

Submission of Opposition to the SR1 Proposed Project

By Mary Ellen Robinson

The Robinson family has resided on the present property at SW ¼ 3-24-4-W5 since 1888. There are 3 “Robinson” families in the Springbank area, so please be sure this fact is known during these negotiations as each of our situations is very unique. Interestingly, in 1888, our original home ranch (Elbow Park Ranch) was at the bottom of what is now the Glenmore Dam. Our family had to be relocated to one of their then cow camps at that time and moved to where the ranch is now located. The family has farmed and ranched on this property since then. We also own a first-classed equestrian centre here now. Our property is the location of the inlet of the proposed SR1 site. We are immediate neighbors of the Tsuu T’ina First Nation.

I will discuss the issues that mostly affect Landowners and will allow our multiple professionals to present their factual information presentations of why SR1 is not the project of choice for all taxpayers involved.

Concerns

1. Land use, Social and Residential Impacts

I was born and raised in a one room log cabin on this ranch and have raised my children here, who are also actively ranching. I have sacrificed a great deal in my life to keep and preserve my family heritage and have worked very hard to keep this ranch viable for my family. We are devastated of the implications if SR1 should proceed, as it will obliterate our ranch and my children’s future. My children are both University educated but they want to preserve and continue the ranching lifestyle as well. Ranching is generational and we carry this tradition on with great pride.

There is no other group or anyone in this entire discussion, represented here at this table, that is anywhere near as affected as the Landowners, and throughout this entire process Landowners have been given the least consideration.

There are 20 affected Landowners, and I will give a briefing of mostly my case but all Landowners have similar situations of losing everything they have ever worked for, at the expense of a few residents in Calgary. We are losing our homes and livelihoods. The CRCAG group is not losing anything but are dictating our loses. I believe that fact that we are the oldest families in Alberta should have some strength in this decision.

The Landowners originally heard about the inception of this project on the news one evening on Television. We were all devastated. We had not been at all previously consulted or considered in any of the initial planning that Government had been working on for months, and, as a group, since then have had miniscule input. At the very first meeting an ‘expropriation expert’ spoke about taking our homes and livelihoods. This did not lay a foundation of fair open-minded negotiations and input to planning effective

flood mitigation for the Calgary/Springbank/Bragg Creek area. As far as the Open Houses held by the Government, I do not call 'input' going to open houses where there are easels set up with dozens of Government employees telling us 'what they are going to do'. That is not open discussion and consultation. They were 96% closed microphone. Questions we had that the Government had promised they would get back to us with answers on, never happened. We have had one meeting with Mr. McIvor in Bragg Creek which we initiated with Miranda Rosin and the meeting at Springbank Park for all Seasons.

Government should not be obliterating the oldest established heritage families in Alberta. The present Government, during election campaigns, advocated for landowners' rights. The passing of this project will be totally against any of those promises. We do not feel that our land should be sacrificed for a few wealthy in Elbow Park and Roxboro who either bought or chose to build their homes on the flood plane.

2. Business and Financial Impacts

The most important factor is our opposition to SR1 is that it is destroying family homes, heritages, businesses and our personal lives, and it is affecting entire Communities. The last 7 years has been very difficult for the 20 Landowner families as our personal plans for our futures have been highly disrupted, threatened and destroyed. The CRCAG group will not have their businesses and livelihoods taken away. Our business lives have been put on hold since SR1 was mentioned in the press. We are hesitant to make any short term or long-term business plan decisions as we do not know the fate of our businesses which are in someone else's hands and may be taken away from us entirely, unwillingly at anytime. The uncertainty for the last 7 years has been intolerable. The very large psychological and personal stress to each member of the 20 affected families has been highly underestimated, unfair, disrespectful and unbearable. Very little has ever been mentioned in any of the studies about the families that will be affected. I am a nurse and think human life and families are more important than fish and Grizzly Bears. In every study the social aspect of this project on the families has received one small reference at the bottom of the page.

I believe it is the written mission statement and true terms of reference that the responsibility of IACC and NRCB is to make a decision that is in the **BEST PUBLIC INTEREST FOR ALL PEOPLE**, not just a chosen few from Calgary. There are 5 communities here that are being affected: Upper Bragg Creek, Bragg Creek, Tsuu T'ina Redwood and Springbank. SR1 helps ONE community – Calgary. MC1 helps everyone. WHAT IS FAIR?? Why would you want to do a unilateral, single function project that helps one community when MC1 helps all communities for half the price!!!!

The Landowners are losing their homes and their businesses. No other group in question here that is allowed to speak today can say that. There are several thriving business that will be obliterated if SR1 is approved. I never would have believed such injustice would take place as taking the land of 6 generations families for the benefit of a

few urban residences. If this Project is approved, we will no longer be able to ranch as the inlet will take all my ranching infrastructure and we will have to close the equestrian business and be without business, income, or a home. This is the same scenario for several other Landowners. Some Landowners do not wish to risk the failure of this dam, or the very negative change in the landscape which is high.

From an Agricultural standpoint, the loss of 6800 acres of viable fertile, productive, farm and ranchland is devastating. As population increases, the need for arable productive farmland will only increase in the future. Farmland should be preserved at all cost, not destroyed, when there is a perfectly good alternative that will not affect any farmland, and the project should be built on Government owned land.

Taxes on the money we receive in land acquisition, if we are forced to sell, will have a large effect on the actual money we receive. This is very relevant that up to 50% of the amount we receive, could have to be paid back in taxes. This should be taken into consideration when it comes to these sales as these are a forced sale against our wills.

Relocation and rebuilding of businesses will be very expensive, time-consuming and laborious.

The reason many of these businesses in this area are successful is their close proximity to Calgary so *they are not transferable* to anywhere else if our land is taken. A very flippant Government employee told me once, and I quote "you can just go take all your money and go rebuild somewhere else". What an incredibly disrespectful and uncompassionate statement. This individual is obviously not self employed or has any idea of the time commitment or infrastructure change that it would take to rebuild any of these farms and ranches, and the huge cost to move cattle, horses, equipment etc. let alone moving to new homes.

Just the mention of this project has greatly devalued our land on the Real Estate market. We have had clients at my equestrian center ask me when they will need to move their horses out, or some did not consider my facility to book, despite they wanted to, as they stated "they didn't want to have to move twice".

None of the landowners, especially the Committee that has worked so hard to defend our land, are getting paid for the huge amount of time spent on defending our position--- about 1 day per week X 7 years. This is done on our personal time when we should be attending to our businesses. We do not get paid unlike the Government employees. At one of the open houses there were 42 Government & Stantec employees. What a waste of taxpayers money!

The only people in favor of this is a small number of wealthy individuals in Elbow Park and Roxboro who think this project is fast, cheap and easy of which it is none of these. MC1 would protect them exactly the same and not kill viable communities or build an eyesore in the middle of beautiful countryside. This is a political decision, not based on

logic, science, environmental or social rational judgement. If MC1 was chosen, the project that would be good for all concerned, it would be built and functional by now.

SR1 will destroy Kamp Kiwanis, a camp that 10,000 under-privileged and handicapped children use every year, and has been functioning since 1950.

3. Consultation

Alberta Transportation (AT) has only met face to face with Landowners once. AT did not address any of our concerns. There has been no updated one on one or personal consultation with each landowner impacted by this Project to discuss the potential impact of the project on each family, family assets, or business which the landowners respectfully deserve.

The Government (Mr. McIvor) has met with landowners once despite numerous requests. Mr. Mason & Mr. McIvor have met numerous times with CRCAG. WE have been told one of their reps was invited and attended the tour in Holland at taxpayers expense. This is a biased and very disrespectful behavior to not consult the people who are the most affected.

4. Cost Benefit Analysis

The true cost benefit analysis has been an everchanging factor in this project. The apparent reason why SR1 was the favored over MC1 was the cost. At that beginning it was quoted that SR1 was \$230M. and MC1 was \$400M. The Don't Dam Springbank Committee, who were the original group of Landowners in opposition to SR1, later changing their name to Elbow River Sustainability Alliance, or Springbank Landowners Group, had asked to see all the financials to see the actual cost of each, but we were refused. This group spent thousands of dollars to make the Government accountable to their supposed estimates of cost, but we were refused due to FOIP. What kind of open honest Government is that?? Obviously, the figures are tainted.

The area started out at 1600 acres, but it is now 6884 acres but there has not been a balanced increase in cost as the acreage skyrockets and the project becomes more complex, structurally. We feel the honest estimation is close to \$1B.

Land evaluations are very underestimated. This project is very close to Calgary and any land sold would be sold for residential development - not farmland. Appraisals are done on highest and best use value of properties in close proximity. i.e. Morgan's Rise, Elbow Valley Estates, Cullen, Gardner, Harmony etc.

All other costs are greatly underestimated: i.e.: road moving, pipeline moving, structural cost etc.

Pipeline Moving Costs

We have had experts with lengthy experience in the Oil & Gas business give us estimates of moving all the pipelines in this project. The estimates we received shows that AT is underestimating this cost by at least 5 times. These are several major active pipelines. It is impractical to move these and very expensive.

Roads Costs

Moving Hwy #22 and raising it, as they so plan, would also be a very expensive proposition. AT said they did not know how much it would cost for sure. The Springbank Road is totally impractical where they plan to put it and hugely expensive to move it!

Water Diversion

Anyone in the South Saskatchewan River Basin needs to have a water licence to divert water from a river. The Government put a freeze on the licences when it became known that if all licences were used, they could not supply 50% of the water to Saskatchewan as required by law. A diversion into this reservoir will require a licence with a large amount of "losses" to account for the seepage and evaporation. By the government's rules, the amount of water in and out must be measured but there is no provision in the design of this Project for that to occur. The government could issue itself a licence, but they would be in violation of their own regulations, and risk not supplying the required water over the border. Otherwise they will have to buy a licence(s) at an added cost.

5. Fish and Wildlife

Cutthroat and Bull Trout populations and the effect this project would have on these species, has been discussed at length. There are these fish species in both locations. The fish would have to swim to get to MC1 right through what would be the Springbank Reservoir. The studies said this was a major reason that MC1 was not favored. This is totally illogical as the fish would have to go thru SR1 to spawn upstream – they were not airdropped to MC1 site nor did they take the bus. Migration of fish during flooding will result in fish being killed in the reservoir structure itself. If the reservoir is drained later at the end of a flood event, how will AT get fish out of the silt and debris when water flows reside?? It is likely most fish will die.

In the shallow water of the SR1 dam intakes, oxygen levels would be insufficient in this dirty, polluted, stagnant water. MC1 could be deeper and it is rockier upstream so would hold water in the channels where fish could survive and they would flourish in the fresh deep water in the dam at MC1 in a much more natural state.

Grizzly Bears: We have dozens of pictures of Grizzly near the SR1 site. Stantec employees have seen them and been armed with Bear spray so they cannot deny this. They were actually chased by one when doing research.

Elk: There are large populations of elk in the area of the proposed dam. Sibbald herd are residents here. In February, only a few days ago, there were large herds of elk on Wagner and Copithorne property – so they are there all year round not just during calving season as some Stantec employees stated.

Deer: Large numbers of Deer are abundant in this SR1 area.

Moose: We have numerous pictures of Moose and their calves.

Cougars and Lynx: Several cougars are sighted along the river. I saw a lynx on our land a week ago, while I was out riding. This lynx was about 100 yards from my outdoor riding arena.

Birds: There are dozens of bird species that live in this area permanently. Migratory birds live on the many marshes, creeks etc. on this area. There are several threatened and protected species that make the SR1 area home.

MC1 Wildlife Comparison: There is generally FAR LESS WILDLIFE in the MC1 area than the SR1 area.

We have a Government Grazing Permit near the MC1 site. We are very, very familiar with the entire area around the MC1 site and upstream for 25 km. This permit has been in the family for 55 years, and I have ridden there my whole life. Our cattle graze there from June to October. There is NOWHERE NEAR THE DIVERSITY OF WILDLIFE SPECIES AT MC1 PROPOSED SITE AS THERE IS AT SR1. It is of note that I am a paid Stakeholder in the area of the MC1 project. If the Government did proper research of the MC1 alternative, you would have thought they would contact one of the major Stakeholders in their compulsory consultation, in order to make a knowledgeable informed decision of the alternatives.

90% of the research has been done on SR1 as opposed to 10% on MC1—another proven example that SR1 was a predetermined decision not based on science, environmental or social research or logical judgement, let alone the **ONE THAT IS IN THE BEST PUBLIC INTEREST.**

6. Water Pollution & Management

Silt buildup and debris will make water not potable near the entire SR1 site. The MC1 project would not change the water quality at all and produce much cleaner water.

Water well contamination or loss, where the SR1 project is proposed, would destroy all the wells of landowners and the alluvial aquifer which would now be polluted water and would contaminate all wells. There are artesian wells on the SR1 site. How do they think they are going to hold water here when the ground is already saturated very shallowly under the topsoil? This fact is evidenced by the lush natural grasslands there. Any excavation they do there will fill up immediately by the underground water table.

Poor quality SR1 water will find its way into the aquifers and contaminate well waters in the Springbank community downstream and then this contaminated water will then flow back into the Elbow River to the Calgary water system.

Stagnant water left for periods in the Reservoir will be a breeding ground for Camphlobacter, Giardia, West Nile Virus etc.

Redwood Meadows sewer has contaminated my ranch's water and land for many years. Raw sewage water flows over on to my land in any high-water event. If this Project proceeds, all this raw sewage would flow right back into Calgary's water system.

There was 20 acres of my land flooded with raw Redwood sewer in the 2013 flood and I had to move my horses out of the pasture where it flowed. My family spent 2 days cleaning up debris (stool, tampons, condoms etc) from the sewer with rubber glove. City of Calgary was aware of this occurrence.

7. Silt and Debris Management

Anyone who walks along the river since the 2013 flood realizes the huge amount of debris that is left behind after a flood event. AT cannot possibly handle silt and the debris in the intake of the SR1 structure itself. Buildup along intake, in reservoir would be massive and likely unmanageable. How will AT clear the silt out of the bottom of the reservoir after a flooding event? The potential answer to this question has not been developed or communicated, or the scope of this difficult feat that Stantec has greatly underestimated. This silt will be contaminated so it is a biohazard.

Silt will sterilize the present fertile farmland that are present and make them virtually useless for anything but a slew of polluted land full of logs, garbage, mosquitoes and very high silt levels and weeds. There was silt up to 10 feet on my property after the 2013 flood. I spent 10 days on a Bobcat clearing silt in $\frac{1}{4}$ of a mile to find my buried fence after the 2013 flood. MC1 would have miniscule silt problems. Where are they going to truck this contaminated silt? How will they move it when the ground is saturated with it?

8. Air Pollution

The amount of silt in the bottom of the reservoir post flood will blow into and cover the City of Calgary and surrounding areas in fine silt. As a nurse this is a huge respiratory health issue.

9. Noise Pollution

The noise produced during construction of this project would make living next to it unbearable. Landowners are used to the quiet of rural living. That is why we live where we do and have done for generations. The dam water flowing, people around it all the time, would totally change the landscape or pristine rural feeling of the landscape.

10. Project Alternative - MC1

Flood

MC1 is the far superior project for all Alberta taxpayers. It would protect everyone the same (not just the selfish wealthy downtown Elbow Park Roxboro residents that want SR1 for only their own benefit) as it would protect Bragg Creek, Redwood, Tsuu T'ina, ranchers, farmers and Springbank residents.

Allen Bill Pond is a mess from the flood of 2013 so that location would not destroy any pristine wilderness. There are 100' rock wall banks above it so hardly any intake structure would need to be built.

Drought

MC1 would be a wet dam so that we could store water during a drought year. Drought is a huge problem for Alberta some years.

Fire

Stored water in a wet dam could be a fire protection structure. The recent McLean Creek fire was a prime example of the necessity of a water source for firefighting, and how inadequate our facilities are all along the foothills for fire protection. AGAIN MC1 is a multi-purpose structure.

Recreational

MC1 would have huge positive benefit to all taxpayers for recreation. MC1 could be developed into an excellent recreation area for non-motorized watercrafts i.e. canoeing, rafting, camping, biking etc. Therefore, MC1 would make this project a positive thing for Alberta residents to enjoy as they are paying a lot for it.

It could be used in the winter as a skating pond. Further west could be reserved for remote pristine hiking, equine trails, mountain biking etc. This recreation area around MC1 would take pressure off high end pristine areas to the west.

Calgary and all local communities are desperate for more recreation. This could be a perfect dam for non-motorized watercrafts, camping, picnicking etc.

MC1 would be good for soft recreation. I have 27 years of experience in the Guide-Outfitting business in B.C. and the Yukon so I am very sensitive to the need for recreation and this area would be ideal.

Reservoir Capacity

MC1 capacity could be much higher than SR1. SR1 would quickly fill causing backflow to the rancher's property, Bragg Creek and Redwood which would be disastrous. The water that flows through this area during a flood event could not be handled by this Reservoir. MC1 could flow upstream extensively and at a future date MC1 could be expanded to accommodate a growing Calgary need for water usage.

Dam Maintenance

There is already a large building in the perfect location on high ground to facilitate all the maintenance of MC1 at no cost to taxpayers to build a new one. There are several houses at Allen Bill Pond to facilitate staff. There are existing dining facilities and Volker Stevin maintenance yard and buildings to enable future maintenance of MC1. None of these are currently available at SR1. Helicopter pads are already highly used in the MC area which could be further developed.

11. Dam Safety

A dam of this design or magnitude has never been previously built. SR1 is experimental. Teton dam is a perfect example of a failed dam.

The City of Calgary would be the most affected if the dam failed, and backflow is a very high risk if the dam was blocked by debris. I think this factor has been highly underestimated by the planning of this structure. Massive amounts of trees and debris flow down the Elbow in a flood event. What plans does AT have to contain the effects of dam failure on Calgarians and the residents of Bragg Creek and Redwood Meadows should it fail? They have no real plan and just say it is in there future plans. That is not a sufficient answer. What plans do they have for backflow if SR1 cannot handle the amount of water? This is a huge liability.

12. Historical and Native

There are many historical and Native traditional factors in this area that need to be considered. i.e.: The Cairn, Stoney Trail, burial grounds, etc.

We have the Stoney Trail going through our property and native teepee rings, buffalo wallows, medicine wheels etc. There is a historical camping ground for natives who travelled on this north to south trail.

Our ranch was the staging area for the UNITY ride held where Natives and other individuals rode horses from our ranch to the Tsuu T'ina Indian Rodeo grounds to show our opposition to SR1.

I have personally toured **NINE INDIAN TRIBES** on our property to show them these traditional places and artifacts and **NOT ONE OF THEM** thought SR1 was the project of choice. I did this on my own personal time!! I later found out that they want to make a land claim on this property where the inlet to the dam is. I feel very taken for granted and deceived by this behavior.

Discussion of Native hunting rights on the SR1 imprint land has been discussed with the Natives, which the Government has in their plans.

As a hunter and Guide Outfitter for 25 years, I would like to inform you that what you are proposing is totally illegal. I quote from *Alberta Hunting Regulations, Wildlife Act* and the *Firearms Act*.

- 1) Firearm hunting must be at least 50 yards from a road. Either way you cannot hunt from or across a roadway.
- 2) You cannot discharge a weapon within 200 yards or cause a projectile from a weapon to pass within 200 yards from an occupied building. Owners, occupants or persons authorized by the owner or occupant are excepted, subject to local bylaws.
- 3) Section 38 of the *Wildlife Act* states that no person shall hunt wildlife or discharge firearm on or over occupied land or enter such lands for the purpose of doing so without the consent of the owner or occupant.

Conclusion

The above factual information is logical evidence that the SR1 project is not the best project "**in the public interest**" which is what the decision of NRCB is supposed to base their decision on.

MC1 is by far the superior project in that it is multifaceted and will benefit all communities in protection from Flood, Drought, Fire and provide outstanding recreational opportunities. I am strongly opposed to the SR1 proposal as it only benefits a select few, not 5 communities. We respectfully request the Board not to approve the SR1 Project and proceed with MC1 which has a benefit for **ALL** taxpayers, including Calgary.

Thank you.

Mary Ellen Robinson

Submissions of Tracey Feist

I was born and raised on the S ½ 11-24-4-W5, and spent the first 18 years of my life on this ranch. Both of my children spent their early years here on this property. You might call it a full circle moment when I inherited the lands from my father and acquired the land title in February 2020.

These lands were originally part of the Clem Gardner ranch. My father began ranching on the property in 1965 when the land was owned by Clem Gardner's daughter Audrey Macdougall, and her husband Glen. After she passed away in 1974, my father and Glen Macdougall remained partners in their ranching enterprise. My father inherited and acquired the land from Glen in 1998.

I am the fourth generation in the Springbank area. My great grandparents sought a place to homestead, and officially became homesteaders in 1894 after they proved the land. My first cousins currently live at and operate on that original homestead today. It received one of the first Century Farm Awards offered by the Government of Alberta in 1994.

Concerns

Water

Myself and my husband are extremely concerned about the SR-1 project, especially given the sensitive nature of Pirmez Creek, which begins on the SW1/4 11-24-4-W5. Any construction upstream from us we believe will gravely affect our water wells and will impose damage to the Creek, which is a major spawning creek for Brook Trout. My father had always worried about the potential for the project to ruin the Pirmez Creek, how water flows underground on this half section of land, and future water quality on the ranch.

I want to highlight that in an April 18, 2016 Stantec report, submitted to the Canadian Environmental Assessment Agency (CEAA) confirmed that the project COULD alter groundwater flow:

"The temporary storage of the floodwater behind the dam may affect shallow groundwater quality and could affect potentiometric heads in the hydrostratigraphic units in the Project Area. The additional hydraulic head associated with the volume of water to be stored in the reservoir may cause an increase in aquifer pressures and alter the local groundwater flow regime. Changes in the groundwater flow regime could in turn alter groundwater availability from nearby water wells."

Section 5.3.4 Surface Water and Aquatic Environment

Consultation

We are very unhappy with the level of communication with landowners. Even in the very beginning, Alberta Transportation (AT) sought no input from landowners in this area. Alberta Transportation's communication serves to positively promote the project with Calgarians. I have had only one meeting with an AT government official (Matthew Hebert)

last fall. It was made very clear that the project would not consider other locations, it would be going forward and that expropriation would occur should there be any opposition.

Land Impacts

Our lands are located directly east of where the diversion canal will be at Kamp Kiwanis. However, because our land is at the corner of Highways 8 and 22, we fear that AT could potentially expropriate at any time. I have attached at **Tab 1** a letter that my father and I wrote which I submitted to the Impact Assessment Agency of Canada. This letter provides further details of my concerns regarding this project.

Project Alternative and Environmental Considerations

The miscommunication from all levels of government who seemingly want to push SR-1 through is quite alarming and concerning. While they've had "information sessions", these events have been used primarily to promote the SR-1 project. Properly assessing McLean Creek as a holding dam, or any other crown land locations in Kananaskis Country, were never considered.

Even our local government, Rocky View County, has ignored this project and the damage it will inflict on the Springbank Community. In a RVC press release last fall (<https://www.rockyview.ca/news/article/1814/rocky-view-county-signs-sr-1-agreement>), the County received \$10 million from the provincial government to address any future loss of municipal property taxes on the 3,870 acres of land that would be impacted if SR1 proceeds. "The Alberta government is also committed to deal with certain road or infrastructure issues that may arise from the construction and operation of SR1," the release stated. A copy of the release is attached at **Tab 2**.

There simply needs to be another dam and reservoir on the Elbow River; the Glenmore Dam/Reservoir is not enough. If there were a dam at McLean creek, or another location on Government crown land, it would serve four important purposes: flood, fire and drought mitigation, along with providing a growing city with a sustainable water source. Adding a reservoir also provides Calgaryans with recreational opportunities. The Alberta government already owns the crown lands at McLean Creek. If they would have used the \$750 million (estimated) that they've already spent trying to push the SR-1 agenda the dam at McLean would have been built by now.

Simply put, we are concerned with any development on lands directly west of our property. We feel it will change how water flows above and below our land, and negatively impact both wildlife habitat and environment of the area.

Dave Klepacki, (MIT educated, geophysicist) a Bragg Creek resident for over 30 years, has been quoted as saying: "A permanent reservoir and bottom release dam at McLean would control river height during flood, ensure summer flows for all downstream communities, especially wildlife communities dependent on cold flows in times of drought AND help suppress the inevitable wildfire that will arrive in Bragg Creek and Redwood Meadows. The unfairness and bad judgement that went into SR-1 decision is clear when

you consider this imbalance of goals of SR-1 and the harm it will do at the expense of all Albertans.”

This is a recent quote directly from Dave Klepacki's May 23rd Facebook post, which I couldn't agree with more:

"The way to control both overland and groundwater flooding is by controlling the height of the river. The best way to do that is the way jurisdictions geographically similar to Calgary (like Norway, Switzerland, Germany and Japan) have done for hundreds of years...with an in-stream dam and reservoir like that proposed at McLean Creek. MC-1 would also provide drought mitigation for the 500,000 people that drink its clean water, maintain cold summer flows for our trout, and water for wildfire suppression.

The reason our riparian forest here in Bragg Creek is being destroyed is so those folks that live in the mansions in Elbow Park and Roxboro will not experience destruction and recover their real estate values. Those astute lawyers of CRCAG have managed to manipulate three governments into spending (now nearly) \$750MM of Alberta taxpayers money for their own flood mitigation (notice no drought or fire) at Springbank. The SR-1 project requires the destruction of 6900 acres of prime elk and grizzly habitat sacrificed to their cause. And promises warm, bacteria-laden water downstream from SR-1. Several of us with technical backgrounds in the Elbow River Sustainability Alliance have reviewed the technical studies of the hydrology, engineering and environmental impacts of SR-1 and MC-1. Without exception we conclude that MC-1 uses conventional technology, is more cost effective and provides additional drought and wildfire benefits. The decision to pursue SR-1 is based on politics, not science."

Conclusion

Springbank as a community will be ruined should the SR-1 project proceed. This area, is rich in history, is one of the highest income areas in all of Canada, and is where our government wishes to put an untested dry dam. Whereas placing a holding water reservoir at MacLean Creek, located on Crown land, could provide the infrastructure necessary as a source of drinking water for the City of Calgary, provide fire and drought mitigation, offer recreational opportunities AND offer Calgarians piece of mind for future 100-year floods.

In addition, landowners downstream from such a project would have our water wells and properties protected.

My father resided on and farmed these lands for 55 years. He worked conscientiously to protect the water source for our downstream neighbours [the City of Calgary] and shared the land with the wildlife who continue to reside here. Our issue has grown well beyond flood mitigation. It needs to be about a future water source for the growing metropolitan

area of Calgary. It's as important as oil. Let's think 30 years from now, and not what happened in 2013. Our government needs to make a final decision based on science, not politics.

Requested Disposition

We respectfully request that the Board denies this application.

From: Tracey Feist [<email address removed>]

Sent: May 30, 2016 11:55 AM

To: premier@gov.ab.ca

Cc: Trudeau, Justin: HOC; John.Barlow@parl.gc.ca; PNR / RPN [CEAA]; Fish, Karen [CEAA]; transportation.minister@gov.ab.ca; themayor@calgary.ca; Mary.MacArthur@gov.ab.ca; banff.cochrane@assembly.ab.ca; chestermere.rockyview@assembly.ab.ca; lbreakey@rockyview.ca; jarshinoff@rockyview.ca; info@dontdamnspringbank.org; <email address removed>

Subject: Springbank Off Stream Reservoir Project

Importance: High

The Honourable Premier Notley,

It is with sincere respect that we are contacting you regarding the Springbank Off Stream Reservoir (SR1) project. You will a letter attached, that I wrote together with my 82-year-old father, Gary Munro of Bar Open A Ranches Ltd., who has lived on the South Half of section <personal information removed>, for over 50 years.

We are urging you to conduct further research on this project, and involve the Federal Government along with the Canadian Environmental Assessment Agency to conduct a federal environmental review.

If you have further questions, please contact me at the numbers listed below.

Kindest regards,
Tracey Feist and Gary Munro

[Ground Words Communications](#)

Tracey Feist

@GroundWords

Ph: 303-646-2083

Fx: 303-646-2053

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Monday May 30, 2016

The Honourable Premier Rachel Notley

Office of the Premier
307 Legislature Building, 10800 - 97 Avenue
Edmonton, Alberta T5K 2B6

RE: SPRINGBANK OFF STREAM RESERVOIR PROJECT

Dear Ms. Notley,

It is with sincere respect and utmost urgency that I contact you regarding the Springbank Off Stream Reservoir (SR1) project. I am writing this letter on behalf of my 82-year-old father, Gary Munro of Bar Open A Ranches Ltd., who has lived on the South Half of section <personal information removed>, for over 50 years. I was born and raised on that parcel of land, and lived there for 25+ years. My children are fifth generation Albertans (both born in Calgary) who have also lived on that land.

Last weekend I attended my 17-year-old son's high school graduation and it reminded me of a phrase: "*It takes a village to raise a child*". While I currently reside in the US, I fully support helping my father and our family ranch, and sincerely wish to help the village that raised me as a child. My village is Springbank. While you may question my current residence, my roots run deep in the Springbank community. My great grandmother Martha Thistle Hamilton arrived in Calgary, by rail in 1884. Shortly after marrying William James Munro, who arrived in 1888, the two homesteaded and built a home just west of the Springbank Airport, in 1897. There have been five generations residing on the original Munro homestead. My maternal great grandfather also arrived in Springbank the spring of 1898.

We have many concerns regarding the SR1 project, with the first being the lightning speed by which it is progressing. We believe this project is a knee-jerk reaction by the Alberta Government and the City of Calgary, to a one in a 100-year flood event that occurred in June, 2013.

Clearly the government has not had the proper discourse with long-time landowners—many of which have been on their lands for multiple generations—or given them the respect they deserve in regards to asking them their thoughts and opinions on this project. These families have an intuitive wealth of knowledge of their land, which no one else has. For example on our property, Pirmez Creek is an underground aquifer water source that flows year round and never freezes. It begins in front of my Dad's house on his land that borders the NE corner of Highways 8 and 22. Any type of construction project gravely has and will continue to affect the course of that underground water source. One such example is when the roundabout was built in 2007 at the intersection of Highway 8 and 22. It forever changed the natural flow of all the underground water systems on our land. Since that time the main farm house (which was built in 1959) has flooded. This house did not flood during the massive Elbow River Flood in the spring of 1967, nor in any flood since that time until the roundabout was constructed. Our ranch was underwater during the 2013 flood event and suffered damage to multiple structures, trees, and fences. Water started coming into the main house at 3 p.m. on June 20, 2013; five water pumps were used in the basement to try and control the flooding. My Dad was 79-years-old at the time, getting up several times in the night to manage this water event.

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Looking east, the road leading into our main house yard, Flood, June 2013.

Living and ranching in a rural area forces one to protect a tremendous variety of species, genes and ecosystems. We greatly benefit from them and they deserve our respect and conservation. Not many have seen the beauty of Pirmez Creek which runs through our property. Because of our conservation efforts our ranch was featured in the publication "Caring for the Green Zone" written by Barry Adams, PAg. and Lorne Fitch, P Biol. They wrote:



Pirmez Creek, from Caring for the Green Zone

"Pirmez Creek is a delicate, spring-fed stream that emerges in the ranch's yard and flows 2.5 miles to the Elbow River. Pirmez Creek is ranked as a key spawning stream for Brook trout. Under the present management system, Pirmez Creek has been maintained in excellent condition."

Numerous wildlife species call our half section home. We have seen Grey, Great Horned and Burrowing Owls, Cougars, Red Fox, Coyotes, Grizzly and Black Bears, as well as a multitude of Deer, Elk and Moose take residence on our property. Under SARA (Species At Risk Act) Burrowing Owls are considered **Endangered**. The new reservoir and dam project will alter the course of their migration paths. Native grasses abound in this area. It provides a home to many bird species, in addition to Fox and Coyote dens. Numerous Barn Swallows reside in our horse stable. Barn Swallows, as of 2011 under the COSEWIC (Committee on the Status of Endangered Wildlife in Canada), are considered **Threatened**. Elk herds find solace north of the Elbow River, on the Copithorne and Robinson lands which will be placed under water. Clearly the SR1 project is not being sensitive to the multitude of species that inhabit the slated project area.

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We believe this new project and its InStream Diversion Plant will devastate our land forever. The plant is slated to be built on the Kamp Kiwanis land across Highway 22, directly west of our property. The SR1 project will forever change this view:



A photo taken July, 2015 of the main ranch road looking west across Highway 22, towards the Kamp Kiwanis lands. Now the government intends to build an InStream Diversion Plant, with a two mile berm, directly across from our ranch lands.

From the Alberta Environment & Parks (AEP) website, a sample look of the Diversion Plant.



"The channel is about 4.5 km long and has a bottom width of 24 m. The channel cut would be similar to an irrigation canal with side slopes of about 3:1 (horizontal:vertical). It will **generally** be vegetated with native species; erosion protection **may be** provided at select locations where fast water speed is anticipated."

<http://aep.alberta.ca/water/programs-and-services/flood-mitigation/flood-mitigation-projects/springbank-road.aspx>

Not enough time has been spent to determine if this project will work. When the Alberta government built a new bridge—now called Gardner Bridge—over the Elbow River in 1987 (for the 1988 Winter Olympics) it changed its natural meandering flow. By changing the natural geological course of the Elbow River, it became a dyke that prevents the high flood water from flowing under the bridge. Because of this man-made change in the river, the 2013 flood waters did not naturally flow along the river as engineers had intended; it backed up, and pushed the flood water south to the roundabout. It flooded our ranch, Kamp Kiwanis and onto NE3 24 4 W5.

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If this new weir/diversion plant fails, there is nothing to prevent the floodwaters from overflowing onto all adjacent lands east and south, including our land, our neighbours, Highway 22, and Redwood Meadows, because the land is flat. Yet again, this is an example of the government not talking with the landowners to gain their knowledge of living and working on the land.

The construction development is also an environmental concern. The AEP website states the berm will run more than two miles in length at a height of over eight stories tall. Estimates with the initial dry reservoir project had engineers estimating they would need to move approximately 200,000 dump trucks full of earth and rock as they excavate a channel over a four-kilometer stretch from where water leaves the river until it enters the dry reservoir. Now with the project more than doubling in size, what will the construction footprint look like? Or the maintenance costs? Not to mention the mess.

The NDP government is not taking the multiple pipelines in this region into consideration. Of particular note are the two **aged** TransCanada and Nova pipelines that run through our property. Those active gas and oil pipeline crossings include one pipeline that was responsible for two pipeline spills near the Glennifer Lake Reservoir, west of Red Deer. Those spills were caused by the pipeline's age, coupled with the increased water flows in the river as a result of the reservoir during heavy rains. That same pipeline traverses the area intended for the Springbank Reservoir which will ultimately risk Calgary's drinking water supply. We also have been told by a Pengrowth Energy Corporation representative (Quirk Creek) that should the SR1 project proceed, the pipelines will be dug up and placed deeper and or possibly moved, which would adversely damage our property.

Not only are we concerned with that level of development near our land, we are concerned about the future of the Elbow River's water quality. The Elbow River Watershed Partnership (ERWP) states:

*"The Elbow River provides water for **one in seven Albertans** for agricultural, recreational, residential and industrial uses. For over 120 years, particularly when the larger Bow faced serious pollution challenges, the little Elbow has been relied on to provide clean water for city residents. Today, however, the watershed faces many pressures which jeopardize the quality and quantity of its water — rapidly expanding urban development, increasing industrial activities (oil and gas, forest harvesting) and growing recreational activity."*

The ERWP also states:

"Past the hamlet of Bragg Creek, the Elbow enters the agricultural plains with their farm buildings and acreages, extensive pastures and hayfields, interspersed with Aspen groves and small shrubby wetlands. Close to the City of Calgary, housing density increases markedly. Within the city, the Elbow is controlled by the Glenmore Dam; its water treatment plant provides drinking water for 40 per cent of Calgarians." <http://erwp.org/index.php/elbow-river-watershed/watershed-description>

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For over 50 years we have been working conscientiously protecting that water source for our downstream neighbours and the City of Calgary. All Calgarians should be gravely concerned about their future water quality should the SR1 project proceed. We too are concerned for them and for our own water. The April 18, 2016 Stantec report submitted to **Canadian Environmental Assessment Agency** (CEAA) confirms the project COULD alter groundwater flow:

"The temporary storage of the floodwater behind the dam may affect shallow groundwater quality and could affect potentiometric heads in the hydrostratigraphic units in the Project Area. The additional hydraulic head associated with the volume of water to be stored in the reservoir may cause an increase in aquifer pressures and alter the local groundwater flow regime. Changes in the groundwater flow regime could in turn alter groundwater availability from nearby water wells."

Section 5.3.4 Surface Water and Aquatic Environment

Additional public health issues also abound with potential adverse changes to air quality. The April 18, 2016 Stantec report to the CEAA states:

"Air Quality may be affected during the operations of the Program. Sediment would settle out of the floodwaters held within the Off-Stream Storage Reservoir. After the floodwaters have been released, the sediments remaining in the Off-Stream Storage Reservoir, including on Springbank Road would dry and be susceptible to wind erosion. Potential contaminants picked up by the floodwater (e.g., raw sewage) would likely remain in the sediment left behind, and may be picked up and carried by the wind as well. Areas east of the Project Area may see a temporary increase in the amount of particulate matter in the air due to the prevailing westerly winds carrying material eroded from the sediments deposited in the Off-Stream Storage Reservoir."

Section 5.3.5 Air Quality

Then there are the escalating costs. Since the dam's announcement in April, 2014, the scope of the project has changed continuously. Alberta taxpayers need to know some now estimate the project to be in excess of \$500+ million. That's an astounding figure and does not seem prudent given the current economic climate within the province of Alberta.

In the beginning, the PC Government's basis for moving forward with the Springbank dry dam instead of other options was a cost benefit analysis using preliminary engineering and land requirements of about 1,600 acres valued at \$40 million. Now with your Government in power, project land requirements have increased up to 6,884 acres from its original 1,760 acre estimate. Alberta Environment and Sustainable Resource Development originally estimated the project at \$158 million. A February 18, 2015 cost/benefit analysis, estimates the project costs in excess of \$263 million, with an annual operation and maintenance requirement of \$1.8 million. Yet the government has inaccurately based the land acquisition on the original 1,760 acre footprint. The NDP's plan is now to acquire 6,884 acres of land. To date there have not been any land acquisition offers that we are aware of.

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Another example of inaccurate initial cost estimates are the changes that need to be made to Highway 22. The AMEC Environment and Infrastructure report from May, 2014 initially quoted \$2 million dollars to elevate Highway 22 over the reservoir. During a May 3, 2016 Rocky View County council meeting, when councillors asked Stantec representatives to identify the cost of their preferred road options, they said they did not know the cost. In short, the SR1 project is not "cheap and fast" as your government is leading everyone to believe.

We support Don't Damn Springbank's review that cites "*land cost was not reflected in the cost/benefit analysis used as justification for Springbank adding major concerns to the validity of the project.*" ([Calgary Herald, March 2015](#)) Landowners will not properly be compensated by this government land grab. Currently, a two-acre lot in Springbank is selling for \$514,000. A 121-acre parcel in Springbank is currently listed at \$13.5 million. That equates to \$111,570 per acre. Some of the most expensive houses in all of Alberta are in the exclusive Springbank area. A [March 19, 2013 Global TV](#) report, our area (which starts with the postal code of T3Z) is the second wealthiest neighbourhood in all of Canada. People WANT that land, the views and the lifestyle of that area, and are willing to pay for it. We highly doubt the Alberta government, when they expropriate the lands for this project, will follow a comparable market analysis, and offer the landowners \$111,570 per acre. With 6,884 intended project acres, that equates to **\$768 MILLION dollars**. Where are we going to go? We have been stewards of our land, conserving, protecting and diligently passing the land from generation to generation. It's not about the money, picking up and moving elsewhere. Our land is priceless.

This project is being expedited without thorough and objective research. The studies that Don't Dam Springbank have conducted have shown 58% of Calgarians do NOT want this project and that it is NOT going to remedy any type of flooding in the areas that displaced so many in June of 2013, in particular are those Calgary communities of Sunnyside, Bowness, and Prince's Island Park. Bragg Creek and Redwood Meadows are not given any kind of respite with the Springbank project, from the devastating floods they endured. A [March 6, 2014 article from the Calgary Herald](#) even cites that "With this project being located on the Elbow River, it does not assist with the larger threat that is to the Calgary communities that reside along the Bow River." (The Bow River currently has five dams on it: Barrier, Horseshoe, Seebe, Ghost and Bearspaw). We are appealing to your common sense to conduct the research necessary to find and move the project to a more palatable location to ultimately give Calgarians what they want: respite from future potential flooding, in addition to future potential recreational amenities.

Your environment minister Shannon Phillips was quoted as saying "*We based our decision on what would deliver the highest level of flood protection in the shortest time for the best dollar value for the least environmental impact.*" We, along with other numerous groups such as Don't Damn Springbank and the Rocky View Council don't believe a proper Environmental Impact Assessment has been conducted to warrant this massive project. Our environmental resources and wildlife are not being properly protected. Air and water quality will be altered. Historic ranches will be wiped out. The decision to proceed with this project would be disastrous. Even an independent study conducted by the Rocky View County (RVC) exposed serious concerns about the integrity of the SR1 Project.

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Clearly the Springbank Off-Stream Reservoir is not about flood mitigation. It has become an issue of risk transference, which is the shifting of the burden of loss for a risk to another party. For many years the City of Calgary and their land use practices has allowed development along both the Elbow and Bow Rivers. Perhaps the Government needs to find solutions for Calgarians and not move into another municipality to take land away for its protection.

The Federal Government MUST intervene and employ its Canadian Environmental Assessment Agency to do a federal environmental review in order to protect the most pristine and priceless lands in all of Alberta.

Respectfully submitted,

<Original signed by>

<Original signed by>

Gary H. Munro, <personal information removed>
Tracey A. Feist (daughter) <personal information removed>

CC:

Justin Trudeau, Right Honourable Prime Minister of Canada, Office of the Prime Minister, 80 Wellington Street Ottawa, ON K1A 0A2, Justin.Trudeau@parl.gc.ca

John Barlow, MP Ottawa Ontario, Room 310, Justice Building Ottawa, Ontario K1A 0A6
John.Barlow@parl.gc.ca

Canadian Environmental Assessment Agency (CEAA), CEAA.PNR-RPN.ACEE@ceaa-acee.gc.ca

Karen Fish, CEAA Communications Advisor, Karen.Fish@ceaa-acee.gc.ca

Honourable Brian Mason, Alberta Minister of Transportation, transportation.minister@gov.ab.ca

Honourable Naheed Nenshi, Mayor of Calgary, themayor@calgary.ca

Mary MacArthur, Stakeholder Relations, Office of the Premier, Mary.MacArthur@gov.ab.ca

Cam Westhead, MLA for Banff-Cochrane, banff.cochrane@assembly.ab.ca

Leela Aheer, Wildrose MLA, Chestermere-Rocky View, chestermere.rockyview@assembly.ab.ca

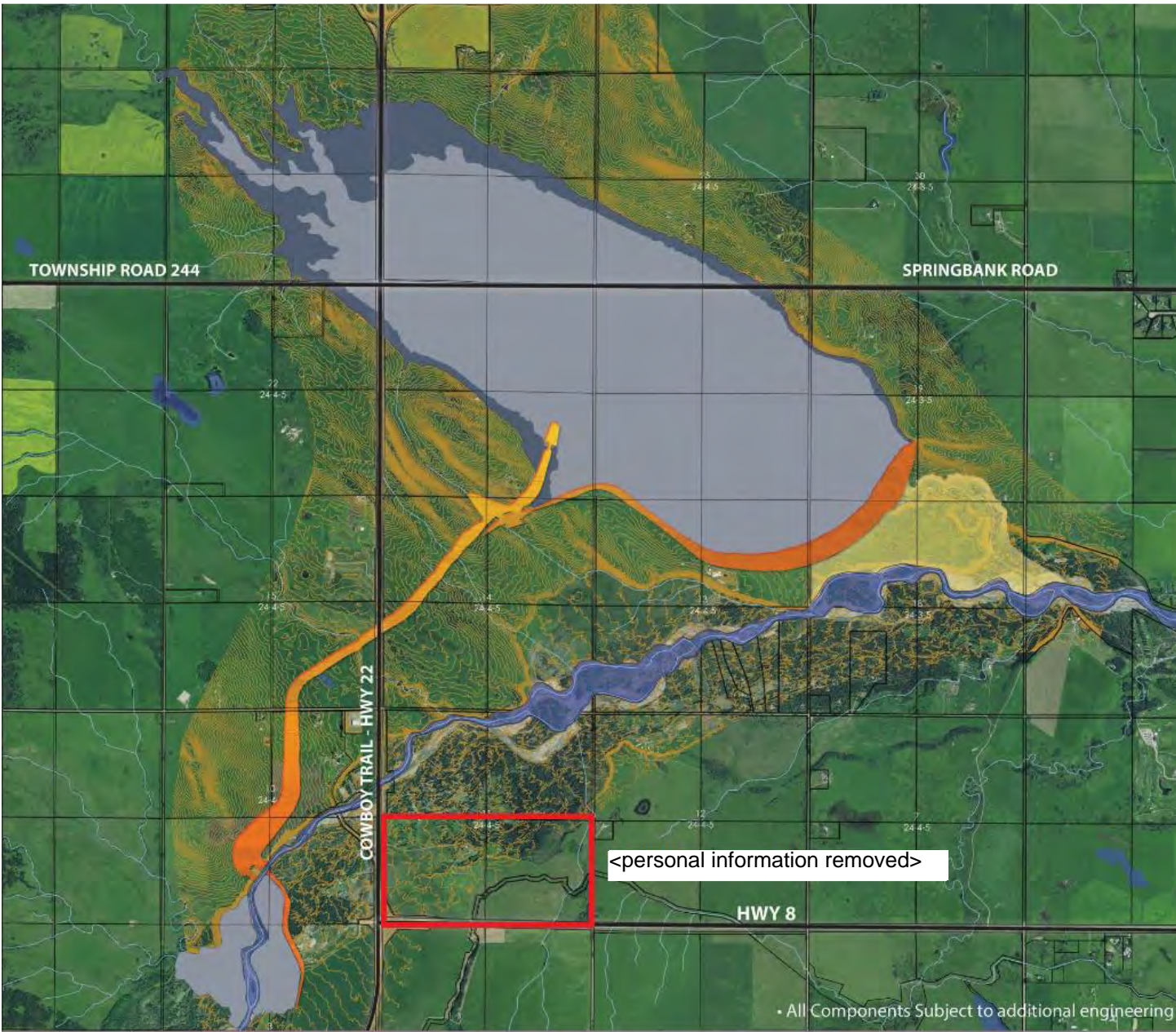
Liz Breakey, Councillor, Division 1, SW Rocky View County, Bragg Creek, lbreakey@rockyview.ca

Jerry Arshinoff, Councillor, Division 2, Rocky View County Springbank, jarshinoff@rockyview.ca

Don't Damn Springbank, info@dontdamnspringbank.org

Colleen Munro <personal information removed> <email address removed>

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Gary Munro with daughter, Tracey Feist, July, 2015

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News

Rocky View County Signs SR-1 Agreement

Friday, May 29, 2020

Rocky View County has signed an agreement with the Alberta Government that compensates the municipality for lost revenue should the Springbank Off-Stream Reservoir project (SR-1) be completed.

If SR-1 proceeds, Rocky View County will receive \$10 million from the Province to address the future loss of municipal property taxes on the 3,870 acres (1,566 hectares) of land that will be impacted. The Alberta Government is also committed to deal with certain road or infrastructure issues that may arise from the construction and operation of SR-1.

The Province has also announced its support for a number of transportation projects in the County that are not tied to SR-1. Those projects are:

- \$2.5 million for upgrading the intersection at Highway 560 and Garden Road (west of Langdon near the Calgary boundary)
- \$8 million for a new roundabout at Highway 566 and Range Road 11 (east Balzac)

The Government of Alberta has committed to undertake improvements on Hwy 22 at Bragg Creek, and will work closely with the County and the Tsuut'ina Nation to implement safety and congestion solutions, and enable further development in the area to occur.

Proper flood protection for Bragg Creek has long been a concern of the County with the SR-1 approach, and an additional announcement has helped mitigate that issue. The Province will commit \$9.4 million to fund flood mitigation in Bragg Creek. This is on top of the \$32.8 million already dedicated by the Alberta and Federal governments.

On May 12, Rocky View County Council voted to withdraw its objections to seeing SR-1 proceed through the regulatory review processes. The County had originally opposed

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moving forward unless other flood mitigation options were subjected to a full analysis.

“For our part of the agreement, we have essentially agreed to trust in the federal and provincial processes,” says County Reeve Greg Boehlke. “The Province will have to meet very high standards to pass environmental and regulatory reviews for SR-1. If the standards are met, they can move forward.”

Since the 2013 floods in southern Alberta, Rocky View County has strongly supported the need for flood mitigation measures for the region. However, the County was repeatedly blindsided by surprise announcements on SR-1 from the previous provincial government, and had difficulty obtaining any meaningful information on the project and its impacts.

“Over the past year, communication between the County and the Province have improved considerably on all fronts. That has led to mutual understanding and co-operation for a number of long-standing issues, opportunities, and concerns, including SR-1,” says Reeve Boehlke.

“We’re all committed to building the right flood mitigation projects for the people of this region. By working together, we’re ensuring that the goals of public safety, enhanced quality of life, and economic wellbeing can be met, while respecting the environmental and regulatory processes that are in place to protect everyone,” Boehlke says.

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Communications
media@rockyview.ca

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Submissions of Vickie Tait

I own and reside at 242221 RR 42, which lies south of Springbank Road and across from the Diversion Channel.

I own and operate an equestrian club called Eagle Feather Riding. Eagle Feather Riding is a riding school which I operate from my home. The ages of my students range from 5 years to 80 years.

I bought this 80 acre parcel 16 years ago with my brother. I have since then bought out my brother's interests in the land. Since the land was purchased, my brother and I worked to make this land beautiful and enjoyable.

Concerns

Visual Impacts

This project will disturb the beauty of nature the way it is meant to be. We try to teach the children to leave the land the way they find it. This project is not in accordance with that teaching as this will be a big disturbance. The project will destroy the beautiful landscape that we have. I cannot imagine that they want to build this project here. With the storage of water in the reservoir pending release after a storm event, the reservoir will become host to bugs and mosquitoes, which is an eyesore.

Water Impacts

This project will result in the flooding of our lands and contamination of groundwater and water in the Elbow River.

Environmental Impacts

A lot of wildlife use and pass through the project area. For instance, on a weekly basis in the spring and fall, I see a large elk herd pass through the reservoir location. This February 2021, I have seen over 300 elks from my window using that corridor where the reservoir is proposed to be located. The elks go back and forth across the highway. I have also seen moose and other wildlife use the project area.

The wildlife and my horses will likely be affected by the dust from the silt.

Safety Concerns

I am concerned about the impact of this project in the event of a failure of the dam or any of the project's structures. The consequences of a failure will be great and far reaching.

Land and construction Impacts

I understand that a couple acres from the front of my property will be expropriated by Alberta Transportation. This expropriation will not be necessary if another location such as MC1 is chosen.

I currently have direct access to my driveway from Highway 22. Any work on Highway 22 will affect access to my driveway. Depending on the kind of road that Alberta Transportation will build, my driveway will be impacted. I will have to find alternate ways of accessing my lands. This will also impact my customers' ability to access my lands for their riding lessons.

Consultation

No one from Alberta Transportation came to explain the project to me. I attended the open house in Springbank late last year because a neighbour informed me about it, otherwise I would not have learnt about this project.

The communication from AT during the open house suggests that they were not listening. Please listen to the concerns of the landowners and move this project to other areas such as MC1 or other areas where it would not devastate lands that have been in the families for generations.

Requested Disposition

I request the Board to deny the application for approval.

Submissions of Debra and Weston Zelisko

We reside at 241120 Range Rd 40.

Concerns

We are concerned that the Project will affect school bus transportation. There will be a school bus detour.

We believe this is a terrible project and has been opposed since Day 1.

Requested Disposition

We request the Board to deny the application for approval of the Project.

Submissions of Duane C. Griffin

I own and reside on the SW ¼ 15-24-4-W5. I use this land for agricultural purposes.

Both sets of my great grandparents homesteaded in Springbank. I have cousins who have been farming this land since 1894. I am farming a quarter section of my mother's homestead by my grandfather in Springbank. I plan on passing this property down to a niece.

Concerns

I have concerns with the surface water drainage to the Elbow River. I have concerns with the quality of the water wells if this project goes ahead.

The canal will disrupt wildlife patterns and will have an impact on hunting.

The canal from the intake will run approximately a quarter of a mile along side of my east fenceline.

I will have to cross a bridge over the intake canal on RR242.

Consultation

I was not satisfied with the consultation that was provided. They did not answer questions about wells (water) and seasonal creeks.

It seems its always been when the dam is built and not if the dam is built.

They seemed somewhat arrogant and dismissive when talking or asking about options (i.e. Maclean Creek).

Costs

The costs already spent on the dam without it having been officially approved is concerning.

Requested Disposition

I request that the Project be not approved.

Submissions of George Kapocsi and Eniko Kapocsi-Kiss

We reside at 33238 Springbank Road, which is about 5 kms from the project dam, with our children, Anna Kapocsi (13 years old) and Thomas Kapocsi (15 years). My land description is Lot 2, Block 1, Plan 901 0697.

We acquired our property on May 17, 2012. We are new to this community but in this short time, we have learned to appreciate all the hard work that families over the decades have put in to make this area as great as it is now. They have worked hard to preserve the land while raising livestock. We are grateful for all their hard work.

Concerns

Environmental

We have environmental concerns especially how the project will impact Springbank and downstream Calgary residents. We are concerned about how wildlife will be affected after the land floods and animal habitats are destroyed. Although we are less concerned about the construction of the dam as it is more gradual, the impacts after a possible event of flooding over a very large area such as silt contamination destroying natural habitats are very concerning. We would like to know how long it might take to bring the land back to its original (or close) state after a flood event.

Project Value

We are concerned about the very low long-term value of the project, as it does not address water conservation needs nor has any added recreational value.

In the new proposal, it seems that the land will be cordoned off, to be accessed only by indigenous people. If our community gets destroyed with this proposed plan, can we at least, as a community get some recreational value out of it when it is safe to enter the area?

Safety and health Concerns

We are also concerned about the safety and health impacts to nearby residents due to air pollution and groundwater contamination. SR1 still seems to be a rushed decision!

Consultation

We attended several open houses. Our impression from the open houses is that Alberta Transportation's representatives who came to explain things to us are not actually listening to our concerns. Instead they came with their own agenda, which they communicated to us. There was no two-way communication.

The last open house was pathetic especially when the Minister of Transportation clearly stated that Springbank residents have no gain from this project; they only need to accommodate the project for the greater good of other communities. He was not even aware that Bragg Creek is actually upstream of this dam and will not be protected.

Requested Disposition

I respectfully request the NRCB to deny the Project.

From: Eniko Kapocsi-Kiss <email address removed>
To: Springbank (CEAA/ACEE) <ceaa.springbank.acee@canada.ca>
Date: Thu 09/05/2019 10:25 PM
Subject: Fwd: Springbank off Stream Reservoir concerns

To whom it may concern,

Yesterday I attended the open house at the Springbank Heritage Club, organized by the Springbank Community association. This is not the first time I attended meetings about the SR 1 project and it is becoming clearer and clearer to me that it is a **ruled decision**, without proper assessments and consultations. Maclain Creek was identified as a possible reservoir site 1986, while Springbank was in 2015.

I attended Government scheduled open houses in the past where very little information on the real cost of the project and all the environmental effects was presented.

I am a resident of Springbank I live on 33238 Springbank Road, approximately 5 km from the proposed Dry Dam.

To summarise my concerns in two sentences:

**The project ignores the two most pressing issues of the 21-century land and water conservation, and this concerns me greatly as an Alberta resident and taxpayer!
There is a better option in my opinion which is Mclean Creek.**

Some of the main issues, unfortunately, the list is far from complete, to keep the letter at a reasonable length...

Environmental issue: This project is not answering one of the most pressing issues of the 21 century which is water conservation. With the proposed dry reservoir the excess water in case of a major flood will be collected and stored for up to 80 days, as standing water and flushed downstream to Calgary as waste. I can begin to think of the health effects of this water hitting the Glenmore reservoir, contaminating the Drinking water for 500 000 Calgarians.

To contrast this, the Mclean Creek option, the reservoir will be storing fresh water, for drinking fire control, recreational use etc...

The ecosystem along the river is really important and from what I gather from the open houses it was not assessed properly how it will be affected when the SR-1 is filled.

Dust pollution is the other issue, I hear that at the deepest point of the dam after it is drained there could be 4 M of silt! There is no information available on any studies showing the effect of the west Chinook winds on that dust, and how far it could travel.

Economic issues: The cost of the project was never clearly explained and communicated, I would like to see a direct and fair comparison of the two projects McLean Creek and SR-1. As

right now as a taxpayer in Alberta I feel that the money which will be invested in the project will not be buying a long term asset rather will be sterilizing prime agricultural lands taking away its value forever.

Springbank was supposed to be a quick solution, with now 5 years into planning, and it is more and more clear that it will not be long term solution when we consider water conservation. Calgary will need to think of its drinking water, as it is reaching the current limits in a very near future.

I would urge the government to rethink this one more time with the more leveled head, and not make a rushed decision. Yes this project directly affects me as it may affect the water I am drinking on my property, I will be greatly affected by the dust, during construction and in case of a flood event, I am however more concerned about the validity of the project as citizen of Alberta, who would like to invest its tax money in a legacy project like a reservoir in McLean creek rather than flush it down with useless wastewater.

--

Eniko Kapocsi-Kiss

Cell: <contact information removed>

--

Eniko Kapocsi-Kiss

Cell: <contact information removed>

Submissions of Janet Hawes

The lands that I own or own jointly with my sister Mary Ellen Robinson and my daughter Rhonda Gervais are legally described as the NW, NE and SE of 3-24-4 W5. These lands have been in our family since 1888 and we do consider these quarter sections generational lands. Pioneer families have an attachment to the land that continues through the generations. These lands are our anchor, our history and our future. To have it taken away when better options are available is incomprehensible.

We use our land to grow hay and green feed and use it for pasture for cattle and horses.

My parents' home will be destroyed by the SR1 Project. They built this home themselves from logs off the property over a 7 year period.

Concerns

Financial Impacts

Alberta Transportation is planning to purchase 240 acres of our land. Annual income from the sale of our hay/green feed will stop.

Environmental Impacts

The SR1 diversion dam will likely contaminate water wells in Springbank as the reservoir is on land with natural springs. The Project will also result in the loss of habitat for a large elk herd, deer and several grizzly bears who summer in the area.

There will be increased pollution from standing water including rotting animals, fish and sewage from Redwood Meadows and upstream septic systems in Bragg Creek.

Air Quality Impacts

Air quality will be impacted. The left-over decaying animal and plant material that remains once the area dries after flooding will cause a degradation of the air quality in the area.

Safety Impacts

The berms and bank stabilization recently put in place and those planned will not protect Redwood Meadows and Bragg Creek residents if another 2013 flood occurs. We are concerned about the risk implications of a failure of the project's structures especially the diversion gates.

The Project will affect pipeline crossings and pipelines under the flood area. These pipelines will be under water thereby increasing the risk of pipeline failure.

Land and Land Use Impacts

The Project will also have recreational impacts. We spend time along the river and on the properties with our grandchildren who are the 6th generation to enjoy the land that their great, great, great grandparents worked so hard on. Our ability to enjoy our lands recreationally will be impacted.

Construction Impacts

The Project will cause traffic diversion on Springbank Road. This will not only be an inconvenience but will likely cause an increase in traffic on other roads.

Consultation

We are not happy with the consultation that took place. We learned about the project which would take our lands and livelihood away from a radio newscast. In the first meeting we had with AB Transportation 'expropriation' was suggested. Communication consisted of meetings where landowners and community members were presented with a series of charts and maps around a room. Alberta Transportation and Stantec were present to answer questions about the design but were unable to address any concerns from our family. Stantec's involvement through all stages from the initial design, to creating positive environmental assessments and then to constructing the project would constitute what would be considered a conflict of interest in normal non-political construction projects.

As stated previously, our lands are our legacy and family heritage. Alberta Transportation's threat of expropriation is not acceptable to us. It is not just a piece of land; it is a piece of our heritage and our children's future inheritance.

Requested Disposition

We request the Board to deny the application.

From: M & J Hawes <email address removed>
To: Springbank [CEAA] <CEAA.Springbank.ACEE@ceaa-acee.gc.ca>
Cc: Anna.kessler.acee@ceaa-acee.gc.ca
Subject: Submission
Date: Thu 21/07/2016 5:40 PM

Janet Hawes

<contact information removed>

Springbank Off-Stream Reservoir Project

Canadian Environmental Assessment Agency

Canada Place

9700 Jasper Avenue, Suite 1145

Edmonton, Alberta T5J 4C3

July 20, 2016

Subject: Springbank Reservoir Project - ref # 80123

With sincere thanks, I respectfully submit my concerns about the proposed Springbank Off-Stream Reservoir project.

I am the 4th generation to own productive ranch land that will be destroyed by the proposed Springbank Diversion Dam. My daughter, son in law and their children, the 5 and 6th generations, reside on this land as well. This land is invaluable to me as my parents, grandparents and great grandparents sacrificed and laboured their whole lives to keep it safe for future generations.

Ironically it was my great grandfather who, after settling south of the small town of Calgary in 1888, was forced to give up his land, the ranch house, corrals and out buildings for the construction of the Glenmore Dam in the southwest portion of Calgary in 1932. This reservoir provides drinking water to a sizable number of residents of Calgary and thus benefits many citizens in Calgary.

The Springbank Off-Stream Reservoir on the other hand only benefits residents along the Elbow River in the Roxboro and Rideau communities of Calgary. It does nothing to protect most of Calgary and the communities of Redwood Meadows, Bragg Creek and the Tsuu T'ina Nation up stream of the proposed Springbank Diversion. Twenty two families in Springbank, many who have been here generations will lose their land; some will lose their homes and many their businesses.

The preferred alternative to the Springbank Diversion is the McLean Creek Dam which would be built on crown land in the McLean Creek area and would protect Calgary, Redwood Meadows, the Tsuu T'ina Nation and Bragg Creek. The McLean Creek Dam would provide additional recreational opportunities along with the already developed off road vehicle trail system and campgrounds areas along McLean Creek. Other options include a tunnel in Calgary and dredging the Glenmore Reservoir.

The initial announcement of the Springbank Diversion made in the spring of 2014 was released to the public through the media. The affected landowners were never notified of the project and learned about the government's plans when the rest of southern Alberta heard about it. This disregard and lack of respect for landowners continues today. As yet no minister involved, nor the Premier has responded to our numerous requests for a meeting or to our many requests for accurate information.

The provincial government has yet to release an accurate cost benefit analysis. The footprint of the project from the original cost benefit analysis has increased from approximately 1700 acres to almost 7000 acres. Recent land sales and offers to purchase within 3 kilometres of the diversion dam show that the cost of the land will be 5 or 6 times greater than the cost analysis the government based its decision on. The February 2015 cost/benefit analysis estimated the project would be about \$263 million. At today's land prices, the cost of just the land will be well in excess of \$250 million. When the accurate costs for construction of the berm, construction of the canal, construction of the mechanism in the river that diverts the Elbow River, the construction of the dam structures, highway realignments, moving and deepening high pressure, export pipelines and the costs of maintenance are considered, this project will be very close to a billion dollars.

The provincial government continues to say that the Springbank Diversion is fast and cheap. It will not be cheap and most certainly a project of this size, which negatively affects so many communities upstream of Calgary, should not be fast. Any project that adversely affects ranching families who feed Alberta's citizens and destroys delicate eco systems with vast wildlife should not be hastily reviewed and completed without due care and study. This area is home to grizzly bears and black bears. A grizzly sow and cubs return annually for the spring and most of the summer right in the area of the dam. Other bears are seen regularly in the area. The area is also home to elk, deer, cougar, Lynx, bobcat, coyotes

and the occasional small group of wolves. The Elbow River at the point of where the water will be diverted is home to Cut Throat and Bull Trout. There are also many species of birds in the area, including bald eagles, swans, barn swallows, mountain bluebirds, red winged blackbirds. Destroying environmentally priceless land and animals should not be "fast".

The provincial government has stated that this will be a dry dam which will be filled regularly then later drained. Until the dam is drained after summer's heat, stagnant water will remain ideal habitat for bacteria and mosquitos. This stagnant water will then go back into the Elbow River to the Glenmore dam and eventually into Calgary's drinking water. The dry dam area will be left with unknown contaminants easily picked up by the prevailing west winds blowing over the east part of Springbank, the city of Calgary and the east part of the Tsuu T'ina Nation. Ground water and the water table in the Springbank area is already a major concern for residents and the impacts of a massive dam on an already overloaded watershed is unknown.

In the event of another 100 year flood, the canal and the diversion dam will fill with sewage and debris from Redwood Meadows and Bragg Creek, uprooted trees and silt as well as dead animals and fish. The 2013 flood left trash and dead animals over large areas on either side of the Elbow between Bragg Creek and west of Calgary. The canal and diversion will concentrate the waste into one area and then later in the summer the contaminated water will be drained back into the Elbow River downstream from the dam into Calgary's water supply.

I also question the Government's intent to be open and fair when the engineering firm that initially did the plans for this project is now doing the provincial environmental assessment and also has the contract to do the final plans for the construction. The provincial government is insisting that the Springbank Diversion Dam will be constructed even though the NRCB and as of yet the CEAA have not been able to determine if the diversion dam is in the public interest.

Our Tsuu T'ina neighbours need to be included in any environmental and social assessment. Their knowledge of the area along with the input of those landowners who have worked the land is invaluable.

If this project is completed it will be a permanent structure therefore I feel it is imperative that a full, impartial environmental and social assessment be done.

I thank you for your attention to my concerns and I look forward to a full and thorough review by an objective federal authority.

Janet Hawes

<contact information removed>

Springbank Reservoir SR1

Reference Number

1274

Date Submitted

2019-06-25 12:00:00 AM

Text

To Whom It May Concern,

I am the owner of the above noted lands and am writing with regards to the recent announcement that Alberta Transportation has filed responses to Information Requests issued by CEAA, Alberta Environment and Parks, and the NRCB. My lands are within the proposed footprint of the SR1 dry dam.

I granted Alberta Transportation access to my land for an 18 month period which ended in August of 2017. In June of 2018, Alberta Transportation made a request for a second period of access, totally six weeks in duration.

Negotiations for this access went on through the summer and fall of 2018. I am aware that some landowners were initially reluctant to grant a second period of access because Alberta Transportation and its agents did not properly remediate the land after the initial period of access. Alberta Transportation told us that if landowners did not agree to enter into access agreements, it would use provisions of the Expropriation Act to force access without landowner consent.

The access request was for eighteen separate quarter sections of land in total.

In the fall of 2018 Alberta Transportation advised that the period of access needed was one year rather than six weeks. The landowners assumed that this increased period was to accommodate four season observation and monitoring of wildlife patterns and owl and other bird habitat. The request indicated that the access was for geotechnical testing and monitoring.

In February of 2018 Alberta Transportation advised that the period of access needed to be increased from 12 to 18 months.

I agreed to allow this access verbally through our lawyer, John Gruber, but did not receive the Access Agreement to sign officially. I understood that my verbal agreement for access was sent to the lawyer for Alberta Transportation. At that point, I expected Alberta Transportation to send me the Access Agreement, whereby I would sign and return to Alberta Transportation for further action and next steps (sign the agreement, pay the agreed upon compensation, and begin to undertake their studies).

I am aware that Alberta Transportation was required to respond to a number of Information Requests issues by CEAA, Alberta Environment and Parks, and the NRCB. There would be no reason to require access to my lands except to get the information necessary to provide full and complete responses to these Information Requests.

Alberta Transportation never signed the Access Agreements and did not access my lands, and I believe that it has abandoned the request. I was surprised to see that they had filed responses to the Information Requests without having utilized the land access that was provided. The fact that Alberta Transportation threatened to use the Expropriation Act suggested to me that access was vitally important to properly respond to the Information Requests.

I ask that you consider this when reviewing Alberta Transportation's request submission.

Thank you,

Michele Luider

on behalf of Janice Gauthier

Submitted by

Administrator on behalf of on behalf of Janice Gauthier

Phase

Environmental Assessment Report

Public Notice

Public Notice - Public Comments Invited on a Summary of the Environmental Impact Statement

Submissions of Jim Ona

I reside at 19 Vantage Ridge Estates, Calgary. I have a farm at 34005 Springbank Road with a legal description of NE 20-24-3-5.

Concerns

Water Impacts

I am very concerned about the water for domestic and of course, for livestock use. My concerns relate to both water quality and quantity.

Air Quality and Health

I am concerned about degradation of air quality as a result of airborne particles from silt mobilization and the impacts such degradation will have on health.

Visual Impacts

This project will have visual and aesthetic impacts which will also negatively affect tourism in the area. With an 8-story berm, silt accumulation and air pollution following the construction of this project, no one will want to come here for tourism.

Consultation and Project Costs

I am also concerned about the lack of consultation that occurred with this project, the narrow criteria used in selecting the project location, and the increasing costs of this project. The costs keep changing; all of which will be borne by Albertans.

Project Risk

I am also concerned about the risks associated with having this project at this location, the potential for malfunction, structure failures and unexpected outcomes. These risks need to be addressed sufficiently to ensure protection of the residents of Springbank and the downstream communities.

Requested Disposition

I respectfully request that the Board deny the Project.

Submissions of Judi Hunter

I reside at 166 Escarpment Dr., Calgary.

Concerns

The term, dam, I believe is deceiving. It sounds innocuous but it is actually a large scale (8 story) concrete eyesore. In Hawaii, there are several small concrete run offs for mitigating floods and so that was my interpretation. When I learned of the scale of this project which uses vast acres of land with none of the benefits that an up-stream project provides, I am appalled that it is even being considered.

Furthermore, it is my understanding that there is not another model of this scale that can demonstrate the long-term viability of the project. The thought of creating this eyesore in the centre of pristine countryside when an upstream solution which would complement the region is available is inconceivable.

The cost of flooding is for sure serious, but so is ruining acres of land with no benefit other than flood mitigation.

Requested Disposition

I respectfully request that this Project be denied.

Submissions of Judy Svarich

I reside at 52 Wild Rose Dr., Calgary.

Concerns

My concerns with the SR1 Project include:

Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows,

The facts indicate the above are concerns. I am concerned that Rocky View County (RVC) will accept the money for improvements in RV, disregarding all of the above concerns. It is imperative that we put environmental stewardship and the safety of RVC residents (specifically Bragg Creek and Springbank) ahead of expediency and economics for the benefit of Calgary.

Consultation

There was no consultation. It is very frustrating to read what I assume are facts from AT and what I assume are facts from Springbank Community Association, as often one refutes or contradicts the other's information. Based on the available information and the contradictions, I continue to be firmly opposed to the SR1 project. McLean Creek is the only option at this time.

Requested Disposition

We request that this Project be denied.

Submissions of Kayla and Trevor Scott

We own and reside on a 6-acre acreage in the SW corner of SE 35-24-04-W5 with our two children. We purchased this acreage in 2019.

Concerns

Environmental

We have seen a lot of wildlife in the area like elk, deer, eagles, hawks and coyotes, that will likely be pushed away once construction begins. We see wildlife daily and like to watch them.

Land and Visual Impacts

We enjoy many recreation activities on our lands and on lands where the project is proposed to be sited. Although our land is not being bought or used directly for the dam, the project is going to greatly impact the area where we live. We enjoy watching wildlife using the lands where the project will be sited. The view of the landscape and the wildlife from the comfort of our homes was a major factor in our decision to purchase our property. This view will be impacted by the project. While directly impacted landowners have been offered large compensation packages, we, the adjacent landowners who will be stuck with the changes to the landscape have not been offered any compensation.

Construction Impacts

There has been a proposal to change the access to TWP RD 245 off HWY 22. This will affect access to our property. Construction will be taking place on the section of land south of our property and we have concerns with the noise, dust, and increased traffic that will be created as a result of that.

Requested Disposition

We request the Board not to approve the Project.

Submissions of Kristin and Bill Wallace

We are seniors who reside at 250127 RR 41. This land was acquired in the 30's. The original farm north of Hwy 1 was acquired in 1905. The lands are used as pastures and for raising cattle.

Our access down Township Road 242 to our property will be impacted by this project.

Concerns

Project Location

We disagree with the location. It will not protect Redwood Meadows or Bragg Creek. The environment will not be protected. The wildlife corridor will be destroyed. It will result in silt in the air. We have heard the water could affect a 1/4 section we have just west of Hwy 22 and may also come north of the TransCanada Hwy.

Consultation

We were not satisfied with the consultation that occurred. Reconsider the location. City of Calgary residents should not be the only consideration here. The residents of Springbank, Redwood Meadows and Bragg Creek, who will host the project deserve stronger consideration. But that has not been the case. The entire process used in selecting the project location lacked serious consultation. It was evident the decision was made on the location without public consultation.

We have attached at Tab 1 a letter we sent to the IAAC which contains our further concerns with the project. Our concerns also apply to the application before the NRCB.

Requested Disposition

In our view, the project should not be approved at this location.

Springbank Off-Stream Reservoir Project
Canadian Environmental Assessment Agency Canada Place
9700 Jasper Avenue, Suite 1145
Edmonton, AB T5J 4C3
Telephone: 780-495-2037
Fax: 780-495-2876

I want to express my great concern about the Springbank dry dam project, which was recently posted on the CEAA website.

As a resident and taxpayer of Alberta, and a concerned member of a community affected by flood mitigation, I am impacted by this proposed project.

I understand that the size of the Springbank dry dam project is enormous—in excess of 6,800 acres or 27.5 square kilometers. If project gets built, it will result in the loss of a vast amount of heritage ranching land in southern Alberta. The history of this land is an important part of Alberta's legacy and a valuable cultural resource that must be protected.

The project description also indicates that traditional territory and reserve lands of First Nations are also impacted. The protection of First Nations Treaty and traditional rights is a federal responsibility, as I understand it.

In addition, the land inside and around the dry dam project is inhabited by many species of wildlife, including Bald Eagles and Grizzly bears. The construction of such a massive project will no doubt have a damaging impact on these special species and their environment.

Bull trout and West Slope Cutthroat trout habitat is also known to exist in the area where the diversion structure is to be built on the Elbow River. I am concerned that this habitat will be damaged or destroyed by construction and ongoing operation.

I understand that federal environmental laws and regulations protect these species of fish and wildlife, along with the many others that inhabit the Springbank dry dam project area. Given the size, scope and impact of the Springbank dry dam project and its potential harmful impact on the wildlife and aquatic environments, I ask that a federal government review through the Canadian Environmental Assessment Agency be carried out.

I would support McLean Creek as an alternative.

Thank you for considering my comments. I can be reached at this email.

Sincerely,

kristin wallace

Submissions of Lee and Diana Drewry

We own NE and NW 26-24-4W5. This land was originally bought in the 1940's. We are the third generation to own the land and we plan on passing the land down to our daughter. Our family history in the area dates back to the 1880s and is well documented in history books of the area.

Our lands are used for ranching and raising cattle.

Concerns

Business Impacts

The project will affect our business operation and finances. We will have 35% less pasture so there will be a big impact on our ranching business.

Lost ranching or development opportunities. In the short to medium term we intend to maintain the ranching operation on this land. However, we cannot escape the fact that we are relatively proximate to a large metropolitan area (Calgary) and the inevitable creep of development westward. Our land is incredibly developable with great access and commanding views of the Rockies. The SR1 project has a negative impact on us in the short, medium and long term.

Water and Air Quality Impacts

The impact to groundwater and air quality are likely to be negative. An impact to groundwater will affect our ranching business. Air quality impacts due to silt floating in the air will impact our ranching business and our health.

Environmental degradation

The project will have a negative impact on wildlife, wildlife corridors and native vegetation.

Loss of privacy. When there are no cattle on the property, we enjoy hiking and observing the wildlife on the land. We are surrounded by other privately owned land, so we do not encounter members of the public. If the Crown purchases portions of our land and neighbours' land, then we will be more likely to encounter trespassers on our remnant lands.

Safety Concerns

We are concerned about safety of the dam structures and its impacts on residents. We are also concerned that the project may result in increase in indiscriminate use of firearm hunting especially in areas where firearm hunting is not allowed such as east of Hwy 22.

Project Alternatives

Given other alternatives exist on crown land, we believe the taking of private land is unnecessary and an affront to property rights. We also believe that Alberta

Transportation and Stantec have not accurately accounted for all the costs of the SR1 project, which prejudiced the financial rationale for the SR1 project.

Consultation

We feel that the government have been unwilling to listen to landowners since day 1. Their communications have been, and continue to be, full of misinformation.

Requested Disposition

We request that this Project be not approved.

Submissions of Linda Fitzpatrick

I live at 242200 RR 43. I am the owner and operator of Reverence Stables Horsemanship Centre ("Reverence Stables"), an equestrian centre located on the same parcel. My assistant at Reverence Stables lives at 242140 RR43 that is on the same quarter section of land owned by Honey-King Industries Ltd.

Concerns

I am concerned about the effect of the SR1 Project on the Pirmez Creek that runs through the Honey-King Industries Ltd.'s property. Will this creek be flooded and contaminated by this project?

Regarding the diversion channel under the proposed bridge on Township Road 242, what are the alternate plans for traffic, if and when the bridge is washed out? Will Jumping Pound Road at Copithorne Ranch be constructed to handle additional truck and community traffic?

Horse trailers, vet and emergency vehicles require access to get to Reverence Stables and other areas. We have a new horse barn that is accessible off of TWP Road 242. If Township Road 242 is affected by the Project, what alternate access has been identified to deal with the issue of access to properties affected by the Project?

Requested Disposition

In my view, this project should not be approved in its current configuration.

Submissions of Marlene Dusdal

I own the lands legally described as N ½ 2-24-4-W5 which is across from the Diversion Channel. I have resided in the Pirmez Creek area since 1964 (57 years) and have witnessed all Elbow River flooding since then.

About 200 acres of my land is used as farmland and the balance, excluding my house yard, is in pasture. I grow and produce forage (hay) for livestock feed.

Concerns

Flooding and Safety Risks

I have major concerns with flooding. One of my biggest concern is that the diversion gates will not work. I am also concerned about all the rip rap in Bragg Creek that will be washed down the river. Bragg Creek will not be protected and will still have groundwater flooding.

On the North-west ¼ of Section 2-24-4-W5M, there are two pipelines crossing my property from north to south. The first one is a Trans Canada 36" Pipeline installed in 1962 that is 1.2 metres deep with about 800 to 1000lbs per square inch pressure. The second one is a Nova Chemicals Corp.'s 42" Pipeline installed in 1970, same pressure as above and carrying sweet natural gas.

I spoke via phone to Brent Denoncourt, landman for Nova Chemicals and Ian Gerard, landman for Trans Canada Pipelines about SR1 Project on June 2, 2016. I was informed by them that they were against SR1 but if it did proceed, the company's policy would require that the pipelines be moved or lowered to at least 3' deep.

Alberta Ethane Development Co. Ltd (AEDC), a subsidiary of Pembina Pipeline Corp., gained control of the Nova Chemicals pipeline from Nova Chemicals on October 1, 2017.

On March 26, 2018, they did a burn on the pipeline and "bore" holes at Kamp Kiwanis without informing nearby land owner residences, as required by law. I happened to be on the highway that day and saw what was happening. When I inquired about what was going on, I was told it was all done with regard to SR1 being approved.

My concern is that these pipelines are very old and poses a safety risk in the event of a rupture or break. My residence is close to these pipelines and will be affected adversely. Also, a pipeline break due to flooding will adversely impact my freshly seeded and producing hayfield. What is the cost involved and is Alberta Transportation going to reimburse/compensate me for any damages sustained due to a break or rupturing of the pipelines? There will be additional costs such as replacing fencing, removing contaminated soil etc.

Will Alberta Transportation need access to my land for the pipeline work?

Groundwater impacts

I am really concerned about the aquifer. The river per se is not the issue, it is the aquifer. In 1967, my home was flooded with up to 3 feet of water in the basement - not the river - GROUNDWATER flooding! Kamp Kiwanis work impacted the groundwater.

Dr Robert Sanford in Canmore, the author of the book "Storm Warning, Water and Climate Security in a Changing World" (ISBN 978-1-77160-145-0) mentions SR1 and said it is not going to work. There is a sheer cliff on the north side of river. Is the water going up hill?

Environmental Impacts

I am concerned that the Project will impact wildlife in the area. I have attached a **video** showing a large elk herd that I noticed on my property on November 27, 2020. The estimated size of the herd was between 200/300 head. This is not the first time that there has been elk on my property but it is the only time that I have taken video/photos.

Requested Disposition

This project should not be approved. I request the Board not to approve the project.

Submissions of Marsha Wagner

My family and I own and reside at lands legally described as Section 27-24-4-W5M (Full section at Highway 1 and Springbank Road). I also have a tenant that lives on the NE quarter. We use the bulk of our lands for cattle forage.

This land has been in the family for 5 generations. I am the 4th generation on the lands. We have two daughters and we would like to keep our land in the family.

When we built our house, we were required to meet special building requirements such as completing a soil test and erecting industrial grade footings. These were required to keep our foundation from heaving because our land had swelling clay.

Concerns

Land Use Impacts

Although we do not know how our home will be impacted by this project, we are concerned with this Project and how it will affect the use of our lands. Currently elk calve on our lands. The Elks and other livestock have lots of cover to graze and calve. In our submissions to the Impact Assessment Agency of Canada (IAAC), which is attached as **Tab A**, we included photos showing elk herd grazing nearby and sightings of grizzly bears in the area. The photos were taken from our lands.

Although we allow some controlled hunting in a regulated fashion (i.e. experienced hunters who know the land and location of our houses) to prevent poaching and trespass, we are concerned that this Project will bring many people into the area who will seek to hunt on our lands. Hunting on our lands by inexperienced hunters, who do not know where our residence is located, will put us at risk of being shot or catching a stray bullet.

We are also concerned that the layout of the project's contour could result in the flooding of my residences especially the basement during a flood event despite the extra precautions that we have taken to shore-up the footings of our homes. The project's footprint is just a few meters away from our foundation. If the project footprint is not 100% accurate, our basement would likely be flooded during a flood event.

Water Impacts

We are also concerned about the unknown impacts of this project on our water well, groundwater, and aquifer in the area. We are also concerned about how the wastewater generated from the Project will be dealt with. What will be the effect of this project on the septic systems for our homes? We have two residences that would be impacted by this Project.

Consultation

We have been asking for 6 years for consultation. We have not been consulted. It looks like Alberta Transportation just used the contour of the land and did not look at the actual

locations of residences. The Project's footprint runs right through our yard and yet, we have not been consulted about how this Project will impact us.

Overall, we are very sad about the treatment of the community and landowners. We feel like an obstacle. This Project has no positive outcomes for the upstream residents for flood mitigation, only negative outcomes for the local residents. Who would want to live downstream? I would not want to live downstream from an earthen dam of this nature considering the safety risks associated with it.

Requested Disposition

We request that this Project be denied.

From: Marsha Wagner <email address removed>
To: Springbank [CEAA] <CEAA.Springbank.ACEE@ceaa-acee.gc.ca>
Subject: Springbank Reservoir- Public Comments
Date: Thu 14/06/2018 11:59 PM

Hello,

I would like to convey some of my concerns about the proposed SR 1 project.

There is little to no benefit to the community of Springbank should SR1 proceed. A dry dam doesn't have the redeeming features that a permanent reservoir like Maclean Creek (MC1) would. For example, recreation opportunities, fire fighting, water storage would all be side benefits of MC1 . A dry dam like the proposed SR1 kills animals, fish, vegetation, and leaves unhealthy silt deposits and debris. It would leave over 3000 acres of once desirable useful land sterilized. It would destroy homes and livelihoods of rural Albertans who have cared for this land over several generations.

It just isn't right that an expensive public project like the proposed SR1 doesn't add *benefit* to the host community.

The Calgary River Communities Action Group claim that SR1 would protect 1.2 million people. This is misleading. It would in fact benefit those who live right on the Elbow river in a known flood zone. This is evidenced by their Facebook page, which have only 850 people following it. If it were actually a million people who would benefit from SR1, wouldn't you think there'd be at least tens if not hundreds of thousands of people following this page? Likewise, the other Facebook page called "Flood Free Calgary" , at last check, has 8, that's right, ***eight people following.***

In contrast, at time of writing this, the Don't Damn Springbank Facebook page has 2844 people following, and Dam Maclean has 3478 people. These numbers indicate many more Albertans are in favour of MC1 over SR1.

I am very concerned about the wildlife that live in this area. We have grizzly, elk, whitetail deer, moose, cougar, coyote, just to name a few species. The elk live, breed and calve in the SR 1 footprint. Likewise, we have a healthy population of grizzly in the area (in fact the GOA removed six grizzlies out of the area in 2017!) If the proposed SR1 floods, it will kill animals, as well as the vegetation and cover that support

them. I have included a few photos (see below) taken on property which is in the footprint of the proposed SR1.

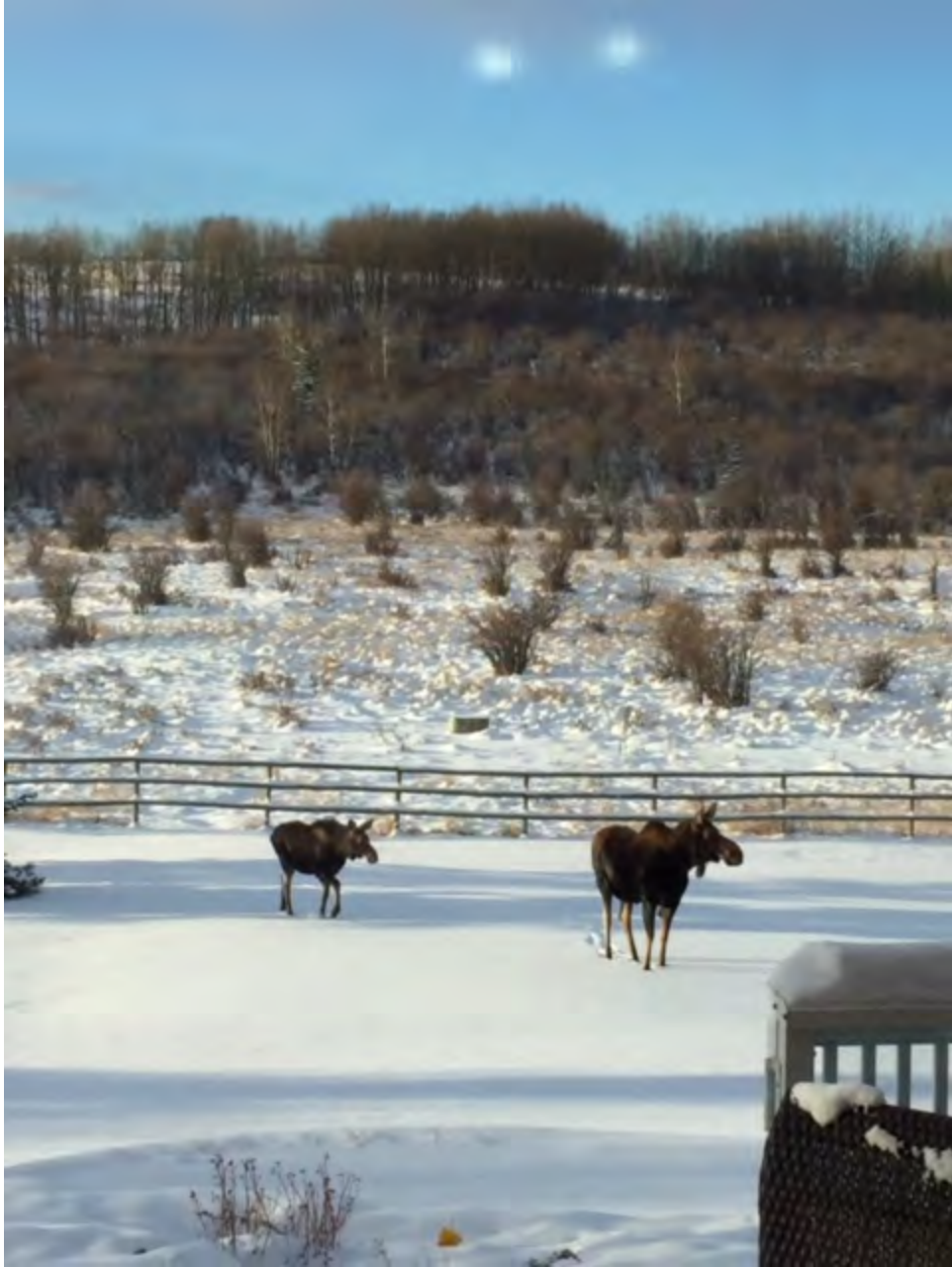
We do need flood mitigation, but it's important we do the *right* project that benefits everyone. Maclean creek fulfills these principles and should be the project that is pursued.

Thank you,

Marsha Wagner







Sent from my iPhone

Submissions of Marshall Copithorne

I own SW 33-24-04-W5 and Section 21-24-04-W5.

Concerns

SR1 is a flawed project. The concern should be water conservation and management. There are many more drought years than flood years. Potable water conservation for future growth in the Calgary area should be a goal. Water management in the form of Irrigation, recreation, fire control is the very possible, common sense option available on the Elbow River at little extra cost. This is the 21st Century, let's think and look ahead and not back at a destroyed piece of real estate dust or mud. SR1 offers nothing for the investment other than hope that it might work someday. A very costly emergency plan I should say when so many useful positive options are available.

Alberta Government responsibility to rural Albertans. We are out voted, yet, still expected to protect the environment as we and nature see it. Not as Urbanites see it.

Requested Disposition

I request the Board not to approve the Project

Submission of Phil Copithorne

I own lands legally described as SE 5-4-24-19, NE 5-4-24-18.

Concerns

My concerns with this project are detailed in the attached letters that I submitted earlier to the IAAC.

I respectfully request that the Board consider my concerns, which are also applicable to the application before the Board and deny Alberta Transportation's application for approval of this project.

From: Phil Copithorne <email address removed>
To: Springbank [CEAA] <CEAA.Springbank.ACEE@ceaa-acee.gc.ca>
Cc: info@dontdamnspringbank.org
Subject: The Springbank Dam is not justified
Date: Mon 14/05/2018 4:25 PM

Springbank Off-Stream Reservoir

Canadian Environmental Assessment Agency

Canada Place, 9700 Jasper Avenue, Suite 1145

Edmonton, Alberta T5J 4C3

TO WHOM IT MAY CONCERN:

I am a directly affected landowner and lifetime Springbank Resident as well as a property and business owner in Calgary's downtown "floodplain."

Thank you for the opportunity to comment on the Springbank Off-Stream Reservoir Project Environmental Impact Statement (EIS).

The Project's environmental effects are significant and not justified in the circumstances. Alberta Transportation has failed to demonstrate how the environmental effects will be mitigated and failed to demonstrate that the Project is best means of carrying out flood mitigation for the Elbow River.

I urge the Canadian Environmental Assessment Agency (CEAA) to consider the following significant environmental effects when conducting its environmental assessment:

1. The Project is permanent infrastructure. As a result, it should be subject to the highest level of review. Many of the Project's environmental effects are irreversible in light of the Project's permanence. These effects include the destruction and alteration of fish habitat and the loss of wetlands, which provide important habitat for migratory birds.
2. The Project will alter migratory bird habitat and increase their mortality risk.
3. The Project will result in the destruction and alteration of important fish habitat. It will also increase fish mortality through the destruction of habitat, increased sedimentation and stranding.
4. The Project will fragment important wildlife habitat. It will also drive wildlife away through construction-related sensory disturbance, including noise and light.
5. The Project will increase sedimentation, which may have impacts on water quality in the area. The Project may also result in herbicide flowing into drinking water sources. Alberta Transportation says that the impacts are not significant because the water will not become non-potable. However, I urge CEAA to find that any negative impact to drinking water quality is a potential risk to human health and therefore significant.

The Environmental Impact Statement says that these and other environmental effects will be mitigated through mitigation plans which have not been presented to in this EIS. In my view, CEAA cannot find that this project is in the public interest without assessing such mitigation plans. I respectfully submit that CEAA must find that the Project's impacts are significant and unjustified in the absence of being shown any specific measures to avoid or mitigate the adverse impacts.

I am aware that Rocky View County has applied for its own flood mitigation project on the Elbow River at or near Bragg Creek. This project consists of approximately 4 kilometers of dykes on the Elbow River. Given the relatively small distance between the Springbank Off-Stream project and Rocky View County's Bragg Creek project, and the fact that they are on the same river, both of these projects should be assessed by CEAA as a single project. I am concerned that Alberta Transportation and Rocky View County are using project splitting (artificially characterizing a single project as two separate ones) to purposely understate the cumulative environmental impacts of the Bragg Creek dykes and the Springbank Off-Stream project.

There is an alternative means of implementing flood mitigation for the Elbow River – McLean Creek. The McLean Creek option is less expensive and would provide flood protection to more communities, including but not only downtown Calgary.

For the above reasons, I urge CEAA to find that the Springbank Offstream Project's significant environmental effects, as currently presented in the EIS, are not justified.

Thank you for your consideration of these comments and I can be reached at this email address or at the number below.

Sincerely,

Phil Copithorne

<contact information removed>

From: Phil Copithorne <email address removed>
Sent: Fri 31/08/2018 10:37 AM
To: Springbank [CEAA] <CEAA.Springbank.ACEE@ceaa-acee.gc.ca>
Cc: info@dontdamnspringbank.org
Subject: *****SPAM***** The Springbank Dam should be REJECTED!

Springbank Off-Stream Reservoir

Canadian Environmental Assessment Agency

Canada Place, 9700 Jasper Avenue, Suite 1145

Edmonton, Alberta T5J 4C3

Thank you for the opportunity to comment on the Springbank Off-Stream Reservoir Project Environmental Impact Statement (EIS).

The Project's environmental effects are significant and not justified in the circumstances. Alberta Transportation has failed to demonstrate how the environmental effects will be mitigated and failed to demonstrate that the Project is best means of carrying out flood mitigation for the Elbow River.

I urge the Canadian Environmental Assessment Agency (CEAA) to consider the following significant environmental effects when conducting its environmental assessment:

1. The Project is permanent infrastructure. As a result, it should be subject to the highest level of review. Many of the Project's environmental effects are irreversible in light of the Project's permanence. These effects include the destruction and alteration of fish habitat and the loss of wetlands, which provide important habitat for migratory birds.
2. The Project will alter migratory bird habitat and increase their mortality risk.
3. The Project will result in the destruction and alteration of important fish habitat. It will also increase fish mortality through the destruction of habitat, increased sedimentation and stranding.
4. The Project will fragment important wildlife habitat. It will also drive wildlife away through construction-related sensory disturbance, including noise and light.

5. The Project will increase sedimentation, which may have impacts on water quality in the area. The Project may also result in herbicide flowing into drinking water sources. Alberta Transportation says that the impacts are not significant because the water will not become non-potable. However, I urge CEAA to find that any negative impact to drinking water quality is a potential risk to human health and therefore significant.

The Environmental Impact Statement says that these and other environmental effects will be mitigated through mitigation plans which have not been presented to in this EIS. In my view, CEAA cannot find that this project is in the public interest without assessing such mitigation plans. I respectfully submit that CEAA must find that the Project's impacts are significant and unjustified in the absence of being shown any specific measures to avoid or mitigate the adverse impacts.

I am aware that Rocky View County has applied for its own flood mitigation project on the Elbow River at or near Bragg Creek. This project consists of approximately 4 kilometers of dykes on the Elbow River. Given the relatively small distance between the Springbank Off-Stream project and Rocky View County's Bragg Creek project, and the fact that they are on the same river, both of these projects should be assessed by CEAA as a single project. I am concerned that Alberta Transportation and Rocky View County are using project splitting (artificially characterizing a single project as two separate ones) to purposely understate the cumulative environmental impacts of the Bragg Creek dykes and the Springbank Off-Stream project.

Further, I am aware through media reports that the Tsuut'ina Nation is opposed to the Springbank Off-Stream project for a number of reasons, including possible negative impacts to water resources. I think it is important that CEAA take the concerns of the Tsuut'ina Nation seriously.

There is an alternative means of implementing flood mitigation for the Elbow River – McLean Creek. The McLean Creek option is less expensive and would provide flood protection to more communities, including but not only downtown Calgary.

For the above reasons, I urge CEAA to find that the Springbank Offstream Project's significant environmental effects, as currently presented in the EIS, are not justified.

Thank you for your consideration of these comments.

Sincerely,

Phil Copithorne

Springbank Off-Stream Reservoir Project
Canadian Environmental Assessment Agency
Canada Place
9700 Jasper Avenue, Suite 1145
Edmonton, AB T5J 4C3
Telephone: 780-495-2037
Fax: 780-495-2876

I am a landowner, and third generation Albertan in the land directly affected by this proposed project. The provincial politicians have made up their minds on SR1 without properly studying alternatives that do not sacrifice property rights, environment, and community. They seem to think they can by-pass proper environmental impact studies, including a CEAA review. Their EIA study so far, which my land is a part of, does not seem to be taken seriously by Stantec nor the GOA and is more of a structural assessment with an eye to building as fast as possible rather than a true and fair environmental study.

Please bring integrity back to this process.

Thank you for considering my comments. I can be reached at this email.

Sincerely,

Phil Copithorne

<Personal
Information
Removed>

From: Phil Copithorne <email address removed>
To: Springbank [CEAA] <CEAA.Springbank.ACEE@ceaa-acee.gc.ca>
Subject: Submission of concerns with proposed Springbank Reservoir
Date: Mon 25/07/2016 12:50 AM

Springbank Off-Stream Reservoir Project
Canadian Environmental Assessment Agency
Canada Place
9700 Jasper Avenue, Suite 1145
Edmonton, AB T5J 4C3

Thank you for the opportunity to comment on the proposed Springbank “dry dam”.

I am a third generation landowner located within the project footprint of the proposed Springbank dam. From its political inception to now, I can tell you firsthand that the process of planning, consultation, and now environmental assessment to date has been corrupt on many levels.

Firstly, other alternatives for Elbow River flood mitigation have not been equally studied nor have they received equal cost-benefit scrutiny. I asked that part of the assessment be to equally study alternatives that would have less negative social impact.

Secondly, the current environmental assessment being undertaken by the government of Alberta and Stantec Engineering seems to be a complete fraud. I can again tell you firsthand as my property is subject to the assessment, that the current assessment has more to do with construction feasibility and planning than it does a true and unbiased environmental assessment.

Thirdly, as the same firm, Stantec Engineering, has been contracted to do both the environmental assessment as well as the construction of the project there is a clear conflict of interest which draws into question the legitimacy of this assessment and its findings. I have no question that the results of this environmental assessment will bias towards construction of the project. I ask that the Canadian Environmental Assessment Agency intervene with an independent unbiased view.

Specifically I offer these requests:

Section 3.2 of the Draft Guidelines requires that one of the factors to be examined is "alternative means of carrying out the project that are technically and economically feasible and the environmental effects

of any such alternatives". I would ask that CEAA adopt a broad definition of the project, namely 'Elbow River Flood mitigation'. A number of options for Elbow River Flood mitigation have been put forward by the Alberta Government at various times, including a dam at McLean Creek, and a tunnel to the Glenmore Reservoir.

In my view, section 3.2 both permits and requires CEAA to consider these alternative measures of providing Elbow River flood mitigation.

CEAA is required to consider the lives and livelihoods of the residents whose land will be taken for this project as a Valued Component. Such lands have been in these families for generations, with their ancestors originally settling them in the early 19th century. The socio-economic impact of the loss of such lands is a proper consideration in the CEAA assessment, particularly in light of the fact that there are alternatives to the Springbank Off-stream reservoir that do not necessitate citizens of Alberta losing their land and livelihoods.

There are a number of high pressure large diameter natural gas pipelines underlying the lands that are to be used for the reservoir and diversion channel. These pipelines are regulated by the National Energy Board. As far as I am aware, the engineering and design of the proposed off-stream reservoir is not yet at the stage where safety issues related to these pipelines could be addressed. It is my view that CEAA should be engaging with the National Energy Board to determine the potential environmental and safety **impacts** of the proposed off-stream reservoir infrastructure on these natural gas pipelines, and this issue should be included in the Draft Guidelines.

Section 2.1 of the Draft Guidelines requires the Environmental Impact Statement to consider the economic benefits of the project. I suggest that the economic benefits cannot be considered in a vacuum – any such benefits must be considered in relation to the economic cost of the project. The proponent should be required to provide CEAA with a comprehensive and up to date benefit/cost analysis of the off-stream reservoir project, which should be compared to the alternatives for Elbow River Flood mitigation which I have discussed earlier.

Section 6.1.10 of the Draft Guidelines is concerned with impacts on the human environment, including health and socio-economic conditions. My understanding is that a reservoir that is regularly filled and then drained can give rise to health issues related to airborne viruses, insect borne viruses and air quality. I request that CEAA conduct a detailed examination of all potential health issues that could arise from the construction and operation of the off-stream reservoir project.

Cultural heritage is included in section 6.1.10 of the Draft Guidelines. The ranching heritage is an important part of Alberta's culture and history – this is clear from the significance and popularity of the Calgary Stampede. As discussed above, the lands to be lost to the off-stream reservoir project are an integral part of this history in Southern Alberta. This should be considered by CEAA, again in relation to the alternatives for Elbow River flood mitigation.

The impact on Rocky View County as a whole should be considered by CEAA to be a Valued Component. The beautiful natural landscape and views existing in the area slated for the off-stream reservoir are used by the County in promoting economic growth and other attributes of the County. The proposed off-stream reservoir infrastructure would have a significant negative impact on Rocky View County as a whole.

Thank you for considering my concerns.

You can reach me at this email or by telephone at <contact information removed>.

Phil Copithorne

Submission of Teray Wills

We reside at 240020 RR 42 across from the diversion channel and close to the Floodplain berm.

Concerns

We are concerned about the impacts of the SR1 Project on the TCE pipelines, which may require relocation due to the pipelines running right under the barn, which is on the right of way.

We are also concerned about project causing business disruption and restricting access to the river. The project may also affect the access to the right of way to river by Redwood Meadows as summer riding camps and boarders use that access to ride along the river.

Requested Disposition

We request the Natural Resources Conservation Board to deny Alberta Transportation's Application.

Submissions of Tony and Julia Vysniauskas and Kestrel Ridge Farm

We reside at 242004 Range Road 32, Calgary. Our property straddles the Elbow River on the north and south side of the river, approximately 160 acres in total. The Elbow River flows through our property. Our property is downstream of the proposed SR1 project.

Concerns

Dam Failure and Risks

We had a lot of property damage from the last flood which required extensive work over the next 4 years. The damages were extensive and in excess of \$1 million. In addition to the physical labour we needed the services of Harco (access to large excavating equipment) to help repair the erosion on the property and help to recover and rebuild the facility. In summary, the damage to our property and work required to repair it included:

1. Loss of land: The river changed course and moved further east on the property. It washed away about 5 acres. Protective woodland and berms that existed were washed away. Most of the remaining wooded areas are still covered in silt and gravel.
2. Loss of 3 outdoor riding arenas: These were lost from the flood due to water erosion. The riding rings had special footing for the horses, border fencing and an irrigation system. These were all washed away. We rebuilt 2 riding rings.
3. Irrigation system: Irrigation system and piping was lost. We had to install a new irrigation system.
4. Land erosion: Extensive erosion of roads and grazing area. Roads were repaired and the gravel and silt that was distributed throughout the property had to be removed from grazing areas, etc.
5. Garbage & debris removal: There was a lot of debris, garbage and washed out trees that had to be removed from the property. Fencing was washed away and had to be replaced.
6. Damage to water wells: Water wells were flooded over and plugged with silt deposits. The water quality and output of the wells were impacted.
7. Damage to buildings that were flooded and associated equipment/appliances.
8. Horses were transported to ranches north of Cochrane until flood subsided.
9. Loss of cashflow to operations.

Although we repaired most of the damage and incorporated some flood mitigation measures, we look forward to increased flooding control initiatives that are sustainable and protective of community residents and their properties.

With the experience we had at the 2013 flood event, if the SR1 Project is not properly designed and operated and further flooding occurs, our property will be exposed to further damages. We do not want this to happen.

We respectfully request that adequate measures be put in place to ensure the sustainability and safe operation of the SR1 Project if it is to be approved.

Submissions by Keith Innes

I reside at 11 Vantage Ridge Estates, Calgary.

My concerns with the SR1 Project include:

1. The Potential of Unknown Impacts on Drinking Water and the Ecosystem:

I am extremely concerned about the potential for this Project to impact the quality and quantity of the potable ground water in the area. It is my understanding, from discussions with those having knowledge of the area, that natural springs may emerge at the surface within the footprint of the storage area of the reservoir. It is my personal opinion that this could result in mixing of the ground water with run-off water that may result in contamination of the ground water in the area. A well documented plan needs to be implemented prior to approval of this Project detailing what will be done, and by whom, if this should happen. Additionally, it is my personal opinion that the Project could have significant impacts on fish, aquatic resources, and the aquatic ecosystem associated with the Elbow River.

2. The Potential for Significant Project Risk and Unsafe Conditions downstream of the reservoir:

I have not been privy to any borehole core sample reports but, in my personal opinion, I am very concerned about the potential malfunction, failure and unexpected outcomes that might result from an earthen dam that may be built on glacial till potentially undercut with natural water springs that might result in potentially unpredictable outcomes. There has been some discussion by others regarding purported failures with similar designs. Anyone living next to the Elbow River downstream of the reservoir should be very concerned in the event of a failure. It should be made public as to who will sign off to the design of this Project and who will be accepting the associated liability for failure of the structure should such an unfortunate even ever occur.

3. The Poor Project Development and Lack of Proper Process:

Based on my engineering experience in Project Management and upon observing from the sidelines how the Project appears to have progressed to date, although without detailed knowledge of the internal workings of the Project, it is my personal opinion that the project development of this Project has likely been handled poorly. The project development process appears to have potentially:

- Demonstrated a lack of early consultation prior to site selection since I am not aware of many landowners who were contacted before the site was chosen;
- Demonstrated bias early in the process regarding the chosen site that was likely not based on an objective, thorough, unbiased review of **all** the facts since significant changes to the design and the resulting costs of the Project occurred later in the process that may have suggested the choice of a different site. I would

further conjecture that the site may have been originally chosen arbitrarily in an attempt to expedite the Project. Decisions made in this manner usually only serve to delay a project once all the facts are reviewed and may lead to bad decisions;

- Demonstrated a poorly defined scope early in the Project that has resulted in significant scope creep **after** the site was chosen;
- Demonstrated a lack of thoroughness in early cost estimates further enhancing the bias to the chosen site resulting in significant cost creep later in the process and;
- Demonstrated a lack of thoroughness in determining the Project Schedule further enhancing the cost creep.

It is my personal opinion that the foregoing would suggest a failing grade on cost, scope and schedule, which are the three cornerstones of a successful project, and would suggest a complete “**do over**” is likely warranted to prevent this Project from potentially getting out of control to a degree that cannot be stopped or fixed. Due to the foregoing, and if this Project is allowed to continue, it is my personal opinion that there will likely continue to be scope creep as the detailed design is completed resulting in a schedule that is extended even further and likely result in excessive cost overruns. Further, it is my personal opinion that if a more thorough, impartial and unbiased review of alternative sites for the reservoir were to be undertaken, it is likely that the SR1 site would not be chosen as the logical location once **all** design factors, current usage requirements and future usage requirements of the area were objectively considered. This would likely result in a more thoroughly planned, cost effective solution that could potentially benefit a much larger number of residents and landowners than the solution currently under review and could potentially result in a much lower cost to reward ratio due to increased rewards with similar or lower costs.

4. The Potential for Environmental Degradation:

This Project will result in the loss of native grasslands once the reservoir is filled the first time and this could have negative impacts on wildlife in the area.

5. General Concerns:

My other concerns with the Project include: air quality and health impacts that may arise from airborne particles due to silt mobilization; the potential impact on transportation due to closures of Springbank Road and elevation of Highway 22; the aesthetic and tourism Impacts of an 8-story high earthen berm coupled with the wasteland potentially created from flooding and silt accumulation causing a huge eye sore in an otherwise pristine area and the uncertainty of unknown longer term impacts on the Springbank area.

Submission of Allan and Terril Shoults

My husband (who has heart issues) and I reside at Range Road 43 and Township Road 242 which is adjacent to the diversion channel. This land was bought in the early 1900's.

We use this land for agricultural purposes and cattle operation.

Our land would be affected in the area where they plan to bring the canal off of the Elbow River and crossing our access road, which is Township Road 242.

Concerns

Our concerns with this SR1 Project include:

Land Impacts

This Project will destroy virgin prairie land that livestock graze on. If a flood occurs, whether natural or through the testing of flood mitigation, there will be silt and muck residues left behind which will forever destroy this virgin land. The muck and silt left to stagnate will become airborne and pollute surrounding areas.

Environmental Impacts

This Project will result in loss of native grasslands and affect the wildlife that we have an abundance of right now. We are concerned about the impacts that deterioration of water quality would have on fish, other aquatic resources, and the aquatic ecosystem. It is likely that there will be increased insect activity during reservoir use. For instance, the operation of this Project will lead to increase in the number of mosquitoes in the area.

Health Impacts

We are concerned about the impacts to our health from inhaling the airborne particles from silt mobilization and the degradation of the air quality in our area. We are also concerned about the impacts to water quality because of the deposition of silts in our drinking water supply.

Construction Impacts

Construction of the Project will result in the closure of Springbank Road. It will also require an elevation of Highway 22. These would have impacts on transportation in the area. The construction and operation of the project will also have a visual impact and will likely affect tourism in the area. No one is attracted to an 8-story high berm and accumulated silt.

Consultation Concerns and Project Alternatives

We are concerned about the lack of consultation regarding this project from Alberta Transportation. The consultation seemed sporadic and very one sided. Some residents were not consulted regarding this project and its potential impacts on us and our livelihood. We are further concerned about the narrow criteria applied in selecting the

location of this project and the increased costs to Alberta and Alberta rate payers that have plagued this project since it was conceived.

The uncertainty regarding long-term impacts of the Project on the local area.

Emergency and Safety Implications

We are concerned about the risk of malfunction, failures and unexpected outcomes resulting from the Project. In the event of failure of the dams, what emergency response and egress routes are available to upstream communities of Bragg Creek and Redwood Meadows?

Requested Disposition

We request the Natural Resources Conservation Board to deny Alberta Transportation's Application.

Submissions of Art Price

I live at 242161 Range Road 34.

Concerns

We do not see the need for the proposed SR1 project and its proposed structures. A solution to flooding is an investment in year around water management and water supply on the Elbow River, Mclean Creek or equivalent as opposed to a disaster relief dike. We need to manage the water for both flood and shortage.

Requested Disposition

We request the Board to deny the application for the Project.

Submission of Barbara Teghtmeyer

We own property located in Bragg Creek, NW 12-23-5-W5 and SE 13-23-5-W5.

These properties were bought in the 1940's and 50's and are used for residential and business purposes. Our business, The Bragg Creek Trading Post, was established in 1932 and has served Bragg Creek continuously to this day.

The lands have been passed down through the generations and we plan on continuing that tradition.

Concerns

We have concerns with flooding. The flood from 2013 had a big impact on our lands and we still do not have protection from groundwater flooding.

We feel that SR1 has not provided adequate protection from flooding for the surrounding communities upstream from Calgary.

Requested Disposition

I request that the Project be not approved. Should the Board decide to approve the Project, I respectfully request that sufficient and robust conditions that will ensure protection of Springbank, Bragg Creek, Tsuut'ina, and Redwood Meadows residents from future flood events be included in the conditions of approval.













Bragg Creek Trading Post

As it was before the 2013 flood. A new verandah was added in 1970.
The house was started in 1988 and finished many years later.



This is a photo of the store after the flood.

Submissions of Brian and Susan Copithorne

Our lands affected by this Project are SW and SE 26-24-4-W5M, SW 25-24-4-W5M (SW 25) and W ½ 3-24-4-W5M. We live on SW 25 and our Ranch headquarters are on SW 25. Our daughter, 2 sons, their spouses and their families all live in the local area. They frequent the ranch to lend a hand and for enjoyment of family time and recreation.

We are 4th generation ranchers. Brian's great-grandparents settled this area in the 1880's. SW 25 is the original homestead, north of the Elbow River and north of Springbank Road. Brian's great-grandfather chose this location because of the water in the springs. He was able to dig a shallow well in the spring that supplied his home and all his livestock with abundant clean water. To this day the water source is potable directly from the spring without any treatment required. Our water wells have continuously supplied multiple generations with clean, plentiful, potable water for nearly 140 years. Our intention is to pass the lands forward to the 5th and 6th generations of our family. Our family legacy of obligation and responsibility to this land prevails.

Concerns

Our concerns with the SR1 Project include:

Groundwater Contamination through the Springs

The GoA intends to "decommission" all wells within the Project Development Area (PDA). This will not prevent floodwaters from coming into direct contact with groundwater present in countless springs within the PDA. I believe, the pressure from the weight or "head" of the floodwater over the springs will reverse the flow regime of the springs and floodwater will contaminate groundwater beneath the surface. Stantec made reference to this probability in the April 18, 2016 Springbank Off-Stream Reservoir Project – Project Description. Section 5.3.4 states "the volume of water to be stored in the reservoir may cause an increase in aquifer pressure and alter the local groundwater flow regime." The use of the words 'may cause' suggests that no one knows for sure what the outcome will be.

Health Impacts from Silt deposition and air pollution

The silt remaining after a flood event will likely become a health hazard not only for us but all residing downwind. Personally, this concerns us because of respiratory conditions in our family. In addition, the damage to prairie grassland may be irreversible.

Project Risk

Our home is about 100 metres from the design flood level. If SR1 operates to the maximum design flood level, floodwater will be very close. Our driveway entrance starts at Springbank Road and approximately ¾ of our driveway will be flooded in a maximum design flood event.

If the reservoir is filled to maximum our home will likely be ruined and uninhabitable. We have an artesian well within our home. It was built to drain the overflow water away and has worked flawlessly for over 70 years. This system will likely be overwhelmed in a flood event.

Septic backup, basement flooding and all the issues experienced by those who live on a natural floodplain like those flooded in 2013 will likely happen to our home and buildings. It's important to note the PDA north of the Elbow River, where we live, is not and never has been a floodplain.

Business Impacts

We run a ranching business on the lands that are affected by this Project. We will have to relocate the business and Ranch headquarters.

Land Use impacts

Alberta Transportation propose acquiring 490 acres of our lands. After generations of responsible land management this proposed project negatively impacts grassland, wildlife habitat, ranch operations, our personal lives, our family's livelihood and plans for family succession.

Safety

Proposed Firearm Use in a Bow Zone (Wildlife Management Unit 212) Personal and public safety will be seriously jeopardized. The immediate area where we live includes 6 additional residences and at least 4 active home based businesses. A miscalculation with a firearm is very different than a bow. To say accidents do not happen is naïve. To willfully put residential, business and travelling public at risk is unconscionable.

Water Security Questions about regular water quality monitoring and prompt, reasonable mitigation to supply clean and potable water for our home and operations remain unanswered.

Respiratory Health Blowing dust from flood deposits pose an undetermined health risk.

This earthen dam is almost 4km in length. We are concerned about the integrity of this structure and safety of people downstream.

Consultation

Since the announcement in 2014 the project proponent has never met with us individually to explain the project. The very first meeting with AT occurred by landowners request. At that first meeting AT were confrontational, aggressive and threatened expropriation. Only recently did the project proponent reach out personally. Through Brian's career he has been involved with numerous projects such as gas wells, pipelines, utilities and road widening. In all cases, representatives met with him in person, explaining the project, what they required of the land and its impact. This has not been our experience with the project proponent.

We have attached letters that we have sent to the Impact Assessment Agency of Canada regarding this project in 2016 and 2019.

We request that the Board deny the application for this project.

May 26, 2016

Springbank Off-Stream Reservoir Project
Canadian Environmental Assessment Agency
Canada Place
9700 Jasper Avenue, Suite 1145
Edmonton, AB T5J 4C3

Reference number: 80123

I am a land owner and resident of Springbank living within the footprint of The Springbank Off-Stream Reservoir Project. I have many concerns with the environmental impact and health implications of this project. I have reviewed the Springbank Off-Stream Reservoir Project document that Stantec Consulting Ltd. submitted to CEAA in April 2016. I have concern with two sections of this report dealing with **Surface Water and Aquatic Environment and Air Quality** (Sections 5.3.4 and 5.3.5). In section 5.3.4 Stantec suggest: “The temporary storage of the floodwater behind the dam may affect shallow groundwater quality and could affect potentiometric heads in hydrostratigraphic units in the Project Area. The additional hydraulic head associated with the volume of water to be stored in the reservoir may cause an increase in aquifer pressures and alter the local groundwater flow regime. Changes in the groundwater flow regime could in turn alter groundwater availability from nearby water wells.”

Like many people in Springbank I rely on water from private wells. What effect will the filling of Springbank Reservoir have on ground water? Will the filling of the dam contaminate the springs and wells and ground water in the Elbow River Watershed? What preparations will the government implement to ensure affected residents have safe drinking water?

Under the Air Quality section 5.3.5 Stantec goes further to suggest: “Air Quality may be affected during the operations of the Program. Sediment would settle out of the floodwaters held within the Off-stream Storage Reservoir. After the floodwaters have been released, the sediments remaining in the Off-stream Storage Reservoir, including on Springbank Road would dry and be susceptible to wind erosion. Potential contaminants picked up by the floodwaters (e.g., raw sewage) would likely remain in the sediment left behind, and may be picked up and carried by the wind as well. Areas east of the Project Area may see a temporary increase in the amount of particulate matter in the air due to the prevailing westerly winds carrying material eroded from the sediments deposited in the Off-stream Storage Reservoir”.

Contaminated silt/sedimentation blowing in the prevailing west winds raises serious health issues for ourselves and other Springbank residents.

These two issues alone warrant a Federal Review.

I have lived within the area described for The Springbank Off-Stream Reservoir Project for over 60 years. In my lifetime I have experienced the return of many wildlife species These include but are not limited to: **Bird Species:** Swans, Red eyed Vireo, Common Raven, Cedar Waxwing, House Finch, Mountain Bluebird, Western Tanager, Harris Sparrow, Lazuli Bunting,

Wilson Snipe, Bald Eagle, Golden Eagle, Canada Goose, Blue Jay, Blue Heron, Baltimore Orioles, Gray Catbird, Rose Breasted Grosbeak, Turkey Vultures and many others. **Mammal Species:** Whitetail deer, Moose, Elk, Red Fox, Cougar, Grey Wolf, Raccoon, Bobcat, Black Bear and Grizzly Bears. These birds and animals are the species that I have seen come in my lifetime and are in addition to many species that were here before. In recent weeks a Sow Grizzly and her two cubs have been observed on our family property within 100 ft of the area where the Diversion Channel for the Springbank Off-Stream Reservoir Project would be built. Her den is on my family property and is less than 750 meters from the project.

Our family and our neighbours have always taken great care to protect and nurture wildlife on our properties. The huge increase in wildlife species and numbers that make this their home is great testament to our stewardship of the land. This area is an important wildlife corridor and needs to be preserved. The Springbank Off-Stream Reservoir Project is poorly conceived and was hastily thought out as a knee jerk reaction to the floods of 2013. A thorough environment review needs to be done before proceeding with this project that has the potential to seriously impact areas just outside of the city of Calgary.

I respectfully request a federal government review through CEAA to give definitive answers to these questions.

Thank you for considering my comments.

Sincerely,

Brian James Copithorne

PS. These are photos of the Grizzly and her family that I took.

From: Brian Copithorne <email address removed>
To: Springbank [CEAA] <CEAA.Springbank.ACEE@ceaa-acee.gc.ca>
Subject: Submission: Springbank Off-Stream Reservoir Project
Date: Tue 19/07/2016 12:23 PM

To: CEAA – Canadian Environmental Assessment Agency

Submission: Springbank Off-Stream Reservoir Project

I would like to thank the agency for giving me the opportunity to express my concerns at this time. I am a landowner whose property lies within the footprint of the proposed Springbank Off-Stream Reservoir Project.

With the exception of the diversion weir on the Elbow River, the first kilometre of the channel and a small area on the south western perimeter, the entire project is on land that was at one time my Grandfather's Ranch. Those current landowners are either my siblings or my cousins (our family). Our family have been stewards of this land for over 120 years. We have cared for and care about this property. No one knows our land better than we do. We are experts on our land.

From the beginning our forefathers realized it would be foolish to plough the native prairie grassland in our valley. Most of the low lying area is covered with freshwater springs and natural wetlands. It is a sensitive habitat for many wildlife and plant species. Over generations we have seen a phenomenal increase in the number and variety of wildlife species that have returned to our area. Today both Mule and Whitetail deer are so common they are seen daily. Other Ungulates, such as elk and moose, have returned to the Springbank area. The return of these animals has resulted in the subsequent return of predators. Wolves, cougars and even grizzly bears are now seen and known to be in the area. As recently as this May employees of A1 drilling, the company hired to drill test holes for the Government of Alberta (GoA), were witness to a sow grizzly and her two cubs foraging near where they were working. The return of these animals is no accident. They are here because our family and neighbours have protected and preserved their natural habitat. Environmentalists remind us constantly that native prairie grassland is disappearing and needs to be protected. Loss of this important habitat would be a tragedy. A federal review must thoroughly assess the drastic and negative impacts of this project. Once flooded this area will never be the same, nor returned to its original state, as the GoA publicly touts.

Fishing has always been a part of our lifestyle. In early pioneer days, fish from the Elbow River were an important food source for the settlers. More recently our family have continued to enjoy catch and release fishing along the section of the river that borders our properties. We have witnessed the gradual decline in the numbers of native fish species. The Cutthroat and Bull trout that live in this section of the river are now threatened species. The building and operation of the Springbank Off-Stream Reservoir Project will result in negative impacts for these fish. The GoA gives the impression that these species of fish are not present in the project area. The GoA appears unconcerned, believing they only exist upstream of the project. This is not true!

A federal review must discern the effects of building and operation of this project on these fish species.

My Great Grandfather was among the earliest settlers in the area west of Fort Calgary in the mid 1880's. He had the opportunity to choose almost anywhere to build, and he chose the location where I now live (<personal information removed>). The reason was simple. The abundance and quality of the groundwater on this property is unmatched. The springs in the project area flow freely and constantly in both dry and wet conditions, summer and winter. This water is clean, plentiful and potable directly out of the ground. In section 5.3.4 of the Project description Stantec Consulting has outlined the threat of *“altering the local groundwater flow regime”* and *“could in turn alter groundwater availability from nearby water wells.”* Altering the groundwater flow regime in the Elbow River Watershed is a serious health threat to local residents. The Government of Alberta is unsure if the groundwater would be contaminated, but still is moving forward with the project. Hundreds of people in the surrounding area, including housing developments in Lower Springbank, farms and First Nations communities rely on groundwater in this watershed. Clean water, under United Nations General Assembly Resolution 64/292 acknowledges “clean drinking water and sanitation are essential to the realization of all human rights.” Albertans and Canadians pride themselves with bringing clean water solutions to Third World Countries. Yet the GoA is seemingly unconcerned about the groundwater in one of our own communities. The Elbow River Watershed provides approximately 47% of Calgary's drinking water. A federal review must investigate this serious threat to the health of people in Springbank, surrounding area and the City of Calgary.

In the Project description submitted in April of 2016 Stantec Consulting makes reference to air quality in section 5.3.5. In this section Stantec states: *“Air Quality may be affected during the operations of the Program. Sediment would settle out of the floodwaters held within the Off-stream Storage Reservoir. After the floodwaters have been released, the sediments remaining in the Off-stream Storage Reservoir, including on Springbank Road would dry and be susceptible to wind erosion. Potential contaminants picked up by the floodwaters (e.g., raw sewage) would likely remain in the sediment left behind, and may be picked up and carried by the wind as well. Areas east of the Project Area may see a temporary increase in the amount of particulate matter in the air due to the prevailing westerly winds carrying material eroded from the sediments deposited in the Off-stream Storage Reservoir.”* I have attended several Open Houses sponsored by the GoA and Stantec Consulting. At these Open Houses they present an animated video of the operation of the Project. The animation shows blue coloured water flooding over green pastures, with the water then receding to leave those green pastures behind again, with a “business as usual” impression to the general public. This is misleading and false information. Nothing could be further from the truth. The flood waters will be full of inorganic silt, containing various contaminants. The flood will occur in late June or early July and cover the prairie grassland for 6-8 weeks or more during the growing season. The result will be nothing short of an environmental disaster for Springbank. The deprivation of oxygen and sunlight to the grassland during the short and peak growing season can only result in death. The grasses and plants will die of suffocation and lack of light while many small birds and animals will perish in the flood. The aftermath will resemble a “Moonscape” that can never be restored. Again the GoA appears to be unconcerned that the flood waters and silt will sterilize as much as 6800 acres of land in west Springbank leaving behind a dust bowl of pathogens to blow about freely in our of frequent brisk winds. The GoA appear to have little concern about the health

of residents of Springbank, and surrounding area as they continue to press forward with this misguided project.

This project is bad public policy for the following reasons:

1. Large high pressure gas pipelines are within the project area. These have been ignored and need to be addressed by the National Energy Board.
2. The filling and subsequent draining of the dam on a regular basis as outlined by the province would create ideal habitat for ticks and mosquitoes, increasing health risks for people and livestock.
3. The quality of the water discharged back into the Elbow River will end up in the Glenmore Reservoir and becomes Calgary's drinking water.
4. The Cost- Benefit analysis the GoA is using is inaccurate and misleading information. This project does not protect most of Calgary. It does nothing to prevent Bow River Flooding, yet costs in the hundreds of Millions of dollars compared to all other mitigation options.

CEAA must investigate the serious issues this project creates for the environment as well as health concerns for the local community and citizens of Calgary. There are many reasons to justify considering other options. There are several which would be less harmful to the environment and more acceptable to most Albertans.

We are thankful and relieved to know CEAA will conduct a thorough and impartial review of this project.

Sincerely,

Brian Copithorne

Brian and Susan Copithorne

<contact information removed>

<email address removed>

Sent from [Mail](#) for Windows 10



[Home](#) > [Impact Assessment Agency of Canada](#) > [Canadian Impact Assessment Registry](#)

> [Springbank Off-Stream Reservoir Project](#) > [Comments](#)

> [Springbank Off-Stream Reservoir Project \(SR1\)](#)



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Springbank Off-Stream Reservoir Project (SR1)

Reference Number

1272

Date Submitted

2019-06-19 12:00:00 AM

Text

To: CEAA – Canadian Environmental Assessment Agency, NRCB

Re: Legal Land Titles:

SW1/4 Sec. 25-24-R4-W5, SW1/4 Sec. 26-24-R4-W5,

SE1/4 Sec.26-24-R4-W5

To Whom it may concern,

I am the owner of the above noted lands, and am writing with regards to the recent announcement that AB Transportation has filed responses to Information Requests issued by CEAA and Alberta Environment and Parks and the NRCB. My lands are within the proposed footprint of the SR1 dry dam.

I granted AB Transportation access to my land for an 18 month period which ended in August of 2017. In June of 2018, AB Transportation made a request for a second period of access, being six weeks in length.

Negotiations for this access went on through the summer and fall of 2018. I am aware that some landowners were initially reluctant to grant a second period of access due to the fact that AB Transportation and its agents did not properly remediate the land after the initial period of access. AB Transportation told us that if landowners did not agree to enter into access agreements, it would use provisions of the Expropriation Act to force access without landowner consent.

The access request was for 18 separate ¼ sections of land in total.

In the fall of 2018 AB Transportation advised that the period of access needed was one year, rather than six weeks. The landowners assumed that this increased period was to accommodate four season observation and monitoring of wildlife

patterns and owl and other bird habitat. The request indicated that the access was for geotechnical testing and monitoring.

In February of 2019 AB Transportation advised that the period of access would need to be increased from 12 months to 18 months

I agreed to allow this access and signed the Access Agreement that was prepared by AB Transportation. I understand that my signed Access Agreement was sent to the lawyer for AB Transportation. At that point, I expected AB Transportation to sign the agreement, pay the agreed upon compensation, and begin to undertake their studies.

I am aware that AB Transportation was required to respond to a number of Information Requests issued by both CEAA and Alberta Environment and Parks and the NRCB. There would be no reason to require access my lands except to get the information necessary to provide full and complete responses to these Information Requests.

AB Transportation never signed the Access Agreements, did not pay the agreed upon compensation and did not access my lands. I believe that AB Transportation has abandoned the request. I was surprised to see that they had filed responses to the Information Requests without having utilized the land access that was provided. The fact that AB Transportation threatened to use the Expropriation Act suggested to me that this access was vitally important for the purpose of being able to properly respond to the Information Requests.

I ask that you consider this when reviewing AB Transportation's recent submission.

Sincerely,

Brian Copithorne

Submitted by

Administrator on behalf of Brian Copithorne

Phase

Environmental Assessment Report

Public Notice

Public Notice - Public Comments Invited on a Summary of the Environmental Impact Statement

Date modified: 2021-02-09

Submissions of Brian Hunter

I live at 166 Escarpment Drive SW.

I had filed with the Impact Assessment Agency of Canada (IAAC) a description of my concerns with the SR1 Project. The statement of my concerns filed with the IAAC is attached at **Tab 1**. The filed concerns represent my concerns with this project.

The additional concerns that I have include adverse environmental impacts from loss of grasslands, adverse impacts to wildlife, air quality and health from airborne particles from silt mobilization), water quality and quantity, aesthetic and tourism Impacts (8-story berm, silt accumulation, etc.), process flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Emergency Response and Egress.

This project essentially is a follow the money project, which is scary.

In my view, this project should not be approved.



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Safety

Reference Number

1322

Date Submitted

2021-02-01 7:12:18 PM

Text

To IAAC

Jan 21 2020

Subject - Springbank SR1 Project

As a long term resident of the Springbank area I have followed the proposed project since the beginning. As became evident early on the project quickly turned into a political/bureaucratic **fast track** project. As almost all fast track debacles previously done by government and bureaucrats SR1 has turned out over budget and behind schedule. SR1 will eventually turn out to be the mother of all debacles. And that does not include operating cost and post flood clean ups that will be way over forecast costs.

In following the proposed project, I was surprised there were no Federal or Provincial ministries responsible for the safety of dam design and/or oversight. And no regulation requiring post construction safety of people around the project other than a whole lot of requirements to monitor possible effects then mitigate adverse effects. I see no requirement to spell out or produce a plan that details this mitigation prior to the need. For instance, what if a monitor near the schools (over 2,000 students and staff) detects high levels of toxic dust during a windstorm, what is the mitigation plan that should be in place prior to this very real threat. Oh, right there is no plan. We are not even sure who should develop a plan for a school

threat. Should we demand a plan from the School Board, Rocky View, the Provincial Govt, Fed Govt or who? Maybe we should ask the school kids to produce one. It would probably be superior to something from any Govt, bureaucrat or consultants.

An even more frightening situation would be leakage of the earth dam, overtopping or a breach of some kind. People's lives would be at risk. Property damage would be huge – an order of magnitude larger than 2013. Most insurance will not cover overland flooding – it will be on Alberta taxpayers. Damage could extend to Glenmore Dam and possibly beyond. At an absolute minimum, an evacuation plan should be developed for the maybe 50,000 people that could be affected. But wait – who will develop this plan. Not Rockyview County – they have already abandoned the people out here on the West side. Not the Alta Govt – SR1 was a short term political decision and they have demonstrated no interest in the longer term or the people possibly affected. Alta Govt has an emergency department but nothing from them in the last 7 years. Fed Govt possibly but nothing on safety – nothing. There is risk attached to SR1. It is definitely low but it is real.

When I read the Prov Govt submissions and the Fed Govt responses I see that for every page about effects on the people impacted by SR1 there are 15 pages(?) about fish and birds. Not the other way around. No level of gov't has put people first. Disgraceful. A straight up political/bureaucratic decision by the Prov Govt aided by Rockyview councilors rolling over for 20 pieces of silver, leaves the people on the outside looking in.

There are many very good submissions and comments made by individuals and community groups at NRCB and IAAC websites. I encourage people to read some.

Brian Hunter

Submitted by

Brian Hunter

Phase

N/A

Public Notice

Public Notice - Public Comments Invited on the Draft Environmental Assessment Report and Draft Potential Conditions

Submissions of Brian Orr

I reside at 240062 RR 42 which is located across from the diversion channel.

Concerns

Consultation

There have been no updates from the government about this SR1 Project. This Project may result in the redirection of the river. How big will the berms be? How far will the excavation go?

Water Impacts

Kamp Kiwanis dug a canoe lake and caused a disturbance in the groundwater. Hydrostatic pressure was exerted, and the excavation impacted groundwater for 1km away. This Project, likewise, will generate massive disturbance of the groundwater. Looking at the delineated surface area of the Project, it can be expected that disturbance of groundwater will occur more than 1km around the Project area.

This Project will put the wells that people survive on at risk. We need pre and post testing of our water quality if this Project is to proceed. Our water quality and quantity should be tested for at least 4-5 years as it might take some time before changes are seen.

Project Risk

This Project is a novel project. Stantec's engineering reports filed in support of the Project are full of clauses that allow Stantec to be protected against negative or unexpected outcomes. What happens to the residents who must suffer the impacts of this Project's failure?

I am really concerned about the floodplain berm and the failure of that structure.

What details can Alberta Transportation provide us on pipeline changes? How much below the diversion channel will Alberta Transportation need to dig out? Pipelines will not be dug on a deep slope (Circle 5 has 2 pipelines and is on a bit of a hill). How much will be required on either side of that diversion channel to manage the slope. You cannot dig the pipeline trench down at 45 degrees angle. How much soil samples have Alberta Transportation taken at pipeline depths?

In my view, this Project is fraught with risks that have not been sufficiently addressed. This Project should not be allowed to proceed until those risks are reduced to the barest minimum.

Requested Disposition

I respectfully request the Board to deny approval for this project.

Submissions of Christina Curkovic

I live at 16, 4402 -48 Ave, Sylvan Lake, Alberta.

I was part of the administration for the directly impacted landowners (listed in the attached letter filed by John Robinson to the IAAC) for five years.

I have a number of concerns with the proposed project including environmental degradation and loss of grasslands, wildlife Impacts, impacts on fish and aquatic ecosystem, air quality and health (airborne particles from silt mobilization, creation of mosquito habitats).

I have also concerns about the project's impacts on water quality and quantity such as waste in water traveling into drinkable water system, transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes) and so on.

I filed with the Impact Assessment Agency of Canada (IAAC) some of my concerns with the project. I have attached a copy of the letter I filed with the IAAC.

I respectfully request the Board to deny Alberta Transportation's application for this project.

From: <email address removed> [<email address removed>]
Sent: June 17, 2018 12:19 PM
To: Springbank [CEAA]
Cc: Christina Curkovic
Subject: CEAA letter

Kindly see below my letter of July 22, 2016.
R.B.Church

Please note new address from in letter signatures <personal information removed>, Calgary AB.
<personal information removed>
(Dictated)

Springbank Off-Stream Reservoir Project
Canadian Environmental Assessment Agency
9700 Jasper Avenue, Suite 1145
Edmonton, Alberta T5J 4C3
July 22, 2016

Dear CEAA,

Thank you for your review of the proposed Springbank Off-Stream Reservoir project. This is a project that will have major and devastating long-term impact on the local environment, business and residents in and around the area. The Province of Alberta is wrong when it says this project is cheap, quick and easy. It is none of those. Furthermore, there is a better alternative. McLean Creek is upstream on the Elbow River and is located on Crown land. Building the reservoir there would protect more people, cost less and not cause the destruction of a community.

One of my major concerns about this project is the possibility of increasing mosquito breeding habitats in the area. In the last several years, three or four different types of Aedes (striped) mosquitoes have arrived in Alberta. These are the species of mosquitoes which carry the Zika virus. A virus which, as I am sure you are aware, can cause microcephaly in infants as well as serious neurological disorders in adults. The populations of these types of mosquitoes in Alberta seems to have been increased by forest fires in Oregon, Idaho, and Washington in recent years. However, over the last 6 or 7 years, cattle producers along the foothills of the Rocky Mountains have seen a rapid increase in a virus carried by these kinds of striped mosquitos which causes 'pink eye' and 'white eye' in cattle. Dr. Jensen at the University of Calgary Veterinary School has held a series of meeting with ranchers who have had cattle suffering from this virus. Indeed, on my ranch we first saw a cow with 'white eye' in 2005. Some animals with this kind of 'white eye' develop a fever followed by neurological problems. The proposed project at Springbank will create an ideal breeding environment for these kinds of mosquitoes. These mosquitoes are a threat to humans and to other animals (as well as to an industry as a whole).

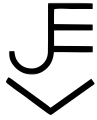
Please find attached a number of reference materials, including a letter I wrote to CEAA on May 30, 2016, some examples of newly identified pathogen infections in animals and humans (from a committee of which I was a member), and a brief history of the Zika virus in Canada.

If you have any questions or would like more details, please contact myself or Dr Czub at the CFIA in Lethbridge (<email address removed>).

Thanks for the chance to comment on this misguided project,

Sincerely and happy trails,

R. B. Church, CM AOE PhD LLD DSc (Hon)
Emeritus Professor of Medicine
Lochend Luing Ranch
<personal information removed>
Phone <personal information removed>



Springbank Off-Stream Reservoir Project
Canadian Environmental Assessment Agency
Canada Place
9700 Jasper Avenue, Suite 1145
Edmonton, Alberta T5J 4C3

May 3, 2018

To Whom It May Concern:

RE: Springbank Off-Stream Reservoir Project, Reference number: 80123

I am writing on behalf of myself and the owners of the lands in the attached list. All of us are directly affected by the proposed SR1 project in that we will have our land taken from us by the Government of Alberta if the project is approved and built.

My request is for an extension to the public comment period to July 31, 2018 with respect to the SR1 Environmental Impact Statement (EIS) filed with CEAA. The public comment period is currently set to expire on May 31, 2018.

The EIS is tens of thousands of pages. The vast majority of this document contains information that is highly technical in nature. A person not trained in the disciplines that are contained in the EIS would require hundreds of hours to review and attempt to digest this information. Preparing informed and helpful commentary (potentially with the assistance of our own subject matter experts) would take a great deal of additional time.

As a result, providing a 30 day comment period for the SR1 EIS is essentially no different than providing no comment period at all. This is not the intention of the part of the legislation that deems it important for decision-makers to consider public and stakeholder input.

We are aware that section 27(2) of the CEAA legislation provides for a 365 day period for the Minister to make a decision on the EIS. However, we are also aware that section 27(3) provides that this period may be extended by 3 months, where the circumstances specific to the project warrant such an extension. In our view, the circumstances surrounding this EIS suggest that the requested extension is fair and reasonable.

In the circumstance, we believe that an extension of the comment period to July 31, 2018 is an appropriate middle ground between the timelines in the legislation and what is reasonably required for meaningful and informed public input, and we hereby request that extension.

Thank you for your consideration of this request.

Sincerely,

John Robinson



Val Vista Ranch

Ranch Office: 40059 Springbank Road, Rocky View County
Mailing Address: 1230 Meridian Rd NE Calgary, AB T2A 2N9

Schedule A

Number	Legal Description
1.	<p>First Meridian 5 Range 4 Township 24 Section 27 Quarter North West Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less</p> <p>Second Meridian 5 Range 4 Township 24 Section 27 Quarter North East Containing 64.7 Hectares (160 acres) more or less Excepting thereout Plan Number Hectares (Acres) Road 8911908 1.62 3.99 Excepting thereout all mines and minerals And the right to work the same</p>
2.	<p>Meridian 5 Range 4 Township 24 Section 27 Quarter South West Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less</p>
3.	<p>Meridian 5 Range 4 Township 24 Section 27 Quarter South East Containing 64.7 Hectares (160 acres) more or less Excepting thereout: Plan Number Hectares (Acres) Road 8911908 1.57 3.89 Excepting thereout all mines and minerals And the right to work the same</p>

Number	Legal Description												
6.	Meridian 5 Range 4 Township 24 Section 25 Quarter South West Containing 64.7 Hectares (160 acres) more or less Excepting thereout <div style="text-align: right; margin-right: 100px;">Hectares (Acres) more or less</div> A) Plan 9410772 Road 0.394 0.974 Excepting thereout all mines and minerals												
7.	Meridian 5 Range 4 Township 24 Section 25 Quarter North East Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less												
8.	Meridian 5 Range 4 Township 24 Section 25 Quarter South East Containing 64.7 Hectares (160 acres) more or less Excepting thereout: <div style="text-align: right; margin-right: 100px;">Hectares (Acres) more or less</div> A) Plan 9410772 Road 0.394 0.974 Excepting thereout all mines and minerals												
9.	Meridian 5 Range 4 Township 24 Section 22 Quarter North East Containing 64.7 Hectares (160 acres) more or less Excepting thereout: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Plan</th> <th style="text-align: left;">Number</th> <th style="text-align: left;">Hectares</th> <th style="text-align: left;">(Acres)</th> </tr> </thead> <tbody> <tr> <td>Block 'A'</td> <td>8110352</td> <td>15.28</td> <td>37.76</td> </tr> <tr> <td>Road</td> <td>8911908</td> <td>1.46</td> <td>3.61</td> </tr> </tbody> </table> Excepting thereout all mines and minerals	Plan	Number	Hectares	(Acres)	Block 'A'	8110352	15.28	37.76	Road	8911908	1.46	3.61
Plan	Number	Hectares	(Acres)										
Block 'A'	8110352	15.28	37.76										
Road	8911908	1.46	3.61										

Number	Legal Description
10.	<p>First Meridian 5 Range 4 Township 24 Section 23 Quarter North West Containing 64.7 Hectares (160 acres) more or less Excepting thereout Plan Number Hectares (Acres) Road 8911908 1.75 4.32 Excepting thereout all mines and minerals</p> <p>Second Meridian 5 Range 4 Township 24 Section 23 Quarter South West Containing 64.7 Hectares (160 acres) more or less Excepting thereout Plan Number Hectares (Acres) Road 8911908 1.89 4.66 Excepting thereout all mines and minerals</p>
11.	<p>Meridian 5 Range 4 Township 24 Section 23 Quarter North East Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less</p>
12.	<p>Meridian 5 Range 4 Township 24 Section 23 Quarter South East Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less</p>
13.	<p>Meridian 5 Range 4 Township 24 Section 24 Quarter North West Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less</p>
14.	<p>Meridian 5 Range 4 Township 24 Section 24 Quarter South West Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less</p>

Number	Legal Description
15.	Meridian 5 Range 4 Township 24 Section 24 Quarter North East Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less
16.	Meridian 5 Range 4 Township 24 Section 24 Quarter South East Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less
17.	Meridian 5 Range 4 Township 24 Section 25 Quarter North West Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less
18.	Meridian 5 Range 3 Township 24 Section 19 Quarter North East Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less
19.	Meridian 5 Range 3 Township 24 Section 19 Quarter South East Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less
20.	Meridian 5 Range 4 Township 24 Section 15 Quarter South East Containing 64.7 Hectares (160 acres) more or less Excepting thereout: Plan Number Hectares (Acres) Road 9012109 2.26 5.57 Excepting thereout all mines and minerals

Number	Legal Description
21.	Meridian 5 Range 4 Township 24 Section 14 Quarter North West Containing 64.7 Hectares (160 acres) more or less Excepting thereout: Plan Number Hectares (Acres) Road 9012109 1.62 4.00 Excepting thereout all mines and minerals And the right to work the same
22.	Meridian 5 Range 4 Township 24 Section 14 Quarter South West Containing 64.7 Hectares (160 acres) more or less Excepting thereout: Plan Number Hectares (Acres) Road 9012109 0.951 2.35 Excepting thereout all mines and minerals
23.	First Meridian 5 Range 4 Township 24 Section 14 Quarter North East Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less Second Meridian 5 Range 4 Township 24 Section 14 Quarter South East Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less
24.	Meridian 5 Range 4 Township 24 Section 13 Quarter North West Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less
25.	Meridian 5 Range 4 Township 24 Section 13 Quarter North East Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less

Number	Legal Description
26.	Meridian 5 Range 3 Township 24 Section 18 Quarter North East Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less
27.	First Meridian 5 Range 4 Township 24 Section 10 That portion of the South East Quarter Lying North West of the Elbow River Excepting thereout all mines and minerals And the right to work the same Second Meridian 5 Range 4 Township 24 Section 10 That portion of the South West Quarter Lying North West of the Elbow River Excepting thereout all mines and minerals And the right to work the same
28.	First Meridian 5 Range 4 Township 24 Section 3 That portion of the North West Quarter which lies West of the Elbow River Excepting thereout: 0.004 of a hectare (0.01 of an acre) more or less As described in transfer registered as 2235EU Excepting thereout all mines and minerals And the right to work the same Second Meridian 5 Range 4 Township 24 Section 3 That portion of the South West Quarter which lies North West of the Elbow River Meridian 5 Range 4 Township 24 Excepting thereout all mines and minerals And the right to work the same

Number	Legal Description
29.	<p>Meridian 5 Range 4 Township 24 Section 3 Quarter South West Containing 64.7 Hectares (160 acres) more or less Excepting thereout: A) That portion of the said quarter section which lies Northwest of the Elbow River B) Plan Number Hectares (Acres) more or less Road 2309JK 0.129 0.32 Road 9710339 1.92 4.7 Excepting thereout all mines and minerals</p>
30.	<p>First Meridian 5 Range 4 Township 24 Section 3 Quarter North East Containing 64.7 Hectares (160 acres) more or less Excepting thereout: Plan Number Hectares (Acres) Road 9710339 2.22 5.5 Road 0813063 0.170 0.42 Excepting thereout all mines and minerals</p> <p>Second Meridian 5 Range 4 Township 24 Section 3 Quarter North West Containing 64.7 Hectares (160 acres) more or less Excepting thereout: That portion of said Quarter section which lies West of the Elbow River Excepting thereout all mines and minerals</p>
31.	<p>Meridian 5 Range 3 Township 24 Section 17 That portion of the North West Quarter which lies to the North of the Elbow River containing 53.3 Hectares (131.76 acres) more or less Excepting thereout all mines and minerals And the right to work the same</p>
32.	<p>Plan 0711819 Block 2 Lot 2 Excepting thereout all mines and minerals Area: 11.83 Hectares (29.23 acres) more or less (ATS Reference: 5: 4: 24: 10 NE)</p>

Number	Legal Description
33.	Plan 0711819 Block 2 Lot 1 Excepting thereout all mines and minerals Area: 41.34 Hectares (102.15 acres) more or less (ATS Reference: 5: 4: 24: 10 NE)
34.	Meridian 5 Range 3 Township 24 Section 20 Quarter South West Excepting thereout all mines and minerals Area: 64.7 Hectares (159.88 acres) more or less
35.	Plan 2538K Block A Excepting thereout all mines and minerals And the right to work the same (ATS Reference 5: 4: 24: 13: S)
36.	Meridian 5 Range 3 Township 24 Section 20 Quarter North West Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less
37.	Description Plan 0313535 Block 1 Lot 2 Excepting thereout all mines and minerals Area: 3.4 Hectares (8.4 acres) more or less (ATS Reference: 5; 4; 24; 3; SE)
38.	Description Plan 0313536 Block 2 Lot 1 Excepting thereout all mines and minerals Area: 22.18 Hectares (54.81 acres) more or less (ATS Reference: 5; 4; 24; 3; SE)
39.	Description Plan 0313536 Block 2 Lot 1 Excepting thereout all mines and minerals Area: 22.18 Hectares (54.81 acres) more or less (ATS Reference: 5; 4; 24; 3; SE)

Number	Legal Description
40.	Description Plan 0313536 Block 3 Lot 1 Excepting thereout all mines and minerals Area: 28.11 Hectares (69.46 acres) more or less (ATS Reference: 5; 4; 24; 3; SE)
41.	Description Plan 0313536 Block 3 Lot 1 Excepting thereout all mines and minerals Area: 28.11 Hectares (69.46 acres) more or less (ATS Reference: 5; 4; 24; 3; SE)
42.	Meridian 5 Range 4 Township 24 Section 22 Quarter North West Excepting thereout all mines and minerals Area: 64.7 Hectares (160 acres) more or less
43.	Meridian 5 Range 4 Township 24 Section 4 Quarter North East Excepting thereout all mines and minerals And the right to work the same Area: 64.7 Hectares (160 acres) more or less

Submissions of Dave Rupert

I reside at 23 Echlin Drive, Bragg Creek. I also own the following lands:

- 97 Manyhorses Drive, Redwood Meadows (Family Home); and
- 23125 RR 54, West Bragg Creek (previous family home, sale not closed yet).

This project is within 10 kms of my residence. I was involved with the flood control, sand bagging and ultimate clean up in Bragg Creek and Redwood Meadows following the 2013 flood event. I have attached at **Tab A** photos showing the devastation from the 2013 flood event in Bragg Creek.

Concerns

Environmental

I am concerned about the effects of silt held in SR1 after flood and its impact on air quality. I am also concerned about the loss of grasslands and effects of this Project on the aquifer.

Land Impacts

This project will cause families who have lived here for generations to be displaced from their lands. The loss of the connection to the lands and the heritage will be devastating to some residents.

Project Costs and Benefits

The cost of this project will be disproportionately borne by Spring bank residents. There is no benefit accruing to Springbank residents from being the host of this project. Also, this project presents a single use of funds and resources as opposed to multi-use expenditure of funds that is available under MC1.

Requested Disposition

I request that the Project be not approved. Should the Board decide to approve the Project, I respectfully request that sufficient and robust conditions that will ensure protection of Springbank, Bragg Creek and Redwood Meadows residents from future flood events be included in the conditions of approval.

This is a picture of the Elbow River at Redwood Meadows on the day of the flood.



Remains of a restaurant in Bragg Creek on June 22



This is a picture of the new gas tank that had been dropped into the ground prior to the flood. The flood water lifted it out during the flood in Bragg Creek.



Submissions of David Hall

I manage Honey-King Industries Ltd which owns the following properties that are impacted by the SR1 Project: a commercial equestrian centre located at 242200 RR43 and a rental house located at 242140 RR43. Honey-King Industries Ltd. is owned by Susan Hall, Craig Hall, and Emiline Hall. The home for the management of our commercial equestrian centre is also adjacent to the Diversion Channel.

I run the following businesses on the properties:

- Infrastructure (commercial arena) for Reverence Stables (trainer is Linda Fitzpatrick and the new horse barn has access off of 242); and
- Honey-King Industries

We also train our horses at the equestrian centre that is on the property. The commercial equestrian centre is operated by Reverence Stables. The manager and owner of Reverence Stables lives at 242200 RR43. The residence at 242140 RR43 is occupied by an employee of Reverence Stables.

The land that is not used by the Equestrian Centre is grazed by cattle. We are considering hay. The quarter section is essentially used for agricultural purposes. Honey-King acquired the property in 2013. We have no plans to sell or further subdivide it as it's main purpose is essentially agricultural.

Concerns

Transportation concerns

Access from Highway 22 to Township Road 242 is crucial. The intersection is an ongoing concern because we and other users of TWP Road 242 need safe and accessible access to and from the Highway. The dam will require the Highway to be raised up at some phenomenal expense and it is not clear whether the access will be affected. There should be at least two ways to access the area; the only one we have now (22-242) should not be put under any more pressure.

An obvious partial step to facilitate access would be to develop RR45, which connects to the Springbank road; however, doing so does not at all reduce the need for an efficient and safe access to TWP Road 242 from Highway 22.

Property Values

Property values are likely to be negatively affected.

Agricultural Impacts

We should have more agricultural land, not less. The SR1 project kills valuable and accessible range land.

Environmental Impacts

The general environmental impact of having SR1 flooded for testing, then sort-of drained and then available for any future flooding is a problem. Are we left with acres of a silty slough? Is this mainly a future mosquito breeding ground? Based on the number of animals that cross the Highway, this is a major grazing ground. Does SR1 finish off that use as a grazing ground?

Project Costs

The costs of SR1 are skyrocketing. Support is fading for Alberta Transportation's argument that an alternate site was relatively too expensive.

Impacts to Recreational Camps

Two recreational camps that cater to the needs of kids and people with disabilities are going to be impacted. I understand that these camps will have to be removed or relocated to allow the project to proceed. The location for these camps are excellent for the services provided by these camps. As far as I know, they provide an irreplaceable and valuable service, so losing them is a terrible situation.

Consultation

The plans for Highway 22 seem more than weak. We should have animal crossings and good access. Effective consultation with the residents of the area would have resulted in these concerns being addressed and effective solutions provided.

Requested Disposition

In my view, this project should not be approved in its current configuration. An alternative location, such as McLean Creek dam, would have been a better location for this dam as it would not take out agricultural land and it would also protect Bragg Creek and surrounding areas.

Submissions of Debbie Vickery

I reside at 3 Shantara Grove, Calgary.

Concerns

As a resident of Springbank community, we all want our voices heard and answers to our questions received from the government. Our councillors shouldn't have accepted the 10 million dollars offered to the County. We spoke with Kevin Hanson, and he was one that voted to accept. 10 million dollars is nothing these days. But what is changing is Springbank with the SR1 project being proposed. Old Banff Coach Rd is changing the quality of life for many generations to come! The Government on all levels are not supporting the residents of Springbank. If we lose this battle, we want our land tax cut in half as our quality of life will be cut in half if not more!

With respect to consultation, we have reached out to Trevor Richelhof and he ignores us. He does not follow up with phone calls and does not hear anything we have to say. Mr. McIvor, on the other hand, responded through his assistant with a canned letter. We feel helpless! This our community and our voices are not being heard.

We sent follow up emails with questions to Miranda Rosin, Mark Jacka, Matthew Hebert following the October 8, 2020 Bragg Creek SR1 meeting with Stantec and the Conservative party (Mr. McIvor, Miranda, Jack, Matthew and others). A copy of the questions we sent in is attached at **Tab 1**. During the October 8 2020 meeting, Mr. McIvor told the audience that the decision for the SR1 was moving ahead and there was nothing we could do about it!

We are also concerned about environmental degradation such as loss of grasslands, the impacts of the project on wildlife Impacts, air quality and health impacts such as airborne particles from silt mobilization.

The quality of water in Springbank, Bragg Creek and Redwood Meadows, will be affected by this project. There will be impacts on Fish and the aquatic ecosystem that they rely on.

The Project will also affect transportation as a result of the closures of Springbank Road and the elevation of Highway 22. There will also be impacts on aesthetics and tourism due to the height of the earthen berm and the likely accumulation of silt following a flood event.

Requested Disposition

We request that this Project be denied.

From: Debbie Vickery <19dgv55@gmail.com>
Date: October 13, 2020 at 4:18:18 PM MDT
To: Miranda Rosin <Miranda.Rosin@assembly.ab.ca>, mark.jacka@gov.ab.ca,
Matthew.herbert@gov.ab.ca
Cc: Philip Cape - Banff-Kananaskis <Philip.Cape.BKN@assembly.ab.ca>, Nancy Greenhalgh - Banff-Kananaskis <Nancy.Greenhalgh.BKN@assembly.ab.ca>, Heather Feldbusch <Heather.Feldbusch@assembly.ab.ca>
Subject: RE: October 8, 2020 Bragg Creek SR1 session

Please note that Matthew did provide his business card to me, with email contact but the message has been blocked, why did he bother asking me to send an email for further followup to the October 8 Bragg Creek meeting???

Deb

From: Debbie Vickery <19dgv55@gmail.com>
Sent: October 13, 2020 4:16 PM
To: 'Miranda Rosin' <Miranda.Rosin@assembly.ab.ca>; mark.jacka@gov.ab.ca;
Matthew.herbert@gov.ab.ca
Cc: 'Philip Cape - Banff-Kananaskis' <Philip.Cape.BKN@assembly.ab.ca>; 'Nancy Greenhalgh - Banff-Kananaskis' <Nancy.Greenhalgh.BKN@assembly.ab.ca>; 'Heather Feldbusch' <Heather.Feldbusch@assembly.ab.ca>; Debbie Vickery <19dgv55@gmail.com>
Subject: RE: October 8, 2020 Bragg Creek SR1 session
Importance: High

Hi Miranda,

With respect to the email that was sent to your office, I do not recall receiving a phone call from your office, if so who was it that spoke to me (can you provide more info on this call / phone called, etc), I would have liked to have seen an email. That is behind us, and on to this current email.

I understand that you did deliver the petitions to the Assembly, which was a lot of work by the Springbank Community Association under the direction of the Karin Hunter. We in the community were also part of ensuring we received as many signed petitions. This work did not go unnoticed. What the Springbank Community wants to see is answers to questions that may give us the satisfaction of why the location has to be within our community that affects all of us with the pollution, safety of the dam, the unsightly destruction of valuable land that is cultivated and in use, the dam that contributes to a multitude of other problems and does not truly even meet the 2013 flood requirement, fire (that is a higher risk as we know for all of Alberta!), Calgary water shortage that is around the corner 2030+, etc..... The Conservative government has not given the update costs to this dam, they never answer a question with true up to date numbers. I can go on but I think we both know that government says they are here to listen, but if this is all they are going to do is listen with no further follow-up to all issues presented, it is a waste of time for all parties. Seven years into the process to bring Mr. McIver and Stantec to the community is nice but a little late, when Mr. McIver indicated their mind is made up, they are in the final process of pushing through Federal approvals. The community has presented their case to the Conservative government with primarily the same points and Mr. McIver has not shown us any positive updates, or understanding or presentation of other options that will utilize the multi millions of tax payer money!

In summary, Miranda, as a supporter of any government body, we want to see our input supported by the person we elected to represent the community which is you. We did not see you stand in front of Mr. McIver and present our case and demand that your community needs to have their questions answered and that it is never too late to make a change before more good money is spent. The community would respect this action.

If this is the best that your position can do, it is not good enough, and we the community will make this known at the next election. FYI, the group in attendance was not appreciative of the non-mask wearing by a large number of conservative/ others in attendance during Covid times.

Please provide the email address for Mr. McIver so we can forward this conversation on. I have included Mr. Mark Jacka and Maththew Hebert in this email.

Regards,
Debbie

From: Miranda Rosin <Miranda.Rosin@assembly.ab.ca>

Sent: October 13, 2020 1:40 PM

To: Debbie Vickery <19dgv55@gmail.com>

Cc: Philip Cape - Banff-Kananaskis <Philip.Cape.BKN@assembly.ab.ca>; Nancy Greenhalgh - Banff-Kananaskis <Nancy.Greenhalgh.BKN@assembly.ab.ca>; Heather Feldbusch <Heather.Feldbusch@assembly.ab.ca>

Subject: RE: October 8, 2020 Bragg Creek SR1 session

Hi Debbie,

First off I want to address your claim that you had not received a response from my office. I just want to confirm that the only communication we have received from you in the past was an email on May 26th at 11:31 am, to which you received a phone call in response on the same day from my office.

I also want to address your claim that I am not doing anything for those who support me with regards to SR1. As an MLA who is not a Minister and unable to make the final decision with regards to this project, I have done just about all that is humanly possible. I tabled 1100 petitions from our community in the Legislature, brought Minister McIver and his officials to meet with the affected landowners privately in my office (for the first time since the project was announced seven years ago), brought Karin Hunter's Springbank Action Coalition to Edmonton to present our communities' perspective to the entire Government caucus of MLAs, and then brought Minister McIver, the project lead, two Stantec engineers, and an impact assessment specialist to both Springbank and Bragg Creek for two separate townhalls to field the questions and hear the concerns of our residents in person.

With regards to your many technical questions below, I am not in a position to provide accurate responses questions as I am not an engineer nor the Minister responsible for the project. I encourage you to send them directly to the Minister's office.

Miranda




Miranda Rosin, MLA
Banff-Kananaskis

From: Debbie Vickery <19dgv55@gmail.com>
Sent: Friday, October 9, 2020 9:47 PM
To: Miranda Rosin <Miranda.Rosin@assembly.ab.ca>
Cc: Debbie Vickery <19dgv55@gmail.com>
Subject: October 8, 2020 Bragg Creek SR1 session

Hi Miranda,

I hope you receive this email, as we heard last nite, there were a few emails and calls that don't receive a reply.

The community and people that were in attendance of this session are expecting that every person that stood at the mic and read their extensive research reports with questions to receive some further followup. As we heard most of the presentations and questions **we never did receive an answer.** A few of the ones that come to mind:

1. Karin Hunter, President of the Springbank Community Association, presentation with questions of the costs of the SR1 Versus McLean Creek, there were an extensive list of costs that were not presented by government Or reflected in the numbers. Also these numbers have not been revised since 2017. Costs of 22x raising, pipelines to be moved,etc. **We expect a well detailed document to be provided to the community to support the general statements made by Rick McIver and Matthew Hebert.**

2. Karin Hunter, myself, and a few others - The pollution from the dry dam, and the proof that the Calgary/ Springbank residents are reminded of from the 2013 flood, the silt that will never grow anything. What Stantec and Conservative government is saying is not true. Rick McIver can say all he wants that we can take him to task on the fact that government will clean the silt and regrow vegetation is never going to happen, as is working with the conservatives currently. The residents presented some very factual information that was never commented on. Stantec and Rick McIver looked at one another or made a remark of non value.

3. Fire Mitigation is not being made part of the solution when looking at the proposal of a dry dam. There is no reason given why we can not combine the efforts. Fires are more of a concern then a 1 in 100 year flood!!! **We want answers! This is our community the Conservatives are destroying and not dealing with the even more important problem of FIRE.**

4. Government is ignoring the facts of how water works, as it goes under ground and finds its way. **Why are we still allowing Bragg Creek, Redwood Meadows,to continue to be flooded year after year including when this Dry Dam comes in to play (WE hope NOT). Why are we not building a dam that can be used for all purposes Now???** Like on the Bow, as the bow was as big a part of the flood as the Elbow. Does Calgary and the government not realize that drought / shortage of water is going to be a very real problem in 2032 if not sooner. This is good money being spent on a job half done. WE the

community are not being respected, for the valuable input. Yes the conservatives came to listen, and that is all, there was no intent reflected to actually follow up and work with the residents to improve the situation, as always. **We want the Conservatives and their resources to answer WHY ARE we not spending the money on a Dam that will serve, drought, fire, flood, and add to the community a positive outcome???? Please prove the community with the answers to all questions raised at both meetings in with Mr. McIver.**

5. Conservative Mr. McIver / Matthew Hebert indicated they spoke to and reached to the farms/ ranchers, but as we heard from several large ranchers this in fact did not happen. We are tired of the Conservative lies. **Why are the farmers saying they have not been spoken to, yet the conservative are pushing this dam through Federal approval????**

6. IF this dry dam is ever built, **what about the schools to the east of the young lives that will be affected by air pollution, dam flooding and road impacts for the children?????**

7. The Dam area becomes Crown Land, so now the native get to hunt with high powered guns, in an area that can have community also walking in the area, trails, etc. Matthew Hebert indicated they would like to hear ideas of using the area as a recreational area, **so how do we mix Native Hunting in with recreation. Do the conservatives think about what they are saying to the Spring bank community???**

8. This dam does not meet the requirements for volume as noted by a number of presentations, yet not one of the Stantec guys responded with any reason for this. **So we want to hear why the design does not meet the volume needs???**

The Glenmore dam has trees and exposed silt in it. It has never ever been dredged by the City of Calgary which would be of benefit. **Why is this not part of there equation to the problem.**

I could go on, but the recording will do a better job to addressing all the issues. **Please answer the questions presented by all presenters from the community!**

In summary, the entire session was recorded and we want replies, explanations, actions addressing our presentations, and answers to all the questions with supported evidence/ actually not general statements. We as a community request that this 7 years of trying to approve something that is flawed with issues and problems, concerns be stopped and go back to the drawing boards to come up with a better location, such as the Bow, McLean Creek that can suffice fire, floods for all people in the area not just Calgary!!!! Springbank people matter! Calgary, Springbank have a beautiful area and now we want to destroy it with an EYE sore dry dam that creates a large number of other problems and is not a solution to many others.

The **Springbank Community will not give up and will not go away.** You are our elected official and we expect that you will go out and do what you need to do to support the people who elected you, and as of now we do not see you doing this!!!

Regards,
Deb Vickery

Submissions of Dr. Karen Massey

Soon after SR1 was announced I formed a monthly group in Redwood Meadows to plan how to stop SR1 because it is a bad idea, and it does not provide flood protection for our town that is located upstream of SR1. In 2016, I was invited by Ryan Robinson to join the Don't Dam Springbank Group, that evolved into the Elbow River Sustainability Action Group, and now into the Springbank Concerned Landowners Group (SCLG)

As part of the SCLG, I will be addressing the following topic areas based on Exhibit 151 that I wrote and obtained signatures from 175 town residents, and on Exhibit 133 that I was part of the writing team. I am speaking to the following topic areas that are included in Exhibits 151 and 133, as well as 195 (wildlife), 193 (human health), 198 (land use and public interest), 199 (risk).

Residents of Redwood Meadows respectfully request that Impact Assessment Agency of Canada (IAAC/CEAA) and the Natural Resources Conservation Board (NRCB) decline the Proponent's application for the SR1 project. Below are some of the reasons to decline SR1.

1. A risk assessment is needed to determine if Redwood Meadows during a flood will be sandwiched between Bragg Creek due to the water velocity coming downstream and the potential for the SR1 intake to plug causing some of the water to back up into Redwood Meadows. A second part of the assessment is measuring if the new berms built in Bragg Creek hamlet that narrowed the river, will cause an increased velocity of the Elbow River downstream.
2. When there is a flood, Springbank road is closed. Our children must be bused via the Trans Canada Highway to the Springbank Schools which is not as safe nor timely.
3. Mental Health impact on people living upstream of the proposed SR1 intake due to fears of another flood and the berm being breeched again. Also, fear of another wildfire alert as in 2018. In contrast, MC1 offers a healthy back to nature outlet for stress.
4. It makes no economic sense to build SR1, when, within a short time, the City of Calgary will ask for a dam due to the predicted low flow of the Elbow River by 2036, and their shortage of water supply.
5. Redwood Meadows will need water storage, the same as the City of Calgary by 2036, or earlier. Each year the Elbow River flow volume diminishes and soon there will become a dire need for a permanent water source for Redwood Meadows. In its current form, the Elbow River will not be able to meet Redwood Meadows and the City of Calgary's water requirements by about 2036.
6. The amount of underground alluvial aquifer increases when the river flow volume and velocity increases, resulting in seepage through the berms. This seepage will continue to flood basements in Redwood Meadows causing expensive damage. Only a dam will protect Redwood Meadows underground flooding problem.
7. As shown by the Champion Lake wildfire in 2018, a permanent water source is needed, such as MC1, so that a water supply is available for firefighters and for water bombers to efficiently fight wildfires.
8. Dirt berms are eroded every time there is a flood, resulting in costly berm repairs and new rip rap.
9. Catastrophic erosion of the riverbanks occurs during floods. There has been nothing done to prevent on-going erosion, subsequently the river is migrating closer to the townsite.

10. The GoA decided to build SR1 because they stated it “was cheaper” than MC1. As SR1 costs nears \$1 BILLION there is a Sunk Cost Fallacy.
11. Limited Benefit of Flood Control, not Flood Management: It is evident there will be 100% negative environmental impacts and 0% benefits to Redwood Meadows from SR1.
12. Home insurance rates continue to increase after each flood.
13. Some home insurance companies no longer cover home damage repairs that occur due to overland flooding.
14. Albertans need more recreation opportunities.

Additional reference information

Topic 1: Project Need and Justification based on Exhibit 133 and 151.

- a) Project purpose and need
- b) Social and economic project costs and benefits
- c) Alternatives considered

Topic 2: SR1 Design, Safety and Risk

- a) Project description—flood water management
- c) Risk Management
- d) Sensitivity of project design and safety elements to changes or variability in climate parameters.

Topic 3: Water

Impact on the aquifer in Redwood Meadows

Topic 4: Air Quality, Human Health, and Terrestrial

- b) Human health risks
- c) Wildlife

1. Ex. 151, September 2020 . See **Reference A.** Exhibit Index that lists topics that I will be discussing.
2. December 2019. Exhibit 133.
3. Ex. 195
<https://www.nrcb.ca/natural-resource-projects/natural-resource-projects-listing/83/springbank-off-stream-reservoir-project/documents/10742/20210214-springbankcomassoc-sub-to-nrcb-re-4-wildlife-and-biodiversity>
4. Ex 193
<https://www.nrcb.ca/natural-resource-projects/natural-resource-projects-listing/83/springbank-off-stream-reservoir-project/documents/10740/20210213-springbankcomassoc-sub-to-nrcb-re-5-air-and-human-health>
5. Ex 198
<https://www.nrcb.ca/natural-resource-projects/natural-resource-projects-listing/83/springbank-off-stream-reservoir-project/documents/10745/20210217-springbankcomassoc-sub-to-nrcb-re-6-land-use-and-public-interest>
6. Ex 199
<https://www.nrcb.ca/natural-resource-projects/natural-resource-projects-listing/83/springbank-off-stream-reservoir-project/documents/10746/20210217-springbankcomassoc-sub-to-nrcb-re-7-risk>

Risk of the SR1 Intake causing backup of a flooding Elbow River and potential damage to the near-by upstream Town of Redwood Meadows

7. Backwater effect at the Diversion Inlet that is referenced in the latest design report (pg 51 5.1.3.6 Conclusions)

Information about Alberta floods & Related information for trauma and the other talking points such as:

Reference A. Increasing volume/velocity of water in hurricanes and floods

Reference B. Hurricanes

Reference C. Alberta Flood newspaper articles

Reference D. Article titled Massacre, Earthquake, Flood

Reference E. Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International Journal of Methods in Psychiatric Research*, 21(3), 169–184.

Reference F. *Traumatic Stress: The effects of Overwhelming experience on Mind, Body, and Society*, Bessel van der Kolk, A.C. McFarlane, Lars W. Editor (Book)

Reference G. Bragg Creek Door to Door Campaign Final Report March 25, 2015
Bragg Creek and Area Wellness Committee

Reference H. Trauma-induced brain changes can be detected decades later, new U of A research shows

Reference I. Jason Luan, Associate Minister of Mental Health and Addictions announced \$21.6 M funding on mental health

Reference J. *The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma*, Bessel van der Kolk M.D. (book)

Reference K. Performance vs Trust by Simon Sinek, Outrage brings big changes to UCP, Stain of travel scandal won't just vanish, *The Price of Hypocrisy*

Reference B.1. Hurricanes

National Oceanic and Atmospheric Administration >S. department of Commerce.

<https://www.noaa.gov/media-release/record-breaking-atlantic-hurricane-season-draws-to-end>

Improved forecasts, extensive preparedness helped protect lives and property
November 24, 2020

Reference B.2. Hurricanes

https://en.wikipedia.org/wiki/2020_Atlantic_hurricane_season

Reference C Alberta Flood Statistics

Reference D. Translational Science Evidence That the Use of Micronutrients Postdisaster Reduces the Risk of Post-Traumatic Stress in Survivors of Disasters

Julia J. Rucklidge¹, M. Usman Afzali¹, Bonnie J. Kaplan², Oindrila Bhattacharya¹,
F. Meredith Blampied¹, Roger T. Mulder³, and Neville M. Blampied¹ and includes the references
mentioned pertaining to floods.

Reference C. Southern Alberta floods by the numbers, Alberta Flood statistics

<https://www.cbc.ca/news/canada/calgary/southern-alberta-floods-by-the-numbers-1.1354590>

CBC News

Province releases flood of statistics

CBC News · Posted: Sep 04, 2013 5:03 PM MT | Last Updated: September 4, 2013



Sarah Watts is one of thousands of Calgarians cleaning up after devastating floods in southern Alberta. (Nathan Denette/Canadian Press)

Here are some flood-related statistics from the government of Alberta.

- Amount issued to Albertans on pre-loaded credit or debit cards: almost \$70 million.
- Number of Albertans who received the cards: 40,000
- Number of applications for Disaster Recovery Support processed: 8,200
- Number of people who have received cheques: 1,827

- Total amount paid out: \$8.6 million
- Number of Albertans living in temporary housing in High River and on the Siksika First Nation: 950
- Number of people from those communities living in hotels or other temporary housing: 400
- Number of students in Alberta returning to school in temporary classrooms: 950
- Number of schools damaged in floods that reopened on September 3: 80
- Number of health facilities damaged by flooding that have reopened: five
- Amount of the 985 kilometres of damaged roadway and bridges repaired: 857 kilometres.
- Number of callers to Alberta Flood Information Line operators since June 24: 18,000
- Amount of debris removed from High River in truckloads: 2,050
- Amount of water removed from town's river system in Olympic swimming pools: 20

Reference C.2. Alberta floods: Assessing the human, environmental and economic impacts

Toronto Star

https://www.thestar.com/news/canada/2013/06/24/alberta_floods_assessing_the_human_environmental_and_economic_impacts.html



By **Andrew Livingstone** Staff Reporter
Mon., June 24, 2013 timer3 min. read
updateArticle was updated Jun. 25, 2013

While the flooding in southern Alberta continues to ravage towns and cities along the swollen banks of the province's river system, many people are beginning to pick up the pieces.

The provincial government announced \$1 billion Monday to kick-start the first phase of recovery.

Premier Alison Redford said the money will be used to support people forced from their homes, as well as to run relief centres and to start rebuilding infrastructure.

Those who qualify will receive \$1,250 per adult and \$500 per child.

The Stampede, Calgary's premier tourist attraction, will open on July 5 come "hell or high water," according to event officials.

Nearly 75,000 in Calgary have been allowed to return home, while approximately 10,000 in Medicine Hat watch and wait as floodwaters spill into their neighbourhood streets, parks and basements.

Water levels did not reach predicted levels in Medicine Hat, prompting a sigh of relief as residents wait several days for them to drop.

Thousands of southern Albertans from Canmore to flood-ravaged High River still wait to return to their homes and assess what's left.

Dozens of communities have been affected during the flooding that has prompted a five-day state of emergency likely to stay in effect until late this week.

The human impact

Thousands of people have lost personal belongings and at least four people died in the worst flooding southern Alberta has seen in decades or possibly ever.

Three people were found dead in Highwood River near High River over the weekend. At least one other person is still missing. It remains unclear if there will be more deaths as a result of the flooding.

A fourth person, an elderly woman who stayed in her ground-floor Calgary apartment because she had a cat, was found by family members Sunday, police said. The building was flooded, but it is not known if her death was related to the flood.

Thousands of homeowners without flood insurance will face heavy financial burdens to clean up their homes, replace belongings and recover from the damage.

The environmental impact

Flooding in southern Alberta has changed the Rockies and foothills forever, said John Pomeroy, a professor in hydrology at the University of Saskatchewan and one of Canada's top water researchers.

Overflowing waters have altered everything from how the landscape will handle future flooding to the animals that live in it, he said, adding this new landscape will require towns and cities to have much improved flood defences.

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The Bow River has swallowed so much silt from eroding banks that its status as a blue-ribbon trout stream is in doubt, Pomeroy said.

The economic impact

Damage in Alberta from the flooding will be almost 10 times more than the cost of the 2005 flooding that hit Calgary and parts of southern Alberta.

It's estimated that the damage will be between \$3 billion and \$5 billion, said Tom MacKinnon, an analyst at BMO Capital Markets in a note to clients Monday.

Losses after insurance will be in the range of \$2.25 billion to \$3.75 billion, he said.

Thousands of residents who planned to spend money this summer on vacations and inject money into the economy will likely divert that spending to fixing their homes, said Todd Hirsch, chief economist for ATB Financial.

"It couldn't have come at a worse time for tourist operators," he said. "Many (will) be spending the money to replace the carpets in their basements."

The flooding has also forced the province to retreat on balancing its budget in the coming years.

The Alberta government announced \$1 billion for flood recovery in the province Monday. The money will be used to support residents who have been evacuated and to start rebuilding infrastructure, the premier said.

The government will provide pre-loaded debit cards to displaced residents to help with their immediate housing needs and day-to-day purchases.

[Reference C. Alberta flooding: Alison Redford pledges \\$1 billion to kick-start recovery](#)

Toronto Star

https://www.thestar.com/news/canada/2013/06/24/alberta_flooding_medicine_hat_water_levels_peak.html?li_source=LI&li_medium=star_web_ymbii

By **Jennifer Graham**The Canadian Press
Mon., June 24, 2013 timer4 min. read
updateArticle was updated Oct. 24, 2014



CALGARY—The Alberta government is approving \$1 billion to kick start the first phase of flood recovery in the province.

Premier Alison Redford says the money will be used to support people who have been evacuated, as well as to run relief centres and to start rebuilding infrastructure.

The government says it will provide pre-loaded debit cards to displaced residents to help with their immediate housing needs and day-to-day purchases.

Those who qualify will receive \$1,250 per adult and \$500 per child.

Redford says the unforeseen expense means Alberta won't meet its plans to balance the budget in the coming years.

Earlier in the day, the president of the Calgary Stampede says the world-famous event will go ahead next week — quote — “come hell or high water.”

Bob Thompson says crews have been pumping millions of litres of water from the rodeo grounds. Organizers are also promising to hold the traditional parade July 5 to open the Stampede.

In **Medicine Hat**, where 10,000 were forced to evacuate their homes over the weekend, water levels peaked, but officials said the southeastern Alberta city is still in flood mode.

Ron Robinson, director of emergency measures, says floodwaters from the South Saskatchewan River are still threatening **protective berms** and vigilant monitoring is required.

About 1,000 homes have been hit by high water and evacuees are not yet able to return.

Robinson says the city is starting recovery work to allow residents back into neighbourhoods deemed safe.

Mayor Norm Boucher says that won't be for several days though.

He says it's still not safe for people to return to their homes, because water levels haven't gone down that much since the river crested this morning.

On Sunday, the **South Saskatchewan River** overflowed in low-lying areas and people piled up thousands of sandbags as fast as they could, but some barriers were quickly breached.

At least 10,000 people in **Medicine Hat's** flood zone were instructed over the weekend to head for higher ground.

Two of the three bridges that connect the city's north and south were also closed amid fears the river would overrun them.

The good news is the torrent of water wasn't expected to be quite as high as initially feared, however, the bad news is that it will stay high for several days.

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"We've got a longer sustained event, but that event is of a lower pressure or a lower speed," said deputy fire chief Doug Cooke.

"While that's going to be longer and that puts different kinds of pressure on our system, we're hoping that we can stay ahead of it and keep the water out."

Robinson got an aerial view of the flooding Sunday. Many areas were inundated with water, he said.

“You’d almost think we’re in the muddy waters of the Mississippi right now that surrounds a lot of these homes,” said Robinson.

“It’s actually quite tragic in some areas.”

Some sections of the city of 62,000 have been closed and are being patrolled by police to guard against possible looting.

Reference C. Canada’s outdated infrastructure vulnerable to disasters, experts warn

https://www.thestar.com/news/canada/2013/06/23/canadas_outdated_infrastructure_vulnerable_to_disasters_experts_warn.html

By **Adam Miller**The Canadian Press
Sun., June 23, 2013timer3 min. read

Canada’s infrastructure has become more vulnerable to natural disasters such as the flooding in southern Alberta due to the rising cost of upkeep and increasing frequency of dangerous weather due to climate change, say experts attending a major conference on disaster management.

“How prepared are we? One way of answering that is that we will never be as prepared as we could be,” said Adrian Gordon, former President & CEO of the Canadian Centre for Emergency Preparedness.

“We’re simply that much closer to the next big disaster. What it’s going to be, who knows? Right now it’s Calgary, tomorrow it could be something else,” said Gordon who is one of the officials attending the World Conference on Disaster Management, which gets underway in Toronto Monday.

Dr. Saeed Mirza, emeritus professor at Montreal’s McGill University specializing in structural engineering, added that the monumental infrastructure costs accumulated over decades of negligence have left Canada particularly vulnerable to catastrophic events.

“The frequency and intensity of these events has been increasing at an escalating rate and what was a one-in-100-year event at one time may become the norm,” he said.

“When we look at Calgary, we had a flood there in 2005 and they called it a one-in-100-year flood, while this one according to some descriptions in the news has been three times as bad.”

Climate change has had a “significant effect” on both the intensity and frequency of these events, but denial of its existence and a lack of preparedness on the part of municipal governments have exposed the holes in our infrastructure system, Mirza added.

“Just to see people suffering in Calgary, [officials] must have said ‘look, we will never face anything like this,’ and unfortunately they are suffering right now because of that.”

Paul Kovacs, moderator for the conference and a member of the Canadian Council for Social Development and the Meteorological Service of Canada, said that the international event will explore the preparedness of Canada in the face of natural disasters with speakers from dozens of countries taking part.

“Our infrastructure seems to be having a hard time even on a good day, and when you have a conference on emergency management we’re exploring what’s going to happen on a really bad day,” he said.

“Calgary right now is having a bad day, and ... when these really big events push our infrastructure even harder how well does it hold up? The answer is not terribly well.”

Kovacs added that although it’s not known exactly when natural disasters are going to occur, we’re going to have a higher number of these catastrophic events in the future

“Are we taking that into account when we’re thinking about how we build and how we look after our systems? Unfortunately the answer too often is ‘no’,” he said.

Mirza estimated that Canada’s infrastructure requirements have reached a cost of about \$1 trillion, while a recent survey by the McKinsey Global Institute earlier this year stated that worldwide infrastructure needs are about \$57 trillion.

“In terms of funding, the amounts of money are truly frightening and there’s no government in the world that can find the kind of money necessary to bring existing infrastructure up to par,” Gordon said.

The lack of political will is one of the biggest obstacles to infrastructure funding, which is why Mirza proposed that Canada adopt a best practices solution to addressing our climbing infrastructure costs.

“What we need, and I’ve pleaded for it several times, is a national infrastructure policy in Canada because our governments have a tenure of four years, whereas infrastructure exists for 7,500 years,” said Mirza.

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In addition to national guidelines, Mirza also proposed a system where the private sector would contribute to infrastructure costs and cited estimates that 15 per cent of the operating expenses of many multinationals and major corporations are related to infrastructure.

“We have failed to make the general public realize that what we might have expected in terms of help during crisis even a few years ago, may not be the case now,” says Gordon.

“So there is a far greater case for individuals and families to be prepared ... but the general perception amongst the public is ‘it’s not going to happen to me anyway’.

Reference C. Alberta Flooding: Alison Redford Announces \$1 Billion In Relief From Provincial Government

- Bill Graveland and Jennifer Graham, The Canadian PressCP

https://www.huffingtonpost.ca/2013/06/24/alberta-flooding-medicine-hat_n_3488845.html

The Alberta government made the first billion-dollar ante Monday in a flood recovery effort that by all accounts will carry a staggering final tab.

As thousands heaved soggy furniture, muddy carpets and mushy drywall into Dumpsters and thousands more waited in shelters for the all clear to return home, the province approved an initial \$1 billion to kick-start flood recovery.

"We are going to do — please listen to my words — whatever it takes to get everyone back to a place where they can continue to live their lives," Premier Alison Redford said.

The money will be used to support people who have been forced from their homes, as well as to run relief centres and to start rebuilding infrastructure.

The government will provide pre-loaded debit cards to displaced residents to help with their immediate housing needs and day-to-day purchases. Those who qualify will receive \$1,250 per adult and \$500 per child.

Redford beat back fiscal critics before they had a chance to strike, saying the provincial budget will not be balanced next year as planned.

"It is going to affect the budget and I will say right now, because someone is going to ask the question, 'Are we sticking to the plan to balance the budget?' No, we're not," she said.

"The world changed (last) Thursday morning and I think as a Treasury Board we've come to terms with that. We think Albertans have come to terms with that."

Torrential rain last week filled up creeks and rivers that were unable to contain so much water in such a short time and surged over their banks to inundate communities throughout much of southern Alberta.

Redford said the rebuilding could take 10 years.

"I don't want to scare people. But when we talk about what's going to happen, we're talking about a 10-year plan. And we're committed to make sure we're going to take the time to do that right," she said.

Redford's announcement came at the same time Calgary Mayor Naheed Nenshi said almost all of the 75,000 city citizens who had to flee high water from the Bow and Elbow rivers last week could go back.

The hum of gas-powered pumps filled the streets as homeowners removed water from basements filled to the floor joists. Giant garbage bins placed in neighbourhoods quickly filled up. The city waived fees to enter the landfill.

Damage estimates so far have only been speculative.

A preliminary report from BMO analyst Tom MacKinnon said it could be in the realm of \$3 billion to \$5 billion.

MacKinnon said he arrived at that figure by multiplying \$500 million by 10, after reading ATB Financial economist Todd Hirsch's comments that the price tag could be 10 times higher than that of the flood that occurred in the area in 2005.

Hirsch cautioned that his estimate was not a scientific one and was based solely on how much larger this flood was.

Nenshi wasn't guessing.

"My best estimate on the total damage hasn't changed," said Nenshi. "It's lots and lots and lots."

Federal Immigration Minister Jason Kenney, whose home is in Calgary, wouldn't guess either.

"We're still in a state of emergency in 23 communities," he said. "Our focus is not the calculation of formulas and hypothetical figures. That will become clear in due course."

Nenshi welcomed the provincial money.

"It's a wonderful start," he said. "We appreciate it and I could speculate, but I suspect that number will have to go higher."

Aboriginal Affairs Minister Bernard Valcourt issued a statement Monday saying the government would support First Nations affected by the flooding.

He said his department is in top with aboriginal leaders to ensure that the communities' immediate health and safety needs are being met.

While Calgary recovered, only a small number of 10,000 evacuees in Medicine Hat were allowed back, even though the South Saskatchewan River crested Monday morning.

Officials say the rest won't be allowed back until their homes are inspected, and if they are flooded, it will be even longer.

Water that had submerged streets and surrounded homes and businesses was slowly receding. But Ron Robinson, director of emergency measures, warned that protective barriers continued to be "bombarded" by the high and fast-moving river.

"The structural integrity of our berms is at issue and we require vigilant monitoring," he said. "This is why there is an urgent need for people to be safe."

About 1,000 homes were hit by high water. About 1,500 people were registered at the city's emergency centre and accommodation had been provided for about 600.

Mayor Norm Boucher said it would be at least several days before the city would be "more mobile."

"It's still not safe for people to return home. The water has moved down but it hasn't moved down a lot," Boucher said. "There's still debris coming out. We have some dams that are starting to leak a little bit."

Sand-bagging efforts continued as a result, he said.

"I know (people) want to go back ... but the reality is they won't have electricity. They won't have gas in the house. They can't run pumps if they have water in the basement."

Among the sites left waterlogged was the Medalta Potteries National Historic Site.

Spokesman Barry Finkelman checked out the damage from an escarpment.

"It looks like we may have missed the bullet ... we probably have about two or three inches of water, maybe six inches of water in the building ... but until we get into the site we don't know," he said.

"We were anticipating anywhere up to six feet of water in the building. We had raised as many of the artifacts as possible up off the ground."

Medicine Hat officials have said this flood appears to be worse than the "flood of the century" in 1995. Finkelman said it's the fourth flood in the area in 20 years.

"We seem to be doing the same protection year after year, so maybe it's time for us to look seriously at flood-proofing the city," he said.

The deluge, while serious, was not as bad as had originally been feared after the devastation in Calgary and other communities upstream. Water managed to top sandbag barriers in some areas of the city and there was flooding in some neighbourhoods, but other defences remained dry.

People in High River, the community hardest hit by the flooding, didn't have much reason for optimism. There was still no timeline for when 13,000 evacuees would be able to return.

Police said one drunken man brandished a knife did try to get past officers at a High River security checkpoint.

RCMP said the 24-year-old man demanded that he be allowed to return to his property. He was arrested and charges were pending.

Pictures of the natural disaster have flashed around the world. On Monday, Prince William and his wife Kate wrote Prime Minister Stephen Harper to pass along their sympathies.

William and Kate provided a much-needed morale boost in 2011 when they visited the northern Alberta community of Slave Lake shortly after it was ravaged by wildfires. It was an unscheduled stop for the then-newlyweds who were on their first visit as a couple to Canada.

"Catherine and I have been saddened to learn of the deaths and destruction caused by the unprecedented flooding throughout the province of Alberta," said the note released by Harper's office.

Reference C. Floods in Canada

<https://www.thecanadianencyclopedia.ca/en/article/floods-and-flood-control>

Article by [Ian Burton](#)
Erin James-abra;
Updated by [Nathan Baker](#)
Published
Online February 7, 2006
Last Edited March 4, 2015

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First published: 01 August 2012

<https://doi.org/10.1002/mpr.1359>

Citations: [1,067](#)



PDF

TOOLS

Reference G. Bragg Creek Door to Door Campaign Final Report March 25, 2015

Bragg Creek and Area Wellness Committee

- Door to Door Campaign Report This door to door report release event happened on March 25th 2015 from 7:00pm – 8:30pm at the Bragg Creek Community

Centre. The campaign was conducted in the fall of 2014 in the hamlet of Bragg Creek.

Bragg Creek Door to Door Campaign
Final Report March 25, 2015
Bragg Creek and Area Wellness Committee

Prepared By

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Bragg Creek and Area Wellness Committee

With Support Of:

Canadian Red Cross

Alberta Health Services

Calgary Rural Primary Care Network

Bragg Creek Community Association

Western Rocky View Family and Community Resource Centre

High Country News

Rocky View County

Town of Banff FCSS: Community Helpers Program

Hull Services

Acknowledgements

This survey and the report would not be possible without the hard work of many people and organizations. First among these is Susan MacKenzie from the Canadian Red Cross who saw a need for a door to door campaign in Bragg Creek and advocated tirelessly for it to happen. Liz Breakey and Randy Ell were great supporters from Rocky View County and shared the vision with us of engaging residents on their doorsteps and in their homes. Wendy Farnsworth, from the Western Rocky View Family and Community Resource Centre, who brought her unshakable enthusiasm to the planning team. Matthew Miller and Monique Wendling from Alberta Health

Services who were relentless in the hours they provided door knocking. Cathy McFee, from Alberta Health Services in High River, whose mentoring helped get the campaign off the ground. Priscilla Liu from Alberta Health Services who graciously shared her data analysis expertise. Hull Child and Family Services who sent us some very experienced canvassers from High River. The volunteers from the Canadian Red Cross who brought their caring and warmth to Bragg Creek. Each and every person who volunteered their laughter, smiles, and encouraging words; we couldn't have done it without you! Last but not least the residents who opened their doors and shared their hopes, experiences and ideas with us. Thank-you.

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Executive Summary

The purpose of the Bragg Creek door to door campaign was to engage with residents and demonstrate that the Bragg Creek and Area Wellness Committee cares; we care what has happened, what is happening and what will happen to residents and the hamlet as they recreate themselves in the wake of the 2013 flood. The campaign took place from September 22-25, 2014 and involved 25 canvassers from 7 different organizations. Over the course of 4 nights we were able to reach 74 homes and 161 residents representing 30% of households and 35% of the population. 95 times out of 100 this survey is accurate to a margin of error of 6%. Canvassers often met with residents for upwards of 20 minutes listening to their hopes, experiences, and ideas. Here is some of what we learned:

Demographics

- Lower percentage of youth when compared to regional statistics (21% in Bragg Creek vs. 34% in Rocky View County)
- Higher percentage of seniors when compared to regional statistics (16% in Bragg Creek vs. 11% in Rocky View County)
- Fewer residents per household when compared to regional statistics (2.2 residents per household in Bragg Creek versus 3.0 residents per household in Rocky View County)

Service Access Rates

- Significantly less use of formal services in Bragg Creek post-flood when compared to findings from High River. The average number of services accessed per household in Bragg Creek was 0.9; the average number of services accessed per household in High River was 2.4.
- Canadian Red Cross support was accessed by 16% of households in Bragg Creek and 61% of households in High River.
- Disaster Recovery Program (DRP) was accessed by 18% of households in Bragg Creek and 43% of households in High River.

Community News and Communication

- The number one way residents learn about community news is through word of mouth (62% of respondents).

- The number two way residents learn about community news is through the High Country News which is a monthly newspaper that serves Bragg Creek and the surrounding rural communities (53% of respondents).
- There are another 12 sources of news (i.e. Social Media, Rocky View Weekly, posters, etc) in the community which are accessed less commonly.

Identified Short Term Needs

- Strengthen community and increase social connection across all demographic categories
- Improved access to healthcare, in particular mental health
- Improved communication with the municipality and province on the topics of flood mitigation, emergency preparedness, regional planning, and infrastructure
- Completion of water and sewer upgrades
- Financial relief for residents and businesses that continue to be impacted by the costs of recovery
- Implementation of an emergency notification system for the region

Identified Long Term Needs

- Flood mitigation and emergency preparedness work completed, continued communication with the residents on these topics as work is done by the municipality and province
- Continued work to strengthen and build community

Priorities

1. Enhance the real and perceived safety of individuals, families and property
2. Improve communication locally and regionally
3. Strengthen and build community

Proposed Actions

- Regular monthly meetings with Rocky View County administration held locally in Bragg Creek to improve both communication and the relationship between the county and residents
- Increased community building initiatives such as dinners, concerts, and events which are promoted and attended locally
- Deployment of an emergency notification system
- Further research to understand barriers to accessing mental health care
- Increased Canadian Red Cross presence for ongoing financial relief
- Local website/publication to provide a reliable, timely, and local news source

- Continued support for Recreate the Creek
- Financial and insurance workshops presented locally with a focus on the particulars of living in a flood affected community

What is the Bragg Creek and Area Wellness Committee?

The Bragg Creek and Area Wellness Committee began in the spring of 2014 as a partnership between social service providers, local organizations and residents to enhance the social wellbeing of residents in the Bragg Creek area. Our mission statement is: “Supporting the Social Wellness of Bragg Creek and surrounding area”. The committee meets once per month in either Bragg Creek or Redwood Meadows.

The committee has representation from the following areas:

Bragg Creek Community Association, Bragg Creek and Area Chamber of Commerce, Redwood Meadows town administration, Banded Peak School, Bragg Creek Community Church, Mountain Woods Health Services Board, Rocky View School District, AHS Cochrane Addiction & Mental Health Services, AHS Community Action Team for School Based Mental Health, Calgary Rural Primary Care Network, Canadian Red Cross, Western Rocky View Family & Community Resource Centre, Community Helpers Program and Cochrane and Area Victim Services.

To date we have accomplished the following action items:

- Create a Bragg Creek Area Resource List of service providers that was mailed to all households in Bragg Creek and Redwood Meadows
- Run an emergency preparedness expo in partnership with the Bragg Creek Community Association
- Host an information booth at Bragg Creek days at which the Red Cross handed out over 100 emergency preparedness kits
- Complete a door to door campaign in the hamlet of Bragg Creek, with the intention of assessing the needs of, and providing resource information to, anyone who requires and wants it in the wake of the 2013 flood.

If you are interested in becoming involved or want more information please contact Eric Howey (eric.howey@albertahealthservices.ca) or Debbie Maclean (dmaclean.crpcn@davincibb.net).

Methodology

Purpose

The purpose of the Bragg Creek door to door campaign was to engage with residents and demonstrate that the Bragg Creek and Area Wellness Committee cares; we care what has happened, what is happening and what will happen to residents and the hamlet as they recreate themselves in the wake of the 2013 flood. Additionally the campaign served to assess community needs and inform residents of resources available in the Bragg Creek area to support their psychosocial wellbeing.

Process

The survey was completed over the course of four days from September 22-25 2014. There were a total of 25 canvassers from 7 different organizations who helped complete the campaign. Canvassers worked in teams of two and there were 3-7 teams each evening. If a resident was home people typically spent 15-20 minutes at each home however there were instances where canvassers met with residents for up to an hour. In total the actual door knocking process required approximately 112 person hours. There was a celebratory and debrief dinner held for canvassers on September 25th, 2014. Safety was managed by 1-2 supervisors who were roving in vehicles and monitoring the location of all teams and providing support as necessary. RCMP in Cochrane was notified of the campaign and advertisements were placed in the High Country News and at local billboards.

Confidentiality

Responses to the survey are confidential and identifying information was only collected from residents if they requested further follow up from the Canadian Red Cross, Alberta Health Services or Western Rocky View Family and Community Resource Centre. Confidentiality was explained verbally to the residents, a copy of the script used regarding confidentiality is located in Appendix D. The survey was entirely voluntary and was only completed if residents provided verbal consent to complete it. The completed surveys are being safeguarded by Alberta Health Services.

Data Analysis

The data from each survey was inputted into a spreadsheet including a word for word transcription of the long answer section of the survey. The spreadsheet allowed for easy tabulation of the demographic data and the checkboxes used to ask about service access rates and community news. When analyzing the long answer portion of the survey about community needs a thematic approach was used to assign major themes and sub-themes to a resident's response. For example when responding to the first question about present needs in the community for health and wellness a resident may have discussed recreational opportunities at the community centre, communication with Rocky View County and condo development. This response would have resulted in four sub-themes (Recreation, Improved

Communication, Rocky View County and Development) and three major themes (Community, Communication, Governance). These major themes and sub-themes were then tabulated using the spreadsheet to provide the empirical data used in the community needs section of this report. The major themes and sub-themes used in this report were agreed upon in consultation with the Bragg Creek and Area Wellness Committee.

Accuracy

Based on a total population of 454 and a sample size of 161 the margin of error for this survey is 6.2%, with a confidence level of 95%. The margin of error for this survey calculated based on households is slightly higher at 9.6% with a confidence level of 95%.

Participating Organizations

Western Rocky View Family and Community Resource Centre, Canadian Red Cross, Community Helpers, Alberta Health Services, Hull Services, Calgary Rural Primary Care Network, and Rocky View County.

This Land

We would like to acknowledge that this survey took place on the historical land of the Tsuu' Tina Nation. While Bragg Creek is not part of the Tsuu' Tina reserve it is nonetheless on land that has historically belonged to the Tsuu' Tina Nation and is adjacent to the reserve. We recognize that Tsuu' Tina Nation are the original owners and protectors of this land before it was known as Bragg Creek and continue to have a deep and meaningful relationship with the Elbow River valley today.

Limitations

There are some notable limitations to the survey process that need to be acknowledged.

The first, and most significant limitation, is a geographic one. This survey did not include any responses from residents living west of Braken Rd (west Bragg Creek), east of Yoho Tinda Rd (i.e. Wintergreen), or Redwood Meadows. See Appendix E for a detailed map of the survey area. As such the results, while important, cannot be generalized to include these areas.

The second significant limitation is in how the data from the surveys was recorded. The responses from the residents were recorded in writing by the canvassers and the canvassers made decisions about what they deemed important enough to write down and what could be excluded. This decision to include and exclude information impacts the veracity of the data collected as it is possible that what canvassers perceived as important was not an accurate reflection of what residents perceived as important.

The third limitation is inherent in the goals of the door to door campaign. One of our key goals was to engage residents in a meaningful conversation about their wellbeing and the wellbeing of Bragg Creek and so we instructed canvassers to be focused on conversations and not on a mechanical question and answer process. The surveys were presented as a foundation for deeper discussions and not as a rigid step by step form that had to be followed.

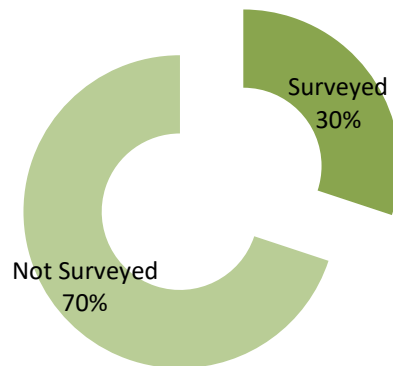
This means that the responses recorded on the surveys could potentially be from questions other than those specifically included on the printed sheets.

A further limitation is in the timing of the door knocking. All surveys were completed between the hours of 5:30pm and 7:30pm as we felt these represented the hours during which we were mostly likely to find someone at home however this would exclude residents who are regularly absent from their home during this time.

The last identified limitation is in the data analysis process which has been primarily completed by Eric Howey who is not a resident of Bragg Creek. Efforts have been made to limit this impact by checking the findings and process with other stakeholders and with the Bragg Creek and Area Wellness Committee.

Survey Sample

Percent of Households Surveyed in Bragg Creek



Number of homes approached = 246*

Number of surveys completed = 74

Response rate = 30%

2013 hamlet population = 454**

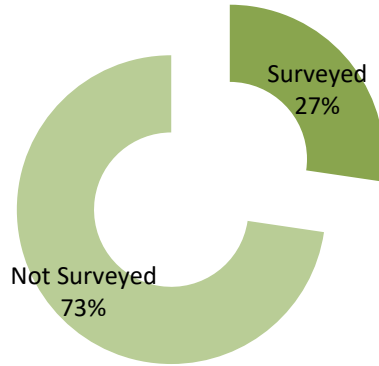
Residents surveyed = 161

Response rate = 35%

*246 homes was arrived at based on a hand count of the number of residential lots on the Rocky View County Land use map.

**454 is the population as per the 2013 Rocky View County census

Percent of Households Surveyed in High River

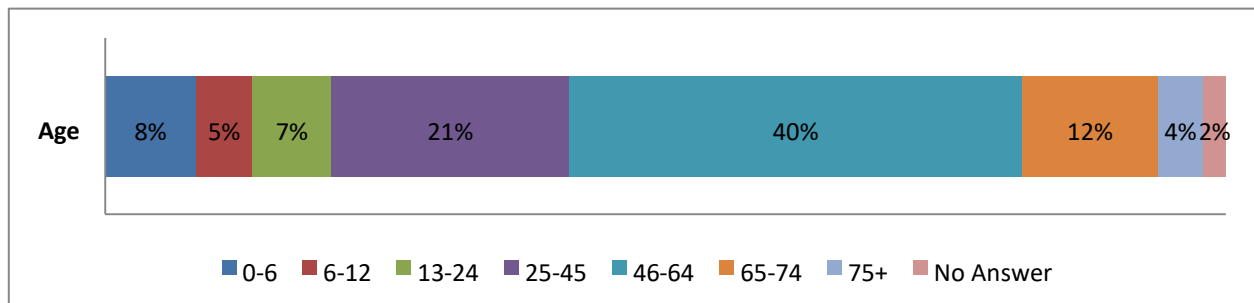
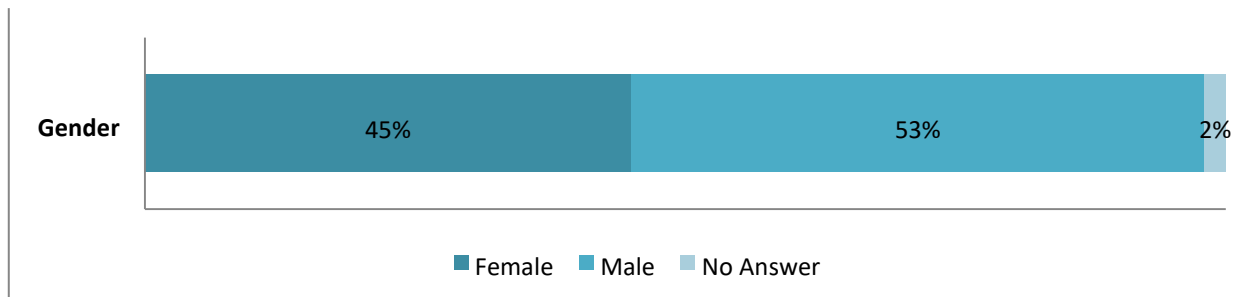


Number of homes approached = 5500

Number of surveys completed = 1503

Response rate = 27%

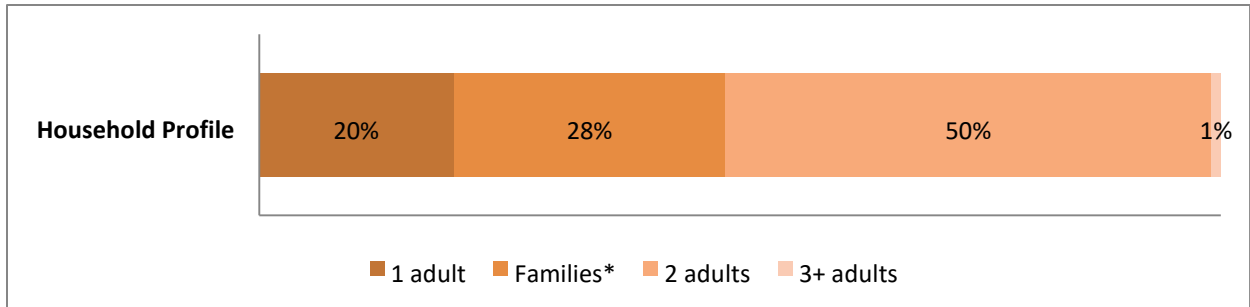
Survey Sample Demographics



20% Youth (0-24)

61% Middle Age (25-64)

16% Seniors (65+)



*Families is interpreted as one or two adults and at least one other person below the age of 24

Average # of people per household: 2.2

Median # of people per household: 2

Table 1: Survey Sample Demographics

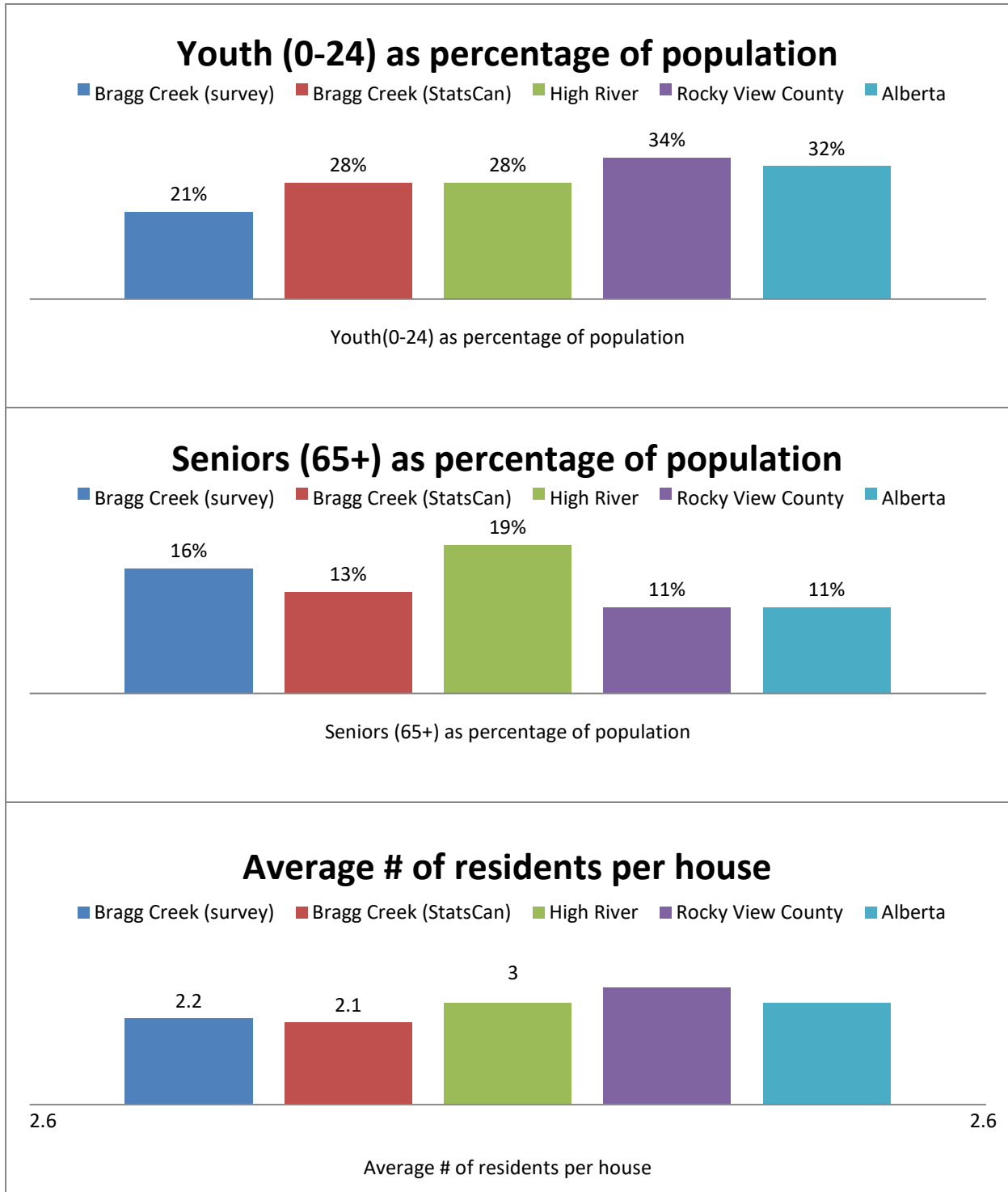
Gender	0-6	6-12	13-24	25-45	46-64	65-74	75+	No answer	Total
Female	7	2	5	16	32	7	3		72
Male	6	6	7	18	33	12	3		85
N/A								4	4
Total	13	8	12	34	65	19	6	4	161
Percentage	8.07%	4.97%	7.45%	21.12%	40.37%	11.80%	3.73%	2.48%	100%

Table 2: Survey Sample Household Profiles

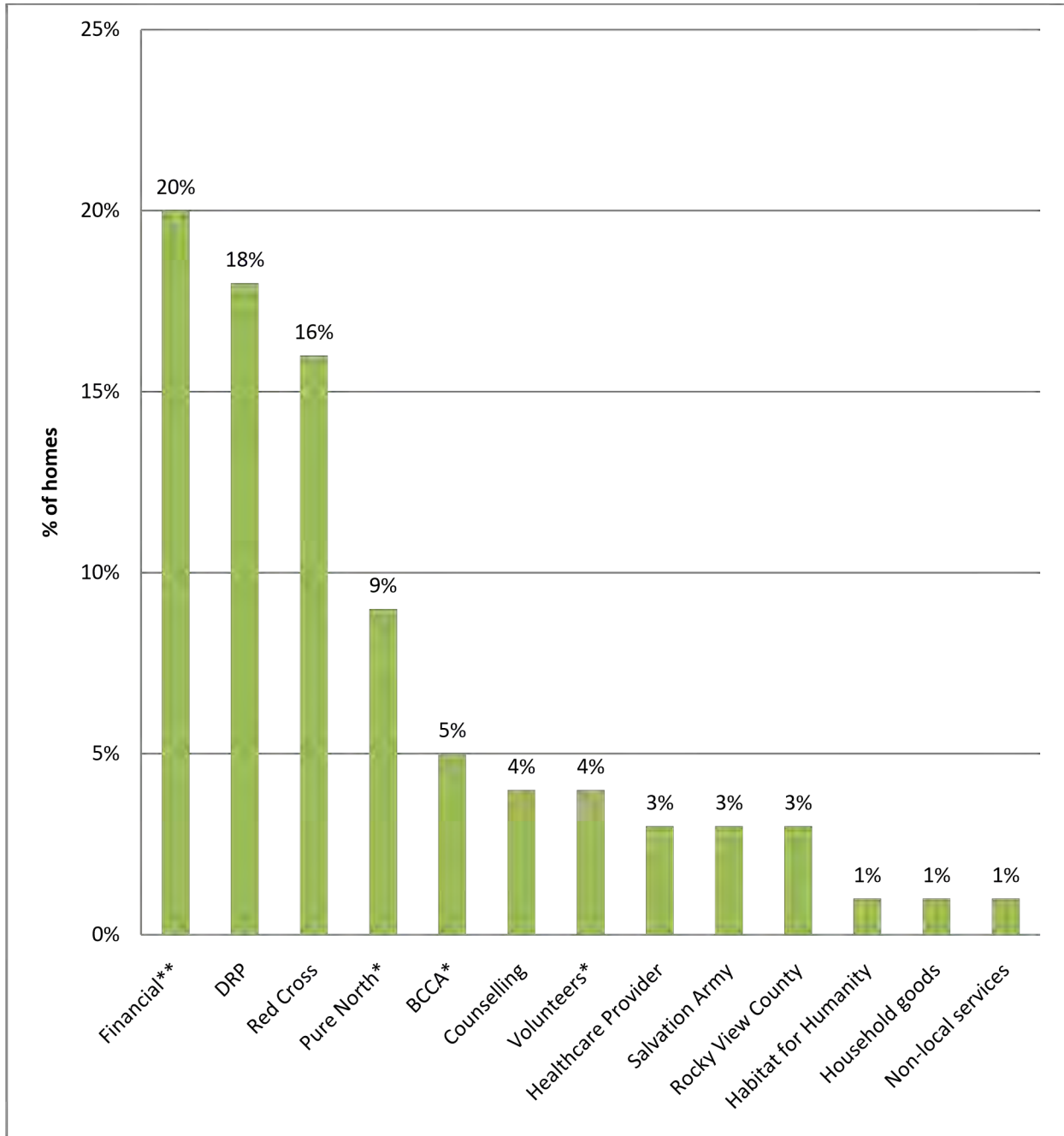
Number of occupants	1	2	3	4	5+	No answer	Total
Number	15	36	10	6	3	4	74
Percentage	20.27%	48.65%	13.51%	8.10%	4.05%	5.40%	100%

Demographic comparison

Numbers for High River, Rocky View County, Bragg Creek and Alberta are from the 2011 Statistics Canada national census.



Findings: Services Accessed Per Home



* These were not options on the survey and were given long form under the “other” category

**Financial includes people who selected both the Financial checkbox and wrote “insurance” long form in the other box.

Table 3: Number of times services accessed and percentage of homes

Source	# of times accessed	Percentage of homes
--------	---------------------	---------------------

Financial**	15	20%
DRP	13	18%
Red Cross	12	16%
Pure North*	7	9%
BCCA*	4	5%
Counselling	3	4%
Volunteers*	3	4%
Healthcare Provider	2	3%
Salvation Army	2	3%
Rocky View County	2	3%
Habitat for Humanity	1	1%
Household goods	1	1%
Non-local services	1	1%
School-based	0	0%
Samaritan's Purse	0	0%
World Renew/NGO	0	0%
Faith based program	0	0%

*These were not options on the survey and were given long form under the "other" category

**Financial includes people who selected both the Financial checkbox and wrote "insurance" long form in the other box.

Average number of services accessed per home: 0.9

Average number of services accessed if supported: 1.7

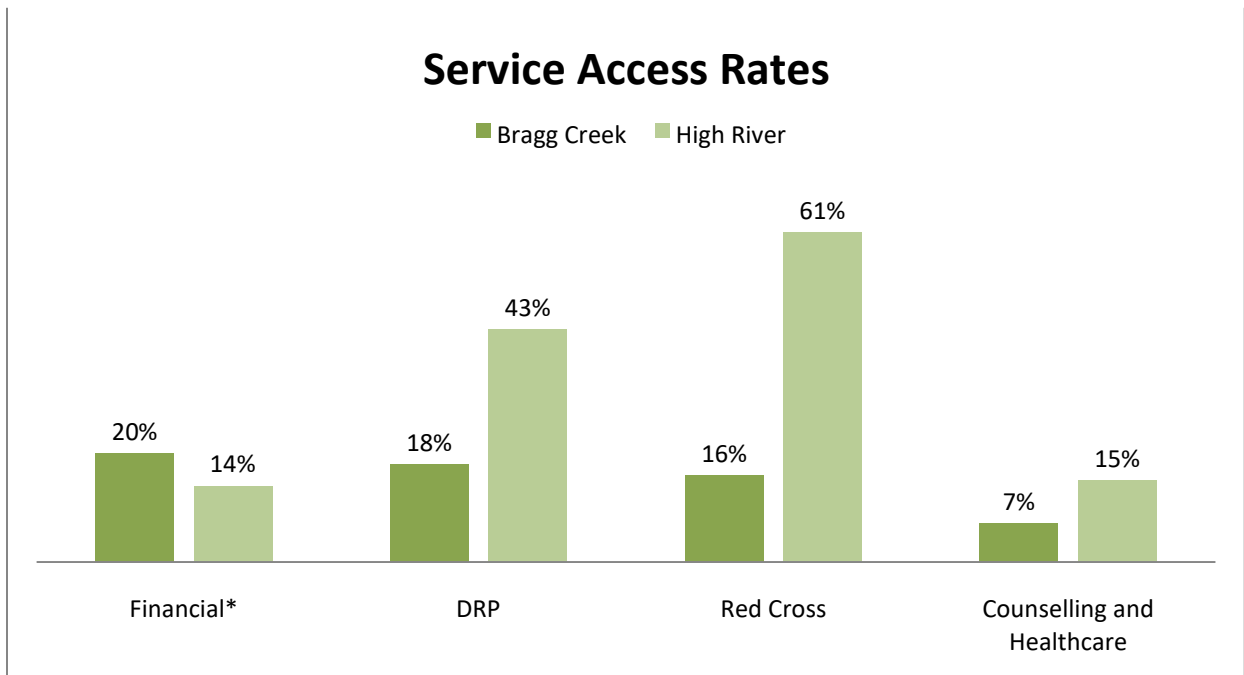
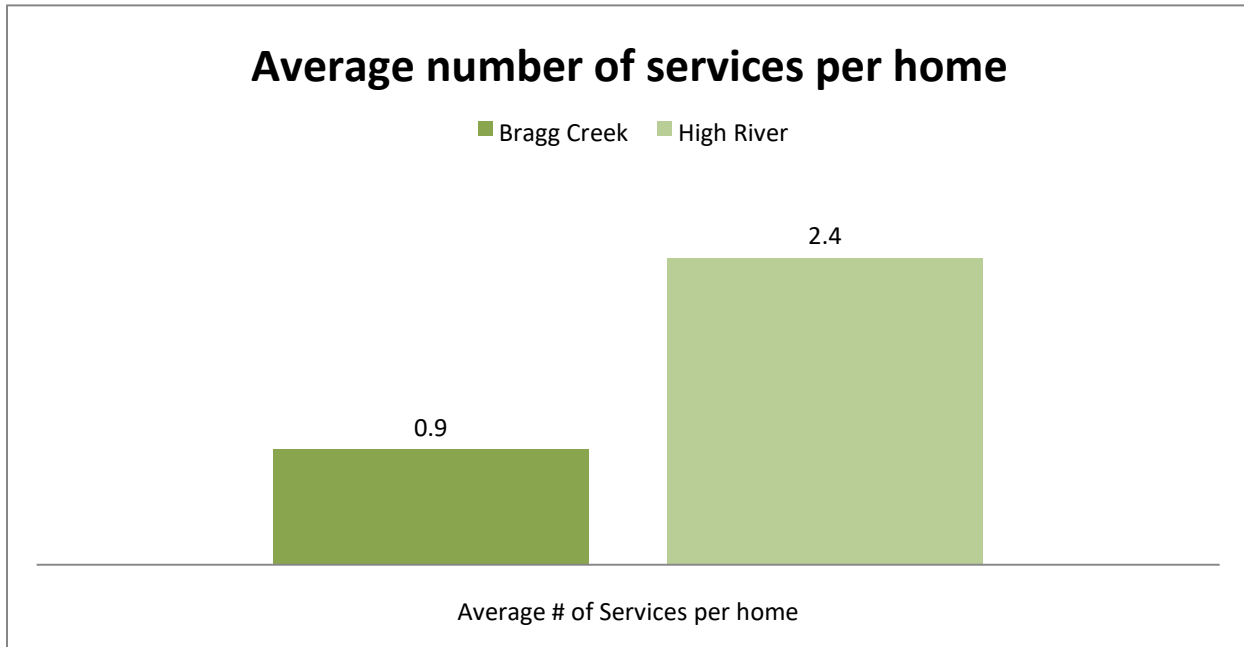
Percentage of total households who accessed support: 53%

Percentage of households who did not access any supports: 47%

Percentage of families who accessed support: 48%

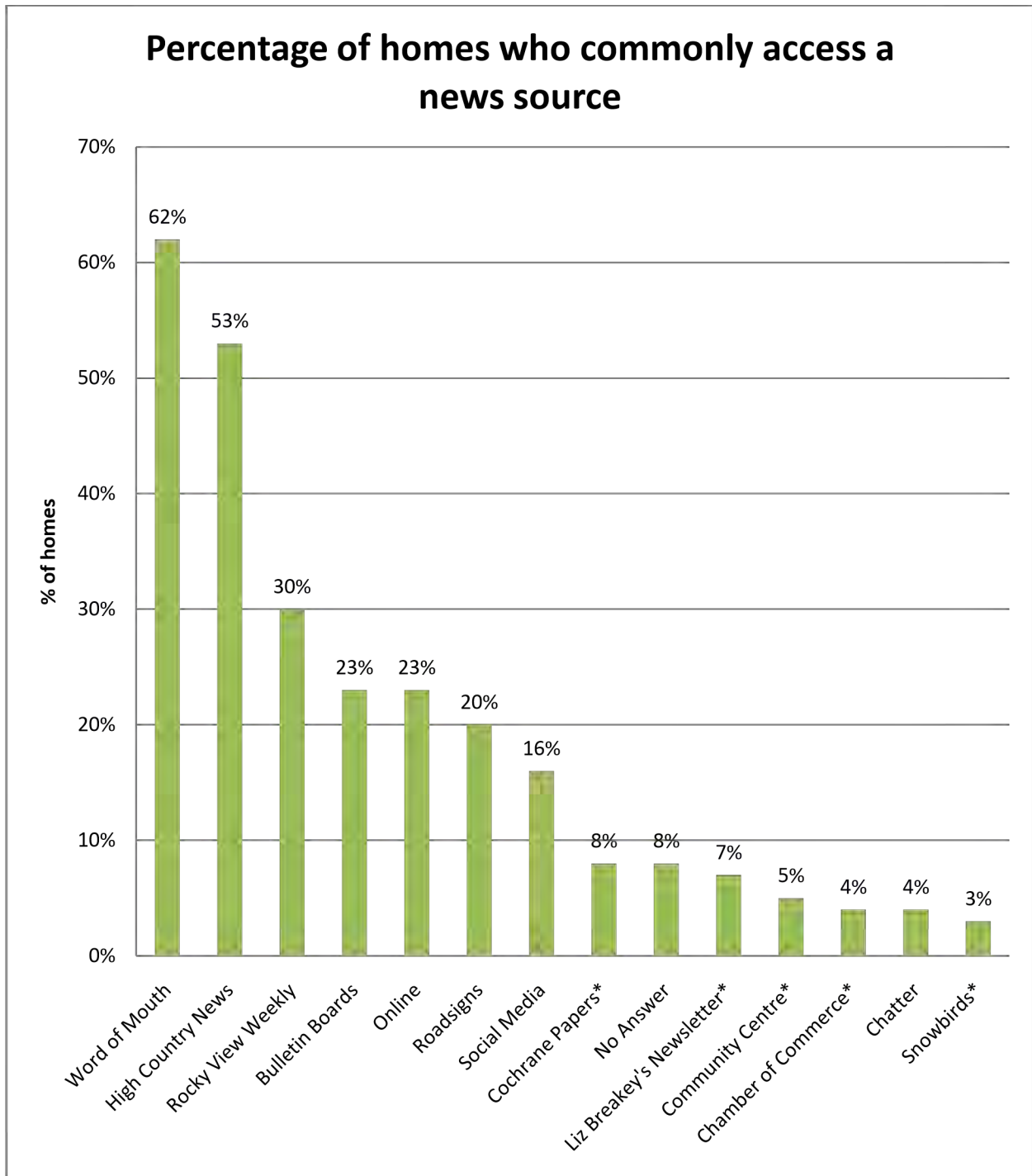
Percentage of seniors who accessed support: 63%

Bragg Creek and High River Service Access Rates



* Financial includes people who selected both the Financial checkbox and wrote "insurance" long form in the other box whereas High River results do not include "insurance" in the financial category

Findings: Community News



* These were not options on the survey and were given long form under the "other" category

Table 4: News sources as a number and as a percentage of homes

Source	# times selected	Percentage of homes
--------	------------------	---------------------

Word of mouth	46	62%
High Country News	39	53%
Rocky View Weekly	22	30%
Bulletin Boards	17	23%
Online	17	23%
Road signs	15	20%
Social Media	12	16%
Cochrane Papers*	6	8%
No Answer	6	8%
Liz Breakey's Newsletter*	5	7%
Community Centre*	4	5%
Chamber of Commerce*	3	4%
Chatter	3	4%
Snowbirds*	2	3%

* These were not options on the survey and were given long form under the “other” category

Average number of news sources per home: 2.7

Percentage of homes with only one news source: 18%

Percentage of homes with 3 or more news sources: 49%
Percentage of homes with word of mouth only: 12%

Findings: Community Needs

The following data is based on a thematic analysis of the long answer portion of the survey. 95% of residents surveyed answered at least one of these questions regarding community needs. Below is a list and description of the major themes and sub-themes that were used to categorize the long form responses. In the following pages data is primarily presented using graphs, for the data in tabular format please see Appendix A, Appendix B, and Appendix C.

Recall that the three questions we asked of residents were:

What do you see the community needing for health and wellness support now?

What do you see the community needing for health and wellness support in the long term?

Is there anything else you would like to share with us?

Major Themes and Sub-Themes

Business	
Small business	A statement of care or concern regarding the sustainability, viability, or importance of small businesses in Bragg Creek
Spa	An interest in spa services located locally in Bragg Creek
Communication	
Improve communication	A statement of care or concern regarding the importance of timely, clear and accurate communication with residents
Website	An expression of interest in a Bragg Creek focused website for community news and communication
Community	
Aesthetics	A statement of care for the visible aesthetics of the community post-flood and post-wastewater in particular as it relates to home value, business, and communal pride
Belonging	A statement about the importance of belonging and connection between residents
Families	A statement of care or concern regarding the level of services for families such as parenting support
Individual need	A statement of care or concern regarding an individual need such as clothing or food
Youth	A statement of care or concern regarding the level of services for youth
Recreation	A statement of care or concern regarding recreation opportunities
Seniors	A statement of care or concern regarding the level of services for seniors
Other	A statement of care or concern regarding other items such as a library

Emergency Services	
Emergency Preparedness	A statement of care or concern regarding what would happen in Bragg Creek should there be another natural disaster
Fire hydrants	A statement identifying fire hydrants as a community need for safety
Fire/Police	A statement identifying the need for increased emergency service presence
Emergency Notification	A statement identifying the need for an emergency notification system either physically (audible alarm) or digitally (text message or automated phone call).

Financial	
Financial need	A statement reporting financial need
Home value	A statement of concern for home values
Insurance	A statement of care or concern regarding insurance payouts, insurance premiums or the accessibility of future insurance coverage
Governance	
Development	A statement of care or concern regarding future growth in Bragg Creek including statements that were both pro-growth and anti-growth
Rocky View County	A statement of care or concern for the relationship between Rocky View County and the hamlet of Bragg Creek
Other	Noise levels, general statements about governance improvements, water testing, etc.
Healthcare	
Mental Health	A statement of care or concern for local mental health services including individual needs as well as communal needs such as suicide prevention
Care in the Creek	A statement of care or concern regarding the Care in the Creek medical clinic including statements of support and suggestions for improvements
Pure North	A statement of care or concern regarding local Pure North services
Prevention	A statement regarding the importance of preventative healthcare services
Other	General comments regarding local healthcare
Infrastructure	
Flood mitigation	A statement of care or concern regarding the flood mitigation including both local (berming) and non-local (dry-dams) solutions
Transportation	A statement of care or concern for local roadways, pathways and in particular speed bumps for traffic control
Water/Sewage	A statement of care or concern for the implementation of water and sewage services and in particular the short and long term costs
Second Exit	A statement supporting the planning and implementation of a second exit from west Bragg Creek
Other	Improved building codes, disaster resistant buildings, mold, etc
Gratitude	
Care in the Creek	An expression of gratitude for Care in the Creek medical clinic
Community Centre	An expression of gratitude for the Community Centre particularly during the initial flood response

Fire Department	An expression of gratitude for the fire department
Mental Health	An expression of gratitude for mental health services
Neighbours	An expression of gratitude for the help of neighbours in flood recovery
Province	An expression of gratitude to the province
Red Cross	An expression of gratitude to the Canadian Red Cross
Rocky View County	An expression of gratitude to Rocky View County
Thankful	A general expression of gratitude and thankfulness
Volunteers	An expression of gratitude for the help of volunteers in flood recovery

Word Heat Map

The following image was produced by analyzing the number of times a word was used in the long form answers. It includes all responses across all three questions. It is noteworthy that the two biggest words are community and water as this aligns well with the top two major themes in our survey which were infrastructure and community.

Major themes: A macro picture

The following graph shows the number times a specific theme was mentioned across all three questions. This is not a graph of percentages or relative significance but rather shows a raw comparison of the actual number of times each theme was mentioned in all three questions.

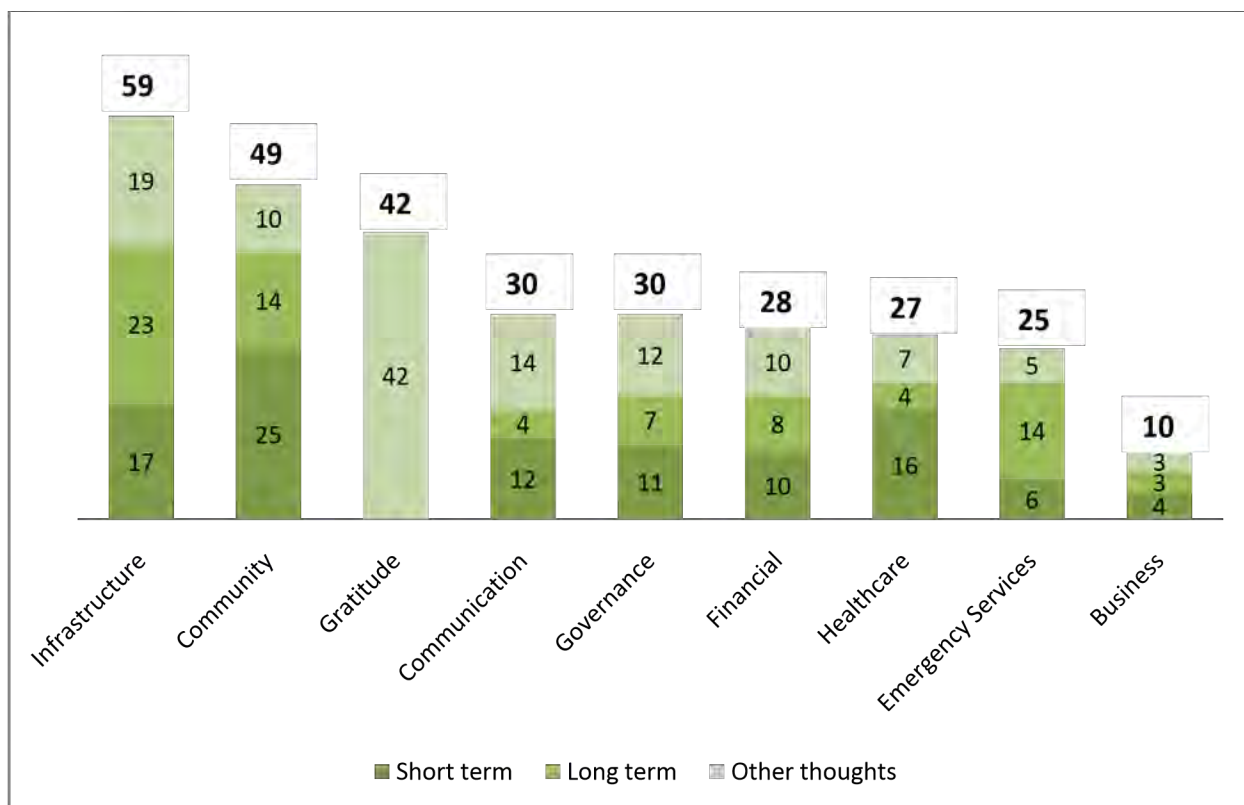
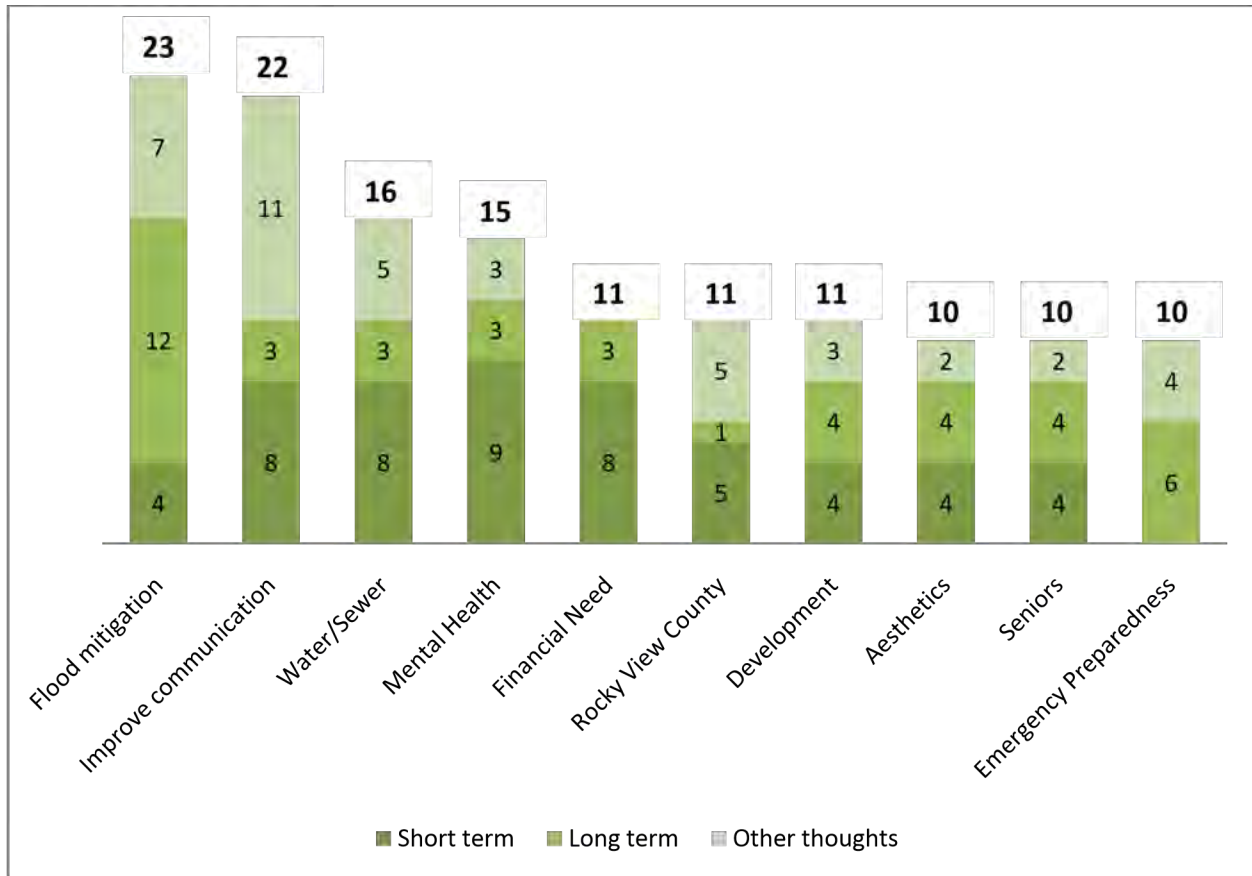


Table 5: Major themes identified in the short term, long term and other thoughts

	Short term	Long term	Other thoughts	Total
Infrastructure	17	23	19	59
Community	25	14	10	49
Gratitude	0	0	42	42
Communication	12	4	14	30
Governance	11	7	12	30
Financial	10	8	10	28
Healthcare	16	4	7	27
Emergency Services	6	14	5	25
Business	4	3	3	10

Top 10 sub-themes: A micro picture

The following graph examines the top 10 sub-themes whereas the graph on the preceding page presented the major themes. This is not a graph of percentages or relative significance but rather shows a raw comparison of the actual number of times each sub-theme was mentioned across all three questions.



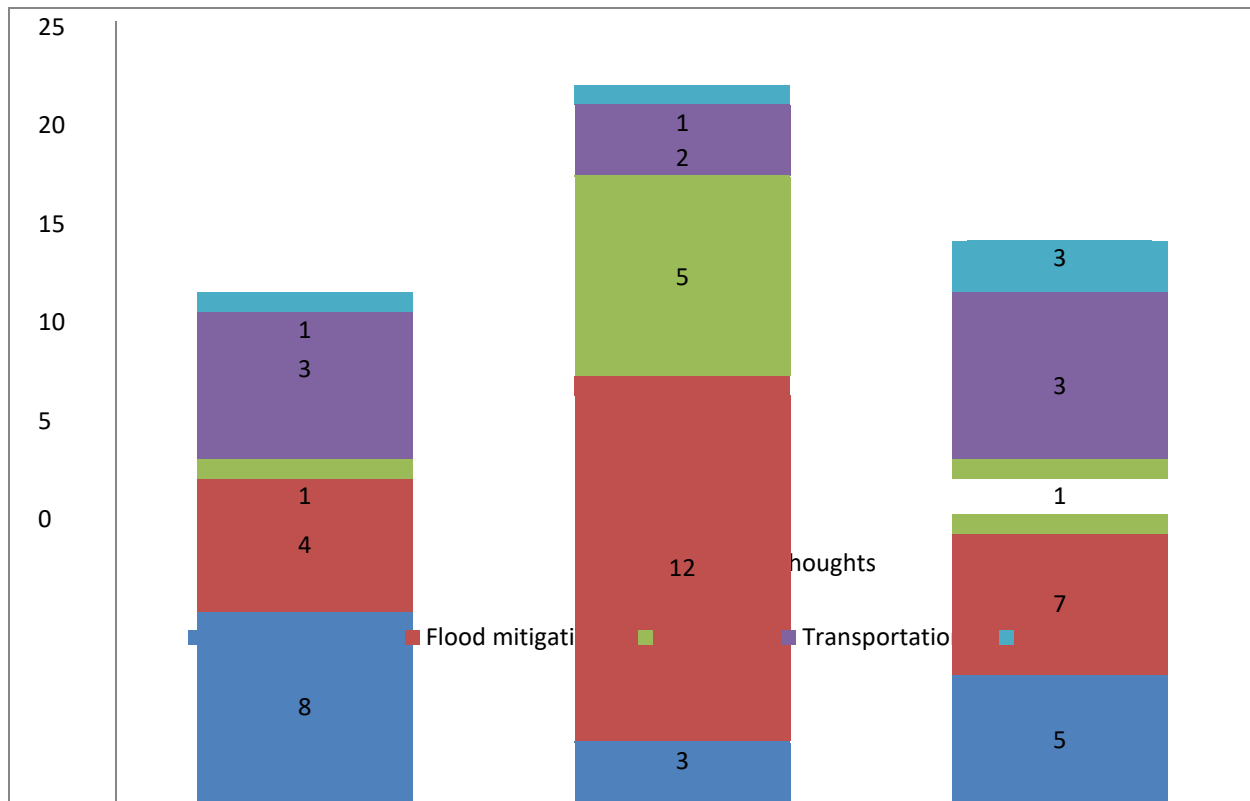
Notes

- Flood mitigation and improved communication appear to be the most commonly discussed sub-themes among residents during the door to door campaign with a notable gap between these two sub-themes and the rest.
- Emergency preparedness does not include emergency notification, which was a separate sub-theme and mentioned a total of 8 times. The combination of these two topics would be 18 making it the third most discussed sub-theme
- There were many sub-themes which were discussed 7, 8, or 9 times.
- Financial need made the list without being discussed in the other thoughts
- Emergency preparedness made the list without being discussed as a short term need

Infrastructure at a glance

Rank

- #1 Overall
- #2 Short term
- #1 Long term
- #2 Other thoughts



Notes

- Infrastructure is an area of significant care and concern for residents as they reflect on what Bragg Creek needs for health and wellness support. Recall that the bottom two tiers of Maslow’s hierarchy of needs are physiological needs (food, water, shelter) and safety (security of property, family, body, health, employment).
- It is most recognized as a long term need which may reflect residents recognition that some of the infrastructure improvements will take time to realize.
- Note that the focus shifts from water/sewage in the short term to flood mitigation in the long term.
- Flood mitigation is the number one sub-theme both within infrastructure and overall.
- Most residents surveyed would be unaffected by the development of a second exit from

West Bragg Creek

Community at a glance

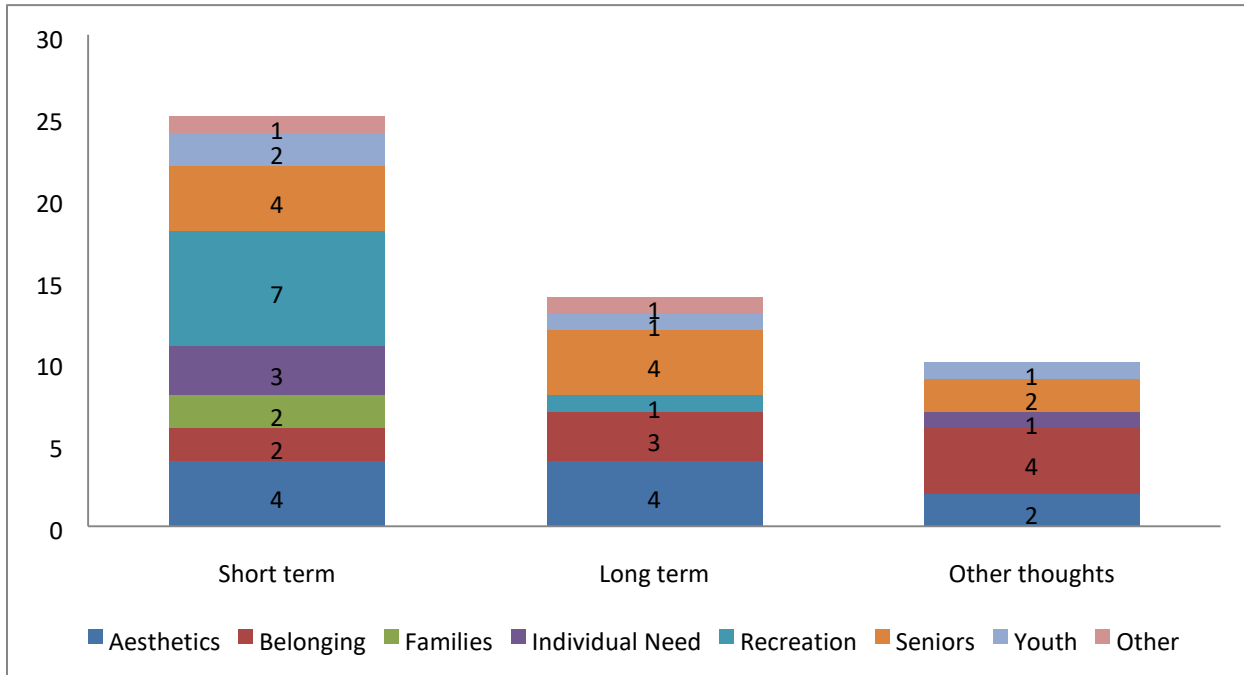
Rank

#2 Overall

#1 Short term

#2 Long term (tie with Emergency Services)

#5 Other thoughts (tie with Financial)



Notes

- Community is the number two care or concern for Bragg Creekers by a significant margin. Interestingly this is again reflective of Maslow's hierarchy of needs where love and belonging is the third tier after safety/security.
- Community is the number one short term need by a significant margin.
- There are a mosaic of sub-themes under the banner of community which from most to least mentioned are aesthetics (10), seniors (10), belonging (9), recreation (8), youth (4), individual need (4), families (2), other (2).
- It appears that residents see an immediate need for increased recreation opportunities.
- Based on these results it would appear that strengthening community will require a layered approach which addresses a mosaic of needs.

Gratitude at a glance

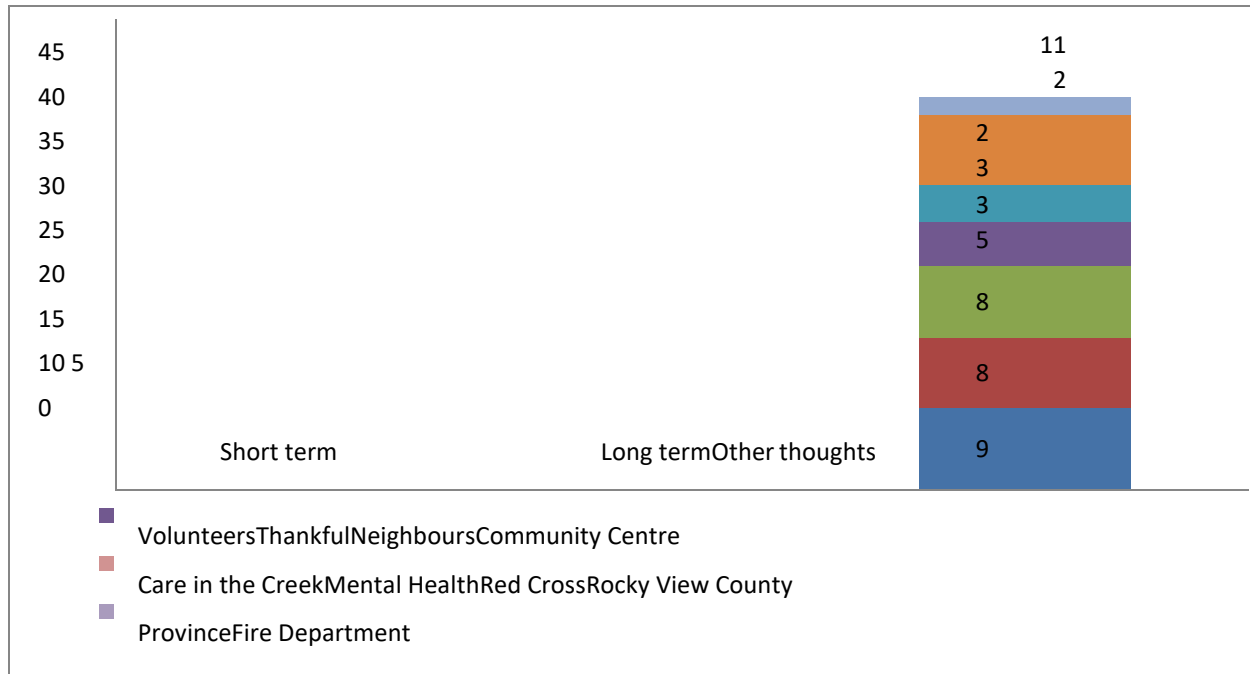
Rank

#3 Overall

#9 Short term

#9 Long term

#1 Other thoughts



Notes

- 41% of respondents to the last question mentioned gratitude in one form or another, many people expressed gratitude about more than one topic.
- Gratitude is the natural response to generosity and is an emotion which has positive psychological and physiological outcomes.

Communication at a glance

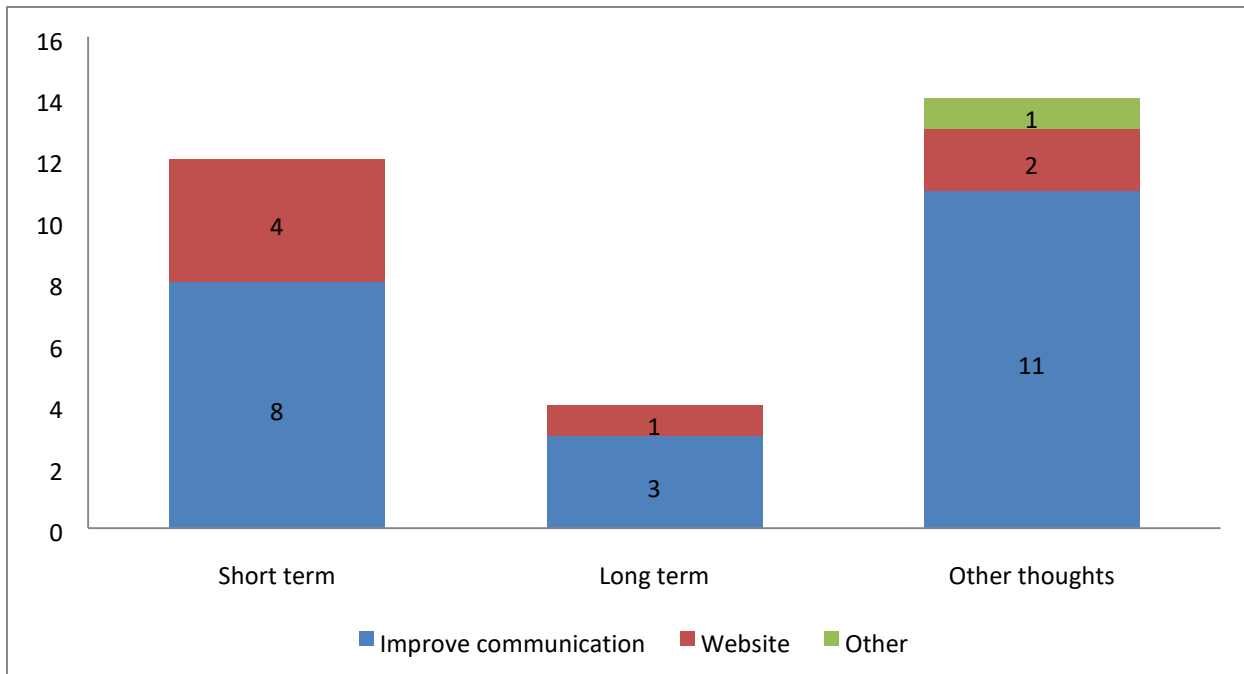
Rank

#4 Overall (tie with Governance)

#4 Short term

#5 Long term (tie with Healthcare)

#3 Other thoughts



Notes

- Residents discussed the need for improved communication in all areas from community events to disaster response to flood recovery.
- The development of a Bragg Creek focused news website was consistently mentioned, while there are websites currently in existence it does seem that there is a gap between what is currently offered and what residents desire.
- Communication difficulties are supported by the results from our question on community news where the number one source of news was word of mouth followed by the High Country News (excellent community newspaper however it is only published monthly). There is not a dependable, accurate, timely, and local source of news.
- Improve communication was the number two overall sub-theme across all three questions.

Governance at a glance

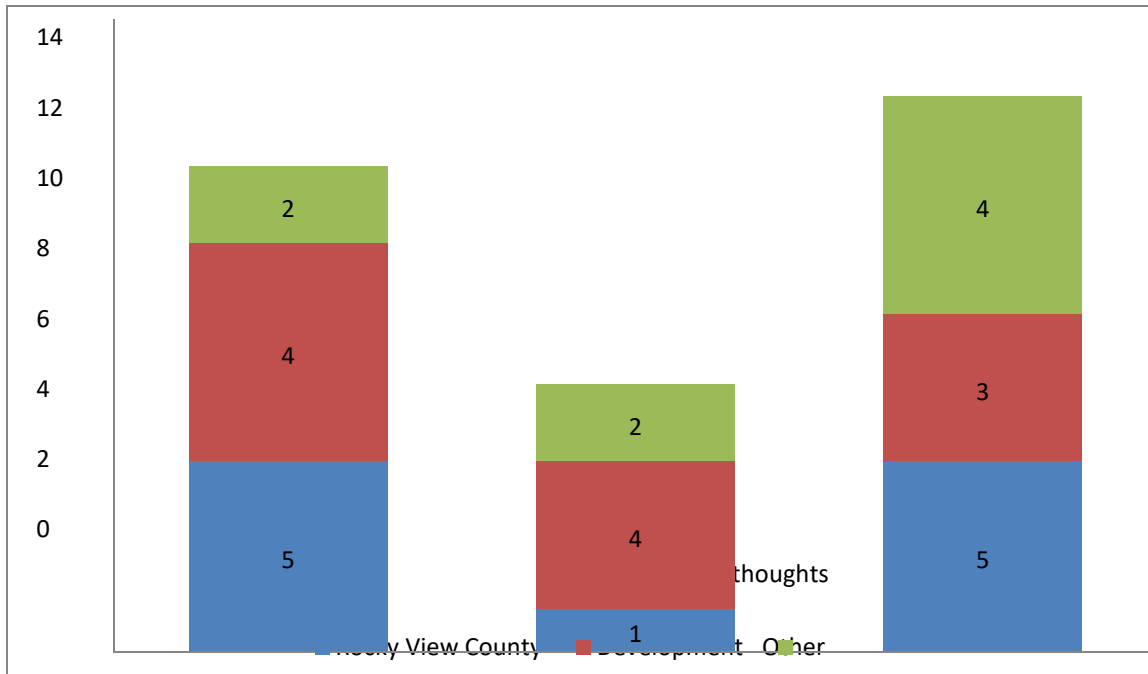
Rank

#4 Overall (tie with Communication)

#5 Short term

#4 Long term

#4 Other thoughts



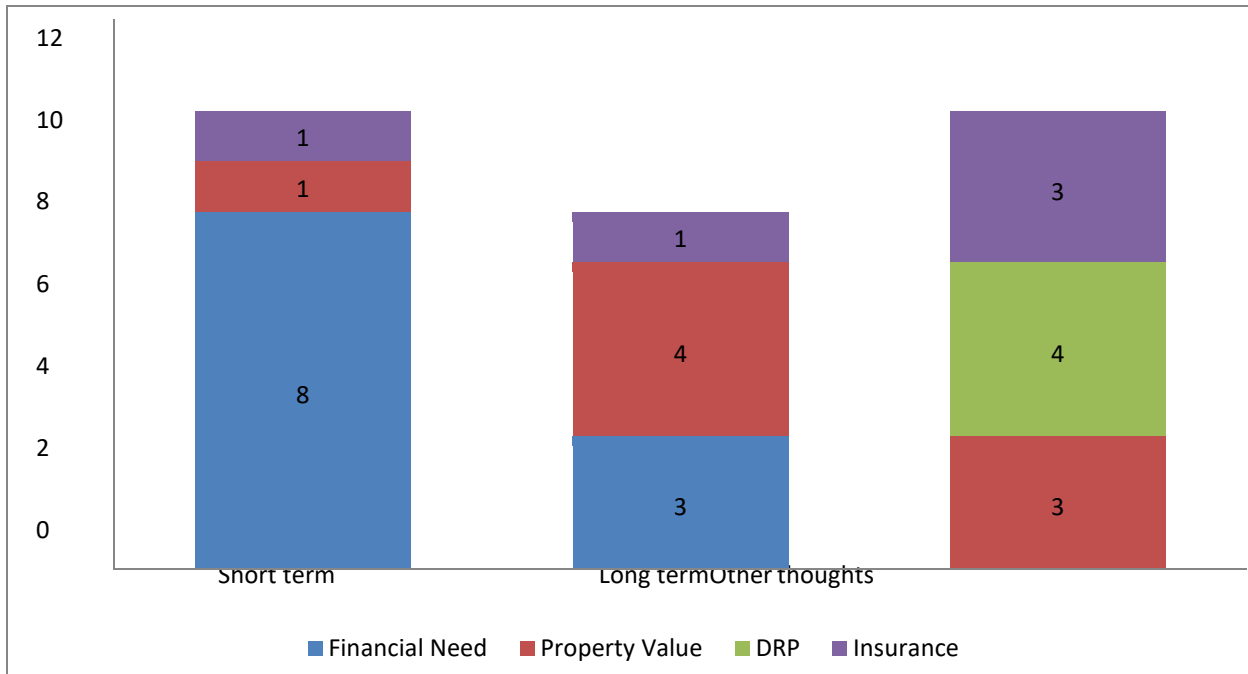
Notes

- Residents appear to desire and value having an improved relationship with Rocky View County.
- If the emergency services major theme was instead included in governance as a subtheme then governance would rank #2 overall
- Development sub-theme includes people that are both pro-growth and anti-growth, the important point being that there are a significant number of residents who are wondering about how growth will be managed in Bragg Creek over the coming years.
- The other sub-theme includes things like noise bylaws, local governance, and comments directed at the provincial or federal government.

Financial at a glance

Rank

- #5 overall
- #6 Short term
- #3 Long term
- #5 Other thoughts (tie with Community)



Notes

- There exists a short term need for financial relief in Bragg Creek. An explanation could be that individuals who thought they could cope without any financial aid have now exhausted their financial resources and are consequently in a precarious financial position.
- In the long term people are concerned about the value of their homes and property.

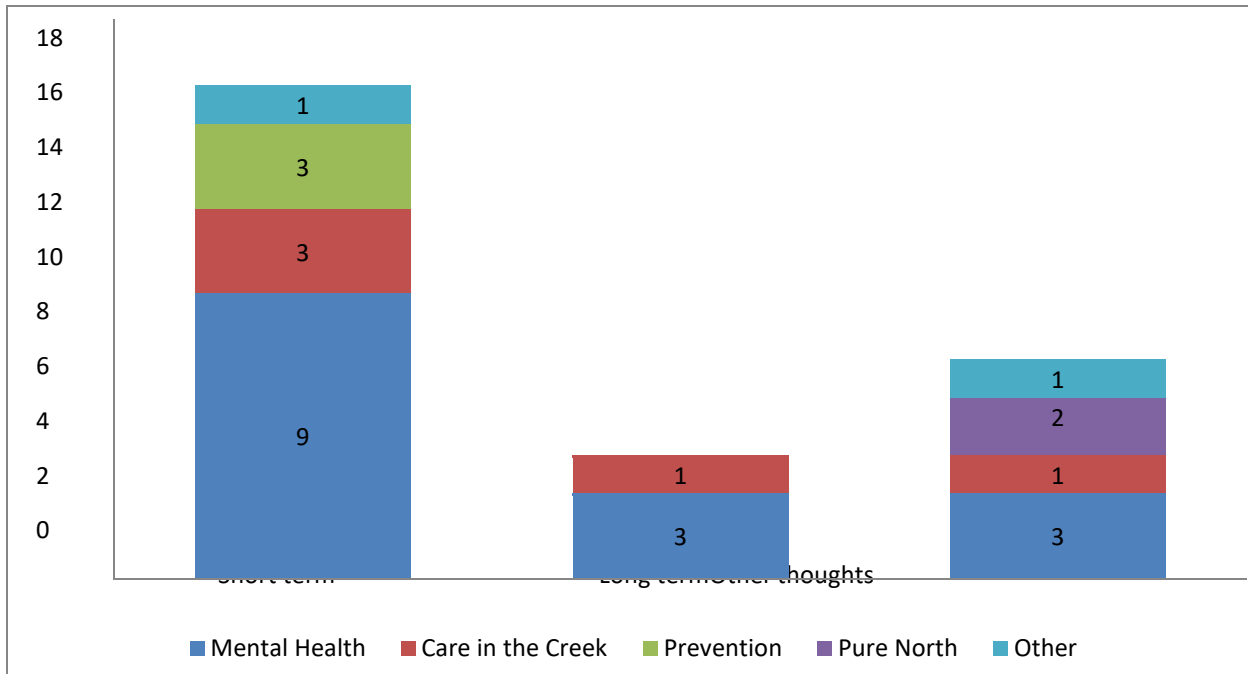
This would likely explain some of the interest in flood mitigation and disaster planning.

- There has been some frustration with the Disaster Recovery Plan (DRP) although this is less prevalent than what was found during the High River door to door campaign. This may be explained by the significantly lower percentage of the population in Bragg Creek that accessed the DRP program in comparison to High River.

Healthcare at a glance

Rank

- #6 Overall
- #3 Short term
- #5 Long term (tie with Communication)
- #6 Other thoughts



Notes

- There appears to be a short term need for mental health support.
- Broadly speaking residents appear to be very happy to have Care in the Creek medical clinic however are interested in the addition of walk in services or later hours.
- Pure North (not-for-profit healthcare organization based in Calgary, www.purenorth.ca) came up both in this portion of the survey as well as in the services accessed portion and appears to be a valuable service for some Bragg Creek residents.
- A number of residents discussed the importance of suicide prevention and awareness.

Emergency Services at a glance

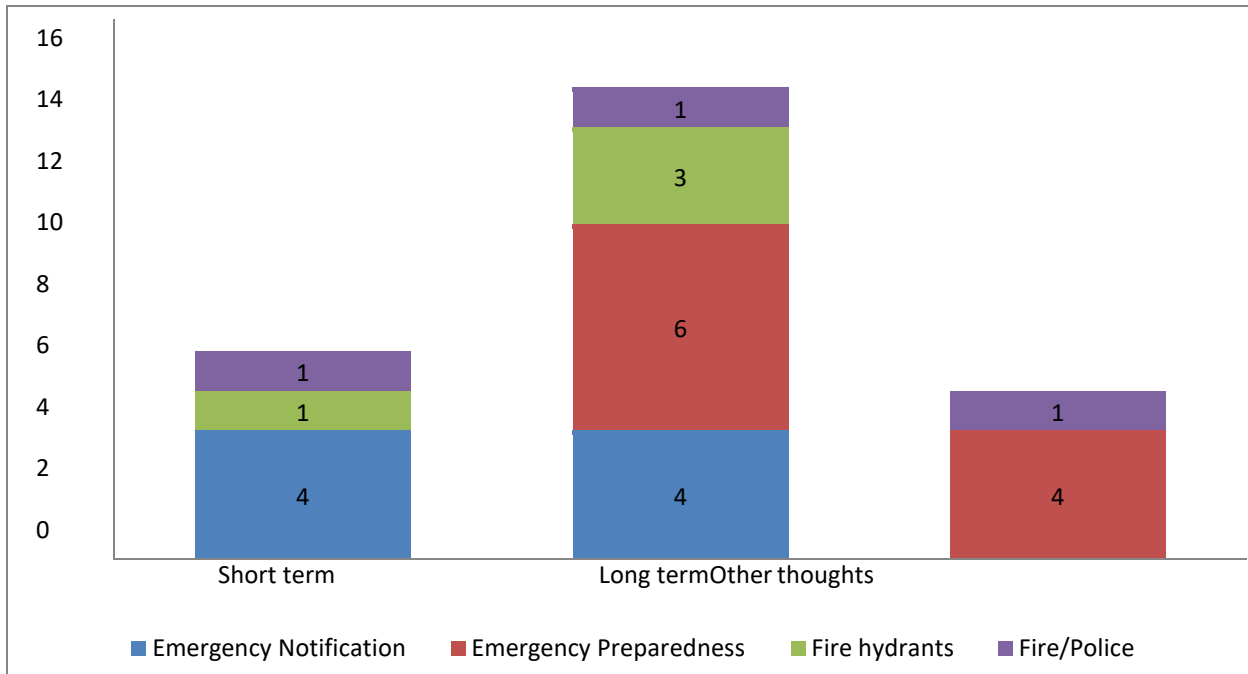
Rank

#8 Overall

#7 Short term

#2 Long term (tie with Community)

#7 Other thoughts



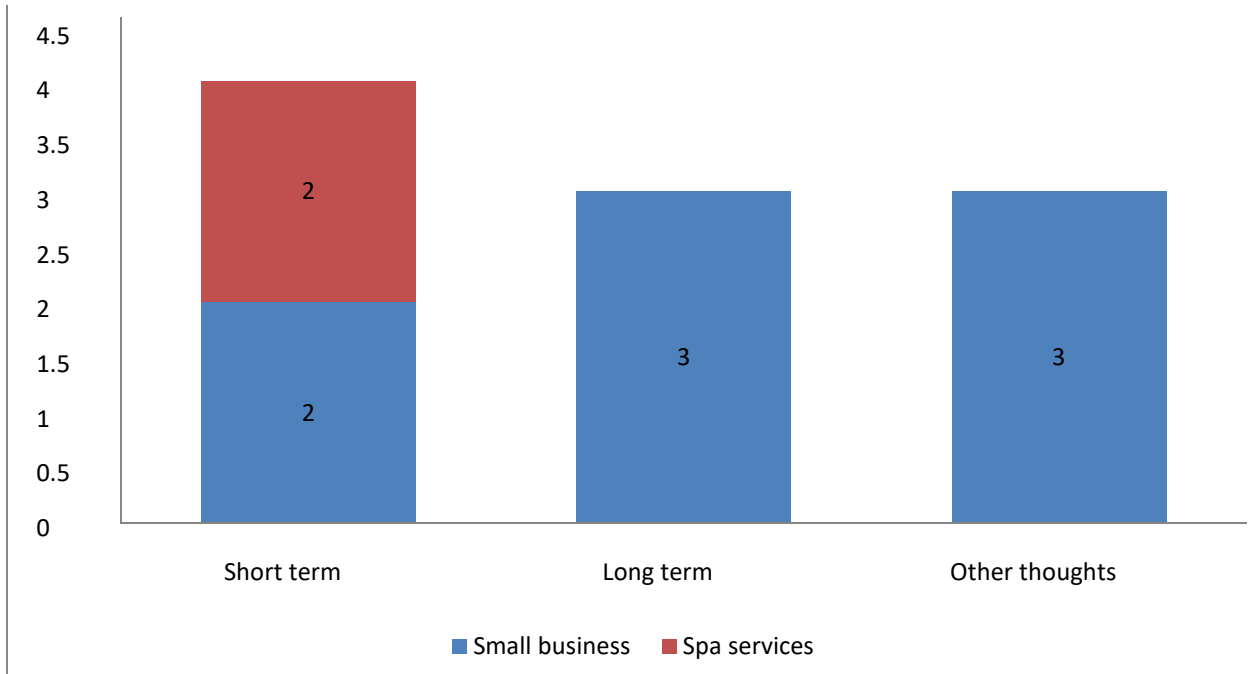
Notes

- Clear long term need for emergency preparedness in the hamlet.
- Emergency notification systems and fire hydrants were so frequently referenced that they were broken out into their own sub-theme although they are each arguably a component of emergency preparedness and fire/police respectively.
- From an emergency preparedness and disaster planning perspective the short term need appears to be a notification system.
- Technically this category is a component of governance as emergency services for the hamlet are overseen by Rocky View County; if it was joined with governance it would then become the #2 overall major theme.

Business at a glance

Rank

- #9 Overall
- #8 Short term
- #7 Long term
- #7 Other thoughts



Notes

- The questions asked focused on “health and wellness” so residents may have been less likely to discuss small business needs.
- It appears there could be a business opportunity for local spa services in Bragg Creek.

Recommendations

Priorities

1. Enhance the real and perceived safety of individuals, families and property *This priority was set in response to the relative frequency with which residents mentioned the topics of flood mitigation, emergency preparedness, and emergency notification. When combined these topics overwhelmingly represent the number one priority identified in the survey.*

2. Improve communication locally and regionally

This priority was set in response to a number of interrelated factors. As evidenced by the section on community news there is not a local, timely and reliable source of communication for Bragg Creek. This assertion is supported by residents identifying improving communication as the number two overall sub-theme in the survey. This priority is also interrelated with priority one and three as effective communication is instrumental in strengthening community and increasing the sense of safety that residents have.

3. Strengthen and build community

This priority was set in response to community being the number two overall major theme and the most frequently used word in the long form answers. This is a broad priority which would include enhancing services for all demographic categories as well as aesthetic improvements, small business support, and healthcare.

Proposed Actions

Regular monthly meetings between residents and Rocky View County administration

This would address all three priorities as it would enhance perceived safety for residents, improve communication and strengthen community. Based on the report residents are living in a great deal of uncertainty regarding the safety of their community. Anecdotally it appears people know the destination (enhanced flood mitigation, emergency preparedness, development, etc.) but not how the community will get there. Regular meetings would establish a relationship with Rocky View County administration and serve to ease anxiety and build trust.

Ongoing support of community building initiatives such as concerts, dinners, recreation and organizations

This would address priority three. Residents commented frequently about how much they enjoyed the sense of connection and community that they felt in the initial post-flood period. This sense of belonging promotes resilience and wellbeing within a community. The report indicates a short term need for increased services to all demographic categories with a specific need for more local recreation opportunities.

Establish an emergency notification system county wide using existing systems

This would address priority one. There are well established emergency notification systems in use at major universities, municipalities and employers across Canada. Most of the information to deploy the system should be available to the county via the tax roll. There are hurdles that would need to be overcome to ensure privacy is protected, find funding, manage the database, accommodate rental homes, and record alternate phone numbers such as cell phones.

Local website/publication to enhance communication within the hamlet

This would address priority two and three. There are currently some websites dedicated to Bragg Creek (<http://www.braggcreek.ca> and <http://www.visitbraggcreek.com>) however these websites are predominantly focused on visitors to the Bragg Creek area. The challenge with building a reputable and sustainable local news source is that it will require ongoing funding and start up support at a level beyond what an individual can accomplish. This project would need to be undertaken by either an organization or the municipality for it to be successful over a long period of time. It should be noted that High Country News does an excellent job of community news however the monthly distribution format is too slow for certain topics.

Continued Canadian Red Cross presence to address ongoing recovery needs

The Canadian Red Cross will continue to meet the needs of families and individuals in Bragg Creek by providing services and funding for community initiatives that assist with people's ongoing recovery. These services will be delivered in a variety of ways to ensure people's unique circumstances and disaster recovery needs are recognized and addressed.

Further research to understand barriers to accessing mental health services in the community

This would address priority three. In the report residents identified an immediate need for mental health support in the community however the wait times for accessing a therapist via the Care in Creek Medical Clinic remain low. Further work needs to be done to ascertain what barriers exist to accessing mental health support in Bragg Creek.

Continued support for Recreate the Creek

This would address priority three. Recreate the creek is an excellent example of community action to address an identified need. They deserve ongoing support and acknowledgement as their work not only impacts the physical wellbeing of the community but also the psychological wellbeing.

Financial and insurance workshops presented locally

This would address priority one. As mortgage renewals happen it will be important for residents to make informed decisions with their finances and work with insurance companies that understand the unique context in Bragg Creek.

Actions Taken

Over the past year and a half there have been numerous actions taken by residents, the municipality and organizations to support the wellbeing of Bragg Creek. We wanted to briefly highlight some of what has already happened to address the health and wellness needs in Bragg Creek.

- **Bragg Creek and Area Wellness Committee:** Creation and ongoing operation of a committee made up of health professionals, organizations, and citizens that are dedicated to improving the health and wellness of Bragg Creek and the surrounding area.
- **Community Helpers:** Training delivered to residents on the topic of health and wellness to improve capacity and resilience within the community. Funded by the provincial government.
- **Liz Breakey, Rocky View County Division 1 Councillor:** Organization of community meetings and town halls to disseminate information to residents, distribution of a monthly newsletter to the Bragg Creek area.
- **Alberta Health Services:** Deployment of local mental health services in Bragg Creek at the Care in the Creek Medical Clinic and Banded Peak School as well as support for community development and capacity enhancement.
- **Bragg Creek Community Association:** Organization that develops, organizes and supports numerous community events such as recreation and leisure programming, performing arts and annual events such as Bragg Creek Days which help to build a sense of belonging and social connection between residents.
- **Mountain Woods Health Board:** Ongoing support for the provision of medical services in the community and the operation of Care in the Creek Medical Clinic.
- **Canadian Red Cross:** Supporting the financial and psychosocial needs of residents as they recovery from the flood of 2013.
- **Calgary Rural Primary Care Network:** Provides a part-time Community Development coordinator for Bragg Creek and Area.
- **Bragg Creek Chamber of Commerce:** Actively working to promote and enhance local businesses interests.
- **Recreate the Creek:** Citizen led initiative to improve the physical environment in Bragg Creek through cleaning up and landscaping public spaces.

Appendix A: Current needs for health and wellness

Business
Small business
Spa
Total

Communication
Improve Communication
Website
Other
Total

Community
Aesthetics
Belonging
Individual needs
Seniors
Youth
Families
Recreation
Other
Total

Emergency Services
Emergency Notification
Emergency Preparedness
Fire Hydrants
Fire/Police
Total

Financial	
Financial Need	8
Insurance	1
Property value	1
DRP	0
Total	10

Governance	
Rocky View County	5
Development	4
Other	2
Total	11

Health Care	
Mental Health	9
Care in the Creek	3
Prevention	3
Pure North	0
Other	1
Total	16

Infrastructure	
Flood mitigation	4
Water/Sewage	8
2nd Exit	1
Transportation	3
Other	1
Total	17

Appendix B: Future needs for health and wellness

Business
Small business
Spa
Total

Communication
Improve communication
Website
Other
Total

Community
Aesthetics
Belonging
Individual needs
Seniors
Youth
Families
Recreation
Other
Total

Emergency Services
Emergency Notification
Emergency Preparedness
Fire hydrants
Fire/Police
Total

Financial	
Financial Need	3
Insurance	1
Property value	4
DRP	0
Total	8

Governance	
Rocky View County	1
Development	4
Other	2
Total	7

Healthcare	
Mental Health	3
Care in the Creek	1
Prevention	0
Pure North	0
Other	0
Total	4

Infrastructure	
Flood mitigation	12
Water/Sewer	3
2nd Exit	5
Transportation	2
Other	1
Total	23

Appendix C: Other thoughts

Business
Small Business
Spa
Total

Communication
Improve Communication
Website
Other
Total

Community
Aesthetics
Belonging
Individual needs
Seniors
Youth
Families
Recreation
Other
Total

Emergency Services
Emergency Notification
Emergency Preparedness
Fire hydrants
Fire/Police
Total

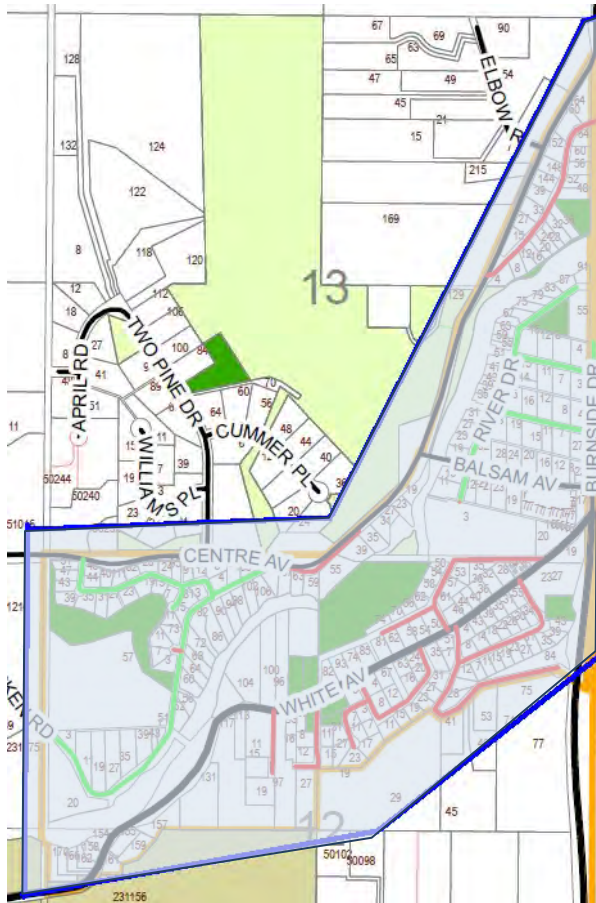
Governance	
Rocky View County	5
Development	3
Other	4
Total	12

Healthcare	
Mental Health	3
Care in the Creek	1
Prevention	0
Pure North	2
Other	1
Total	7

Infrastructure	
Flood mitigation	7
Water/Sewer	5
2nd Exit	1
Transportation	3
Other	3
Total	19

Gratitude	
Volunteers	9
Thankful	8
Neighbours	8
Community Centre	5
Mental Health	3
Care in the Creek	3
Red Cross	2
Rocky View County	2

Fire Department	1
Province	1
Total	42



Reference H. Trauma-induced brain changes can be detected decades later, new U of A research shows. Feb. 10, 2021

Researchers hope the discovery can lead to more therapeutic tools to treat patients

CBC News · Posted: Feb 10, 2021 8:00 AM MT | Last Updated: February 10

Dr. Peter Silverstone is a professor of psychiatry at the University of Alberta in Edmonton. (Submitted by Dr. Peter Silverstone.)

New research from the University of Alberta suggests changes to key regions of the brain caused by trauma can now be scanned and identified.

A study released on Monday is the first to show that traumatic or stressful events during a child's early years can change sub-regions of a person's amygdala and hippocampus, which are both partially responsible for a person's emotional responses.

Changes brought on by traumatic events can lead to these regions not functioning as they should, which in turn can increase the risk that someone can develop mental health disorders as adults, especially during times of stress.

"People who were traumatized, the particular regions that got impacted didn't grow as well. And that likely has left them much more vulnerable to problems later on in life," said Dr. Peter Silverstone, a psychiatry professor at the U of A and one of the study's co-authors.

The findings by a team of eight researchers at the U of A were published in the current issue of the Journal of Psychiatry & Neuroscience. Thirty-five participants with major depressive disorder were recruited for this study, along with 35 others acting as control subjects.

With the findings from the study, Silverstone and his colleagues can link changes to brain regions to a history of trauma that occurred decades earlier. Now that they know where changes occur in the brain, Silverstone said they can more accurately test which therapies can reverse the negative effects to the brain from early trauma.

"The hope is that with reversing these changes, they'll be able to deal with stress better and be able to maintain healthy mood," Silverstone said.

Trauma seems to be cumulative, Silverstone said, in that the more you experience the more it affects your brain development. His research finds that changes to a person's

brain brought on by trauma can be significant and can make people more likely to experience depression or anxiety even decades later.

This new discovery represents a major and exciting advancement, Silverstone said. Within a few years, he hopes more practical and proven tools will be available to treat patients experiencing mental health problems.

More work to develop therapeutic tools is especially needed now, he said, because of the COVID-19 pandemic. He and his team have seen rates of anxiety and depression really increase during the pandemic, even among people who didn't previously have concerns about their mental health.

Silverstone said he thinks the effects of the pandemic on mental health in chronic fatigue, stress and depression, could continue even after the pandemic ends, creating a big need for more mental health therapeutic tools and treatment.

"We are turning a corner in our understanding of what leads to depression and anxiety," Silverstone said. "But yes, we need to start doing lots of other research to understand where we go next and what works best."

[Reference I. Jason Luan, Associate Minister of Mental Health and Addictions announced \\$21.6 M funding on mental health](#)

Jason Luan, the associate minister of mental health and addictions, will outline today, 2020, the details of how \$21.6 million of the province's Action Plan funding will be used. (Calgary Herald)

Premier Jason Kenney Premier makes a striking claim about his government's spending on mental health during the pandemic.

"Alberta's funding for Covid-related mental health support is greater than the packages of all other nine provinces combined — times two," he told the legislature Wednesday.

The available numbers for other provinces suggest that if he's exaggerating, it's not by much.

Ontario is spending \$14.6 million, Manitoba \$4.5 million, and B.C. \$5 million.

Other provinces haven't published specific figures, which doesn't necessarily mean they aren't devoting extra resources to mental health during the pandemic.

Whatever the comparisons show, there's no question that Alberta's action on mental health is remarkable.

Last year, Kenney announced \$140 million in new funding for mental health and addictions measures. This included \$80 million to create 4,000 spaces for addiction treatment.

The only significant funding increase in a budget otherwise long on restraint, it reflected Kenney's belief that addictions and related mental health problems verge on social crisis.

That was months before anybody ever heard of COVID-19 — or imagined that Alberta's economy might shrink by nearly seven per cent in one year.

Last month, the UCP announced a further \$53 million for a COVID Mental Health Action Plan. All new spending on mental health and addictions rose to \$193 million.

Today, Jason Luan, the associate health minister for addictions and mental health, will announce how \$21.6 million of the Action Plan funding is to be used. About \$3 million of that will support community-helping organizations, he said in an interview.

The overall strategy, Luan adds, involves "international services, national services, localized service — it's all opened up and available, 24/7."

The government has already been beefing up online and phone support resources.

Services in the community are now being mobilized. The third stage will deal with strategies to address long-term harm to mental health.

After the 2013 Calgary flood, local agencies found requests for counselling were still coming in three years later.

"We find that when life has drastically changed, about 20 per cent of people suffer long term impact, and 80 per cent of the population are able to overcome the crisis," says Luan.

"But typically, 20 per cent of the population suffer deeper issues — clinical depression, family breakdown, you name it.

"With those people, you can rest assured, you're not going to solve the problems within a couple of weeks or months. They can linger on from 14 months all the way to five years."

Among several other measures, the province is contracting a pair of big international online services. Big White Wall, which allows people to communicate with their peers and get professional help, receives \$1 million.

Another service, Innowell out of Australia, is contracted for \$2 million. That resource will roll out in 10 rural, remote and urban communities and will focus largely on youth.

The biggest single amount in this phase — \$9.6 million — goes to expanding addiction and mental health helplines.

The fastest way for a person needing help to get into the complex system, Luan says, is to call 211 for advice on where to go next. The staff has been tripled there, at a cost of \$3 million.

When I called 211, there was a message warning of a high volume of calls, but I was transferred to an agent within 30 seconds.

Luan says there has already been a big jump in calls to the Addiction and Mental Health Helplines (1-866-332-2322 or 1-877-303-2642); the Kids Help Phone (1-800-668-6868); and 211, which is technically the Community and Social Services Helpline.

The projection of the seven per cent drop in provincial GDP this year may mean that economic worries will be the biggest longterm danger to mental health.

It's not clear that any government can fully prepare for the social and personal miseries arising from COVID-19 and a severely damaged economy.

But Kenney and the UCP are trying a lot harder than most.

Reference K.

Reference K. Performance vs Trust by Simon Sinek

<https://www.youtube.com/watch?v=YPDmNaEG8v4>

https://psyche.co/guides/how-to-spot-whos-trustworthy-and-whos-not-on-what-matters?utm_source=Aeon+Newsletter&utm_campaign=d869d713ee-EMAIL_CAMPAIGN_2020_11_02_01_09&utm_medium=email&utm_term=0_411a82e59d-d869d713ee-70892663

-**intellectual dependability** is both an intellectual and moral virtue. 'Intellectual' in the sense that they're concerned with intellectual goods such as knowledge and understanding; but they're moral virtues too, because they're concerned with the intellectual goods of others.

-Indeed, the **moral, other-regarding features of these virtues are especially central**.

-It is in part because of **the centrality of their other-regarding dimensions that the virtues of intellectual dependability haven't taken on a larger role in education**. The reigning [paradigm](#) of what we should aim for in education is that of the **critical thinker**. But **being a critical thinker doesn't necessarily mean that you possess other-regarding qualities, such as the virtues of intellectual dependability**.

1. **intellectual benevolence**: The most important mark of intellectual dependability is that someone genuinely cares about your intellectual wellbeing. They want to help you get to the truth, gain knowledge, deepen your understanding, and develop your skills for enquiry.

-There are many ways a person can fail to be intellectually benevolent. The opposite is being **intellectually malevolent**. This kind of person is motivated to do intellectual harm to others. They enjoy it when people make mistakes or look stupid, and like to cause confusion.

-A more subtle form of intellectual unreliability is **social vigilantism**. Social vigilantes are individuals who are highly motivated to influence others' views. They want to win arguments and to lead people to see things their way. They think they've gotten things right, and they believe that those who get things right have a responsibility to lead others to get things right, too.

...social vigilantes care how others think – which seems good. *But the problem is that they care in the wrong way.* They don't care that other people have correct views; they care that other people *share* their views.

Research reveals that **social vigilantism is correlated with a number of problematic traits and behaviours** – for example, **tending** to **gravitate toward more extreme views** about divisive topics such as climate change. Social vigilantes vigorously advocate for their extreme positions, and champion others who do the same. In this way, they **polarise beliefs in their communities**, rather than **promoting mutual understanding and discovery**.

It's not always easy to sort the intellectually benevolent person from the social vigilante. But one way to do it is to pay attention to what they get excited about. Are they gladdened by your intellectual progress in general, or only when they succeed in influencing your thinking?

2. **intellectual transparency:** A second sign of intellectual reliability is that the person tends to share their perspective with you faithfully, out of a motivation to help you progress. They recognise that sometimes – though not always – they're in a position to strengthen your perspective by sharing their own. And they're skilled in identifying their own perspective, and in helping you enter into it and appreciate it.

-There are several ways a person can fail to be intellectually transparent.

i) **being intellectually vain**. A vain person wants others to think well of them. Unlike the transparent person, the vain don't share their perspective in order to promote your intellectual wellbeing. Instead, they share it selectively, to convey the best impression of themselves.

ii) **being intellectually timid**. In contrast with the vain...fearful of being exposed for their ignorance. This leads them to shy away from the limelight, and to refrain from contributing to group knowledge even when they have something to say.

How can you tell the difference between the transparent person, and the vain or timid one? Focus on **how they react to others' opinions of their ideas**. Fearfulness about how their ideas will be perceived, or over-eagerness for their ideas to please you or others, are signs that they might lack transparency.

3. **communicative clarity:**

-Clear communicators stress their main points, and distinguish them from what is merely incidental. They define key words or phrases. They explain how their views contrast with others that might be confused with them.

Their communications are structured to be easy to follow, where the function of each part is apparent to you.

-One way to fail to be a clear communicator is to be susceptible to **pseudo-profundity** [great example is parody movie 'This is Spinal Tap']

Those with a pseudo-profound streak also **tend** to be more susceptible to misidentifying fake news as real news. Moreover, these individuals might be motivated to make themselves sound profound, even when they have little of substance to say. They might dress up their empty ideas with seductive trappings and even gain substantial followings, all the while leading their followers into confusion.

Fortunately, you can sort out the virtuously clear communicator from those susceptible to pseudo-profundity. If someone has said something you couldn't understand, ask them to

put it in a way you can understand. If they shy away from this or insist that it's you who has the problem, this indicates a lack of communicative virtue.

4. **audience sensitivity:** They pay attention to your particular views, experiences, abilities and tendencies. They fit their communications to your predicament to help you advance, and display the virtue of audience sensitivity.

-various ways to be audience-insensitivity

i) self-consciousness: when people pay little attention to their listeners, obsessing more over their own features.

ii) too selective in their attention. Judgmental people, for example, are highly alert to embarrassing, bad or problematic features of their listeners, while they're less interested in their audiences' strengths. Or they might be alert to features of their audience that reflect well on themselves: they're motivated to see themselves as superior, and so look out for others' comparative weaknesses. This gives them a distorted view of their listeners.

-To determine whether someone you're depending on is virtuously sensitive, you might ask yourself the following. Do they demonstrate that they understand your point of view, your intellectual needs, your abilities? Do they ask you about these features, trying to learn about you? Do they communicate with you in a way that's personal to who you are? If the answer is no, they might not make a reliable intellectual guide.

5. **intellectual guidance:** Finally, the intellectually trustworthy person displays a certain open-ended wisdom in supporting you with your enquiries. They're skilled in helping you navigate the potential risks and benefits that present themselves in your pursuit of learning.

-In contrast, some people have a psychological **need** for closure...highly motivated to complete enquiries...turned off by ambiguity...want definite answers quickly, and they want to stick with them. Psychologists call... this need 'seizing' and 'freezing'. Those with a strong need for closure seize quickly on any information that promises to resolve their questions – and once they've chosen an answer, they tend to ignore any contradictory information, freezing on the answer they've come to.

-A strong need for closure isn't always problematic. Decisiveness is, after all, a highly valued ability in leaders. Yet this need can be an impediment when it comes to nuanced topics necessitating methodical, careful reflection – precisely the sorts of topics about which you so often need others' guidance. Such ambiguous matters demand the kind of thinking that those who need closure can't put up with. Instead, they're likely to offer you unwise advice that oversimplifies the issue.

6. **Patience:** A key feature to look for in an intellectual guide is patience. Does the person you're depending on take the time to appreciate the complexities of your predicament, or are they too quick to jump in and try to 'fix it'?

How to become more intellectually dependable

1. direct instruction – learning about the nature of particular intellectual virtues that one hopes to cultivate.
2. think how intellectual virtues apply in particular situations, considering what the intellectual virtue – and perhaps also its opposing vices – looks like in action.
3. practise the behaviours characteristic of the particular virtue.
4. virtue-based feedback, where you seek out input on how you're doing in your pursuit of virtue.

-You might get this from a trusted – ideally, intellectually dependable – friend.

-conduct self-assessments, resource <https://intellectualvirtues.org/>

Reference K. Outrage brings big changes to UCP

Public 'right to be angry' regarding international travel, premier says

- Calgary Herald
- 5 Jan 2021
- SAMMY HUDES

Premier Jason Kenney initially said he said he wouldn't sanction members of his government who left the province during the Christmas break because he hadn't issued a clear directive beforehand requiring them to stay home.

After a widespread public outcry in Alberta, several UCP MLAS, including the municipal affairs minister, and the premier's chief of staff have resigned or been demoted for international travel over the holidays.

Tracy Allard has quit as municipal affairs minister after vacationing in Hawaii, despite provincial guidelines that asked all Albertans to avoid non-essential travel due to the COVID-19 pandemic.

Premier Jason Kenney also **asked Jamie Huckabay, who visited the United Kingdom over the holidays, to resign as his chief of staff**. Kenney said in a Facebook post on Monday that he had accepted both of their resignations.

"Albertans have every right to expect that people in positions of public trust be held to a higher standard of conduct during the COVID-19 pandemic," Kenney said.

"Millions of Albertans have made real sacrifices over the past 10 months to help keep each other safe. They are right to be angry about people in positions of leadership vacationing outside of the country."

Kenney initially said Friday he would not sanction members of his government who chose to leave the province during the Christmas break because he hadn't issued a clear directive beforehand requiring them to stay home. But the province had already advised all Albertans to "avoid non-essential travel outside Canada until further notice."

"Last Friday, I took responsibility for not having been clear enough with members of the government caucus and others in positions of leadership that they should not travel abroad," Kenney said on Monday.

"Over the weekend, I have listened to Albertans who are sending a clear message that they want real consequences for these actions."

Kenney said he also accepted the resignation of MLA Jeremy Nixon, who travelled to Hawaii in December, as parliamentary secretary for civil society, along with MLA Jason Stephan, who visited Arizona, from the Treasury Board.

They, along with MLAS Tanya Fir, Pat Rehn and Tany Yao, have lost their legislature committee responsibilities.

Fir travelled to Las Vegas to visit her sister in December, while

Rehn posted a photo on his public Facebook page on Dec. 24 that appeared to be taken in Mexico. Rehn apologized on Facebook for taking what he called a "previously planned family trip."

Yao was in Mexico as of Sunday evening.

"By travelling abroad over the holidays, these individuals demonstrated extremely poor judgment," said Kenney, who has admitted he became aware of Allard's travels on Dec. 29 before immediately asking her to return to Alberta.

Kenney said she went on the trip on Dec. 19 and returned home last Thursday. The premier also confirmed that Huckabay had travelled to the U.K. and returned to Canada via the United States.

Transportation Minister Ric McIver will serve as interim municipal affairs minister, while Larry Kaumeyer will serve as Kenney's interim chief of staff.

NDP deputy leader Sarah Hoffman criticized Kenney's initial decision last week to not issue sanctions. "He tried to weasel out of his responsibility," Hoffman said. "He tried to claim that there's some small-print technicality that let his ministers and MLAS and political staff fly off on their tropical vacations.

"I've never seen such widespread and intense public anger in Alberta in my life. Everyone knows this is a fundamental breach of trust between Albertans their government."

Hoffman appeared over a virtual news conference Monday afternoon alongside a group of Albertans — many of whom had recently lost members of their own families — who expressed frustration toward UCP politicians and staff who left the country over the Christmas holidays.

Lorraine Valestuk of Calgary recalled sleeping in a mask so she could be close to her mother, who died New Year's Eve in a hospice. Valestuk's father also died in mid-November.

"We held no funeral for dad and we won't hold one for mom," she said. "We know it's irresponsible to gather in numbers at this time.

"We know the rules are there to keep everyone safe."

Valestuk said the UCP government "has broken our trust." She noted Allard explained to the public last week that her Hawaii trip was a 17-year-old family tradition.

"It's not just a blow, it's an insult," Valestuk said.

"We would've liked to have kept intact the millennia-old human tradition of gathering in a supportive community of friends and family to grieve our dad, but these are not normal times and we have to do hard things because they are the right things to do."

Lindsey Witzel said she and her parents couldn't say goodbye to her grandfather, who died of COVID-19 in a Winnipeg longterm care home on Christmas Eve.

"My grandfather died alone because of the restrictions," the Calgary woman said.

"My family was heartbroken. We didn't travel east to console my grandmother or to be with family during this time of grieving. We didn't do that because it was the right thing to do. It was the hardest thing I've ever had to do."

She described how she couldn't even hug her father, who also lives in Calgary, in the wake of their loss. They instead only saw one another on Christmas via Zoom.

"When I found out that (Kenney's) MLAS and staff were travelling all over the world while my family was isolated at home, I was more than disappointed. I was enraged. I am still so angry.

"It makes me wonder who these politicians think they are and how the premier could possibly justify the actions when so many of us Albertans have sacrificed so much."

Hoffman called on Kenney to provide a full account of which UCP MLAS travelled abroad and when.

To date, nine UCP senior government officials have been confirmed to have travelled abroad in December.

"It's the height of arrogance and hypocrisy," Hoffman said. "This is a government that believes they are beyond the rules."

Reference K. Stain of travel scandal won't just vanish

But stain of travelling government officials will be on Kenney's regime for a long time

- Calgary Herald
- 5 Jan 2021
- DON BRAID Don Braid's column appears regularly in the Calgary Herald. dbraid@postmedia.com

Twitter: @Donbraid

Tracy Allard resigned from her municipal affairs portfolio after outrage over her recent vacation in Hawaii.

In the UCP government, they're calling it Bloody Monday, the demotion of a top official and six prominent MLAS, including a rising full minister, for wayward travels during the holiday period.

Premier Jason Kenney hopes to erase the stain promptly and decisively. But everybody with a pet knows about stains. The episode will be a shadow on his regime for a long time.

The initial handling on New Year's Day was appalling. Kenney suggested that his people were justified in using new air travel rules, with testing before and after trips, to encourage flying and help Westjet.

First, pity poor Westjet for having its name dragged into this.

Second, ministers, MLAS and officials had to know — if they had even a smidgen of sense — that this was not a smart excuse for family excursions to the U.K., Hawaii or Mexico.

But I'm told that as soon as the program was developed, officials and some politicians started buzzing about the chance for a nice holiday trip, after all the months of COVID-19 pressure.

They were just exhausted, you see. Well, who isn't? And who isn't furious because these people think they deserved foreign holidays, after urging the rest of us to stay at home?

Albertans will long wonder why Kenney didn't see the travel binge coming. Or if he did, why he failed to recognize how powerfully it would offend people who obeyed orders not to socialize and followed his pleas to patronize local business.

But off they went, to patronize business in foreign lands.

Kenney did know some people were travelling.

On Monday, a memo from Tracy Allard to Kenney hit social media. It notifies him that she would take "personal time" from Dec. 19 until Jan. 10.

But it does not say where she intended to go. Nor is there any explanation of why the minister in charge of emergency management would check out for three weeks during the pandemic crisis.

When the question of her travel first came up, Kenney said she continued to work while away.

Not exactly "personal time" then?

In the government, Allard was actually seen as a rising star. She had a way with municipal politicians after replacing Kaycee Madu, who had a fondness for insulting them.

But when a minister arrives home in Grande Prairie to find a bitter sign welcoming "Aloha Allard," that's it for the cabinet job.

Jamie Huckabay is now gone at Kenney's request, according to the premier's Facebook post.

It's not popular to say anything positive about these people, but Huckabay is a loss.

He's a very accomplished person who worked on complex files like Keystone XL.

But he isn't known for political acumen, and part of the chief of staff's job is to sniff scandals before they hurt the boss.

In that, his failure was spectacular because he played his own part in the scandal.

In one sense, the biggest

loser is Tanya Fir, who was the economic development minister until Kenney dropped her earlier in favour of Doug Schweitzer.

That was a straight demotion for Fir — and a \$60,000 pay cut — with no sweetener but membership on a couple of committees, economic development and resource stewardship.

Now her trip to Las Vegas costs her even those minor posts. Fir may regret co-hosting the UCP annual convention on Zoom, a game performance after she'd been fired the first time.

The other significant penalties hit Jeremy Nixon, who loses his half-minister post as a parliamentary secretary for civil society, one of Kenney's pet causes.

Jason Stephan's jaunt to Phoenix costs him a real prize, membership on the all-important Treasury Board. Pat Rehn and Tany Yao, the Mexico wanderer, are also stripped of committee posts.

But nobody except Huckabay is really fired.

Every shamed MLA still gets the \$120,000 annual salary with benefits, travel allowance, etc., without much requirement to work anymore.

Alberta's unemployed, isolated, sick and grieving will be a long time forgetting.

The impact is divisive in Kenney's circle, too. Those who had the sense to stay in Alberta will resent the trouble brought down on them all.

A health care worker has now died of COVID-19. Another 96 Albertans passed away over four days.

For a long time, the question will be pretty simple: how could the very people who make the laws and the rules be so callous and insensitive?

Reference K. THE PRICE OF HYPOCRISY

- Calgary Herald

- 5 Jan 2021

Long after the colour has faded from former Municipal Affairs Minister Tracy Allard's Hawaiian tan, Albertans will remember her Christmas 2020 vacation. They will also not soon forget that at least eight other UCP members and senior staffers jetted off to foreign locales while their constituents dutifully hunkered down at home following emergency directives laid out by the very government those office-holders represent.

As Premier Jason Kenney was quick to point out, his MLAS and officials didn't actually break any law. But for Albertans who scrubbed their own travel plans and sacrificed family gatherings to help save lives, they violated the spirit of the restrictions. Those recommendations include an advisory on the Government of Alberta website urging Albertans to "avoid non-essential travel outside Canada until further notice."

Judging by the fury across the political spectrum, many Albertans feel betrayed that members of their government are asking them to do as they say, not as they do. The Kenney government is being eviscerated by not just the usual critics on the left but conservatives and ordinary Albertans. As if underscoring the moral failure, even Pope Francis condemned vacationers who travelled abroad.

Already, pundits are comparing Aloha-gate to past provincial scandals featuring similar issues of entitlement and elitist arrogance, such as the sky palace, the opulent suite built for then-premier Alison Redford, and the use of phoney passenger lists so she could fly alone on government planes.

This latest imbroglio has the potential for much more dire consequences because lives are at stake. The moral authority that the Kenney government must wield in convincing Albertans to obey public-health recommendations is now severely diminished by the apparent double-standard followed.

Will Albertans be so willing to comply for the public good when Kenney and chief medical officer of health Deena Hinshaw unveil future public-health restrictions and appeal for personal responsibility? And the next time Kenney scolds young Albertans for partying or lectures ethnic communities he feels aren't respecting public health restrictions, they will only note the hypocrisy of his initial hesitation to hold his own MLAS and staffers to account. Albertans who demanded consequences finally received them Monday with the resignations of Allard and chief of staff Jamie Huckabay as well as the demotions of MLAS Jeremy Nixon, Jason Stephan, Tanya Fir, Pat Rehn, and Tany Yao. It may have taken some time, but at least Kenney finally held them accountable. Whether that's enough remains to be seen **since it's often not tangled political scandals that voters remember at the ballot box, but the ones they take personally.**

ALBERTA TRANSPORTATION SPRINGBANK OFF-STREAM RESERVOIR PROJECT RESPONSE TO NRCB AND AEP SUPPLEMENTAL INFORMATION REQUEST 2, DATED NOVEMBER 18, 2019

This is an excerpt
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ALBERTA TRANSPORTATION SPRINGBANK OFF-STREAM RESERVOIR PROJECT RESPONSE TO CEAA INFORMATION REQUEST PACKAGE 2, AUGUST 20, 2018

Wildlife
May 2019
238

Project, such as the diversion channel, act as a barrier to wildlife movement, especially for ungulates (see Volume 3C, Section 2.10). A draft wildlife mitigation and monitoring plan is provided in the response to CEAA IR1-9, Appendix IR9-1.

c) A **wildlife-friendly fence is typically a 4-strand wire fence** designed to allow wildlife passage by having the top wire low enough for ungulates (e.g., deer, elk) to jump over (e.g., **no higher than 100 cm above ground**), and the bottom wire high enough for other animals

(e.g., bear) to crawl under (e.g., at least 45 cm above ground) (GoA 2011; Paige 2012; Visscher et al. 2016). The top and bottom wire would be smooth and not barbed to reduce potential injury. Elk can tangle their back legs if the top wires are closer together; therefore, it is recommended that the top two wires are no less than 30 cm apart (Paige 2012). All fencing in or along the PDA boundary will be wildlife-friendly, except where chain-link fencing will be installed around certain facilities (e.g., control building) for public safety and security (see Figure IR15-1). The chain-link fencing will prevent both human and wildlife access to these facilities, whereas the wildlife-friendly fencing will be designed to facilitate wildlife movement in the PDA. Wildlife-friendly fencing cannot prevent human access; however, it is anticipated that wildlife-friendly fencing in combination with future land use objectives and education (e.g., signage) should reduce human access.

Excerpts:

The construction and management of the off-stream reservoir presents a unique opportunity with the conversion of private land to Crown land for future use by First Nations and stakeholders. Through the engagement process that included feedback from Indigenous groups, a draft principles of future land use for the Project has been developed. The primary use of all lands within the PDA is for flood mitigation. In light of the primary use, the safety of anyone with access or land users will be an overriding factor. Secondary uses for traditional activities, including the exercise of treaty rights such as hunting will be allowed to occur within the designated land use area (LUA). Alberta Transportation invites KFN participate in the engagement process for the LUA.

And (your might have to zoom in on this):

Traditional Land and Resource Use Information	Location of Sites or Areas Relative to the Project ¹	Kainai First Nation Recommendations and Requests	Relevant March 2016 Environmental Impact Assessment Section(s)	Mitigation Measures Proposed in the March 2016 Environmental Impact Assessment	Additional Alberta Transportation Response
<p>KFN identified areas of high quality habitat for elk, moose, white-tailed deer, and mule deer, as well as signs of ungulates, including scat, tracks and marks on trees.</p> <p>KFN identified areas of furbearer habitat, including a beaver dam in a tributary of the Elbow River and beaver habitat on Val Vista Ranch.</p> <p>KFN identified grizzly bear habitat and signs of grizzly bear and black bear, including scat, claw marks, digs, and tom trees. KFN noted that the local landowners shared photographic evidence from a wildlife trail camera of grizzly bears in the area.</p> <p>Signs of black bear, wolf, cougar and fox were identified by KFN. Coyote tracks were also observed.</p> <p>KFN stated that there are many species of birds that nest and live in the Project area, including eagle, owl, crow, magpies, <i>Sialia</i>, and <i>Omalothosippekinnaman</i>.</p> <p>KFN identified a wetland within natural grassland on the Val Vista Ranch that provides ideal habitat for nesting birds and a stopping place for migratory birds. Another wetland was identified that is a stopping place for trumpeter swans, herons, sandhill cranes, Canada goose, mallard ducks, and pintail snipes. KFN also observed ruffed grouse, merganser ducks, Canada geese, and several other bird habitat features.</p> <p>KFN emphasized the interconnectedness of the environment, explaining that the Project area provides habitat for bird, animal and plant species that all support one another.</p>	<p>channel, floodplain berm, and emergency spillway</p> <p>Four furbearer habitat areas were identified by KFN within the PDA. One of the furbearer habitat areas within the PDA is intersected by permanent project infrastructure, including the gravel road, off-stream dam, outlet channel and outlet structure.</p> <p>KFN identified 6 bear habitat areas:</p> <ul style="list-style-type: none"> • 3 are within the PDA • 3 are within the LAA <p>The signs of black bear, wolf, cougar, fox and coyote (including tracks) identified by KFN are within the PDA.</p> <p>11 bird habitat areas were identified by KFN:</p> <ul style="list-style-type: none"> • 10 bird habitat areas (including the wetland on the Val Vista Ranch) are within the PDA • 1 is within the LAA <p>Of the bird habitat areas within the PDA, 4 is intersected by permanent project infrastructure, including the gravel road, off-stream dam, outlet channel and outlet structure.</p>			<ul style="list-style-type: none"> • If an active nest or den is found, it will be subject to a provincial or federal disturbance setback buffer and site-specific mitigation. • The diversion channel will be built with 3H:1V side slopes, which is within the range that most large mammals (e.g., elk,) are known to traverse (McCorquodale 2003; Frair et al. 2005; Mao et al. 2005; The Bow Corridor Ecosystem Advisory Group 2012). • The side slopes and bottom of the diversion channel will be vegetated, except under the proposed bridges and at Pirmez Creek. Vegetated areas will provide a more conducive wildlife passage across the channel. • To maintain ungulate movement within the KWBEZ, the floodplain berm will be revegetated with materials conducive for ungulate movement. The section of reinforced concrete (approximately 250 m) closest to Elbow River will be covered with top soil and seeded with native grasses. The central portion of the floodplain berm includes approximately 550 m of exposed riprap, where sections will be filled with substrate finer than riprap, such as sand, gravel and vegetation to allow for more walkable sections (Austin and Garland 2001; Hulser et al. 2008; Cleverger 2011). The south portion, farthest from Elbow River, will be a 450 m earthen embankment vegetated with native grasses. • A remote camera program will be designed with Alberta Environment and Parks (AEP), to identify whether the diversion channel acts as a barrier to wildlife movement during dry operations, especially for ungulates, and determine the effectiveness of mitigation implemented throughout the diversion channel. This will include monitoring along Elbow River to determine if wildlife use of the KWBEZ has been affected by the construction and operation of the Project. Although the specific details and design of the remote camera program will be determined with AEP prior to construction, the following describes the basis of a preliminary approach: <ul style="list-style-type: none"> - During the Project dry operation phase, a total of 14 remote cameras will be deployed in the wildlife LAA and monitor wildlife movement for at least one-year post-construction. The six remote cameras along the Elbow River will remain at the same locations as during the construction phase. Four remote cameras will be deployed soon after completion of project construction and placed at the same locations as pre-construction baseline surveys near Highway 22 (i.e., near the raised portion of the highway at the north end of the wildlife LAA). An additional four remote cameras will be installed along wildlife friendly fencing at the edge of the diversion channel at crossable sections where there is vegetation. Remote cameras at the diversion channel will be spaced approximately 1 km apart. - A wildlife biologist will visit the cameras every four months during construction and operation to change out memory cards and batteries and check on the overall status of equipment (e.g., positioning, weather related malfunctions, animal or human tampering of equipment). 	<p>There were no beaver dams or lodges identified within the construction footprint for the Project during the baseline wildlife surveys completed within the LAA and, as a result, Alberta Transportation is not expecting to remove any dams or lodges. If an active beaver dam is identified within the construction footprint at a later date, mitigation for dam removal will be developed with the appropriate agencies (e.g., AEP) and the relevant permit(s) obtained, as required.</p> <p>At the end of construction, areas disturbed by construction that are not required for operation and maintenance will be topsoiled and seeded to meet AEP reclamation requirements.</p> <p>Alterations will be made to the Alberta Transportation custom native seed mix in consideration of site-specific conditions of vegetation communities and input from Indigenous groups as to species that are culturally important.</p> <p>A remote camera program will be designed with AEP, to identify whether the diversion channel acts as a barrier to wildlife movement during dry operations, especially for ungulates, and determine the effectiveness of mitigation implemented throughout the diversion channel.</p> <p>Alberta Transportation commits to holding workshops with KFN to discuss mitigation measures.</p>

The Berm Won't Work

<http://www.bownessrfm.ca/the-berm-wont-work/>

11 Reasons the Proposed Berm WILL NOT Protect Bowness Residents from Flood Damages

- + 1. The river and groundwater systems are connected so an overland berm will not stop groundwater flooding.***
- + 2. Basement flooding will continue.***
- + 3. No groundwater control is planned.***
- + 4. Secondary overland flooding is possible.***
- + 5. Extended peak flow duration may make flooding worse.***
- + 6. Barriers without upstream mitigation can increase damage risks.***
- + 7. Floodwater enters the alluvial soils at ALL points along the river.***
- + 8. The barrier does not go to bedrock.***
- + 9. Sump pumps are unlikely to be effective.***
- + 10. Groundwater will likely enter stormwater/sanitary systems.***
- + 11. River flow rates approaching 800 m³/s will cause groundwater flooding in Bowness.***

Conclusions

In conclusion, The City of Calgary should be pressing the Province to develop upstream mitigation options to limit the peak flow rate on the Bow River through Calgary to 800 m³/s. History has shown that flow rates approaching 800 m³/s will cause groundwater flooding in Bowness. Setting a target peak flow rate of 1230m³/s amounts to deliberately inducing additional damages to Bowness that would not have occurred with flow rates below 800 m³/s.

The City's efforts at this time constitute an expensive, environmentally destructive, critically technically flawed and demonstrably ineffective waste of tax dollars. Other communities are being offered effective protection from both overland and groundwater flood damages, and the residents of Bowness should be provided the same consideration.

The article below exemplifies that we are in a never before experienced time in the world. major changes, nearly bankrupt and already bankrupt countries around the world- the whole world is united in finding new ways of resolving bankruptcy problems. New ways include creative decisions while looking at the broader ways to resolve imminent problems.

Being creative. I'm asking the NRCB be creative in these uncertain times, and add certainty to all of us upstream that all us Albertans will have flood protection going forward. AND let's no longer stop at just flood protection, trying to have a narrow look while the world around us has already changed over the past 7 years to include the need for water management, water storage before the predicted, and agreed upon by the experts including those from the City of Calgary in 2019, attachments in Exhibit 133, there will be a water crisis by 2036 in the City of Calgary does not do something quickly. Why are politicians waiting? It's time to act now on behalf of all Albertans. Help us all.

We ask the politicians to NOW look at the big picture of what Albertans need to optimize our tax payers money.

It is Time to look at the bigger picture of NOT just flood control. Listen to the governments words since the SR1 decision in 2014,--SR1 is FASTER< EASIER< CHEAPER. Us residents know that the government was already fishing around as early as 2012 for ideas of using the Springbank land, because they thought it was only involving the 17 landowners. Keep this in mind. Easy, so they thought only 17 affected, just buy them out. Now we know the truth. SR1 will negatively affect thousands of us. This is a huge decision negatively impacting Albertans in Calgary and all of us upstream.

In the long run also impacting our tax dollars because very soon the city of Calgary will be asking for money for a way to hold extra water in the upcoming water shortage as predicted by 2036. Note the article in our submission where everyone in 2019 agreed this is an upcoming problem.

In these times of dire consequences, a time to search for new ways, as this article elucidates, NOW is the opportunity to get unstuck from just Flood Control, and move into boarder considerations of the situation facing us Albertans. It is reasonable and economical and more efficient use of taxpayers money to do something that meets the boarder needs of all Albertans upstream. I invite Natural Resources Conservation Board to also look to the bigger picture of the Best Interest of All Albertans, NOW and by 2036. A new way to look at our irreplaceable land, upcoming water needs, major forest fire prevention, and the best interest of Albertans.

How do we meet these needs? Build a dam upstream of Bragg Creek. Protect us all. Provide a water source for the upcoming increasing need for more water as the quantity of water flowing down the Elbow river is decreasing. That's a fact. This is directly related to climate change that is warming and melting our ice pack in the mountains that provide us with the water. We MUST be more conscious of our water. It is our GEM.

Kenney stuck in alternate universe of debt, possible sales tax

- Calgary Herald
- 26 Feb 2021
- DON BRAID

There must be days when Alberta Premier Jason Kenney wonders how he ended up running the wrong government.

The United Conservative Party in its own dreams would spend small, borrow no money, and allow people to go about their lives with little thought to an overarching government.

Kenney's UCP today, through circumstance and ill fortune, is in some ways the opposite, a tale outlined painfully in the new budget introduced Thursday.

Debt is now running so high that annual payments outstrip some major revenue sources, including, remarkably, royalty revenues from the oilsands.

Debt servicing this year will cost \$2.7 billion, higher than the operating budgets of several ministries.

Bitumen sales, the golden goose of yesteryear, are expected to generate only \$1.4 billion in government revenue.

The vast taxpayer-funded debt will hit a total of \$115.8 billion this year.

Kenney will remember, perhaps with some embarrassment, how the UCP used to thunder when the former NDP government's borrowing was still \$30 billion short of today's heap.

The deficit in the fiscal year ending in March will be \$20.2 billion. In the new budget year, it's expected to be \$18.2 billion, every penny borrowed.

It says something about modern Canadian governments that Alberta's level of debt and deficit, in comparative terms, is still lower than that of several other provinces.

Alberta will shoot for a debt-to-gdp ratio of 30 per cent, finding that level responsible, or at least good enough to keep the debt rating agencies at bay. Nothing would be more disastrous than a big spike in interest rates.

Albertans still aren't fully adjusted to the costs and dangers of massive debt. In Kenney's own party, many never will be. Until only eight years ago, the province didn't borrow at all. It was against the law.

Then came a Progressive Conservative party conference in 2012 where Premier Alison Redford and her finance minister, Doug Horner, let slip that borrowing would reboot.

They were almost squirming with discomfort as that came out. Provincial borrowing had been illegal since 1993, when then premier Ralph Klein decreed the legislated ban.

It made for great politics, but Klein knew as well as anyone that no legislature can constrain the next one.

When the cards began to turn against Alberta, beginning with the financial crash of 2008-09, borrowing became inevitable.

But debt like this? Before the twin curses of the oil price crash and the COVID-19 pandemic, nobody dreamed it would reach such levels.

And so, Finance Minister Travis Toews said something we've never heard in a budget speech before: "A third-party review of the efficiency and appropriateness of our revenue structure will be important in the future."

That is early code for ... Sales Tax! Alberta is once again being lectured all over Canada for continuing to resist a provincial tax despite severely shrunken revenues. Even senior Alberta business leaders now call for serious consideration.

But Toews also said this is not the time. Just about everybody agrees with him. The economic impact of even a small consumer tax increase could disastrously derail economic recovery at this fragile moment.

But the change in tone over new revenue sources — even the hint of a sales tax — is dramatic for a government that fiercely opposes high taxation and considers Alberta's low rates a point of pride. The UCP has already lowered the general corporate income tax to eight per cent, the lowest level in Canada and most U.S. states as well.

Toews argues that these tax cuts, as well as reductions to business regulations, have "created a special economic zone, and it's called Alberta."

So far, though, the zone isn't flooding with capital.

Even if that starts to happen, there's little chance that Alberta can bring its finances under control without a steady source of new revenue.

It would truly be remarkable, if Jason Kenney, former president of the Canadian Taxpayers Federation — the very guy who used to scold Ralph Klein on spending — was the one to bring in a sales tax.

He could always say he got stuck in some other government. Don Braid's column appears regularly.

Hello Jennifer Howe,

Attached is a covering letter and the summary document that all presenters have worked on writing since November 4, 2018. This document describes the two presentations regarding the need for upstream flood protection, and the many reasons that the SR1 decision does not have adequate research, and social considerations, to support the SR1 decision.

A major missing consideration in 2015 when the SR1 decision was made, is the **significant impact of the aquifer**, which is described by Dr. Dave Klepecki's presentations. Also, within 20 years, water needs will not be met, if there is a drought, for the increasing population in the south half of Calgary, 600,000 citizens rely on the Elbow River. This growing problem is also due to the fact that since 1921 the Elbow River summer flows have been decreasing, as described in Dr. Klepecki's presentations.

In addition, consideration must be given to:

- climate change such that there is now an environmental **TRIPLE THREAT—flood, fire, drought**
- no plan for protection of First Nations sacred sites on Mary Robinson's land
- berms are useful for annual erosion, but they do not protect during a major flood as evidenced in Redwood Meadows in 1995, 2005, and especially 2013—after all they are made of dirt which is then washed away. The River wins.
- No geotechnical study was done
- Social and economic impact on the Springbank community, and on the Municipal District of Rockyview.

Thanks for your consideration.

Kind regards,
Karen

Dr. Karen Massey
1 Redwood Meadows Court
Redwood Meadows AB

403-390-1815

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[April 10, 2019](#)

ceaa.springbank.acee@canada.ca

Jennifer Howe
Project Manager, Prairie and Northern Region
Canadian Environmental Assessment Agency

Hello Jennifer Howe,

Thanks for advising me that you are interested in finding out more regarding the Elbow River Flood Prevention Presentations on Oct 26, and again on November 30, 2018. At the October 26, 2018 presentation in Redwood Meadows it was attended by about 100 people from Bragg Creek area, Redwood Meadows, Springbank communities, Seamus Skelly, senior technologist from the SR 1 project team, a CCRAAG representative, Calgary folks, and many surrounding community residents and supporters. There were three hours of presentations and a Question and Answer period. Things got a little charged when a neighbor stood up and said that everything should be left as it is on the Elbow River, and people should have known better then to live alongside the flood zone. My thought on his comment was that when we bought our home in Redwood Meadows in 2004, the real estate agent did not tell us that the town is on a flood plain. I'm guessing many of us residents are in the same boat, so to speak.

On October 26, 2018, we were pleasantly surprised that Crystal Damer, ADM Springbank, invited our presentation group to present before her SR1 project team. A presentation occurred on Friday morning, November 30, 2018. The following is a summary of the two presentations. Bios of the Presenters are at the back of this document along with an Addendum for new information about West Nile Virus concerns, and a Springbank Community Association Handout.

There is now an environmental Triple Threat that needs to be considered when making your environmental decision. The SR1 decision solely focused on the 2013 flood. Now we have the advantage of time to see that there are broader considerations. A 2nd threat became obvious in May 2018, when the thousands of residents in West Bragg Creek, Bragg Creek Hamlet, and Redwood Meadows received emergency notice of a potential emergency evacuation on a Sunday afternoon due to the Champion Creek wildfire that was burning out of control. The smoke was seen in West Bragg Creek resulting in many residents packing essential belongings and getting ready to flee over the course of the next few days till it was under control. The wildfire was also threatening to burn in the direction of Redwood Meadows. According to the Alberta Government's list of towns most likely to burn, Slave Lake was first, Fort McMurray second, and Bragg Creek is third. We all know what has happened to numbers 1 & 2. Increasing danger of fires points to the climate changes that are affecting our areas and Calgary, and points to the need for quick access to a large water source for water bombers such as a dam at McLean Creek. If you have questions, please call me at 403 390 1815.

Kind Regards,

Dr. Karen Massey
1 Redwood Meadows Court
Redwood Meadows AB T3Z 1A3

Copy to: Crystal Damer, ADM Springbank, AB Transportation & Presenters

Elbow River Flood Prevention Presentations

Presented by Residents of Springbank, Redwood Meadows & Calgary

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PART I: First presentation, October 26, 2018, Redwood Meadows

MLA, Leela Aheer describing problems with proposed SR1

- The land will be taken from Kam Kiwanis which serves a few thousand underprivileged children annually. This camp is the best managed camp in all of Canada. It also has the advantage of having riverfront property and being a few minutes' drive from Calgary.
- The impact on the groundwater has not been addressed. (rancher Brian Copithorne spoke to this.)
- The cost/benefit to the community has not been addressed. (President of the Springbank Community Assoc., Karin Hunter spoke to this.)
- There is no information about the exact peak flow levels of the Elbow River because the flood wiped out the few the measurement devices.
- No geotechnical study was done.
- There is not a realistic costing of SR 1 regarding land values, including costs of expropriation.
- There is no regard for the Social Impact on the community. Need to engage the citizens to build trust. This is a big missing factor. Lack of consultation with stakeholders, especially the Tsuu T'ina.
- Berms are not the first step in flood protection. They should be the last step and their impact downstream must be better studied.
- The premise of why SR1 was chosen is no longer true. It is not the fastest, not easy, and certainly not cheap. Earliest readiness for SR 1 is about 2022.

These are some of the reasons to show that there is a better upstream solution to protect citizens for the most circumstances. These circumstances include the upcoming drought period due to Climate Change, enhancing tourism in the area not destroying it, and providing a source for water bombers in case of fires such as the wild fire a few months ago near McLean Creek.

Chief Lee Crowchild, Tsuu T'ina Nation, spoke about what matters for the Nation.

- There needs to be instituted a culture of leadership, truth, and reconciliation.
- We must talk to self and to the land. Heal the water before we heal ourselves. Think about the glass of water before we take a drink, pray, give the first drop back to the earth, then drink. The challenge is how to heal the water to heal ourselves.
- Account for the hydrology.
- There's about 12 years till there's an impact of climate change. The flood was only one event. Now drought is the bigger problem, also fires.
- The berm in Bragg Creek is not a good idea, it is not considerate. There will be an increase in velocity of the water downstream.
- He is calling for a Reset. There will likely be a meeting on December 17, 2018, where levels of government and organizations will come up with the right answers.
- Let's work for a common strategy. We are obliged to heal the water. We must consider climate change and healing the water.

Dr. Dave Klepecki, resident of Bragg Creek, spoke about the pros and cons of McLean Creek, MC1.

- In the last 135 years there have been 2 flood events in the Bow/Elbow basin larger than 2013, specifically in 1879 and in 1897. 2013 flood levels are likely to occur again within the next 50-100 years.
- The average flow rate on the Elbow River is 20-30 cubic meters/second. The measured flood flow rate peak at 2013 (at Bragg Creek) was 560 cubic meters/second although estimated rate was as high as 842 m³/sec. 1240 m³/s was measured entering the Glenmore reservoir.
- Can riverbank armoring and berms reduce flood hazard from the Elbow River alluvial aquifer at Bragg Creek and Redwood Meadows?
- What about Drought? Paleoclimate records show Alberta was drier for the last 6100 years with the last 200 years as a “wet spell”.
- University of Calgary research of the Elbow River flow rates for 1930-2000 show flow has been declining in the Elbow River. Also the spring runoff rate is increasing which means less recharge for diminishing summer flows.
- Having a consistent and strong flow rate is critical because 40% of Calgary gets its drinking water from the Elbow River. So if the size of Calgary continues to increase, and yet the flow rate on the Elbow River continues to decrease, particularly in times of drought, there is going to be a supply of water problem. Okotoks already has a supply of water gap and capped its population growth because of water supply shortfalls.
- A McLean Creek Dam would protect against flooding downstream and provide summer water flows to mediate drought.
- We now know that the decision to go with SR1 was made before the 2015 Deltares report. How much work was the government able to do in that one year before the decision was made? Apparently, the decision was made before the data was collected. The research at McLean occurred in 2017 and only as the required “comparable option” for Federal approval. The CEEA has asked for information because the facts are missing.
- McLean would catch 90% percent of the Elbow River flow that Springbank would. A flooded reservoir at McLean would fill to Paddy’s Flat campground.

Benefits of McLean Dam.

1. No land purchase expense and opposition.
2. In-stream flood mitigation has less operational costs and less uncertainty about management of the next flood. Controlling flood surges with an instream dam which is proven world wide. Springbank intake is limited to 600m³/s and excess volumes continue downstream. The Springbank off stream scheme has no operating analogue world wide.
3. Protection of thousands more people in the hamlet of Bragg Creek, Redwood Meadows by reducing flows and uncertainty about aquifer “back up flooding McLean Dam also protects the land owners downstream in Springbank, Discovery Ridge and within Calgary.
4. The Wapiabi shale outcrops at McLean provide a solid bedrock foundation for the dam, unlike the glacial till at Springbank.
5. A reservoir at McLean would aid in wildfire protection in the Upper Elbow Valley by providing a nearby water source rather than Ghost Lake or Glenmore Reservoir.

6. Allows protection for Kamp Kiwanis where thousands of underprivileged children and children on school bus day trips enjoy the camp, and especially the riverfront, annually. This is the best managed camp in all of Canada.
7. Like the former Allan Bill Pond, a reservoir at McLean Creek would provide a recreational destination for Calgarians and all Albertans. Recreation use is up 450% in the Bragg Creek area.
8. Wildlife impact is minimal as the noise and activity from the McLean off road vehicles/ATV's, in the OHV zone already reduces wildlife movement on the south bank. As well fish ladders can be built to allow fish movement along the watershed.

Mary Robinson, owner of a ranch next to the proposed intake of SR1, spoke about impact on her livelihood

- 22 families, including heritage families, are impacted by the loss of land if SR1 goes ahead.
- Once the native grasslands are gone, they are gone forever.
- Her land has First Nations sacred sites of numerous tipi rings and buffalo wallows. She has toured 9 First Nations bands to look at these sites on her land this year.
- There's not enough consideration of the social impact of SR1. There is a loss of businesses and livelihoods. Her equestrian center and ranch that her pioneer family has been on since 1888 is impacted.
- There was no initial consultation, for example there was about one year before landowners heard anything about the Albert Government's decision regarding SR1.
- Stantec did the research and now Stantec will likely be awarded at least some of the SR1 work, and that seems like a conflict of interest.
- A proper comparison of the pros and cons of MC1 and SR1 was not done. MC1 was a paper review, SR1 had the main focus from the start.
- Mother Nature made 200 foot rock walls, a perfect place for a dam at MC1.
- The Unity Ride on September 29, 2018 was the idea of Chief Lee Crowchild. It united the efforts of all affected land owners in the area of SR1 towards having the Alberta Government consider better options for flood control.
- During the wildfire west of McLean Creek this summer, it took about one hour for water bombers to fly to Ghost Dam to fill up with water and return to the fire. That is far too long compared to if there had been a dam at nearby McLean Creek.
- Upstream dam from Bragg Creek protects everybody fairly.

Brian Copithorne, owner of a ranch impacted by SR1, spoke about problems with hydrology based on a recent consultant's hydrology report

- There are several ground water springs present beneath the surface of the proposed SR1. The aquifer will likely be damaged by flood waters being held in the temporary reservoir for 30 or 40 or more days. SR1 is centered right over many of the fresh water springs.

- He has three active fresh water springs that flow year round within the project footprint. They will be negatively affected by SR1. Decommissioning of water wells within the project footprint will not prevent groundwater contamination.
- The 10 – 15 meters of flood water within SR1 will result in reversal of the flow regime between floodwater and groundwater resulting in groundwater contamination. It is unacceptable to have contamination of groundwater.
- There are no plans in place to mitigate water contamination.

Dr. Emile Gabriel, developer of TriRivers concept that includes the Elbow River, Sheep and High Rivers, spoke about the benefits of TriRivers.

- Most of the instruments that measure the flow rate of a flood water were washed away in **2013 flood**, therefore, the question becomes: how do we accurately know the volume of water that hit Calgary and the surrounding area? Since we don't know the actual volume of water, which is essential to design a dam properly and safely, SR1 should have been designed to the worst-case scenario level. The expert panel of 2014 symposium (more than 50 experts from different fields recommended a reservoir size of 100mcm, current design for SR1 is only 77mcm, much less than the minimum safety requirements)
- What is the back-up plan if the SR1 dam fails? The federal environmental review of the proposed Springbank off-site reservoir asked for more information from the provincial government, including additional details on what would happen in a worst-case scenario accident or malfunction.
- The Canadian Environmental Assessment Agency sent a request to the Provincial Transportation Department on June 29, citing gaps in the information provided in the province's environmental impact statement (EIS), including: The need for specific details on the potential effects of a worst-case scenario failure (such as a structure failure, breach, material spill, pipeline rupture).
The federal agency also mentioned that the province "does not describe in sufficient detail the potential environmental effects of accidents and malfunctions for worst-case scenarios such as off-stream dam failure or breach, and diversion structure failure or breach."
- MC1 storage is too small. Previous study done by a consultant commissioned by the provincial government, shown an available size of only 56mcm.
- Tri-Rivers Joint Reservoir (TRJR), which is a gift from nature, has a width of 1 km between each side of the mountain range; it is about 15 km from Elbow Lake to the proposed reservoir at the headwaters of the Sheep River near Okotoks, and about another 15 km to the headwaters of the Highwood River. The total is about 30 km long. The height of the mountains in this vicinity is 800 m. on average.
- TRJR could be built in several phases. First, a tunnel needs to be drilled (perpendicular-about 3 km. long) through a ridge within the area between the beginning of the Elbow Lake and the point where the river leaves the mountain range and enters the foot-hills in its way moving eastward towards Calgary (a stretch of about 10k long). The purpose of the tunnel is to redirect water from the Elbow River to be stored in the area which is referred to as the "heart of the water bank" at the headwaters of the Sheep River within

the TRJR proposed location (mainly for flood mitigation and storing up water for different usages).

- Water is the new Gold!
- Initial estimated cost is \$120 million. A control gate at the Elbow River costs about \$50million. It would take about three months to drill the tunnel,
- TRJR gives the benefits of a water storage, flood mitigation, management of drought conditions, as well as a source for water bombers for fighting forest fires, and an amazing new recreation area. It is an investment that will pay off.

Lee Drewry spoke about the three regulatory processes

- CEAA is in the midst of their review. Alberta Transportation (AT) started the process in April, 2016 when they filed their project description. Prior to that CEAA and AT had been communicating regarding the requirements of an Environmental Impact Assessment (EIA).
- An environmental review was conducted by AT comprising 12 months of study.
- The Alberta Transportation Minister has said publicly that it's only a few ranchers against SR1 and 1.2 million Calgarians who will benefit. Untrue, there's thousands of impacted residents upstream of Calgary against SR1. SR1 does not protect enough Albertans that are affected. And most Calgarians live and work well away from the Elbow River, so they will not be impacted by a flood of the Elbow. To say it's a few ranchers against 1.2 million Calgarians is not only false and misleading, but a barrier to cooperation of all stakeholders to find the best solution.
- There are currently 85 outstanding information requests from CEAA to AT. CEAA is now paused at day 110 of 365 days because they are waiting for the government's response to their questions. Information requests deal with most major elements of the project including
 - Dam safety
 - Hydrogeology
 - Wildlife
 - Surface water quality
 - Impact on water wells in the area
 - Airborne contaminants
- Natural Resources Conservation Board and other Alberta Government ministries has 593 requests to AT.
- National Energy Board is involved regarding the major natural gas pipelines that flow through the footprint of SR1. These will require major mitigative efforts including expensive tunneling to take the existing lines under the diversion canal of SR1.
- Most impacted stakeholders, including First Nations, believe the Alberta government never asked us what we thought about SR1. They told us what was good for us. Talking and telling is not consultation.

Karin Hunter, President of the Springbank Community Association spoke about concerns with SR1

- The proposed size of SR1 is about 7,000 acres, which is 10% of Springbank, or the equivalent of 60 Calgary Zoos, or 7 Glenmore Reservoirs.
- Once SR 1 is done, it can never be undone. It permanently destroys the land. It is likely there will be 2 meters of silt left when the reservoir is drained, fresh water springs and well water will likely be contaminated, traffic and road problems are created, safety around the deep canal and around the reservoir 12-meter-high dirt structure holding flood water, has not been discussed. There are still many unanswered, important questions, and some of these listed tonight have not yet been posed.
- There are tremendous economic costs to the community.
- **SR1 is a “One Trick Pony.”** It only controls flood waters.

See chart on next page of the comparisons of options.

Summary of Options

Prepared by Karin Hunter, President,
Springbank Community Association

	SR1	MacLean Creek	Tri-River Joint Reservoir
Description	Off-stream Reservoir	Conventional Dam	Tunnel and Flow-Through Reservoir (Natural)
Land Designation	Private Land	Crown Land	Crown Land
Estimated Price ¹	\$371 Million	\$406 Million	TBD
Capacity	70 million m ³	56 million m ³	10x SR1
Timing	4 Year construction	4 year construction	Staged
Impacted Infrastructure	Condensate, Natural Gas, Transmission	None	None
Current Status	Approvals delayed	Not seriously considered	Requires feasibility study
Flood Protection			
Calgary	✓	✓	✓
Bragg Creek / Redwood Meadows	✗	✓	✓
High River	✗	✗	✓
Okotoks	✗	✗	✓
Benefits to Local Community			
Health (Air & Water Quality) ²	✗	N/A	N/A
Social (Tourism, Community) ³	✗	✓	✓
Economic (Taxes, Development portunity) ⁴	✗	✓	✓
Other Benefits			
Hydroelectricity	✗	TBC	✓
Water Storage	✗	✓	✓
Fire Protection	✗	✓	✓
Drought Management	✗	✓	✓
Parks & Recreation	✗	✓	✓

Notes

1: SR1 cost model missing material cost items: Bragg Creek berms, remediation following flood events, true infrastructure costs of moving pipelines & elevating Hwy 22, lost economic value of the SR1 land and fair compensation to private landowners; MacLean Creek cost model ignoring positive economic outcomes from conventional dam and tourism-related economic benefits

2: SR1 planners have not adequately addressed water and air quality concerns within the Springbank area

3: SR1 project analysis have omitted tourism and social consequences on local community (i.e. road closures) while at the same time ignoring the lasting social and recreational benefits of other upstream conventional dam projects

4: SR1 cost model has so far disregarded the material financial harm to RVC that result from use of private land

Question and Answer Period

1. Comment from Robert: it cost thousands of people their livelihood in the 2013 flood since people were laid off, and now there's climate change considerations, Calgary's population continues to grow, and we must adapt to these changes. We need upstream protection at the headwaters to manage the Elbow River, not just control one part of it.
2. Give more information about the water flow?
Dr. Dave Klepacki's Reply: Between May 25 and June 25 every year is the highest water flow. This is when water could be stored for future use in a dam like MC1. The concern is that the Bow Glacier provides less and less water to the Bow Basin. Alberta must now think smart about climate change and the future likelihood of drought. We must plan for the future.
3. What is the time frame for TriRivers phase 1?
Dr. Emile Gabriel; there needs to be a ground and environmental study which takes one year, then 3 months to build the tunnel.
4. General Comment: Although it looks cheaper because of the way the provincial government codes the various parts of the projects. It is partly under Alberta Transportation to build the two bridges, about 7 km of raising Highway 22, building a temporary highway so that traffic can continue to flow on Highway 22—these costs have not been made public. Costs for pipeline moves, fences around unsafe areas, and a host of other costs has not been made public. Buying/expropriating land is under another budget code, and that has been publicly announced. There is a need to request that all government funds involved in SR 1 be made public and transparent. When this happens, the public will clearly see that SR 1 will cost the tax payers about \$1 billion. We need transparency of all SR1 costs. It is NOT cheaper.

Rocky View Weekly newspaper: picture of presentation night

Attachment



Dave Rupert addresses a full house Oct. 26, during a forum at Redwood House on the topic of the Springbank Off-Stream Reservoir.

Photo credit: Ben Sherick/Rocky View Publishing

LOCAL NEWS

SR1 event grabs province's ear

BY BEN SHERICK NOV 6, 2018

An event at Redwood House Oct. 26 – intended to raise awareness about community opposition to the Springbank Off-Stream Reservoir (SR1) and the need for upstream protection along the Elbow River – has already resulted in at least one positive outcome. According to organizer Karen Massey, the Alberta government now appears to be listening to resident concerns after a representative from the SR1 project team attended the event.

“As a result of that event, we’re being invited to the SR1 project team, to present to them,” Massey said.

The event was attended by approximately 60 people and ended around 11 p.m., despite being scheduled to last until 9:30. A number of invited speakers addressed potential negative impacts of SR1, as well as alternative upstream solutions.

“The take away would be, let’s seriously consider [upstream solutions],” Massey said.

Bragg Creek resident and former geologist Dave Klepacki said the proposed MacLean Creek (MC1) project could be an alternative site for a permanent reservoir. Klepacki said SR1 and MC1 are similar in many ways, with a few key differences – primarily, that MC1 provides protection for Bragg Creek, Redwood Meadows and the Tsuut’ina First Nation, along with Calgary.

Civil engineer Dr. Emile Gabriel suggested the Tri-Rivers Joint Reservoir of Alberta as another possible alternative solution to flooding through natural means by managing the Elbow, Sheep and Highwood Rivers in the same location.

A resident’s perspective was contributed by Mary Robinson, who said many of the 21 families living in the area of the SR1 site have ranched their land for multiple generations.

“More than anything, what we really feel is...we just do not want to destroy the Alberta heritage of the ranching, rural communities,” she said.

The event also featured remarks from Tsuut’ina First Nation Chief Lee Crowchild, Chestermere-Rocky View MLA Leela Aheer, Springbank Community Association president Karin Hunter, Lee Drewry with Don’t Damn Springbank and Springbank resident Brian Copithorne.

“What I wanted to achieve was to expand the knowledge of people in the community, which included Calgary,” Massey said. “It’s not now just a downstream focus. That’s the short-sighted way of looking at things.”

With a meeting with the province booked for Nov. 30, Massey said she’s hopeful the government will give serious consideration to the need for upstream protection and shift away from SR1.

“Now that the provincial government has invited us to present to them, I think there’s lots of hope for change in the future,” she said.

PART II: Presentation to Crystal Damer's SR1 team at the Stantec Main Office, Calgary, Nov. 30, 2018

A presentation was given, at the request of Crystal Damer, ADM Springbank, to her SR1 team. About 20 of her team members were either present in the large boardroom, or through video conference. The presentation followed a similar format to the one given on October 26, 2018. One exception was the use of photos of the 2013 flood.

Mary Robinson spoke about the impact on her ranch

As **suggested by Chief Lee Crowchild**, Mary opened the presentation by a powerful prayer about protecting and honoring water. She reinforced the importance of honoring those who are pioneers in the area and their desire to keep their irreplaceable pioneer ranches intact. Some of the impacted Landowners have employees who are very worried about their places of residence as some of them live full time on the ranches and the stability of their fulltime and part-time employment. This affects us as Employers and our businesses very negatively due to the continued threat and publicity of the SR1 proposed idea.

The following is the prayer that Mary wrote.

Dr. Dave Klepecki spoke about the history of flood mitigation proposals, Aquifer, drought potential, fire, and MC1 pros and cons

The aquifer water level issue is key in determining effective flood mitigation along the Elbow River and a key reason why in-stream flood control at McLean Creek is the best option for controlling water level along the Elbow River.

I referenced ENSC501 (Jabush, Grant and Ryan, 2014) work at Redwood Meadows (slide 9), and Aboud, Ryan and Osborn, 2018 for the groundwater flooding at Elbow Park, Rideau and Roxboro in Calgary (Slide 10).

At this point of the discussion, Stantec's hydrologist, Matthew, was very interested and asked a number of questions. Unless a cement core to bedrock is installed at Bragg Creek, the Berms here will be ineffective in mitigating basement flooding and even some surface flooding where the aquifer breaches the surface near the Community Centre (presumably from the hydraulic head difference vis the river level) as was discovered in 2013.

The science seems unequivocal both regarding flood mitigation and in drought mitigation (some monitored water well levels in the Bragg Creek area have dropped 3-4 meters in the last 30 years). This careful body of work is thanks in large part to Cathy Ryan and her colleagues and students: in light of this work a reservoir at Mclean in my view is the best solution for both

flood and drought.

Other considerations are:

- the reservoir construction issues (springs and unstable soil at Springbank vs bedrock at McLean)
- the health issues of pathogenic flood sediments at Springbank
- the fact an off-stream reservoir of this type for flood mitigation will be the first of its kind in the world! Jurisdictions like Switzerland, Germany, Norway, and Japan all use open flood plains and instream dams using their experience with hundreds of years of flood control
- And costs are escalating, and many have not been revealed

During Dave's presentation Matt, the Stantec consultant also asked a few questions about the viability of MC1. Matt was the only SR1 team member who asked questions during Dave's or any other presentations.

Matt questioned how would the Bull Trout and other fish get upstream? Dave replied that fish ladders would work, as has been successful on other rivers.

Matt questioned how far would the Elbow River back up in the case of a major flood if the McLean Creek Dam was built? Dave replied probably up to about Paddy's Flats.

Matt questioned the impact on wildlife? Dave replied that the wildlife in that area have already been scared away due to the numerous ATV and off-road traffic that start on the trails from the McLean Creek campground areas on the south side of the Elbow River.

[Karin Hunter, President of the Springbank Community Association, spoke about the serious impact on the Springbank Community.](#)

- **Property tax losses:** I estimated the existing property tax loss to be up to \$120 thousand annually. This calculation is based on the current business, residential and agricultural taxes (in perpetuity over \$1M). This information is from the current Rockyview County (RVC) tax rolls online and from each property individually to arrive at the total. Agricultural tax rates are nominal and those account for the bulk of the current taxation. (approximately \$1 per acre).
- If one assumes that there will be development over time, for example 500 homes on 2 acre lots, in the next 50 years, the **lost tax revenue**, in today's dollars is \$75M. Note that this is gross revenue and so does not account for RVC costs. Additionally, this excludes any business taxes, jobs & associated benefits from development.

- **SR1 will impact the Springbank community of about 12,000 people.** This population information is from the 2018 Rocky View County Census. It is actually 11,961 people. In addition **Harmony has another 250 as of 2018** but we know this will grow by 1000 per year or so.

<https://www.rockyview.ca/Government/Census.aspx>

- A total of those around the proposed SR1 area who are impacted are:
 1. SW Rocky View County, Bragg Creek 2,525
 2. Springbank 3,479
 3. Elbow Valley, Springbank 5,957

The following pictures show the silt and debris inside a Bragg Creek home that could be similar to what remains after the SR1 proposed temporary reservoir water is released after the next flood.





Robert Madlener, on behalf of Dr. Emile Gabriel, presented information about the benefits of TriRivers.

Presentation similar to the Redwood Meadows presentation.

Dr. Karen Massey spoke about the impact of the flood on Redwood Meadows, and the new **TRIPLE THREAT** that must be taken into consideration.

Redwood Meadows was **the town that was saved by:** Tsuu T'ina opening their gravel pit; a resident in Redwood Meadows had a trucking company and some of his trucks were made available to haul the gravel; another resident of Redwood Meadows had heavy machinery available to keep shoring up the berms with the gravel; volunteer firemen and women worked day and night; and hundreds of volunteer sandbaggers worked endlessly (see picture that follows of the river

breaching at a smaller breach into Redwood Meadows). The urgency was so great at the two large breaches that no pictures were taken.



Three sections of the dirt berms had the rip rap and dirt washed away and flood water breached the berm. And where did the huge pieces of rip rap go? Some of them hit the west side of the bridge supports on Highway 22, which contributed to why the west side lane of the bridge was closed for repairs. The northern and central parts of the berm were severely damaged and cost millions of dollars to repair. Repairs to the berm were made in 1995, again in 2005, as well as 2013, costing millions of dollars each time. The need for repairs after each flood indicates that:

Dirt berms are useful for the annual erosion that occurs, they did not hold up under the flood waters.

Note in this picture, that the flood waters are rising and they are almost over the highest part of the rip rap which is at the height of the berm. The flood had already washed away all the 4-5 feet of lower level rip rap, and it later breached the top of the berm in two major places.



Another consideration is that without upstream protection the **bridge on Highway 66 was partially destroyed** (see picture of the remains of the bridge that follows). It was a year later before a new bridge was built. Meanwhile, during the busy summer season only a temporary one lane was built for thousands of campers, hikers, and tourists. We don't want to impact the high number of summer tourists again.



In addition to floods, a **second part of the triple threat is drought**. This topic was discussed by Dr. Dave Klepecki who pointed out that Alberta is now moving into a period of drought.

A **third part of the triple threat is fire**. Few people are aware that there was a wildfire near McLean Creek in May, 2018. All the residents in Bragg Creek area and town, as well as Redwood Meadows were put on notice to prepare to evacuate. We packed suitcases, gassed up vehicles, booked rental space to park RVs in campgrounds—fortunately we did not need to.

Another problem of the fire threat problem was that the **water bombers** took about ½ hour to fly to Ghost dam and another ½ hour to fly back to water bomb the wildfire. If there was a dam in McLean Creek it would have only been minutes.

Summary: Albertans and politicians must consider and resolve the triple threat that has developed over the past 5 years. In 2013 it is understandable that initially there was only a focus on protecting Calgary because it was hard hit by the flood. The thousands of us upstream of Calgary have now had time to realize that we need flood protection as well because of the disastrous affect on our communities. Now we also need to consider fire protection and water storage for drought.

Keep in mind the Elbow River provides 40% of Calgary's drinking water. Politicians must think longer term to consider the Triple Threat. With the coming problem of drought a dam such as MC1 would be a valuable water storage asset in addition to the Glenmore dam. Also, Calgary will be in need of more

water by 2036 when the larger population demands will start to be more than the Elbow River can provide.

We urge you now to think long term, to consider the new factors, and change the best option to MC1, Likely MC1 will be cheaper, faster, and provide safety from floods for all of us Albertans downstream along the Elbow River.

In Conclusion, the SR1 problem affects thousands of community members in Springbank as described by Karin Hunter, thousands from Bragg Creek and area, as described by Dr. Dave Klepacki who lives there, as well as landowners like Mary Robinson, the Tsuu Tina Nation, and over a thousand residents in Redwood Meadows. This is a significant environmental matter.

We are a unified large community of thousands, and we ask the Alberta Government and the SR1 team to reconsider the an upstream option such as MC1 since an upstream solution protects thousands more Albertans and will help with solutions for the Triple Threat.

ATTACHMENT I: Brian Copithorne raised Concerns about West Nile Virus

15 birds of prey died last summer at the Alberta Birds of Prey Center in Coaldale Alberta. The birds died due to an infection of West Nile virus.

Attached are links to the stories carried by The Calgary Herald and Global News. The Herald story is the best coverage. <http://calgaryherald.com/news/local-news/death-of-15-rescued-birds-prompts-investigating-into-source-of-west-nile-virus-in-southern-alberta>

<https://globalnews.ca/news/4785706/west-nile-virus-15-dead-birds-alberta/>

On Jan 02, Calgary Eye Opener did an interview with Colin Weir, Managing Director of the Alberta Birds of Prey Center. <http://www.cbc.ca/player/play/1419087939915>

Several points of interest regarding SR1 are:

- West Nile virus is infectious to humans.
- The story was kept from the news and the public at the time, until cause of death was confirmed
- This story was finally released Saturday Dec. 22, just 3 days before Christmas. (I believe this was deliberate to conveniently keep public awareness to a minimum as many people were on Christmas vacation.)
- Colin Weir, Managing Director of the Center is convinced the outbreak occurred due to mosquito habitat that was created by the draining of a storm water retention pond owned and operated by the town of Coaldale.
- The town of Coaldale denies any connection to the outbreak and their storm water pond, but quickly refilled the pond with water after the outbreak (Was this to prevent further breeding of infectious mosquitoes or to hide evidence or both?)
- It does not take much imagination to see a similar situation happening with SR1.
- The breeding of infectious mosquitoes on a much larger scale is possible with SR1.
- Currently, there is no confirmation that the outbreak happened due to the Storm Water Retention pond. It may never be conclusively determined despite the fact Mr. Weir is convinced. He is likely right.
- We should watch for more news on this story. AHS may eventually determine it was the retention pond where West Nile mosquitoes were breeding.
- AHS will try to distance the outbreak from any potential harm to human health.
- It would not surprise me if the information is kept from the public.

ATTACHMENT II: Springbank Community Association Handout

How does the SR 1 Project Impact the Springbank Community?

(note: this is a shortened version of the handout since the comparison chart of reservoir options is already in this document.)

How does the project impact Springbank?

We know that this temporary reservoir has many NEGATIVE outcomes for our community, including:

- Air quality issues resulting from dust and fine particulates (each time the dam is in use and for up to 6 months afterward)
- Possible well-water contamination resulting from storage of flood waters on the spring-laden reservoir footprint
- Possible risk of mosquito-borne illness due to standing water during and after flood
- Transportation interruptions, diversions during construction, when dam is in use and while repairs are required to Springbank Road
 - Loss of businesses and homes in the SR1 footprint impacting our community fabric and causing direct harm to affected landowners
- Sterilization of valuable land, currently used for our food supply; this cannot be undone and the land will be irreparably changed

This project does not have any precedents. There are many unanswered questions, including:

- How much dust can we anticipate in our homes and will the air quality aggravate health outcomes for at-risk populations?
- How often will the dam be in-use?
- What is the plan to monitor air and water quality in our community?
- What remediation plans are in place for air and water quality issues? • What is the plan to notify residents when the dam will be used?
 - What is the risk of failure of any of the structures and what are the consequences for Springbank, Redwood Meadows, Bragg Creek, Elbow Valley and Calgary?

Importantly, this project ignores all the benefits of permanent water storage in an alternative project. The tangible benefits of drought management, fire protection, recreation and water security have been left out of the analysis.

Contact Us

Have questions? Learn about the project at transportation.alberta.ca/sr1.htm.

Email: info@springbankcommunity.com Web: Springbankcommunity.com

[Facebook.com/springbankcommunityassociation](https://www.facebook.com/springbankcommunityassociation)

Springbank OffStream Reservoir

Prepared by the SPRINGBANK COMMUNITY ASSOCIATION Spring 2019

Springbank OffStream Reservoir

The consequences of this massive project are felt well beyond Calgary's borders. The ongoing burden of this project falls directly on Rocky View County residents.

Quick Facts

WHAT IS THE SPRINGBANK OFF-STREAM RESERVOIR?

In times of flood, the project will divert water from the Elbow River to a holding area in central Springbank. Over a period of 1-3 months, floodwaters will be released back into the Elbow River. It is not an on-stream dam and will not have permanent water storage. It will be the first of its kind in Canada.

WHY WAS THIS PROJECT SELECTED OVER THE ALTERNATIVES?

In 2015, the Alberta Government concluded Springbank was faster, cheaper & had less adverse social & environmental outcomes than the alternative at McLean Creek. No new technical studies were commissioned, and the decision was based on numerous assumptions, many of which are now considered erroneous.

WHAT WILL THE PROJECT LOOK LIKE?

- A 4 km, 8-story berm will border the reservoir on the south and east sides
- The 4.7km diversion channel is up to 25 meters deep and 170 meters wide
- The reservoir will hold a maximum water depth of 25 meters
- In the event of a flood, multiple gates and structures will be operated in real time
- Once used, the reservoir will contain up to 4 meters of silt and may have pools of standing water; it is projected to be used every 6 years
- The reservoir is not expected to be suitable for grazing AT IS THE STATUS?
- 20% of the required land has been purchased by AB Government.
- The Canadian Environmental Assessment Agency (CEAA) is conducting an environmental assessment. The 365-day assessment process is paused due to inadequate information provided by the Alberta Government. Examples include: insufficient information regarding dam operations, structural safety, air and water quality outcomes and alternative measures for flood mitigation.
- Rocky View County requested a halt to the project so alternatives can be adequately evaluated. Visit rockyview.ca and search SR1.
- Tsuut'ina Nation is opposed to SR1.

Biographies of Presenters in Order of Speaking

Oct 26, 2018

For the second presentation on November 30, 2018, the numbers of speakers were shortened in the interests of time and based on availability of speakers.

1. Leela Aheer, MLA, Chestermere, Rocky View

Leela was first elected under the Wildrose banner in May of 2015 in Chestermere – Rocky View and served in Opposition as Shadow Minister of Energy, Education, and Status Of Women. With the advent of the United Conservative Party (UCP) Leela is the Deputy Leader of the UCP Official Opposition in the Alberta Legislature and is the Shadow Minister of Children’s Services and Status Of Women. With the coming changes in the electoral boundaries, Leela has won the nomination as the UCP candidate in the new Chestermere – Strathmore constituency but until the next election is called will continue to serve all of Chestermere – Rocky View to the best of her ability.

2. Chief Lee Crowchild, Tsuu T’ina Nation

Chief Lee Crowchild is the third generation of Tsuu T’ina chiefs, following in the footsteps of his father, Chief Gordon Crowchild and his grandfather, Chief David Crowchild whom Crowchild Trail is named after.

Having an extensive and varied educational background, Chief Lee Crowchild graduated from Washington State University ‘82 B.Sc. Physical Education, with a focus on biomechanics and Exercise Physiology, the University of British Columbia ‘99 Dipl. EDST, Diploma in Film at The Vancouver Film School ‘02, He started at Mount Royal (College) University, where he was asked to return as an instructor. His achievements extend over many different disciplines and endeavors,

He has worked in many capacities and positions within Tsuu T’ina. This includes, Manager of Infrastructure, Director of Public Works, and Emergency Management for the Nation. Outside the Nation he has also held a wide-range of positions for various boards including APTN Board of Directors and currently is the Chairman of Treaty 7 Cultural Society Board of Directors.

Chief Lee Crowchild is a man of the people and knows that, “Serving the people – our people – requires diligence, sacrifice, and great earnestness”.

3. Dr. Dave Klepecki, P. Eng., resident of Bragg Creek for 28 years

Although entering university as a forester and then civil engineer, a passion for earth history is what carried him through the University of Massachusetts, the University of British Columbia and a PhD from MIT in geology and geophysics. 8 seasons of geological mapping in New England; northwestern, central and southern British Columbia; southwestern United States; and Bolivia seemed worth the winter class incarceration. Exxon Production Research, Esso Canada, PanCanadian Petroleum, and Eurogas Corporation were platforms for visiting and unravelling the geology of the Canadian Rockies, Norway and the North Sea, the Alps, Egypt and Tunisia, Indonesia and Australia, the “Stans” of Central Asia, and Central and South America. Communication is an important part of science and industry and Dave has published 35 peer reviewed papers and talks as well as many private reports and reviews. He was an editor for the American Association of Petroleum Geologists, and a reviewer for the Canadian Journal of Earth Sciences, the Journal of Geophysical Research, and the Journal of Structural Geology. The later part of his 38 year career in oil and gas have been in executive positions in junior oil and gas companies.

Dave is a long-time member of Trout Unlimited, a member of the Canadian Parks and Wilderness Society, and the Elbow River Watershed Partnership. He is a founding member of Stand for the Upper Elbow, a Bragg Creek Group dedicated to preserving lands along the Elbow River as a Provincial Recreation Area and limiting degradation of this important wildlife corridor and drinking water artery for a million people. The hydrological realities of mitigating flood events in mountain rivers upstream of such a population center require careful consideration of the needs of the watershed and adjacent forests, as well protecting (and sustaining) downstream human populations. Dave reviews the pros and cons of the McLean Creek dam option with this view.

4. Mary Robinson, rancher & Equestrian Center owner, Springbank

Mary was born and raised in a one room log cabin on the ranch that she presently lives on. Her family is a Pioneer Ranching family that has been on this property since 1888. Mary and her children run a large herd of Angus Cattle on the ranch. Mary’s family are Neighbors with Tsuu Tina.

She also owns and operates a first classed equestrian center where she boards and trains many horses. Clients from Springbank, Bragg Creek, Calgary and surrounding areas board their horses there, take lessons from her full-time instructor and enjoy cross country trails on the ranch. Mary hosts monthly equestrian Clinics at her stable. This icon of the Springbank community is an excellent teaching facility for children and adults.

The intake of the Springbank reservoir is proposed to begin on this ranch and it will obliterate ¾ of the ranch and the equestrian centre.

5. Brian Copithorne, pioneer rancher, Springbank

Like Mary Robinson, Brian's family are pioneer cattle ranchers in the Springbank area.

6. Dr. Emile Gabriel, designer of the “Tri-River Joint Reservoir of Alberta” (TRJR).

He holds a Civil Engineering degree from the University of Alexandria and a PhD in Civil Engineering/Project Management Specialization from the University of Calgary. He has more than twenty years' experience in management and is the founder of the “Flood and Water Management Council” and the TriRivers proposal at the headwaters of three rivers.

7. Lee Drewry, ranch land owner Springbank

Lee has served on the Advisory Board of the Conference Board of Canada and participated in numerous industry benchmarking associations. During his career Lee was an integral part of the privatization of Petro-Canada and the merger of Petro-Canada with Suncor in 2009, which at the time was the largest and most successful merger in Canadian history. His family owns ranch land within the footprint of the proposed SR1 project.

8. Karin Hunter, President, Springbank Community Association

Karin has a B.Comm, CFA, and brings a diverse background in planning, analysis and facilitation. The Springbank Communities' goal is to raise awareness of the broader implications of SR1 on the Springbank community while advocating for consultation with the Alberta Government.

9. Dr. Karen Massey, Registered Counselling Psychologist specializing in trauma

Karen is a 15-year resident in Redwood Meadows and has experienced the floods of 2005 and 2013 which significantly impacted Redwood Meadows. She is the organizer of the presentations.

NOTE: Chief Lee Crowchild, Leela Aheer, Dr. Emile Gabriel, and Lee Drewry did not present on November 30, 2018. Robert Madlener, a member of the TRJR group, spoke instead of Dr. Gabriel.

Pictures of Redwood Meadows The fight to save a town ex. 155
Redwood Meadows joined forces with Tsuu T'ina

Evacuation

Flood



After Flood sediment in the Redwood Meadows forest. Beauty of flowers like the Indian Paintbrushes, plants—GONE. 7 years later most gone, dandelions, weeds, arrive.



On going erosion of the Elbow River bank, bringing the river closer to the town. We used to be able to walk out onto the gravel, and wade through the river to the other side. Look at the eroded 7 – 8 foot drop. Incredible erosion. No upstream protection.





Nothing is holding this rip rap in place. It will float down the river in the next flood. Just like in 2005 and 2013, leaving the Dirt berm unprotected



Example of size of rip rap that floated down the river, hitting the Highway 22 bridge





Julie Drolet, PhD and Caroline McDonald-Harker, PhD are examining resiliency in children and youth who experienced the 2013 southern Alberta floods. CHRISTINA RYAN/CALGARY HERALD

Flood survivors' input topic of study

Project backed by \$1-million grant will look at what worked, what didn't

DYLAN ROBERTSON
CALGARY HERALD

As the June 2013 flood engulfed the town of High River, neighbours and support groups turned to nearby resident Caroline McDonald-Harker for help.

"They started calling me: 'You're a sociologist; we need help. How can we help families? How can we help the children?'" recalls the Mount Royal University professor.

She quickly organized information sessions, and switched from studying domestic violence to emergency response.

It was an abrupt entry to the world of disaster research for McDonald-Harker, one of three academics who will soon be compiling how families and institutions can better cope with crises.

"When an environmental disaster

takes place, there's a lot of focus and emphasis on the physical infrastructure," said McDonald-Harker. "We often neglect the impact that it has on individuals."

A team of 23 researchers in the Alberta Resilient Communities project will consult children, young people and community groups about what strategies they used to cope with the flood, which services worked and which solutions didn't.

Announced Monday, the project is backed by a \$1-million grant from Alberta Innovates – Health Solutions, the province's research and development organization.

"This is important research, and the time is now to be learning about these experiences — they were devastating for many communities; people are still recovering," said Julie Drolet, a University of

Calgary social work professor who will study the response by outreach groups and government services.

She argues the study's findings could help bolster local services, while providing a blueprint for other communities across Canada as climate-related incidents become more frequent and intense.

"If we're going to learn how to be better prepared in the future, we need to create some new knowledge, and reflect on some of the practises.

"Because this is going to happen again," said Drolet, who has studied responses to B.C. wildfires and landslides as part of a comparative six-country study.

One of the 29 groups consulted is the Calgary Catholic Immigration Society, which had to evacuate a Bridgeland residence and move support people from its High River branch.

"It is quite important that we study this followup, both to support the population and for any future occurrences," said Diane

Fisher, the society's community development manager. For example, refugees from countries where natural disasters are common might have been able to help suggest responses.

McDonald-Harker will look at how children aged five to 12 coped, through art projects like drawing to express whether their feelings have changed since the floods, or multimedia sessions where they interview each other.

A third academic, psychologist Robin Cox of Royal Roads University in Victoria, B.C., will study how youth aged 13 to 22 dealt with the flood.

The project follows a similar study in which McDonald-Harker interviewed 105 parents in High River about coping with the flood.

Among her findings were regrets from parents who sent their children away as the town recovered, leading to feelings of confusion and fear instead of calm. She also found parents struggled to keep their kids active, as repairing buildings took priority over parks, while most family homes were under restoration.

"It's very much community-engaged type of research," said McDonald-Harker. "We're not going to research and publish in academic journals that two people are going to read."

Twitter.com/dcrHerald
drobertson@calgaryherald.com





Dec. 12, 2019 9:15 am photo of about 40 elk, I had to take 3 pics to capture the entire herd, so about 100 elk. the Sibbald Elk herd just jumped the fence on the north, and now the south side of Springbank road, just east of JR Robinson's ranch

Submissions of Jan Erisman

I live at 3154 Springbank Heights Way, Calgary.

Concerns

Environmental Impacts

The project will impact wetlands on Springbank Road.

Wetlands Springbank Road – Photo 1



40 Underpass on Gravel Road



I am further concerned about the economics of creating a problematic silt lakebed on purpose and then engage in massive public cost clean-up.

Why would we create a silt dust problem for Alberta when we have examples of silt clean-ups in the USA that are costing millions in clean-up and health issues? See Tab 21 of Appendix W for an example of silt problem created at Owens Lake. Los Angeles has spent USD2 billion in the last 20 years and has not been able to contain the silt dust issue. The budget does not include the long-term maintenance and the massive costs for controlling the silt once the dirt berm is used.

In my view, this project should not be approved. I request the Board not to grant approval for this project.

SR1 Landowner Concerns				
First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Ian	Galbraith		33022 Township Road 250, Calgary	I am concerned about the environmental impacts as well as health impacts as my spouse has pulmonary issues.
Alice	Russell		14 Redwood Meadows Close	As I understand it, it will be flooded if the dam is ever used. We are close enough to be impacted by traffic and air quality concerns because we have asthma.
Bart	Frasca		10 Sleigh Drive, Redwood Meadows	Our home is not protected from flooding by SR1. Not only is it not protected, I believe it will be negatively affected during a flooding event. The diversion gate for the SB dam is close enough to our home that when the gate gets backed up it will cause the river to rise near Redwood and in turn raise the groundwater level around those homes in proximity to the river.
Anne	Bury	NW27-24-3W5	218 Huggard Rd, Calgary	I do have chronic pulmonary issues, and air quality is of constant concern. Air-borne silt particles could put me in hospital.
Colin	Dale Anderson		15 Mountan Vista Estates, Calgary	Springs wrapping around the contour and water issues.
Diane	Thompson		5210 65 Ave, Olds	I have several concerns with the Springbank choice. First of all it doesn't protect the residences and businesses in Bragg Creek and area. Secondly, the land in Springbank is good productive farm land that they are wanting to flood, whereas the land further upstream is marginal land and if they used it, that doesn't take good land out of production. My concern is that the big push for Springbank is for the money that can be made by investors for the recreational value of the area not because of it is the best choice for protection of ALL of the people both upstream and downstream. I have lived in Springbank and know the what is at stake.
Lee Anne	Tibbles		243079 Horizon View Road	My concerns are the disruption of wetlands, a generation of dust and the destruction of community.
Shane	Hawryluk		117 Rosewood Dr SW	My main concern is air quality. Could the dam be made to permanently hold water and be developed into a recreation spot for springbank residents? I.e. Springbank residents receive exclusive use of the dam and surrounding area as compensation for letting it go ahead?
Dorothy	Tyler		104 Rosewood Dr. S.W., Calgary	I believe this is not the best option
J.Gary	Ibbotson		252 131 Range Road 54A	Why haven't other alternatives been considered?
Sherri	Olsen		155 White Ave, Bragg Creek	Maclean Dam seems a better solutions
Susan and Stan	Church		255014 Bears paw Rd	I have concerns regarding the vast native grasslands - a threatened, endangered habitat, and one with significant biodiversity - will be lost and no one is even acknowledging this. The Nature Conservancy of Canada says they are more endangered than coral reefs and rainforests. Grasslands need to be conserved as they currently are by the ranching family landowners. The fate of the grasslands to be destroyed by a dam, that could be built upstream, is most distressing. Grasslands hold water during a flood. Yet, the dam is being built to destroy this deep rooted natural system of water infiltration and carbon storage - one that is far more effective at carbon storage and water retention than pine and spruce forests. A global assessment of critical places to conserve grasslands identifies Canada's prairies as a priority. Yet this project plans to destroy them with out any consideration to the consequences.
Cherie	Copithorne-Barnes		45001 Township Road 244, Calgary	As adjacent landowners how will we be assured that no damages occur and if they do who will be responsible?
Dale	Hodgson		243142 Range Rd 31	Wrong location. Wrong solution. Too expensive.

First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Maureen	Suggett		125 Rosewood Drive SW, Calgary	I am concerned about the impact this project will have on our community.
Kim	Parenteau		25 Country Meadows Place	I believe that a Triple Bottom Line Analysis be performed on the SR1 project.
Peter	Curran		327 Rodeo Ridge	I am concerned about the impact on our community, fish & wildlife, air quality etc!!
Louise	Locke		30131 Rocky Butte Rd, Calgary	In summary, I think it is central to the resolution of this issue that this point be made: when a situation like this arises, and there is a choice of solutions, effective expropriation of private property should be the remedy of last, not first, resort. While I do not discount the responsibility of government to protect public lands, it needs to be emphasized that flood protection is very large public goal, and as such, a remedy based on a public resource would seem to be appropriate. In addition, I also think attention needs to continue to be brought to the fact that the Springbank Dry Dam proposal fails to protect a significant segment of the public, and thus would admittedly need to be significantly augmented, while the identified "public" option would in fact protect all. And finally, appropriate protection of public lands does not necessarily demand that there be no modification to their use, under any circumstances, current popular narratives to the contrary notwithstanding.
Rod & Catherine	Findlater		34 Rosewood Drive, Calgary	Still not looking after Bragg Creek and Redwood Meadows.
Elaine	Backhouse		174 Rosewood Drive, Calgary	I feel that it puts my property at risk and will devalue it as well.
Lisa	Lundberg		19 Palomino Blvd, Calgary	If the project goes ahead, are there plans to make the reservoir multi purpose? For example, can the reservoir be emptied in the spring to accommodate flooding, and then remain full in the summer/winter to offer recreational use such as parks, swimming, and skating?
Rob & Marci	Matthews		230071 Range Road 51A, Calgary	Why hasn't the government contacted the landowners that are affected individually? And what is the costs of moving the pipelines?
Millie	Hartviksen		204 Country Lane Drive, Calgary	This project will fracture the community. What happens to SPFAS? What happens to the soccer fields?
Gloria M	Wilkinson		230 Artists View Way, Calgary	Full cost/benefit analysis needs to be done.
Mike	OConnor		91 lynx lane	I am concerned about the loss of land that has been in families for multiple generations. I am concerned about the fact that this is the only option being considered (per minister Rick McIver). There is no protection for Redwood Meadows or Bragg Creek. It feels like the Alberta and Calgary governments are ignoring Springbank residents. Plus the unpredictable and most likely too low estimate of costs for this project concerns me.
Kim	Knox		8 Crocus Ridge Point	I am concerned about the air quality, especially fecal matter particulates in the air.
Nicole	Trottier		Cochrane	I am concerned about airborne particulates.
Laurel MG	Sopher		244100 Horizon View Road, Calgary	I am absolutely against the SR1 project. It makes no sense when McLean Creek is the most viable option on so many levels. What are they thinking??
Delna	Sorabji		63 Prairie Smoke Rise	I am concerned about the issues that could arise or how our soccer fields will be impacted from the implementation of the SR1 project! Our children play on these fields and schools are located near it.
Mark	Sopher		244100 Horizon View Road	Put this in McLean Creek where it belongs to protect Bragg as well, not in Springbank where it does not belong.
Dan	Horner		68 Sterling Springs Cres SW	General and overall negative impact on Springbank community. Forced expropriation.
Susan	Iraschko		73 Sterling Springs Crescent	I have concerns about the environmental impacts and silt. How many will be affected and who pays the cost of clean up?
Moorea	Gray		51 Sterling Springs Crescent	This is an important and safe road for cyclists. At a time when outdoor activities are essential for mental and physical health, this main cycling and connecting road will not be available.

First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Sherri V	Swystun			I believe it should be moved west to protect Bragg Creek as well. Hiding the dam at Mclean Creek area makes the most sense and costs less.
Rudy	Perizzolo		252 Tuscany Ridge View NW, Calgary	How is it going to affect SPFAS and the surrounding water shed?
Nicole	Perizzolo		252 Tuscany Ridge View NW, Calgary	How will SR1 affect recreation along the Elbow River?
Roy	Swystun		76 Sterling Springs Crescent	I am concerned about the health impacts of hazardous silt blowing around affecting hundreds of thousands of people. The MC1 option eliminates all the flood mitigation risks for every community without all the negative impacts, along with positive recreational opportunities. SR1 is the worst water management project I've ever seen proposed and should be canceled immediately. I share the same concerns that are already outlined in the Executive Summary. MC1 is clearly a better option, considering all aspects, if anything is done at all. SR1 is a ridiculous proposal, destroying prime land, creating an ugly eye sore and exposing hundreds of thousands of people to the health impacts of hazardous silt accumulations blowing around, is criminal. Stop wasting any more tax payer money and cancel the SR1 project now!
Lisa	Skelton		244090 Range Road 34	I am concerned about the environmental effects of the leftover silt/contaminants as well as loss of so much natural grassland/grazing pasture land. Always favoured Maclean Creek which would protect so many more communities.
Shonda	Day		33147 Huggard Road	Lack of consultation.
Katie	Fraser		8 Sterling Springs Crescent	This project does not address communities further west from flooding.
Laurie	Gulley		7 Fishermans Bend	I am worried about the long term consequences of this project.
Hal	Kuntze		455 Whispering Water Trail Calgary	Why are you not listening and answering to the multiple concerns for our community.
Jill	Kuntze		455 Whispering Water Trail Calgary	This project has escalated in price and land use area. We would like to know if you have have explored this project in the alternate location, and if you have, please present this current comparison including the impacted communities - both positive and negative.
Greg	Butterworth		303 Diamond Willow Pt	This is a poorly designed "solution". A dam at Maclean Creek is a better solution.
Colin	Anderson		15 Mountain Vista Estates, Calgary	I am deeply dissatisfied that public lands were not at least reasonably considered for this project. It would appear that the Province is afraid of its own shadow due to provincial and federal environmental law that essentially precludes the use of land that is more appropriate, does not generate revenue and is already publicly owned. Instead, a site with historical and aesthetic value is being bulldozed through. Ironically, the public that own the public lands are not served by them in any way. My other concerns include: Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Impact on natural springs which emerge 60m from my homes foundation.
Michele	Pankiw		181Springbank Hts Pl	This Project is displacing long time residents and farmland. There will be long term destruction of lands.

First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Terry	Dowsett		151 Lariat Loop, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.
Clayton	Tychkowsky		31058 Morgans View, Rocky View	Morgans Rise residents draw water from the Elbow River via Westridge and there are concerns raised by our hydrologist about cyanobacteria post-flood and general contamination of the aquifer. An air quality expert has identified that the Government projections on small, airborne PM2.5 particles is understated by a factor of 10.
William	Appleby		40 Morgans Ridge.	What a waste of good land!
Debbie	Tychkowsky		31058 Morgans View	My concerns are the same as the issues/concerns raised in the SR1 Project: Executive Summary ERSA.
Michelle	Hornung		24 Sterling Springs Cres	Air quality east of dam (schools, residents, and west Calgary after flood event as jet-stream heads east, water quality to drink, use for irrigation, and to 'play' in during summer months. The entire Elbow River, from Bragg eastward into Calgary parks, is used in the summer for swimming and other recreational activities where skin is submerged in the water and the water eventually flows into the Bow River.
Erykah	Bityutsky		Morgans Close	My concerns are about the air and water quality, the environment and wildlife.
Fraser	Skoreyko		115 Morgans Close SW Calgary	Water and air quality.
Wayne	Heppner		16 Morgans Ridge, Calgary, Alberta	Why is there no thought towards doing something other than making a dry hole, for 1 in 100 year flood? Make the project into a man made lake that can be partially drained in the later month of the year even in early spring before any main runoff happens. Build something that Springbank can be proud of and get behind and that can be used for sport and recreation activities. The cost would definitely be higher but when you have community behind it the money would come. Glenmore Reservoir is an example of this in a larger scale because the land formation.
Kym-Shae	Goerzen		244112 Range Road 34	I am concerned about harming the environment and wildlife. Is this a must? Did anyone consider a reservoir like Glenmore reservoir, it would benefit the residents of Springbank with rowing, yacht club etc.
Dean	Goerzen		244112 Range Road 34	This solution does not benefit Bragg Creek, it is expensive, and I have concerns with the environmental impacts.
Brenda	Glazer		32 Snowberry Gate	This is much too large a project. Multi-storey buildings in a beautiful rural area—are you kidding me?
Patrick	Kenny		11 Morgans Court SW	I have concerns about the air quality and the financial burden on Rocky View County. There are better options upstream.

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Larry	Horsman		3 Panorma Bay, Calgary, AB T2P 3E8	I have at least a dozen concerns with the proposed SR1 dam. It is the most poorly conceived and improperly conducted government proposal in the history of Alberta. It is a complete waste of taxpayers money. For less money the McLean Creek site is a far better choice of locations for a multitude of reasons. Premier Kenney would be well advised to put a stop to this debacle before it becomes an albatross for him to bear. The dam will likely fail. There is no precedent for an earthen dam to hold water to the extent the SR1 proponents erroneously claim it will. It will do nothing to assist the Calgary region with fire suppression. It will provide zero recreational opportunities. It will do nothing to assist in the long term storage of vital drinking water to Calgarians as early as 2035. A new U of C study indicates that the water flow in the Bow River (and very likely the Elbow River as well) is rapidly diminishing making the necessity for SR1 highly questionable.
Simone	Byers		178 Lariat Loop, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closure of Springbank Road during flood & associated detours, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, scope and cost increases, etc.), Uncertainty regarding the long-term impacts of the project on Springbank, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Lack of Maclean Creek consideration and the Elbow is a meandering stream which could mean the river is in an entirely different location 50 years from now. Very unhappy with the consultation process.
Barbara	Clarke		243199 Range Rd 31 A, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closure of Springbank Road during flood & associated detours, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, scope and cost increases, etc.), Uncertainty regarding the long-term impacts of the project on Springbank, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress. Not satisfied with the consultation process.
Clarence	Buckley		244191 Range Road 33, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closure of Springbank Road during flood & associated detours, elevation of Highway 22), Process Flaws (lack of consultation, scope and cost increases, etc.), Uncertainty regarding the long-term impacts of the project on Springbank, Project Risk (malfunction, failures, unexpected outcomes)
Lois	Torfason		244197 Range Road 33, Calgary, AB T3Z2E8	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closure of Springbank Road during flood & associated detours, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, scope and cost increases, etc.), Uncertainty regarding the long-term impacts of the project on Springbank, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Weed emergence after silting up. Not satisfied with the consultation process. They have zero interest in looking at alternative options. They continue to pursue this option in the face of all the negative information and concerns.

First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Kym	Goeezen		244112 RR 34, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.
Jan	Mulder		29 Cattail Run, Harmony, Rocky View County	Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows. Concerns that a berm is built on top of a Clay base which could fail when under stress. Push for the McClean Creek project.
Kathleen	O'Neill		450 Mountain View Park, Bragg Creek	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.
Don	Radford		39 Echlin Drive	Environmental Degradation - Loss of Grasslands, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows. Likely underway - benefit/cost analysis for McLean Creek dam. Useful for comparison with SR1. Initial decision is based on incomplete and biased input from researchers.
Nicole	Genereux		39 Sterling Springs Crescent, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.

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John	Lucey		167 Alandale Place, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.
Linda C	Lucey		167 Alandale Place SW, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows, why not use McLean Creek or one of the many other options?
Arnold	Henry		75 Lynx Lane RR2, Calgary	Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Kaitlynn	Copithorne		2530 16a Street NW, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Brian	Vicars		Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows

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Heather	Robinson		92 Tuscany Springs Circle, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows. A much better choice would be McLean Creek. It would also help with drought & fire. Instead of ruining beautiful land!
Marc	Hodgins			Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Laurie	Chessor		19 Bencroft Place	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Shirley	Weir		39 Yarrow Gate, Rocky View County	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Nelson	Weir		39 Yarrow Gate, Rocky View County	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows

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Shannon	Summers		540 Tuscany Springs Blvd, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows. Loss of homes and land to families who have enjoyed this land for many generations.
Richard	Scott		252148 2157 Dr W, Calgary	Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Project Risk (malfunction, failures, unexpected outcomes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows, Conversion of Private lands to Public, No evaluation of social or renewable energy included in the evaluation, no mitigation for emergency exit from West Bragg Creek. Also concerned about the social and environmental impacts CO2, renewable energy (dam on McClean creek), using AT as the developer (who built the Oldman dam), cradle to grave analysis.
Craig	Dolick		25165 Twp Rd 242, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows, Non-existent community discussion. Gov't Development Presentations were not in the spirit of discussion rather they were always "here's what we are building". A very forceful mandate to build right from the start. It has been horribly handled. Strong-arming like only a government can get away with. Shameful in this day.
Dave	Dueck		35 Idlewild, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.
Claudia	Weigelsberger		128 Swift Creek Cove, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows

First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Dr. Karen	Massey		1 Redwood Meadows Court	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows and the cost of this Project.
Candice	Davis		243225 Range Road 31A, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes)
Sherry	Hewitt		23 Crooked Pond Green, Rocky View County	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows, VERY concerned with downstream impacts; our community is first to be 'hit' with air blown filthy silt. We are directly next to this thing but it could impact all of Calgary, who knows? Consultation: I think they have bought people off. There is a massive lobby of Calgary river communities backing this ONE solution. McLean Creek dam is a much better option for ALL parties.
Ginny	Bannerman		39 Echlin Drive, Bragg Creek	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows, Concerned about future water reserves (for city of Calgary) and firefighting efforts. There were no consultation efforts made.
Shirley	Weir		39 Yarrow Gate, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Ryan	LeBoutillier		Calgary	Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows

First Name	Last Name	Legal Land Description	Address	What concerns do you have with the proposed Springbank Reservoir project? (Common concerns include safety, flooding, environmental etc.) Be as detailed as possible.
Don	Radford		39 Echlin Drive, Calgary	Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows. Besides highlighting the downsides to Springbank, showcase the alternative - McLean Creek economically and overall benefits to all with the Elbow River watershed. This was a bad initial decision that they are continuing to follow.
Lynn	Munro		40123 Taylor Terrace, Calgary	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Aesthetic and Tourism Impacts (8-story berm, silt accumulation, etc.), Process Flaws (lack of consultation, narrow criteria, scope and cost increases, etc.), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Project Risk (malfunction, failures, unexpected outcomes), Insect Activity During Reservoir Use (mosquitoes), Emergency Response and Egress, Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows
Keith	Robinson		244055 Range Road 35	Environmental Degradation - Loss of Grasslands, Environmental Degradation - Wildlife Impacts, Air Quality and Health (airborne particles from silt mobilization), Water Quality - Drinking Water Quality and Quantity, Water Quality - Impacts on Fish and Aquatic Ecosystem, Transportation Impacts (closures of Springbank Road, elevation of Highway 22), Uncertainty Regarding Long-term Impacts of the Project on the Local Area, Insect Activity During Reservoir Use (mosquitoes), Inadequate Flood Protection for Upstream Communities of Bragg Creek & Redwood Meadows.
Kacey	Klatt		23 Vantage Ridge Estate	Groundwater and well contamination are my main concerns.