

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

**Public Comments Received From:**

Don Sullivan

Rhian Brynjolson

Erin Dolinski

Samantha Machado

Rick Morrison

Douglas Takacs

Kelly Shymko

Stephanie Robinson

Shaun Rempel

Monica Novotny

Claudia Gonzalez

Dennis LeNeveu

Cynthia Kowal

No name given

Kirstie Brooks

Anne Wowchuk

Anessa Maize

Victor Andres

Ross Brownlee

Natalie Leonard

Sam Posnick

Joe Dudych

Leanne Landriault

Shar Lynn

Laurie Marcella

El Plotkin

Kyle Sierens

Maureen Ferley

Natalie Normandeau

Stephen Berg

Tannis Zimmer

Nancy Hall

Kati Nagy

Derek Yarnell

Patrick Moore

## Brokenhead River in Manitoba Could Become A Toxic Nightmare with the Proposed Vivian Silica Sand Project

Dennis LeNeveu - What The Frack Manitoba Science Researcher - has provided below a detailed analysis on the potential impacts to the Brokenhead River.

The sand at Wanipigow was tested for acid production potential in 2014 in the The Claim Post NI 43-101 technical report. The lab certified acid potential of the sand is 2 tonnes of acid per 1000 tonnes of sand. The acid comes from pyrite in the sand that when exposed to air and moisture generates acid. CanWhite plans to pump sand from the same formation as Wanipigow by solution mining. In 2018 and early 2019 CanWhite brought up big piles of the sand from about 200 feet below the surface near Vivian by exploration solution mining. The piles of sand were left exposed on the surface. Concerned citizens near Vivian gathered samples and had the sand tested by an independent certified lab. Even though the sand had been leaching from exposure to air and rainfall for about a year the certified lab test showed about 1/3 the acid generation potential as Wanipigow sand. The test also revealed after a year of leaching the sand still contained 0.47% iron, 0.9 ppm arsenic, 10 ppm barium, 5 ppm chromium and other heavy metals. We know from the CanWhite EAP the sand slurry at Vivian will be 85% water. This allows us to estimate the pH (acid strength) of the water in the wash plant where all of the pyrite is washed off the sand and will form acid. The pH estimate is 2.44. This is a very strong acid. This acid will leach the heavy metals out of the sand.

It gets worse. Along with the sand large amounts of shale fragments are brought up with the sand. The shale fragments were clearly visible in the sand brought to the surface in exploratory drilling. This shale is known to contain arsenic and pyrite.

[http://www.manitoba.ca/sd/waterstewardship/reports/groundwater/quality/distribution\\_trace\\_elements.pdf](http://www.manitoba.ca/sd/waterstewardship/reports/groundwater/quality/distribution_trace_elements.pdf)

The shale will produce more acid and mobilize more heavy metals. At the abandoned Black Island quarry purple staining can be clearly seen coming from water running through the shale layer at the top of excavation faces. That is primarily what forms the blood red water in Don's picture from Black Island.

It gets worse. In the CanWhite process at Vivian, after most of the sand is screened out in the wash plant the excess water (6.5 million cubic meters per year), is routed to an outdoor clarifier tank where polyacrylamide flocculant is added to settle out the remaining clay silt and fine sand. Acid, sunlight and iron in the water is known to breakdown the polyacrylamide into acrylamide. Acrylamide is a very potent neurotoxin, carcinogen and causes birth defects. <https://www.nature.com/articles/s41545-018-0016-8#:~:text=The%20presence%20of%20degraded%20polyacrylamide,degradation%20under%20various%20environmental%20conditions>.

The EAP for Vivian sand does not describe the ultimate fate of the 6.5 million cubic metres of water per year from the clarifier tank. The only logical conclusion is it will be discharged and drain about 3.5 kilometers following the natural drainage to the Brokenhead River. That blood red water you see at Black Island foretells the future at Vivian. Nature shows us what she will do when we rip her spirit sand from her resting pace. But we turn our back.

Except at Black Island the water is not laden with a carcinogen neurotoxin that causes birth defects. As the toxic brew migrates to the Brokenhead River some will infiltrate to the carbonate aquifer where everyone in the area draws their water. The majority will flow to Lake Winnipeg poisoning everything in its path, and entering the biosphere and food chain, At the mouth of the Brokenhead sediment laden with the toxins will settle poisoning fish stocks and aquatic organisms. This is not a maybe. We see it at Black Island. Just open your eyes and see what nature tells us.

## WHAT THE FRACK MANITOBA

Contact Don Sullivan

---

I ask that you determine the Vivian Sand Facility (processing plant) be combined with the mining/extraction portion of the operation and be considered as a Class 3 development with a Clean Environment Commission public hearing with participant funding.

My reasons are as follows:

The size and scope of this project: The mining claims of 166,890 acres (67,537 hectares) of land is the largest given to any one company in Manitoba's history. The impacts of the processing plant cannot be properly assessed without including an assessment of the impacts of sand extraction, because the processing plant cannot operate without the sand extraction portion of this project.

Impacts to the Sandstone and Carbonate Aquifers: This silica mining will take place over 200 feet into the Winnipeg Formation of the Sandstone aquifer. The shale that separates the two aquifers and the sand contains sulphide which when exposed to air will turn to acid and cause leaching of acid and heavy metals into the water from the shale.

Aquifer Sustainability and Cumulative Impacts: The aquifers support many municipal water systems, agriculture, industry, private well users and of course an abundance of wildlife and ecosystems. The sustainable yield of these aquifers, have not been established. Also, the processing plant and the sand extraction aspects of this project function in tandem.

Potential Transboundary Impacts: The aquifers extend into Minnesota and therefore transboundary impacts need to be addressed.

Unproven Mining Method: CanWhite Sands Corp. is experimenting with a new, unprecedented method for mining silica sand 200 feet below the surface out of the Winnipeg Formation, a process that has only been experimented within Manitoba, without much success in the past. Along with this in am a regular explorer of Patricia beach, and Broken Head First Nations Reserve. This river is people's home. It sits on the edges of their properties on the reserve, where their children swim and play, their pets drink, where they fish.

It leaks into the marshlands behind Patricia Beach where I regularly go and see beaver families playing in the shallows, Bald Eagles sitting atop tree branches looking for their next meal. Cranes hunting for minnows, Carp mating in the summer time, swallows building their nests and hunting for bugs, Turkey Vultures scavenging, fox, coyote, prairie squirrels... so so many beautiful creatures that rely and the safety and survival of that water source.

I regularly swim in the waters of the beach as many other families do.

Releasing the silica sands would be so detrimental, and dangerous for humans and creatures alike who rely on this water source for protection, survival, and happiness.  
Please here my cries, I can't lose one of my favourite places to yet another corporation who's only gain in this is profit, when the animals and people here lose a home.

Sincerely,  
Erin Dolinski

---

I pray that this project is not allowed to happen in Manitoba.  
I have seen T V documentaries  
about what it has done to people's water supplies in the US.  
Don't let it happen in Manitoba.

Rick Morrison

---

Just finished reading the article regarding the company applying to the province for approval to mine sand in the Vivian area . Our family lives in the rm of Springfield as well although closer to the Birdshill Park area. We are extremely concerned about the effect the mining will have on the aquifer (not sure if we are tapped into this particular aquifer) but it doesn't matter. Water is life! Fracking sand is just a product used to take more fossil fuels out of the ground. Not sure we really need more oil. Residents have staked their lives to live rurally whether it be to supply the food chain or just live in a quiet ,healthy environment. Why risk the future for these family's?Allowing a company to mine the area and possibly contaminate the water supply for these Manitobans seems ridiculous.Please make the right decision and deny this company's application. Thanks for listening.

Kelly Shymko

---

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.

---

I ask that you determine the Vivian Sand Facility (processing plant) be combined with the mining/extraction portion of the operation and be considered as a Class 3 development with a Clean Environment Commission public hearing with participant funding. My reasons are as follows: The size and scope of this project: The mining claims of 166,890 acres (67,537 hectares) of land is the largest given to any one company in Manitoba's history. The impacts of the processing plant cannot be properly assessed without including an assessment of the impacts of sand extraction, because the processing plant cannot operate without the sand extraction portion of this project. Impacts to the Sandstone and Carbonate Aquifers: This silica mining will take place over 200 feet into the Winnipeg Formation of the Sandstone aquifer. The shale that separates the two aquifers and the sand contains sulphide which when exposed to air will turn to acid and cause leaching of acid and heavy metals into the water from the shale. Aquifer Sustainability and Cumulative Impacts: The aquifers support many municipal water systems, agriculture, industry, private well users and of course an abundance of wildlife and ecosystems.

The sustainable yield of these aquifers, have not been established. Also, the processing plant and the sand extraction aspects of this project function in tandem. Potential Transboundary Impacts: The aquifers extend into Minnesota and therefore transboundary impacts need to be addressed. Unproven Mining Method: CanWhite Sands Corp. is experimenting with a new, unprecedented method for mining silica sand 200 feet below the surface out of the Winnipeg Formation, a process that has only been experimented within Manitoba, without much success in the past. Sincerely,

Shaun Rempel

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

claudia Gonzalez

---

I just don't know WHY this sand is even an issue!!!....it's clearly NO!!!...if GOVTS REALLY are SERIOUS about environment and health issues there ought NOT even be a discussion about it never mind permits being distributed...I mean ...I give up....this is a ONCE IN A LIFETIME opportunity for governments to do the APPROPRIATE thing—this water is pristine and CANNOT be replaced!....SMARTEN UP!!

I am SICK to death of this provincial government and it's mandate to balance budgets and support business at ANY COST even at the risk of the environment and the health of humans and other species. YOU are an embarrassment to humanity.

The shale overlies the sandstone aquifer of the Winnipeg Formation far below the ground surface. Shale is well known to contain pyrite that, when exposed to air and water, causes acid drainage that mobilizes heavy metals such as arsenic in the shale.

The licence given to Canadian Premium Sand for surface mining of the sand from the same Winnipeg Formation sand as at Vivian required extracted shale to be buried in clay-lined pits covered with limestone to prevent acid drainage. The province spends millions per year to remediate old tailings in northern Manitoba that contain pyrite.

This shale interspersed in the extracted sand from the solution mining process of CanWhite will eventually be in reject piles exposed on the surface, leaching acid. Another source of pyrite is

oolite nodules (a form of limestone) that contain 75 per cent pyrite according to a certified NI 43-101 technical report for the Wanipigow Sand Project. These nodules have been collected in the extracted sand piles near Vivian.

Certified lab reports have identified marcasite as a third source of pyrite in the sand itself. Pyrite from these three sources will dissolve in the excess water from the solution mining and that will likely be discharged on the surface.

Mobilized heavy metals in the discharged water can leach into the carbonate aquifer and eventually migrate to the Brokenhead River in runoff. The evidence for the pyrite in the shale, sand and oolite extracted by the solution mining method should be enough to halt this project.

Yours truly,

Cynthia Kowal

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

Kirstie Brooks

---

I am a new resident of the Taché Municipality, just 13 km south of the proposed Vivian Silica Sands Mine and I am a very concerned citizen who opposes this project on every level. I've read the company's environmental report and have serious concerns over the validity of this assessment. I wrote to the company asking for them to confirm their sand will not be used in the fracking industry and received a reply that did not answer my question. This obviously can only mean that they will sell it to the fracking industry. Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Apart from the fracking issue is the fact that this sand has been in place deep in the earth and served a function not even the geologists know or understand. Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred and it is long overdue that we all treat it as such.



The economic benefit touted for this mine should be redirected toward ecologically sound industries , regenerative agriculture and preservation of all existing natural resources as steps we can and should take to mitigate the climate crisis upon us.

Who of you, our elected officials will stand up against the status quo and begin to act on behalf of the Earth and her well being?

Yours truly,

Anessa Maize

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

Victor Andres

---

I am writing to voice my opposition to the plan of extracting Silica sand from the Manitoba aquifer located in the Anola area. The sand will be used in the fracking process, and that is an environmentally disastrous process. The sand extraction has also been started using the subversive Stage Licensing which hides the project from the proper scrutiny of the public, media and environmental groups. That's cheating. We don't like cheaters in Manitoba!

Manitoba has wonderful ground water. Aquifers filter, store and supply water to our citizens and agriculture. They should not be disturbed by mining or any other invasive process.

This potential project would be a disaster for part of our province, and undermine environmental efforts so needed in the world. I am counting on you to stand up against the project and prevent a misguided mistake in Manitoba.

Sincerely

Ross Brownlee

---

Fracking isn't the future. Water is life and needs to be protected in Manitoba. Our water is one of the most important things about us. We should protect our natural aquifer water sources and

waterways.

Sand is at a premium around the world and we have been blessed and should not take it for granted. Pillaging what we have isn't progress.

Shortsighted projects for monetary gain only cost us more in the end - environmentally and health wise.

Ruining an aquifer for silica sand isn't progressive.

If you have children or grand children, they will inherit your decisions about the environment and water supply. Ask them, would they want to inherit just money or less climate change and a clean water supply? Maybe money will protect them from the effects of climate change and they will be able to afford clean water but why create an apocalyptic future? Why don't we try to find ways to do both, make money with the future in mind?

Clean energy is the only way forward.

Please stop the Vivian Sand Facility from mining silica sand from an aquifer in the Oakbank-Dugald-Anola area for everyone's future.

Yours truly,

Natalie Leonard

---

I'm writing to express my displeasure with the idea of mining from the aquifer near Oakbank. The last thing we need is anything else upsetting our water source, never mind an out-of-province company rooting around for silica sand. The risk is unacceptable.

Yours truly,

Sam Posnick

---

I have to say, the endangerment of this aquifer and the health of those many Manitobans who rely on it would be, without question, a catastrophic mistake and one that could never be taken back. This should never be considered, much less allowed to happen. It would go far beyond being a mistake. It would truly be a crime. To the legislators considering this, nip this in the bud and toss this idea on the scrap heap. Many lives are depending on you, now and in the future, to do the right thing by them.

Yours truly,

Joe Dudych

---

I am vehemently opposed to the mining of sand from the Oakbank-Dugald-Angola aquifer. This aquifer is a source of clean water for this area, the sand in it filters the water and should not be disturbed, let alone removed.

The practice of fracking to find and extract oil is a repugnant one and a menace to the environment. Fossil fuels are polluters and contribute to climate change. We must develop other sustainable, non-polluting forms of energy.

Keep our water aquifers full of clean water and stop the practice of fracking. The oil and gas industry need to be stopped from destroying our environment in the pursuit of wealth.

Yours truly,

Leanne Landriault

---

Mining the sand from deep underground in the aquifer where it has been safely filtering our ground water for thousands of years is an environment disaster. This action is irresponsible and criminal. We are destroying our land and water resources. Please take the right action and refuse this application.

Yours truly,

Shar Lynn

---

Please register my complete opposition to the mining of silica from our precious groundwater aquifer. This is just a suicidal use of our precious water. One only has to look at the devastation of California where water resources have been abused for years. We need to protect our water, not use it for fracking, a process we know to be so damaging to the environment. We are facing unprecedented danger from climate change which can no longer be denied. It is time to focus on life-giving and sustainable energy resources rather than propping up the oil extraction industries. Please, please do not grant Vivian Sand Facility and Extraction a license to endanger our water.

Yours truly,

Laurie Marcella

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

If this idea became public, would citizens oppose? If your inkling is yes, say no this project and devote your time to finding other solutions.

Work with companies who have an interest in this sand to develop alternative methods or find feed supply. Use your resources to research alternatives, there are intelligent people within the department who can find solutions.

This is not okay. I reject this plan.

Yours truly,

El Plotkin

---

News of sand mining for the use of fracking is simply disturbing. We have wonderful clean water and an abundance of renewable resources that will soon outweigh any fossil fuel in value. We NEED to protect and hold on to these future commodities. Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Yours truly,

Kyle Sierens

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

Maureen Ferley

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our

groundwater for thousands of years is a terrible idea. Water is sacred.  
We should not be mining our groundwater aquifers! Water is life.  
Under no circumstance can we mine sand in Manitoba for fracking.  
All elected officials should take a stand against the expansion of this destructive process.  
Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

Natalie Normandeau

---

The proposed Vivian Sand project east of Winnipeg in Springfield is truly horrifying. The Vivian Sand Facility and Extraction projects will mine cancer-causing silica sand from the groundwater aquifer in the Oakbank-Dugald-Anola area — one of Manitoba's largest aquifers. One of the leading uses of silica sand is fracking for climate-wrecking oil-and-gas extraction, destroying yet another aquifer and ruining that water too, water that many rely on for drinking, cooking, and washing. It will also poison the Brokenhead River, a river that many Indigenous people along the river rely on for fishing, not to mention it will add to the horrific pollution of Lake Winnipeg.

Manitobans won't support the fracking industry, extracting sand from essential aquifers and an underhanded stage licencing process that poses an unacceptable risk to our water and climate. It is absolutely appalling that there is any serious consideration of this asinine project, one that favours corporate greed over the safety of Manitobans and our environment.

Please deny this project all licences and permits. It is a threat to us all.

Yours truly,

Stephen Berg

---

I am writing this letter asking all elected Manitoba officials to take a stand against the Vivian sand facility and extraction projects that would negatively disrupt the groundwater aquifer in the Oakbank-Dugald-Anola area. I am disappointed and frankly, disgusted that this is even 'on the table' for consideration given what we know about the climate crisis and these dire times we're in. We should be doing everything humanly possible to preserve our pristine natural resources from further destruction. This is not sustainable practice. What is it going to take for us to STOP allowing decisions to be pushed through based on corporate capital gains over peotecting the very resources that sustain life on Earth?

Say no to these destructive projects.

Thank you.

Yours truly,

Tannis Zimmer

---

Enough already! We do not need any more dirty oil! What we need is clean water, alternative energy development and industries that support a healthy ecology.

Yours truly,

Nancy Hall

---

I am deeply concerned to learn that sand mining for fracking might be approved through the creation of The Vivian Sand Facility and Extraction projects. This project would change our aquifer harming our groundwater by removing the sand that has been filtering our water for thousands of years. The secretive nature of such a potentially destructive initiative by stage licencing is disturbing! Water is a precious resource that needs our protection. We have seen the disastrous effects of aquifers that have been changed permanently through fracking. As our elected official please take a stop the expansion of mining sand for fracking in Manitoba. Clean drinking water is essential to our life.

Yours truly,

Kati Nagy

---

In regard to the Vivian Sand Facility and Extraction project, I am writing to implore you to include sand mining in the environmental assessment. The sand in our aquifers plays a role in filtering our water and should not be sacrificed. In addition, it is very likely the sand once mined will be used to support fracking, a wholly unsustainable practice with dire consequences seen in areas where it has been practiced and the earth has become destabilized as a result. This project is part of an unsustainable economy, one that needs to change immediately in order to limit the impact of climate change for future generations. Please evaluate it as such.

Yours truly,

Derek Yarnell

---

The source and mining of the sand must be included included in environmental assessment as it is a total

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should

take a stand against the expansion of this destructive process. Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

Patrick Moore

---

Please ensure that the Vivian Sand Facility and Extraction projects receives an honest environmental assessment. CanWhite Sands has applied for stage licensing for a sand washing plant, however the proposed project would actually mine silica sand — a known carcinogen — from the one of Manitoba's largest freshwater aquifers.

Another concern is that silica sand is used in fracking — a practice that further compromises clean water aquifers.

Ill-considered projects may provide short-term benefit, but can cost much more in future site clean-up, loss of fresh water, added burden on the health care system, and loss of habitable land.

Please enforce our environmental regulations. We need to make a shift towards greener, more sustainable development, and the power to make that choice is in your hands.

Yours truly,

Rhian Brynjolson

---

I am writing to you today because I am tired of the government of Manitoba supporting the fracking industry and putting our water and environment at risk. We must not, under any circumstances, mine sand in Manitoba for fracking. Thus, it is essential that the Vivian Sand Facility and Extraction only be given a license if it undergoes thorough environmental assessment from appropriate agencies.

My first problem with the current project proposal is that stage licencing is underhanded, secretive, and against the public interest. Secondly, this mining sand from the aquifer where it has resided for thousands of years is unsafe and goes against the Indigenous belief that water is sacred. We cannot mine groundwater aquifers as this will ruin Oakbank-Dugald-Anola's water. Third, the silica sand that needs to be extracted is carcinogenic. Fourth, we the people do not support fracking. The youth of this province continue to protest against this government's inaction on climate change and supporting mining sand for fracking would be laughing in the face of science and the concerns of the people of Manitoba.

My demands are thus: Preserve the climate and Manitoba's water sources by putting the Vivian Sand Facility and Extraction projects through thorough environmental assessment and properly consult Manitobans on this project. If and ONLY if environmental protection bodies deem this project to be beneficial to the environment and climate, then the project can proceed as long as the sand plant can prove it is not using the sand for fracking. If it intends to use the sand for

fracking, it MUST NOT be given a license.

Note that the sand to operate this sand cleaning plant will not magically appear; hence, the sand mining process itself must be included in the environmental assessment process.

Water is the source of all life on this planet. It is one of our most precious resources. Allowing the Vivian Sand Facility and Extraction projects to continue is immoral and disrespectful to our environment. I urge you to take proper action.

Yours truly,

Samantha Machado

---

We should not be mining our groundwater aquifers! Water is life. Forestry has done enough damage, can we save Manitoba for the future. Stop exploiting Manitoba's resources for a dollar sign.

The Vivian Sand Facility and Extraction projects will destroy yet another aquifer.

Please asses environmental impacts for a change Mr. Pallister.

Yours truly,

Douglas Takacs

---

Sand to operate this sand cleaning plant doesn't appear by magic and we need to have the sand mining included in environmental assessment.

Stage licencing is underhanded, secretive, and against the public interest.

Mining the sand from deep underground in the aquifer where it has been safely filtering our groundwater for thousands of years is a terrible idea. Water is sacred.

We should not be mining our groundwater aquifers! Water is life.

Under no circumstance can we mine sand in Manitoba for fracking. All elected officials should take a stand against the expansion of this destructive process.

Unless this sand plant can prove it is not using the sand for fracking, it must not be given a licence.

Yours truly,

Stephanie Robinson

---

I don't support the fracking industry, extracting sand from essential aquifers and an underhanded stage licencing process that poses an unacceptable risk to our water and climate. Climate change And water is a big issue and this shows a lack of commitment to protecting our natural environment.



Yours truly,

Monica Novotny

---

I am following up on an email I sent on the risk of exposure to respirable silica dust from the Vivian Sand Mining Project. In an interview with CBC radio on Friday June 26, Brent Bullen of CanWhite sand said that Workplace Health and Safety had deemed the sand at Vivian as not presenting a risk. Brent Bullen said all the sand is more than 100 microns in size. The claim by CanWhite that the wet extraction process will not mobilize the fine silica dust is not credible. In a slurry it is the fine dust that is most easily suspended.

Attached please find a laboratory report that CanWhite performed on their sand in 2019 for the Noble conference where a presentation was given by Feisal Somji, the CEO of CanWhite. <https://noble.mediasite.com/mediasite/Play/3bd1bc6031ca470fa4364db528295ba81d?catalog=88b4f8c61c9e48d6a6aab5f4bfb5550f21>

The attached laboratory report taken from the video presentation shows 0.2 weight percent of the sand passed through the finest mesh size of 230 into the pan. A mesh of 230 corresponds to 63 microns. The production of sand will be at least one million tonnes per year. At least 2000 tonnes would be less than 63 microns in size. According to CanWhite's own analysis there will be a large amount of silica dust below 100 microns in diameter that can cause silicosis and cancer. In the dry plant and especially the bag house, the sand will be dry and workers will be exposed to silica dust. Outside there will be large stockpiles of silica sand that will dry out and generate dust in the wind and during material handling. As the former Safety Officer at the WhiteShell Nuclear Laboratories in Pinawa, Manitoba I am very concerned about worker safety. If CanWhite considers the sand to be safe proper workplace precautions will not be taken to avoid silica dust exposure. Clearly CanWhite's own analysis shows there is a significant hazard. Quite frankly working on the site with silica dust in the sand, without proper protection, would be a death sentence. Nearby residents might be exposed to the silica dust from the stockpiles.

I would add that this is the same sand as at Wanipigow that underwent a public review. The sand at Wanipigow also had significant portions of silica particulate below 100 microns. In the EAP for Wanipigow an air dispersion study showed exceedances above the allowed air limit for PM10 silica particulate both within the plant boundaries and outside from material handling operations of the sand. [https://www.gov.mb.ca/sd/eal/registries/5991wanipigow/appendix\\_e\\_and\\_f.pdf](https://www.gov.mb.ca/sd/eal/registries/5991wanipigow/appendix_e_and_f.pdf)

I would request in light of the evidence presented here, that occupational hygiene review their assessment of the silica dust hazard. I request that Occupational Hygiene take samples of fresh raw sand before washing or grading and make an independent measurement of the sand particle size distribution.

The sand plies are being removed at the Vivian site and at the centre line road site but some sand stockpiles as of today, June 28 2020, still remain. If and when the plant begins operation the silica dust hazard will be manifest.

I trust Workplace Safety and Health and Occupational Hygiene will properly address this potential hazard.

Sincerely,

Dennis LeNeveu

---

Hope you are paying attention - sacrificing health for money for big business profit. Note the structure - peck away at the cart and then the horse - separately - easier to pass environmentally and then they admit it is up for sale for profit within 2 years. Starting to understand your job profile and expectations yet alone contractors and developers profit ambitions. Really do they care about our aquifer - NOT. Silence is not an option. Please read the Clipper Weekly regarding this subject below - opposition is available for your assessment.

---

I am writing to you in regards to this project. It is disappointing the public opinions are presently heard on the processing facility and not the actual extraction of the silica sand. I believe that the same concerns will be brought forth in both process and I believe that it would be more efficient to have both environmental assessments completed for the entire project and not each individual processes. However, I do wish to thank you for taking the time to address my concerns.

One concern that I have is I believe that there is a conflict of interest on behalf of Friesen Drillers. They have been cited in the report to have provided data to Can White Sands. Friesen Drillers was on contract to drill the holes for Can White. Friesen Drillers has much to profit by this processing facility being constructed. I would like to see an impartial study completed as to the aquifer and the potential harm contaminants that are being introduced by the mining process as well as the sand drying process. An impartial assessment will provide the residents who use this aquifer to be more accepting of the data presented.

The report mentions about the stock piles of sand being dampened or covered with netting in the winter time and the snow will provide enough moisture to prevent dust and the spread of the silica sand. There were stock piles of sand both at the Vivian site and a testing site on Centre Line Road near Highway 302 that were not properly dampened and there was not enough snow to cover the piles of sand. Can White did not remedy the situation until they were questioned on it in the spring of 2020. Their lack of action and consideration for people's health in the past, does not bring confidence that they will follow their plan. Relying on snow cover is not an efficient method of keeping the piles moistened and I would suggest an alternative plan is required.



This photo was taken by myself on November 7, 2019 at the Vivian location. As you can see, this sand is unprotected from the wind and other elements.



This photo was taken by myself on November 7, 2019 at the Centre Line Road testing site. Again, this stockpile of sand is exposed. There is still heavy machinery present on site and yet the company did not take any action to ensure that this workplace was safe from dust.

The company states that the extraction process will be a closed loop system but little details are provided. They have suggested a slurry technique but have not provided any details as to how this method was going to work. They have injected air into the aquifer previously. As I reside approximately two kilometers from the Centre Line Road, when they were extracting the sand, my water had a brown discolouration from the outdoor tap, first time in thirteen years of living in RM of Springfield. I have not seen clear documentation as to the affects on our drinking water when introducing substances into the aquifer. Common sense suggests that when you have a sealed system like and aquifer, introducing substances that are not normally present or present to that concentration will affect the natural system to some extent.

The company in their report states that there will be little surface water as the system is a closed loop system, storage tanks will be present and culverts will be installed. In the past, this was not performed. Once again, if one looks at the past history of the company, this company lacks confidence and accountability to the citizens who reside in the area.



The previous photo shows the company attempts to divert surface water at the testing area on Centre Line Road. This “ditch” leads towards the municipality ditch at Centre Line Road.



This photo depicts the overland flooding at the Centre Line Road site.

In the report, the company states that Personal Protective Equipment will be supplied to all employees and visitors. I have first hand knowledge that this was not done in the past. No respirators were offered, steel toe boots were not mandatory, high visibility vests were not always worn and high pressure welding when required was not done. Visitors were allowed to roam the site freely while the site was active.

The company had one full-time Manitoba employee in 2019 who filled a position as the Operations Manager. This employee was laid off in October 2019 due to a lack of funds. There has been no further contact between the two parties.

Can White stated that there will be another open house in summer of 2020 to discuss the extraction process and no further information can be obtained. Can White does not seem willing to share information to the public about the process. They are either being secretive or they do not have the science in how they are going to accomplish the extraction process.

Can White quotes that property value of residences will not be affected as no property values were affected in Wisconsin. Wisconsin does open pit mining of silica sand. I would suggest that if the aquifer is compromised in any form, this will affect the quality of our water and affect the market value of our residence. Can White mentions improving the services in the area such as natural gas and cell phone coverage. They state “may require” a cell tower or fibre optics to improve internet connections. This comment is taken with a grain of salt as “may” is not a commitment. The opportunity of a natural gas line is a couple years, by their own admission, and it will only service a small number of residents. I would further suggest that they will be a cost to the residents to install natural gas into their property.

Mr. Feisal Somjii, CEO and President of Can White Sands has been heard by numerous sources that his intention is to build and sell and not actually run the facility. I understand that this is a common practice of exploration companies and Mr. Somjii has experience in creating and selling companies internationally. Could this be a reason why Can White cannot provide the residents with information on the extraction process?

Thank you and sincerely,

Anne Wowchuk

---