

CanWhite Sands – Sand Processing Facility Environment Act Proposal – File No. 6057.00

Public Comments Received From:

The Powers Family

Bea Gunn

James Bennett

Tara Starr

Lawrence Michalchuk

Bruce Hobson

Paul & Cathleen Jensson

C. Hugh Arklie

Cynthia Foreman

Kyle Buck

Jim and Julie Hughes

Gérard & Louise Perrin

Eileen & John Wazny

Chantille Papko

Rick and Susanne Wastle and family

Carolyn Sherlock

Kathy Hughes

Brenda Pankratz

Don Sullivan

Chantal Smith

Pat Litwin Brown

Dusty Molinski

Meradith Anderson

Sarah Coss

Robin Hyszka

Debra Kelly

Tracey Demers

Ernie and Gail Hartje

Gerald Dufault

I wish to register my opposition to the proposed Vivian Sand Processing Facility. In short, this affects our well water and it's completely unacceptable. There are enough mines in Springfield already... this is where we draw the line.

The processing facility and sand extraction facility should be reviewed together rather than independently. The impacts of the processing facility cannot be properly assessed without including an assessment of the impacts of sand extraction, because the processing facility cannot operate without the sand extraction portion of this project.

The Environment Act Proposal submitted by CanWhite fails to properly address the cumulative impacts of this project on local groundwater. As per the previous point, the processing facility and sand extraction aspects of this project function in tandem, and so the effects of pumping thousands of litres of sand slurry from the ground must be assessed when determining the environmental impacts of this project.

The Environment Act Proposal is misleading with respect to the claim that there will be no truck traffic associated with the project. In the Proposal there is no information that supports that all sand can be delivered to the facility by portable pipeline over the 24-year life of the plant – therefore the assertion that there will be no truck traffic cannot be supported.

3 fully loaded freight trains will be added weekly to an already congested CN mainline. But this has been dismissed from the Environment Act Proposal and discussions with CN have not been finalized. If discussions fall through, truck transport is the only option. This increases risks for Silicosis and nuisance dust impacts.

The Environment Act Proposal states use of a flocculant material PAM- in their outdoor clarifier (settling/treatment pond). Polyacrylamide (PAM) is nontoxic but degrades with sun, acid and iron into a water-soluble acrylamide monomer, a cancer-causing neuro toxin that deforms fetus' at parts per

billion. https://www.gov.mb.ca/sd/pubs/water/drinking_water/final_factsheet_tce.pdf

The Facility is located in an area of sandy, porous soil. Some acid, acrylamide and heavy metals will seep into the aquifer just as occurred with a small surface spill of trichlorethylene in the 90's, contaminating all wells within 24 square kms, now called the Rockwood Sensitive area.

Removing the amount of water that 64,000 people would use every year for 24 years, is beyond the sustainable limit of the Winnipeg Formation. See Kennedy & Woodbury's 2005 Sustainability of the Bedrock Aquifer Systems in South Central Manitoba: Implications for Large Scale Modelling.

40% of the sand will be used for Fracking in the oil and gas industry. This prevents us reaching our emission reduction targets pledged under the Paris Agreement. see Appendix I of the EAP.

The Facility is near a network of historic cart trails leading to/from the area that served as a travel corridor for Past Peoples. Development within the area has the potential to impact heritage resources, therefore the Historic Resources Branch has concerns. Pg.14 appendix d to f of EAP.

The Environment Act Proposal provides no evidence to support their claim that property values will not suffer under their Facility that increases rail and truck traffic, noise and light pollution, increased risks to groundwater and Silica related diseases, 24/7.

In closing, the effects of CanWhite Sands plans are of such a magnitude and will generate far too many environmental, socioeconomic and health issues and allowing these plans to be divided

has produced an incomplete and incomprehensible Environment Act Proposal. Full impacts of the project cannot be properly assessed.

I would ask that you carefully consider all the objections you are receiving and DENY CanWhite Sands application File: 6057.00.

Sincerely,

The Powers Family

Our environment cannot be subjected to this sand mining project. The Broken head river, the aquifer, lake Winnipeg and the people of south eastern Manitoba cannot withstand the effects of such a scheme. Short term profits/long term damage to the environment is unacceptable.

James Bennett
Winnipeg Beach

If you call yourself an Environmental Engineer and accept the damage created by Canwhite Sands to contaminate our aquifer for so many municipalities you truly are a puppet for the government and big business - money money - money foregoing the health of constituents in these respective RMs.

If silica sand dust is a cousin to asbestos I can personally give you from personal experience that my boss died horribly from it and I to have had exposure to asbestos maybe too many times back in the 1970s and 80s.

With all of the opposition including qualified comments by qualified people on the subject What Do You Not Understand ?

Hope to hear from you soon.

Lawrence Michalchuk

I would like to express my deep concern about CanWhiteSands Corp.'s plan to build a sand-processing plant at its Vivian, Mb. Sand mine near Anola, Mb. in the RM of Springfield. Fresh, clean water sources are one of our most valuable resources and must be protected. Once damage occurs it will not be "minimal or mitigable." The potential and irreversible damage to this precious aquifer as explained in the Free Press article from August 14 - A4 Sand Plant threatens drinking water" is very concerning to all Manitobans.

I strongly request a Clean Environment Commission review be undertaken promptly.

Thank you for your attention to this serious concern.

Bruce Hobson

As residents of the RM of Springfield we would like to voice our objection to the processing plant.

The danger to the water aquifer is too great a risk for ourselves and future generations. Hoping the province will value the residences concerns when making their decision.

Thank you

Paul & Cathleen Jensson

Any day now, the CanWhite Sands shoe will drop. This massively risky environmental experiment with the best ground water on the planet will, tragically, be proposed as a Class 2 Development under The Environment Act.

This abomination should be raised to Class 3 forthwith, the CEC engaged and intervenor funding paid by CanWhite Sands. Furthermore, you should refuse to consider licensing CanWhite's silica processing plant before assessing it's borehole mining for sand through our water. Anything less is an abrogation of your duties. It is also cowardly and unscientific.

Yours truly,

C. Hugh Arklie

All Manitobans will be affected by this project not just those living in the immediate area.

I urge you to do your diligence in consulting Brokenhead FN in a legitimate way concerning potential impacts on their land and water.

I urge you to ask CanWhite for a full description of their project and not just piece meal portions that do not show the potential full impact of this project.

We cannot let any company much less an out of province company impact our waterways fisheries and land. We will not be able to repair the potential damage that could result and Manitobans will pay for generations if the waterways fisheries and land are impacted. It is not worth the price.

Do not let the lure of big money override our need to protect our environment!

Cynthia Foreman

my name is Kyle Buck and I am a new resident of Vivian, MB. I am writing to voice my concern about the project, as I'm sure you've received many emails already. With this project going up only half a km into the bush from our town, we all suffer from this. I bought in Vivian to invest in my first property, I believe my investment may be worth nothing, along with some other young residents here who think the same. This plant is going to cause more traffic, more trains than there are already, damage to our water system and damage to our air quality. There was already

kids riding quads on uncovered silica piles which is obviously not good to breathe in, which were left by Can White on land near the town. They knew they were supposed to cover or remove them, but they never did and there was no gates or fences to keep kids out. I've seen the water run off from black island after one of Can Whites projects was finished there, it's terrifying. No one is Springfield wants this near our land.

Thank you for reading.

I am strongly opposed Canwhite Sands Corp constructing a processing facility in the RM of Springfield near Vivian. I live a mile from the proposed site and do not want silica sand anywhere near. It is not good for the environment and definitely not good for me or anyone in the are to breath in. Our water system is and has been good for decades and I would not like to see that change because of this Co. drilling and possibly contaminating our water system. Please do not allow this project to move forward. Our family has lived in this area for over 100 years and would like our future family to enjoy what we have for all those years.

Strongly oppose.

Jim and Julie Hughes

I am right behind resident Tangi Bell about her concerns with the proposed sand-processing plant The CanWhite Sands Corp.'s project to extract tons of sand a year from the ground for profit by using the frack sand mining process. We here in Manitoba are very lucky to have high quality water and I do not believe that Manitobans should be put at risk losing this God given gift of good clean water in order to benefit CanWhite Sands Corp. Once the damage is done, there is no going back. Water is human's first and foremost the most essential indispensable for life. No one should play God with this. Let us also think of our kids and grandkids and all the future generations that we may be putting at risk.

I truly believe that if necessary, people should join in like the Indegenuous people have done for many different environmental differences and blockade this company.

I am very concerned and so is my husband about the project that this company wants to do and we are truly against it. Without good, clean water we are done.

Please keep on putting the pressure on the Clean Environment Commission so that they properly do this job and are not influenced by big companies that will do anything for a profit.

Sincerely,

Concerned taxpayers,

Gérard & Louise Perrin

With regards to the CANWHITE SANDS CORP. - VIVIAN SAND PROCESSING FACILITY- FILE: 6057.00; NOT ACCEPTABLE IN ANY WAY! The information that is required; in order to understand the above-mentioned file, takes more than just reading this file. The research that has to go into understanding this file; takes us more than a few years! Independent Engineers, Scientists, etc.; have to be consulted. Has it been proven that silica sand is cancerous? Will silica sand harm the respiratory system in humans or animals? The aquifer is at the surface; will the water quality be destroyed or changed in any way? Will Quality of Life change?

COVID-19, during this pandemic; it is definitely unacceptable, for this project to proceed!

Eileen & John Wazny

I'm writing in regards to my great concern with the proposed frack sand mining near Anola. I live near this area and I do not want this project to go forward. The scientific evidence says this project will have serious damage to the environment and drinking water in the area. There are many young families living in this region who could be severely affected by this toxic process.

It is time for this government to care more about the long term effects on our environment as opposed to the short term financial gains.

Thank you,

Chantille Papko

We are worried about the impacts of a mining operation such as the one proposed. We are worried about what it will do to the environment, both above and below ground level: the air, the water, the soil and the underground structure of the area.

Living south-east of Anola and driving down Centre Line Road towards Hwy 302, we have seen the silica "hills" left at the test site and are alarmed at the extent of what has already been brought to the surface before the extraction proposal has even been submitted.

Please do not let this company come here and mine for silica sand. The potential negative environmental impacts are frightening, destructive and irreversible.

Sincerely,

Rick and Susanne Wastle and family

I am against having any company, including CanWhite Sands Corp, be able to contaminate a Manitoba aquifer. I live in the RM of Springfield and my private well could be adversely

contaminated by this Company's actions, with no remedy if it does happen. No business is worth that risk.

Sincerely

Carolyn Sherlock

Just a quick note to say we are totally against a silica sand facility opening up only one mile from our house. We know our air quality and water will be drastically affected. Please DO NOT allow this to happen.

Kathy Hughes

Please see below,

BELOW IS A PRELIMINARY ASSESSMENT BY DENNIS LENEVEU - WHAT THE FRACK MANITOBA'S SCIENCE PERSON - ON THE IMPACTS ASSOCIATED WITH CANWHITE SANDS CORP SILICA SAND MINE AND PROCESSING FACILITY TO BE LOCATED NEAR VIVIAN IN SOUTHEASTERN MANITOBA. PUBLIC COMMENTS OF CANWHITE SANDS CORP ENVIRONMENT ACT PROPOSAL PUBLIC REGISTRY #5067.00

There are many issues associated with this Project

The water consumption of this Project is almost entirely from the extracting sand from the aquifer by solution mining. The sand is pumped out of the sandstone aquifer of Winnipeg formation that underlies all of southeastern Manitoba. On top of the sandstone aquifer separated by a layer of shale is the carbonate aquifer. These two aquifers supply all the drinking and industrial water for all of southeast Manitoba.

According to the CanWhite EAP the sand is extracted in a slurry that is 15% sand solid. The remainder is water from the sandstone aquifer. CanWhite plans to extract 1.36 million tonnes of sand per year from the aquifer. The amount of water withdrawn from the sandstone aquifer will be $1.36 \times 0.85 / 0.15 = 7.7$ million tonnes of water. The density of water is 1 tonne per cubic meter. Thus there will be 7.7 million cubic meters of water withdrawn per year from the aquifer. To put that in perspective the average Canadian uses 329 litres of water a day. 7.7 million cubic meters will serve 64121 people. The processing CanWhite plant area near Vivian is 17 hectares according to the EAP. 7.7 million litres will cover 17 hectares to a depth of 45 meters. The water from the sand slurry will be used in the wash plant. The excess water is spun off in a cyclone system. The remaining sand is 15% water. A tiny fraction of the excess water will be used to fill the vessels of the wash plant. 6.5 million cubic meters of water must be discharged from the wash plant per year. The drainage is from Vivian toward the BrokenHead River 3 km to the east. The only sensible way to handle this much water is to excavate a drain from the wet plant to the BrokenHead River. Without a drain there will be overflow of ditches and local flooding. The EAP does not mention the 6.5 million cubic meters of excess water per year..

Also the sand slurry must be pumped from the extraction locals to the wet plant. The sand will

be extracted using hundreds of boreholes drilled through the carbonate aquifer and the shale layer into the sandstone aquifer. After sand withdrawal leaving a cavity the boreholes are sealed. Improper sealing of these boreholes can lead to contamination of the aquifers from bacteria in surface waters from septic fields and livestock manure. This is a particular problem during heavy rains. Boreholes drilled last year by CanWhite near Vivian clearly were not sealed external to the borehole casing. One extraction site is on Centre Line Road some 10 km south of Vivian. Some extraction will be closer near Vivian. Right of ways for the water pipelines over private and crown land must be obtained. If the pipes leak or burst there will be local land flooding.

The huge amount of water withdrawn will be beyond the sustainable yield of the aquifer according to a 2005 report from Woodbury and Kennedy - hydrogeologists from the U of M. <https://www.tandfonline.com/doi/pdf/10.4296/cwrj3004281> This is not a maybe. This is a certainty.

In addition we have evidence the extraction method using pressurized air will compromise the shale layer separating the carbonate and sandstone aquifers. Shale fragments were clearly visible within the sand piles extracted last year by CanWhite near Vivian and at the Centre line road site. The carbonate (limestone) will likely collapse into the cavities in the Winnipeg formation left by the sand extraction.

Both aquifers will be compromised by the extraction. This will affect the entire population of southeast Manitoba who depend on this water for drinking and industrial use.

Along with the shale that is brought up by extraction, oolite nodules are extracted. The oolite nodules look like eggs, Shale fragments and oolite nodules were clearly visible in the sand piles left exposed by CanWhite at Vivian. Both the oolite and the shale contain iron pyrite that generates acid when brought to the surface and exposed to air and water. The sand reject piles at the processing plant will be full of acid generating shale and oolite. We have laboratory results from ALS - an accredited environmental Lab in Vancouver that the CanWhite sand itself is full of iron sulphide that is acid generating. Microscope pictures of sand from the same deposit in Wanipigow from the NI43-101 2014 technical report show the sand is coated with marcasite a form of white iron pyrite that is acid generating. The ALS laboratory report results show that 1.36 million tonnes of sand have the potential to generate 800 tonnes of sulphuric acid per year from acid leaching. Stockpiled sand at the wash plant will generate acid from the marcasite unless the marcasite is removed in the wash plant by special reagents. Then the marcasite will be in the filtered out sand reject pile where it will also generate acid. Acid will mobilize heavy metals in the sand.

In the Wanipigow licence for the frac sand operation, pyritic shale could not be left exposed on the surface. The remedy was to bury it in clay lined pits. Similarly stockpiles of sand and sand rejects containing marcasite, shale and oolite cannot be allowed. This should be a show stopper for this entire operation.

According to the ALS lab results the sand contains many heavy metals that will be mobilized by acid leaching including 0.47% iron 0.9 ppm arsenic 10 ppm barium 47 ppm manganese.

Some acid and its heavy metal load will eventually be discharged into the BrokenHead River. This will have unknown detrimental effects of water quality and fish populations.

The potential detrimental effects of this Project are enormous. The entire aquifer for southeast Manitoba can be destroyed by surface contamination from hundreds of boreholes, from excess drawdown of 7.7 million cubic meters of water per year, from collapse of limestone into the

sandstone destroying aquifer separation. Localized flooding from the slurry pipes of water laden with sand can be expected to occur.

Acid leaching from the shale, oolite and marcasite in the sand itself will pollute surface waters and likely the BrokenHead River. Acid drainage from mine sites is a huge problem in the mining industry. Nothing will grow in acid contaminated surface water. It creates a waste land. The Province already spends millions per year to reclaim old mines sites and mine tailings leaching acid.

CanWhite has not filed a mine closure report as required by the Mines Act prior to advanced exploration work that CanWhite undertook last year by drilling boreholes extracting hundreds of sand for analysis. CanWhite has not posted financial security as required by the Act. The Act is not being enforced. If CanWhite abandons the project for financial reasons the province will be left holding the liability for the abandoned plant site and acid generating stockpiles and hundreds of improperly or unsealed boreholes. .

Then there is the silica dust problem. Yes there are fine particles less than 100 microns in the sand despite assurances by Brent Bullen that there will be no fines. The EAP documents the fines.. The fines will be extracted in the wash plant and pressed into filter cakes stored indoors for unidentified markets. Not all the fines will be extracted. Some will remain in the sand stockpiles that will be 15% moisture that will supposedly prevent dust. The sand stockpiles will be only a certain maximum height to wet sand cannot be continually added to the top. The sand piles can dry out to less than 15% moisture.

Aslos this statement is made in the EAP

"In the final stage before storage, sand will pass through a quality control screen to remove any over/fines remaining which will be stockpiled outdoors."

So some fines will be stockpiled outdoors

Another source of fines is in the bag house of the dry plant. The EAP says

"Fines collected in the baghouse will be removed regularly by trained individuals with proper personal protective equipment, stored safely in appropriate containment and disposed of in accordance with applicable regulations."

So fines from the baghouse will be disposed of? Where? How - without generating dust? If there is a market for fines why are they being disposed of?

So yes Virginia there is a silica dust problem. It is not like beach sand as stated by Brent Bullen. Fines do exist and have to be handled properly to prevent exposure to silica dust.

Residents are very close to the plant. there will be enormous stockpiles as shown in the EAP.

There will be some residual silica fines in the stockpiles and outdoor stockpiles of concentrated fines. The EAP does not specify real time air monitors for silica dust. The residents nearby are in danger.

The market for frac sand has collapsed. CanWhite now claims their market will be for high purity silica for use in solar panels, electronics and other uses. They give no market analysis of financial analysis in the EAP. Large existing high purity silica mines and processing plants have been idled in Wisconsin by the collapse in face sand prices. Some of these operations such as at Rockwood Wi. already serve the high purity silica market. It is very unlikely that Canwhite can compete with already established processing silica plants that have an excess capacity and are closer to a port than Vivian. Most of the high purity market is in Asia. It is very likely that CanWhite will use an approved plant licence as means to secure more investment in an unviable operation that will

have to be abandoned leaving the province with huge unsecured liabilities

The nightmare continues. CanWhite plans to get MB Hydro to extend a natural gas line to Vivian because drying sand by natural gas is cheaper than propane. Who will pay for the large capital investment to extend the gas line? Certainly not CanWhite. Normally the PUB has hearings for gas line extension and the municipality is required to put up upfront cash to fund the infrastructure based on a present value calculation. The Pallister government has apparently sidelined the role of the PUB in this. In any case it is the public through rate increases or local tax increase (if the municipality has to put up money) who will pay for the line extension not CanWhite.

This Project is in all likelihood not financially viable. The developers will be flush from all their salaries and fees extracted and will walk away leaving the investors and the taxpayer holding the liabilities.

What will be the potential stranded liabilities?

Kilometres of abandoned slurry pipes

Hundreds of abandoned improperly sealed boreholes penetrating both aquifers

Hectares of disturbed land where hundreds of boreholes have been drilled

Abandoned processing plant buildings

Huge stockpiles of abandoned sand and sand rejects dispersing silica dust and leaching acid and heavy metals

Two contaminated aquifers that will affect all residents of southeast Manitoba

Sinkholes filled with fetid water from collapsed voids in the sandstone aquifer

Moonscape of orange coloured water where nothing will grow from the acid drainage similar to what is visible at the abandoned quarry site on Black Island.

Destroyed fish habitat in the BrokenHead River.

An abandoned drainage ditch to the Brokenhead River?

Can anyone please explain what will be the benefits of this horrendous boondoggle? A handful of jobs? that will likely never materialize

TANDFONLINE.COM

Brenda Pankratz

Massive Silica Sand Mine Proposed
for Southeastern Manitoba

By Don Sullivan – July 21, 2020

CanWhite Sands Corp. ("CWS"), an Alberta based company, is the latest company proposing to get into the silica sand mining business in Manitoba.

CWS has already acquired the Mineral Rights to some 87,000 hectares of land in Southeastern Manitoba and is proposing to extract between 1.3 million tonnes of silica sand a year. CWS also plans on constructing a processing plant and rail transload facility in Vivian, Manitoba to move the processed frac sand by rail to markets throughout North America. CWS has stated this high purity silica sand in Southwestern Manitoba will be used for many commercial applications, but the primary use of high grade silica sand these days is used in

fracking for oil and gas and CWS admitted that this was their primary market for their silica sand in an Investors Presentation in January of 2019. Each fracking well uses on average approximately 8 million pounds of silica sand per well head.

Why CWS is pursuing this proposed development project at this time, when shale oil and gas exploration has all but dried up resulting in a huge glut of processed high grade silica frac sand sitting idle in a number of well established frac sand mine operations in the USA, is beyond me. I am assuming the people behind CWS are predicting an uptick in the frac sand market in the next few years, but many experts in the field do not share the same optimistic outlook.

If CWS is successful, in getting to the production phase of their proposed frac sand mine and processing facility, they will face very stiff competition from a number of existing highly integrated operations in the US, that already control nearly 70 percent of the frac sand market in North America.

On top of poor market conditions, CWS will still need to raise at least 100 million dollars in capital, and possibly more, to get their proposed project to production. Given that there is very little appetite for frac sand in the marketplace right now, I suspect CWS will be hard pressed to find potential investors, with deep enough pockets, who want to invest in such a risky venture at this time.

In fact, the potential investors that CWS has been able to convince to give this proposed development project an initial sniff, have insisted that certain bench marks must first be met by CWS before even considering the idea of investing in this proposed development project.

These bench marks, set by potential investors, include the production of technical reports and feasibility studies, none of which have been produced by CWS to date.

Putting the poor economics of such a project aside, there are a number of possible environmental and health issues that will need to be addressed that are already being raised by a group of alarmed citizens living in the region.

The first issue is a health related concern for workers who may become employees of CWS and those living near the proposed mine and processing facility may face. Long term exposure to fine particulates of silica sand can lead to silicosis, a very debilitating lung disease with no cure, children and seniors are more susceptible to this than are other age demographics.

Another huge issue, impacting a far greater number of residents living in the region, is the likelihood of this proposed development project having negative and lasting consequences to the entire under water aquifer that is relied upon for potable water in the region.

The method that CWS hopes to employ, and get Provincial approval for, to extract the silica sand is an unproven technique in the silica sand mining industry.

CWS wants to drill some 100 bore holes a year, over the life span of the entire project, at a depth of 200 feet, and then stick a pipe down these bore holes and shoot compressed air to create a sand slurry, which then can be sucked up to the surface through the same bore hole.

The problem with this unproven technique is that what is left behind, once the silica sand has been extracted, is a series of underground voids or caverns that could very well collapse in on themselves by the weight of the surface sitting atop of these series of voids. Sand is not exactly a very stable substance. This in turn means those voids could collapse into the aquifer, commonly referred to as the Winnipeg Formation.

CWS indicates the the life of the proposed development is 24 years, that means literally thousands of these voids will be created, as well as thousands of bore holes. Under the Manitoba

Mining Act there is no requirement for CWS to seal these bore holes with grout, as is the case for water wells that have been abandoned. Thus surface water run-off can leach into these bore holes and contaminate the under ground aquifer that those living in Southeastern Manitoba depend on for their sole source of potable water.

Finally, the method used in the processing of the silica sand, so it is market ready, requires enormous volumes of water annually and how this will effect the sustainable recharge rate of this aquifer is anyone's guess right now. The Province does not analyze nor do they collect accurate data on the cumulative annual use of water from this aquifer on a region wide basis. In addition, there are a great number of other parties drawing water from this same aquifer throughout Southeastern Manitoba on an annual basis.

This is where it gets real interesting, the Pallister government allowed CWS on July 16, 2020 to submit an Environment Act Proposal ("EAP") for its processing plant first for approval under the Act and then will allow CWS to submit a separate second EAP for the silica sand mine and the method they wish to use to extract the silica sand later. If this is not putting the cart before the horse, I do not know what is.

It also seems, once again, as was the case with Canadian Premium Sand frac sand mine, that CWS is trying to leverage the approval of an Manitoba Environment Licence for its processing facility as a means of obtaining much needed start-up capital from potential investors, as CanWhite Sands Corp can promote to potential investors, when CanWhite receives environmental approval of its processing facility from the Manitoba government, that they now have the green light to go in terms of regulatory hurdles, now all they needs is for potential investors to get on board.

This proposed development project needs to be reviewed and assessed for all its impacts under one assessment process under the Act and realistically it should be a public review process undertaken by the Clean Environment Commission, where independent experts can be brought in to scrutinize all the information provided by CWS respecting this proposed development project.

Don Sullivan is the former director of the Boreal Forest Network and served as special adviser to the government of Manitoba on the Pimachiowin Aki UNESCO World Heritage site portfolio. He is a research affiliate with the Canadian Centre for Policy Alternatives and a Queen Golden Jubilee medal recipient.

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thousands of litres of sand slurry from the ground must be assessed when determining the environmental impacts of this project.

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Removing the amount of water that 64,000 people would use every year for 24 years, is beyond the sustainable limit of the Winnipeg Formation. See Kennedy & Woodbury's 2005 Sustainability of the Bedrock Aquifer Systems in South Central Manitoba: Implications for Large Scale Modelling.

40% of the sand will be used for Fracking in the oil and gas industry. This prevents us reaching our emission reduction targets pledged under the Paris Agreement. see Appendix I of the EAP.

The Facility is near a network of historic cart trails leading to/from the area that served as a travel corridor for Past Peoples. Development within the area has the potential to impact heritage resources, therefore the Historic Resources Branch has concerns. Pg.14 appendix d to f of EAP.

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I would ask that you carefully consider all the objections you are receiving and deny CanWhite Sands application File: 6057.00.

Sincerely,

Chantal Smith

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The Environment Act Proposal is misleading with respect to the claim that there will be no truck traffic associated with the project. In the Proposal there is no information that supports that all sand can be delivered to the facility by portable pipeline over the 24-year life of the plant – therefore the assertion that there will be no truck traffic cannot be supported.

3 fully loaded freight trains will be added weekly to an already congested CN mainline. But this has been dismissed from the Environment Act Proposal and discussions with CN have not been finalized. If discussions fall through, truck transport is the only option. This increases risks for Silicosis and nuisance dust impacts.

The Environment Act Proposal states use of a flocculant material PAM- in their outdoor clarifier (settling/treatment pond). Polyacrylamide (PAM) is nontoxic but degrades with sun, acid and iron into a water-soluble acrylamide monomer, a cancer-causing neuro toxin that deforms fetus' at parts per billion. [https://www.gov.mb.ca/sd/pubs/water/drinking water/final_factsheet_tce.pdf](https://www.gov.mb.ca/sd/pubs/water/drinking_water/final_factsheet_tce.pdf)

The Facility is located in an area of sandy, porous soil. Some acid, acrylamide and heavy metals will seep into the aquifer just as occurred with a small surface spill of trichlorethylene in the 90's, contaminating all wells within 24 square kms, now called the Rockwood Sensitive area.

Removing the amount of water that 64,000 people would use every year for 24 years, is beyond the sustainable limit of the Winnipeg Formation. See Kennedy & Woodbury's 2005 Sustainability of the Bedrock Aquifer Systems in South Central Manitoba: Implications for Large Scale Modelling.

40% of the sand will be used for Fracking in the oil and gas industry. This prevents us reaching our emission reduction targets pledged under the Paris Agreement. see Appendix I of the EAP.

The Facility is near a network of historic cart trails leading to/from the area that served as a travel corridor for Past Peoples. Development within the area has the potential to impact heritage resources, therefore the Historic Resources Branch has concerns. Pg.14 appendix d to f of EAP.

The Environment Act Proposal provides no evidence to support their claim that property values will not suffer under their Facility that increases rail and truck traffic, noise and light pollution, increased risks to groundwater and Silica related diseases, 24/7.

In closing, the effects of CanWhite Sands plans are of such a magnitude and will generate far too many environmental, socioeconomic and health issues and allowing these plans to be divided has produced an incomplete and incomprehensible Environment Act Proposal. Full impacts of the project cannot be properly assessed.

I would ask that you carefully consider all the objections you are receiving and deny CanWhite Sands application File: 6057.00.

Sincerely,

Pat Litwin Brown

I am writing to submit my comments as they relate to the CanWhite Sands - Vivian Sand Processing Facility.

My comments relate to the potential for impacts to water resources in the area, particularly the Brokenhead River and the aquifer. In the case of the facility, there is the potential for the creation of water of an unsuitable quality (such as being highly acidic or laden with heavy metals).

Environment Act Proposal - Part 1, section 2.1.1 describes a closed loop-type system, with excess processing water stored in an on-site surface tank. Figure 2-1 also shows no drainage of water from the site.

My primary concern is that production or operation (such as yearly maintenance) will mean water (of an unsuitable quality) will be created that is beyond the capacity of the holding tanks on-site described above and that this excess water will be released into the watershed via the existing drainage network to the Brokenhead River and the aquifer.

I want to see that mitigation of contaminated waters possibly leaving the facility site and entering the watershed is undertaken.

Dusty Molinski

THIS MUST STOP NOW!!!!!!!!!!!!!!!!!!!!!!

Stop the Silica Sand processing Facility in Vivian Manitoba.

I live in Vivian, Manitoba with my young daughter and husband.

It will be devastating to the environment in Vivian, surrounding area and anywhere the Brokenhead river flows.

It will create at the very least 3 very serious problems:

1. Destroying and contaminating the aquifer that provides water to the nearby communities. I'm worried our well will be affected and no town water to fall back onto.
2. Breathing in the silica dust which can cause silicosis an incurable and deadly lung disease. I'm worried about our 8 yr old daughter and the effects on her lungs. I also suffer from Multiple Sclerosis and already have a compromised immune system.
3. Implications of the area where its going to Drain on the Brokenhead River and the damage it's done to previous sites example.. Black Island shores.

Madame Winsor would you like to live across the street from this? I already do. What am I supposed to do now?

How about all the people that will be affected in this community as well as the surrounding areas by this very bad business deal?

What about their rights to clean water and air?

Our government needs to stop being reckless with our environment!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Sincerely

Meradith Anderson

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1. Destroying and contaminating the aquifer[that provide water to the nearby communities]
2. Breathing in the silica dust[which can cause silicosis an incurable and deadly lung disease]
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Madame Wnsor would you like to live across the street from this?

How about all the people that will be affected in this community as well as the surrounding areas by this very bad business deal?

What about their rights to clean water and air?

Our government needs to stop being reckless with our environment!!!!!!!!!!!!!!!!!!!!!!

Sincerely

Sarah Coss

I am a longtime resident of the RM of Springfield, by Anola. I've been reading about the issues with the water systems after a plant of this type is operating and have concerns that this would negatively effect our well water.

We also enjoy fishing in the Brokenhead River.

Please consider the effects on the people that love, and enjoy living in this part of our beautiful province.

Regards,

Robin Hyszka

Please prevent this silica mine proposal to dump waste into the Brokenhead River. There are many homes and cottages , campgrounds, that are along the River. I have enjoyed swimming in the river for over 40 years as my grandfather and mother had cottages there.I am Hoping to purchase a property to enjoy with my grandchildren. There are fish turtles and crayfish and birds that rely on this river. It's a river that people tube on and swim in.

It will also affect Lake Winnipeg which is Grand Beach , Gimli, Victoria beach, Beconia beach, Patricia, Hilltop etc. This will affect tourism and all the benefits to locals. Please Don't allow The silica mine to operate. The proposal is by an Ontario resident who will not be affected by this. It's all about money. These water systems cannot be polluted . Please hear my plea. I have included my name on the petition.

Sincerely

Debra Kelly

I am contacting you in opposition to this environmental & human contamination project. The Brokenhead River is an essential part of our community. It is lined by residential homes, farms & Is a recreational playground all year round.

To allow toxic waste into our already overburdened eco system, would be a criminal act. The domino effect it would have on its connecting waterways, would ultimately be the destruction of

our ecosystems and a hazardous, life threatening, human health risk. To even consider adding further health impacts, to our already struggling planet, that is trying to survive a pandemic would be a heinous act. This project must be refused any allowance. Protecting lives, our communities & ensuring our water & environment is sustained for future generations is the priority. Not profit over lives.

Sincerely,

Tracey Demers

..... I would like to voice my opinion on the CWS corp project in Vivian MB...Silica is very dangerous if it gets into your lungs. It will slowly kill you....That is happening now and will probably be floating in the air when they get a full production going....They have test areas Off Hwy 302 south that there is a couple piles of Silica that is not covered...The sand is very dry and the wind is blowing that fine sand in the area.....They also have drilled many well holes in our aquifer and have not capped those...Our water is in jeopardy...Once contaminated there is no fixing it .Apparently they will be drilling hundreds of wells when they are in full production using our drinking water to bring that sand up....Please do not give them a license to do this....Our property values will go down as well but i think the most important thing is our health and the health of our children is more important as well as our water...Thank you for listening...

Ernie and Gail Hartje

40% of the sand will be used for Fracking in the oil and gas industry. This prevents us reaching our emission reduction targets pledged under the Paris Agreement. see Appendix I of the EAP.

The Facility is near a network of historic cart trails leading to/from the area that served as a travel corridor for Past Peoples. Development within the area has the potential to impact heritage resources, therefore the Historic Resources Branch has concerns. Pg.14 appendix d to f of EAP.

The Environment Act Proposal provides no evidence to support their claim that property values will not suffer under their Facility that will increase rail and truck traffic, noise and light pollution, increased risks to groundwater and Silica related diseases, and operate 24/7.

In closing, the effects of CanWhite Sands Corp. plans are of such a magnitude and will generate far too many environmental, socioeconomic and health issues and allowing these plans to be divided has produced an incomplete and incomprehensible Environment Act Proposal. Full impacts of the project cannot be properly assessed.

I would ask that you carefully consider all the objections you are receiving and deny CanWhite Sands Corp. – Vivian Sands Processing Facility - File: 6057.00.

Sincerely,

Gail & Ernie Hartje



Why would we risk contaminating a huge pristine water supply for the short term benefit of only a few people, most of them out-of-province residents who don't have an investment in the long term future of our communities? And all that for the oil industry?

For example, my family and friends are regular consumers of premium quality Arctic Char, raised by an Aqua Culture business in Dugald, Manitoba. The char requires no antibiotics and they do not use growth hormones. It is an organic product because they use fresh cold water from the aquifer that lies below the same area as Vivian. This char is used in many of the best restaurants in Winnipeg and is also exported elsewhere.

In addition to the threat to the aquifer, there is also a perceived threat of more contamination of Lake Winnipeg and therefore to the pickerel fishery.

These two types of fish are an important part of our diet and the food supply of future generations. Would you have us depend on non-organic fish products from Asia and the fish farms of the east and west coasts?

The natural spring water in that area which is bottled by Jackson Springs has won the gold medal (The Best in The World) by the Berkely Springs International Water Tasting Competition. If 3.7 million cu/metres of water are used by Can White yearly, at \$5 for a one litre bottle, that amounts to a staggering \$19.25 Billion every year. Why would we subsidize the oil industry with it?

Fresh water is the most important resource on earth and food is the second. Hundreds of millions of people in the world face water shortages already and it is becoming a serious problem in the United States. The fact that Can White would have to finance closing the mine if it doesn't work out is irrelevant! The damage would not be undone. It has taken 13,000 years to produce that pool of water and once it is spoiled, it is essentially gone for good. Our province needs a better vision than that, for sure.

If the Environmental process is being short circuited or at all compromised, it is because the applicant is hiding the dark side of this proposal. I demand nothing less than a full Federal/Provincial assessment of this project.

Thank You,

Gerald Dufault

Please don't allow Manitoba Waters to be poisoned by CanWhite Sands planned mining project. Please tell CanWhite that they Cannot.

Bea Gunn

My name is Tara, I am writing on behalf of Brokenhead community as the concerned public from a neighbouring community of Black River First Nation.

I am against in letting the Alberta company work on the silica mine and dumping in the Brokenhead Wetlands River. They are one of the most concerned and environmental

communities. As an indigenous individual I am determined to keep our rural lands and communities safe and clean for everyone and future generations.

I was also against in the silica sand mine set up in Hollow Water and unfortunately they were granted access to do this work.

My question to you, the Alberta mining company and the province of Manitoba.

Why ruin or our lands and put our communities at risk of toxicity?

The crown of Canada has forced us to live upon these lands on reservations, and now want to put many peoples well beings, lives and safety at risk.

Why can't this be set up someplace elsewhere, closer to populated and diverse areas, like southern manitoba?

Keep our waters clean!

-Tara Starr
