levels. Selenium is toxic to fish at high concentrations, causing reproductive problems and population collapse."

How can releasing the "treated" water "downstream" from West Cutthroat Trout habitat area not affect the fish? Is there a guarantee that the fish are going to stay in their "area"? What's stopping the fish from using the whole creek?

I quote from the article "Conservationists call for halt to mining" from the February 16, 2017, edition of the Free Press: "The West Line Creek Active Water Treatment Facility was temporarily shut down... the \$120 million facility had been releasing harmful substances..."

Have your proposed testing and treatment methods for contamination been proven effective?

There are no details given about your methods for treating the contaminated water. What facility/system will be in place?

I quote from the article, "Riversdale comments on threatened trout species issue" of December 9, 2015, Crowsnest Pass Herald: "Scientists believe the fish now inhabit about five per cent of their original distribution."

How are you going to develop a "fish monitoring system"? Who is actually going to do it? The fish in question are already stressed to the brink of extinction.

"Habitat Offset Plan": What measures are going to be implemented to create a "net increase of fish population"? According to your letter, there should be a healthy population of West Cutthroat Trout before you open the mine. So what is meant by a "healthy population" and how do you plan to monitor this and who does this?

#### Quality of Life

Noise: Is the 2dBA level an average number and continuous, or the highest noise level? Will the train leaving Blairmore be during the day or night? Train noise is the only "noise" mentioned in your response. Operational noise, (truck and equipment engines, back-up beepers, conveyor belts, blasting) and light pollution aren't even mentioned. What will be done to reduce the impact of the other industry-related noises?

Dust: How can a load out be "fully enclosed" when rail cars need to be brought in to be loaded from the mine conveyor? High winds occur frequently in this area, so how will coal dust be contained during the actual loading process?

From the November 16, 2017, edition of the Free Press, I quote the following from Sparwood Bylaw Enforcement: "We are witnessing more and more trucks coming into Sparwood that have not properly cleaned their vehicles before leaving the mine site and as a result, the community is seeing deposits of coal left behind on our roads, private driveways and parking lots. These deposits impact our Public Works maintenance operations and as they dry out, they are being tracked into our public spaces and become windblown dust that blows into homes and businesses. Coal that is deposited on roads and driveways also ends up entering the aquatic ecosystems through stormwater runoff,".

Tree barrier: How many trees will be planted? How wide will this "noise barrier" be and how tall will these trees be? What plan (and funds) are in place to maintain this barrier (replant the dead ones)?

How high is this load out going to be? This "noise hedge" has to be taller than the load out area in order to be effective.

### Recreational Activities

"Impact not significant"

We disagree with this statement for the following reasons:

1. Traffic will increase and there is only one access to the mine site.

How is this extra traffic flow and resulting noise and vehicle emissions going to be handled, especially during peak tourist weekends?

2. Peace and quiet for the tourists lodging and camping in the area

This mining operation will be ongoing 24 hours a day and 7 days a week. There will be noise, lights and traffic day and night.

3. I quote from "Grassy Mountain Coal Project Socio-Economic Impact Assessment"

#### "7.2.1 The Social Environment

Strain on individuals and families from resource sector work. The regional economy is focused primarily on the mining sector. Work in this sector often involves shift work, long work schedules and overtime, putting strain on both individuals and families. These strains can lead to demands on family and social support services in the region such as family counselling and addiction and substance abuse services."

"supporting local businesses"

Will you be setting up a construction camp for the workers building the mine or will these workers contribute to the local economy by renting or buying properties and other essentials (like groceries and gas)?

I quote from "Grassy Mountain Coal Project Socio-Economic Impact Assessment"

#### "6.4 Benga Mitigations

Benga's plan to house construction workers in a temporary camp has the ancillary effect of reducing the resident population effect of the Project and thus, the anticipated demand for housing. Although operations workers are assumed to migrate to the region and become permanent residents, the temporary camp may be used to house some of the operations workforce until adequate housing in the region is available..."

We do not believe that this practice will help support local businesses.

True Economic Viability

"...committed to bringing the Project into the production phase. The Project has been designed to ensure it is economically sustainable..."

I quote from the article, "Riversdale Resources" in the Feb. 14 edition of The Canadian Business Journal: "... famous for selling its original Mozambique-based operation,..."

I also quote from the same article about the Chickaloon Project in Alaska, "Managing Director Steve Mallyon reveals that the company looked at making its IPO earlier this year, but backed out after realising the difficulty of raising money at the time...However, Riversdale has concluded that the project's development cycle could take 5-7 years."

Based on these past examples, how does Riversdale plan to prove that their company will bring this project to the production phase?

"financial security": What dollar amount will this be and who holds it in trust? When is this "security" paid? Before construction of the mine?

What guarantee will there be that you won't sell this mine as soon as or before it's operational?

There are five visibly expired coal operations (including Green Hill) in the area and NONE OF THE SITES have been cleaned up.

We look forward to receiving your comments regarding our concerns and answers to our questions.

Yours truly,

<Original signed by>

<Original signed by>

Victor and Barbara Koch

## Attachment 1

Benga thanks you for your interest in the Grassy Mountain Coal Project and provides the following response to the concerns presented in your Statement of Concern.

**Concern: "Environmental – Water and Fish"****Response:**

Benga has developed a water management strategy that facilitates both the management and use of water for the Project. The primary intent of the management strategy is to manage the surface water and groundwater flows efficiently and to minimize any impact to water quality and quantity on the environment. In regards to use, water collected on the site as part of a pending *Water Act* Fence-line approval will be used to supply the Project.

Water management is required for all components of the Project from the initial site disturbance through to final reclamation and is a priority consideration throughout the mine planning and development. The water management strategy aims to minimize water diverted from streams, maximize the separation of clean and mine-affected water, and ensure all water is properly treated and of good quality before being returned to the environment. It is important to note that there are no tailings pond(s) required for this mine, and recycled water from the processing plant will be held in the Project's water management pond.

The collection of surface runoff water and the management of pit water are required for the removal of total suspended solids (TSS). The main objective is to control TSS levels to meet wastewater guidelines and objectives. Three sedimentation ponds will be located downstream of the active mining areas during the operating life of the mine to receive and treat dewatering flows for TSS prior to release into Blairmore and Gold Creeks. A fourth sedimentation pond will be located in the vicinity of the processing plant to manage storm water runoff from the plants access roads, the clean coal stockpile, the Mine Infrastructure Area and the run-of-mine pad. Water from the sedimentation ponds is intended to be captured and treated (via settling or flocculant, as necessary) prior to being released. Since the source of the water directed to the sedimentation ponds will be from surface runoff and groundwater interception and will not be exposed to the mining process, it will not require further treatment.

Based on the results of geology testing it is expected that selenium concentrations will increase in water that percolates through the external (to the pit) waste rock dumps. This particular volume of water will be directed to the water management ponds, which have been strategically located to accept water that will be impacted by the external rock disposal areas. These water management ponds will collect water with selenium and nitrate concentrations and pump it to specific zones within the mine pit for treatment. Water exiting these zones will be tested and if suitable, be returned to the environment.

Mine-affected water will not be released into westslope cutthroat trout habitat on Gold Creek or Blairmore Creek. All treated mine-affected water will be released into Blairmore Creek downstream of identified westslope cutthroat trout recovery habitat.

- The train loadout bin will be fully enclosed with an external cladded shed.
- A noise barrier will also be established in the form of trees, between the train load out and the highway.

#### Dust at the Rail Loadout:

Benga conducted an air modelling assessment specifically for the load out. Overall, there is very little change in dust (less than 1.5%) in the communities from current conditions due to the load out facilities.

Fugitive dust emissions will be minimized at the rail load-out by implementing the following:

- rail cars will be loaded within an enclosed structure and any external load-out components will have full cladding on the sides to prevent exposure to wind;
- the movable discharge chute of the coal bin will be located as close as practical to the coal within the rail cars to minimize the drop height of the coal, reducing opportunities for wind to disperse dust during the fall and reducing breakage when the coal lands in the rail car;
- after loading, within the enclosed structure, tackifier (a type of varnish) is sprayed onto the coal surface of the loaded rail cars to prevent wind-blown dusting during transport; and
- there will not be coal storage piles at the loadout facility.

#### Recreational Activities:

Benga considers that economic development, recreation and tourism are compatible and mutually supportive in the community and region.

- Diversification of the local economy beyond one industry, whether tourism or mining, provides stability to the community that supports local infrastructure and investment by the municipality.
- A larger local economy, based on combined effect of tourism and mining, creates more opportunities for the service sector and supports more local businesses like restaurants and hotels. These service businesses in turn make the region a more popular tourist destination.
- CNP is already a desirable community but improving its standing as a tourist destination also helps Benga to attract talented employees to the region which is good business.
- The environmental assessment of the Project included with the regulatory application confirms that project impacts are predicted to be not significant.

Benga is also determined to be a "good neighbor" and is committed to following through on a number of initiatives to support its role as a good corporate citizen in the region.

- Continue supporting local programs and initiatives through both financial and in-kind contributions, where appropriate.
- Communicate its development and operational plans with the appropriate agencies and the community in general.
- Work with the provincial and municipal governments on the implementation of relevant planning initiatives and coordination of emergency response procedures, where appropriate.

#### **Concern: "True Economic Viability"**

#### **Response:**

Benga completed an Engineering Feasibility Study on the Project in October 2015 and is committed to bringing the Project into the production phase. The Project has been designed to ensure it is

Benga fully understands and recognizes the environmental significance of Blairmore and Gold creeks; subsequently all efforts were made to avoid impacts to watercourses, where possible. Key measures include:

- One of the primary methods that Benga has implemented to ensure the protection of fish and fish habitat is through the design of the mine plan itself. Based on the information gathered through the fisheries assessments, Benga designed the mine plan with an objective of minimizing or reducing direct overall impacts to fish and fish habitat. This was achieved by placing as much waste rock within the mined-out areas as possible, as well as locating the waste rock dumps to the north and south of the pit. This configuration allows Benga to minimize the amount of mine-affected water and effectively capture, collect and treat it before releasing it back to the environment.
- Water conservation measures have been incorporated into the design of the mine plan to reduce the total amount of water required for the Project.
- The fish monitoring programs will be developed based on regulatory requirements associated with the provincial and federal westslope cutthroat trout recovery plan/strategy prepared by the Alberta Westslope Cutthroat Trout Recovery Team (2013) and Fisheries and Oceans Canada (DFO) (2014).
- Benga will also offset impacts to fish and fish habitat through the implementation of an Offset Plan. The purpose of the habitat Offset Plan is to offset any potential impacts on fish and fish habitat that are associated with the development of the Project. In consultation with federal and provincial regulators, measures will be selected to offset impacts to westslope cutthroat trout, aimed at creating a net increase in fish production.

**Concern: "Quality of Life"**

Response:

**Noise at the Rail Loadout:**

The noise increase due to the loadout is not expected to be noticeable.

When the rail alignment and loadout are operational, noise level increases are generally less than 2 dBA. Guidance provided by the Alberta Energy Regulator (in Directive 038) suggests keeping noise increases below 5.0 dBA, as any increase in noise levels above 5 dBA are expected to be noticeable. The loadout falls well within this guidance.

Current rail traffic in the area is 7-8 trains per day. The Project proposes to add 1 train per day.

To help mitigate noise at the loadout, the following areas will have additional cladding included in order to contain operating noise:

- The surge bin at the end of the overland conveyor will have cladding on the top of the bin structure and feeder areas at the base.
- The train loadout bin feed conveyor will be fully enclosed with cladding.

economically sustainable such that employees and other stakeholders, including the local community and nearby Aboriginal Groups, can be confident it will continue to operate throughout its 20+ year life and hence make key decisions accordingly.

By law, coal mine companies are responsible for reclaiming land that is disturbed by mining and the operation of related plants (AER website). Standards for reclamation are set by the Government of Alberta and managed through the Alberta Energy Regulator's Mine Financial Security Program (MFSP). As noted in the MFSP, the *Environmental Protection and Enhancement Act (EPEA)* Approval holder is responsible for carrying out suspension, abandonment, remediation and surface reclamation work to the standards established by the province and to maintain care-and-custody of the land until a reclamation certificate has been issued. Benga must submit this financial security to the regulator before any new EPEA approval can be issued. The Alberta Energy Regulator has a process for determining how much financial security needs to be posted by each company and that amount is reviewed and modified periodically.



Barbara Koch

&lt;email address removed&gt;

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**Grassy Mountain Coal Project - Statement of Concern**

1 message

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**Barbara Koch** <email address removed>

Tue, Dec 29, 2015 at 9:23 AM

To: ARCTeam@aer.ca

Attention: Authorizations Review &amp; Coordination Team

Statement of concern

We do not want the Grassy Mountain Coal Project to be approved. We have concerns in the following areas: environmental, how the quality of life for neighbouring communities will be adversely affected and the true economic viability of this project during a lengthy global downturn in the economy.

Environmental:

From the Crowsnest Pass Herald article of December 2, 2015, titled "Council updated on Grassy Mountain mine project",

*Environment Canada has said the project will use one of the community's most important resources: it's water. "There will be a degradation of water quality in both Blairmore and Gold Creeks, which will receive waste rock waters,"*

*Long term water concerns include the release of both sulphate and selenium into watercourses that have valued populations and critical habitat for westslope cutthroat trout. "We will see fish populations of both streams decline and for threatened cutthroat*

*trout probably disappear," said Lorne Fitch, provincial fisheries biologist.*

*Environment Canada said "any predictive water quality modeling may possibly utilize release rates derived for the Elk Valley Mines,"*

*Selenium is being released in levels dangerous to aquatic life in the Elk Valley by huge piles of waste rock produced by coal mining.*

*The Grassy Mountain mine would be based in the same geological formation as Teck Resources' Elk Valley mines.*

*Riversdale has no plans to build a water treatment facility for the Grassy Mountain project. Teck is investing about \$600 million over a five-year period for water diversion and water treatment facilities.*

Last year, Sparwood had to close one of its drinking water wells because selenium levels were above drinking water standards. As a community are we going sacrifice our community's water supply for possible short-term financial gains, long term environmental clean up costs and possible health risks.

From the article "Riverdale comments on threatened trout species issue" in the December 9, 2015, Crowsnest Pass Herald:

*The federal government has declared the creeks near the proposed Grassy Mountain project critical habitat for Alberta's threatened population of westslope cutthroat trout. It is now illegal to damage the streams and surrounding riparian areas where Riversdale Resources is proposing to build a terraced coal mine.*

How can the Grassy Mountain project be considered when:

*According to the Aquatic Resources Baseline and Effects Assessment, prepared by Hatfield Consultants and submitted as part of the environmental impact assessment, the project would negatively affect aquatic habitat in the Gold and Blaimore Creek watersheds.*

Quality of Life:

The proposed load out facility is going to be constructed on the north side of Highway 3 directly across from residences, businesses and the hospital is nearby. I've never known of an operation of this magnitude to not cause dust, noise and traffic problems. Dust alone will adversely affect individuals as far as health risks and devaluation of their properties and also will inhibit or cause a decline in recreational activities. Not only will Blaimore properties value drop, but surrounding communities properties will devalue.

True Economic Viability:

Why is Riversdale developing this mine? Taken from the Globe and Mail:

Here is the link: <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/how-the-collapse-of-coal-is-hitting-home-in-westerncanada/article27731329/>

*Alberta and British Columbia are suffering from the fallout of a severe downturn in the global coal market, brought on by China's rapidly cooling demand.*

The coal that Riversdale is proposing to extract from the Grassy Mountain project will be sent to Asian markets. What market?

From the Wednesday, November 25, 2015 edition of the Crowsnest Pass Herald:

*Teck Resources Ltd. is shedding jobs and cutting costs in response to stubbornly low commodity prices.*

*Canada's coal export market, consisting mostly of steelmaking coal, continues to suffer as Chinese demand weakens and a supply glut persists. The industry has seen prices fall from more than US\$300 per tonne in 2011 to its current price of less than US\$75 per tonne.*

Why is Riversdale developing this mine, when there are mining operations 50 kilometers away that are cutting jobs and suspending further development? In order to run this operation, where are they going to cut costs? Environmentally, safe work practices, infrastructure?

If the AER allows this project to continue, we as taxpayers in this community do not want to be held responsible for another clean up of an abandoned business, devalued property and the possible loss of an endangered species. We feel we're threatened with the possibility of health risks and the loss of quality of fresh water.

This community has opposed smaller franchises, which would cause less impact to the community, so why is this coal mine which would have a greater negative impact being considered?

Our permanent residence is located 4.5 km west of the location of this project.

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