CanWhite Sands – Silica Sand Extraction Project Environment Act Proposal – File No. 6119.00
Public Comments Received From

Layna Penner
Jerry Carriere
Fred Goeke
Gerri Thorsteinson
Ken Rowes
Don Sullivan
Herman and Marilyn Bouw
Carlos Jovel
Anessa Maize
Christine Hutlet
D Kerr
Eva Pip
Barry and Gail Olinkin
Suzanne Ward
Erica Wood
Jack Kowalchuk
Shaun Sturby
Wayne Wasylenko
mike jaques
Bonnie Cruse
Tanzi Bell
Shandi Strong

I am a resident of Springfield Municipality. I am deeply concerned about the environmental impact of the Can Sands project in Vivian MB.
I request that the Manitoba Minister of Conservation and Climate ensure that this project is subject to a Clean Environment Commission panel review process to address the many concerns and unanswered questions about this project.

Thank you
Layna Penner
Cooks Creek, MB

Dear Sir/Madam :

I am writing to register my opposition to this ill conceived project. I will preface my concerns by saying I am not a geologist or academic but it does not require a physics degree to know that when you remove the soil from under your foundation, at some point that foundation will fail. I live in the RM of Tache and draw my water from the very substrate they wish to mine , putting my only source of drinking water in jeopardy. Based on information provided by CanWhite they plan to drill a series of wells and pump water saturated sand from beneath the limestone "foundation" we all live on. They plan to leave "pillars" of sand between the wells to hold up the limestone. Am I the only one to see that it will only be a mater of time before these "pillars" level off creating a unstable void which will inevitably collapse creating a catastrophe in yours and my backyard ? The area of this collapse will be unpredictable but with the number of pipelines, hydro transmission lines , the city of Winnipeg aqueduct and thousands of private wells we cannot afford the risk. I ask you to make every effort to put a halt to this inevitable disaster. I would also request a Clean Environment Commission to investigate and stop this project before irreversible damage is done to our province.
Thank you
J. Carriere

I am a resident of Springfield Municipality. I am deeply concerned about the environmental impact of the Can Sands project in Vivian MB.
I request that the Manitoba Minister of Conservation and Climate ensure that this project is subject to a Clean Environment Commission panel review process to address the many concerns and unanswered questions about this project.

Thank you

Fred Goeke

Resident of Cooks Creek

What the Frack Manitoba has identified 17 major issues in a 20-page, evidence-based document that should be reviewed by the government of Manitoba's technical advisory committee. The RM of Springfield has also identified concerns with this silica sand-mining project.

I urge you to recommend to Manitoba's minister of conservation and climate that CanWhite's current EAP be subject to a Clean Environment panel review process to address responsibly the many deficiencies that have been identified.

Sincerely,
Gerri Thorsteinson

Please find attached a letter of my request to stop this extraction in our municipalities as it damages a natural environmental filter and endangers our user water qualities. The quality was top in the province when I moved to Springfield in 1978, as well as top brewery decades earlier.

There's no debate, there are life threatening issues so stop.

Ken Rowes

Anola, MB

Attached Letter

Note
Springfield Municipality
October 1/2021

Topic

Silica Sand Extraction Project (File: 6119.00) 2021

Issue

Aquafer destruction and removal of a natural environment silica sand filter with detrimental damage to existing aquifers.

Background

The top potable water in Springfield was born out of a natural filter system and there is need for the Manitoba government and the municipalities containing these silica deposits to manage its quality and availability preventing any contaminant processes in a sensible and efficient manner. This took shape as part of the Green Plan beginning in 1992 and earlier. It has continued to grow and develop by the principal shareholders of these municipalities.

The aquifers where I draw water from are organized into 3 levels.

1. 30-35 feet below grad holding surface waters and a upper water table, for farm animal maintenance several residential (people) use.

2. A second at the 64-foot level that gets damaged just as the upper by moving surface wise and municipal and farming practices. Holding these damaging practices are under file in trying to manage.

   Condensed summaries of common features of contaminants data that are not restricted and are completely customizable providing general data and the metadata associated with the contaminant measurements are on the provincial files.

3. The lowest level is near 100 feet below surface still quite higher quality and potable.

   Most residential sources are at this level or lower.

These aquafers need strict control of access and surface activity damage through sensible management.

A user interface, through the Springfield Municipal office, was constructed around research parameters.

Current Status

CanWhite Sands Corp. is soliciting the access and extraction of a natural environmental filter system. Municipal residences are voicing No Do Not Allow this. This is non-debatable. Stop, it makes no scene.

IMPACT

Others in the municipality have voice their denial of any permit or damage to Our Heritage water sources.

We have had or are still boil advisory issues already.

This needs to stop. Do not limit Our Aquafer usefulness!

Currently there are two areas that residential concerns are struggling with, outside impingements and our own farm and residential uses.

Recommendations:

- **Stop CanWhite Sands Corp proposals and stop any permits that will damage our portable water sources**
- **Support the residential and farming base of Our municipalities. Retrieval and stop any development proposals.**

Identification:

Moved to Springfield in 1978 because the water tests I had showed top quality in the province.

Decades earlier a Winnipeg Brewery found the same results and retrieved their brewing water from Springfield.

Another reason was that Springfield has less fall out pollution from Winnipeg manufacturing or from the nuclear site in Pinawa at the time of my moving to Springfield (ACEL has since been under decommissioning).

I have spoken to the Mayor of Springfield of my concern and was advised the provincial government has the jurisdiction over natural resources. There is a conflict when the government personnel can override the health of our Manitoba largest and earliest municipalities water quality demands.

Background: have a degree in entomology, limnology and have work for the federal fisheries for 37 years. As a student worked at Pinawa on the uptake of Cesium 137 in insects and assisted Waterloo students track the under-ground leaching of active contamination toward the Winnipeg River. The aquafers are not linear the spread out and any activities miles away have their affects, most damaging the original.

Last Comment:

STOP. DO NOT DAMANGE THE AQUIFERS.

The items derived from the silica are future damaging, in my opinion. The are planned obsolescent, over load the recycling producing another level of contamination.

To Whom it may Concern,

As a four-generation beef farm just west of the town of Anola, we would like to register our concern- we are firmly opposed to the CanWhite Sands silica sand extraction project!!

The concept of pulling water out of a well, extracting the silica, treating it with UV and then returning it to the aquifer from which all of our families and our animals draw their drinking water seems like an invitation to disaster. There are known to be harmful chemical interactions possible in this proposed procedure. We trust that the Environmental Approvals Branch of the Province of Manitoba Conservation and Climate Department will seriously consider all the scientific evidence that will be presented to you.

We have a pristine water source in this aquifer. To subject it to the intrusion of multiple wells provides too many opportunities for contamination and the destruction of this truly valuable, life-giving resource.

We trust that you will consider the health of the future generations that will be dependent on the water provided by this aquifer as you deliberate, and please prevent this project from proceeding.

Sincerely,
Herman and Marilyn Bouw

Hello,

As a resident of Anola, I am concerned about the CanWhite silica sand development project proposed in the RM of Springfield. This project has the potential to contaminate the potable water in the southeastern Manitoba aquifer that many Manitobans rely on as their sole source of drinking water.

Not only does this project threaten the quality of our drinking water, but it also threatens the integrity of the aquifer itself. There is no amount of money that is worth risking our drinking water and this should be evidently clear after one of the driest summers in Manitoba's history.

I am appealing to you under Section 27(1) of the Manitoba Environment Act., to overturn the Manitoba Director of Environment Approval recommendation to you to not convene an independent public panel review process of the CanWhite Sands proposed development project file #6057.00.

I also request that you suspend the current Manitoba environmental review process and request that CanWhite Sand Corp. submit a full Environmental Impact Statement (EIS) that not only includes the new hydrogeological study, as promised by CanWhite Sands but also the third-party

technical information and data on its unconventional mining method, to be reviewed as a Class 3 Development project as per the Manitoba Environment Act., by an independent public panel review process.

Finally, I request that you immediately undertake your government's legal requirement to do Section 35 Consultation with the affected First Nations and Metis Peoples with respect to the proposed CanWhite Sands development project.

Sincerely,
Carlos A. Jovel

Public Registry 6057.00

CanWhite Sands - Vivian Sand Processing Facility
CanWhite Sands Corp.

I am a resident in the RM of Tache and my home is located 13 km south of the proposed CanWhite Silica Sands Vivian Mine. However personal this proposed mining site and activity is to my home and my water source, I write today as a citizen of this land who is AGAINST this mining project and who is VERY concerned, should this project be allowed, about the implications and consequences the mining activities will have to the aquifers, land, animals and people of SE Manitoba and beyond. There are too many unanswered questions about this project and CanWhite Sands has not been clear nor forthcoming with answers. I have attended their online 'public meetings' and frankly they are a farce as far as being 'public forums' given how controlled and full of greenwash they were.

A Clean Environment Commission hearing with intervenor funding must be done as this is the highest level of independant, transparent and extensive review available under the Environment Act where respondents are sworn to truth and liable for cross examination. This is the environmental assessment that this project should be undergoing given the serious threat to water which is a basic necessity of life and which is ever more becoming endangered because of human activity.

I am sure you have received numerous letters outlining the questions and concerns but I have copied just one area of concern below.

It's time for the government to put Preservation of our Resources before Profit.

Sincerely and with hope,

Anessa Maize

[redacted]

From "Our LIne in the Sand" September 29 2021:

Every year 65 well clusters or mine sites, will remove “approximately 1.36 million tonnes” of silica sand. No calculations for mine waste materials, also brought to surface during extraction, are provided by CanWhite/AECOM.

A site contains 7 extraction wells each 18 m apart. The distance between each cluster is a minimum of 60 m. Distances are for the creation of “pillars” of undisturbed wet sand to support the overlying limestone layer.

According to a Stantec report the limestone “needs to be at least 15 m thick to minimize the possibility of subsidence” from caverns created by sand removal. The Stantec reports have not been disclosed; therefore this limit is unverifiable and cannot be used.

In “Engineering Classification of Karst Ground Conditions” Waltham and Fookes show “in typical limestone karst…a cover thickness of intact rock that is 70% of the cave width ensures integrity under foundation loads that do not exceed 2 MaP [290.075 psi] which is half the safe bearing pressure for sound limestone.” This report is readily available for verification from Scientific Journal. https://digital.lib.usf.edu/…/K26-04222-seka_pdf4513.pdf

EAP figure 2.3, shows the standard diameter of a well cluster is approximately 54 m. Without taking into consideration the pressure load from the above till layers, the limestone thickness should be thicker than 37.8 m (124’) 70% to ensure stability for a 54 m (177’) mined cavity.

According to well log records supplied by MB Groundwater, in the eastern portion of the mine area, the limestone does not meet the 15 m Stantec report limit and the limestone never meets requirements for structural integrity calculations of 37.8 m over the entire BRU claim area.

All 65 mine clusters have the potential to interact and potentially form a vast underground cavern with no sand supporting the overburden pressure. The unsupported limestone overlying the ever increasing cavity size would collapse into the cavity along with glacial till, destroying the structure of the carbonate aquifer and exposing it to surface runoff. The Sandstone aquifer would also be compromised.

Springfield support “pillars” will be unconsolidated sand making subsidence far more likely to occur.

Ensuring structural stability of the limestone is vital as resulting destabilization and failure may occur to the MB Hydro Pointe du Bois power line, MB Hydro International Minnesota transmission line, municipal/provincial infrastructure, and Winnipeg’s Water source, the aqueduct and GWWD rail line running alongside.

The removal of sand is a major component of the CanWhite Sands project yet their Hydrogeological Report states; “Geotechnical or geomechanical effects of removing sand from the aquifer during

production are not considered in this analysis." To not investigate a major component of the Project, could be considered corporate malfeasance.

CanWhite/AECOM has a duty to study and provide a detailed, completed, and available report to ascertain the validity of the Project.

This failure must prohibit any licensing of the CanWhite Project. Based on documented well log reports on the limestone and shale layers, and calculations for structural integrity, this project with its risks to the only available fresh Water source for the area, should not receive an Environment Act License. The risk is too great.

Good Afternoon,

Please see the attached comments/questions regarding File No. 6119.00, CanWhite Sands Corporations, Silica Sand Extraction Project's Environment Act Proposal as submitted by CanWhite Sands on August 3, 2021 to the Province of Manitoba's Department of Conservation and Climate.

Please feel free to contact me if you have any questions or concerns with our submittal.

With regards,

Christine Hutlet, CMMA
Chief Administrative Officer

Rural Municipality of Tache

October 5, 2021
Environmental Approvals Branch
Manitoba Conservation and Climate
1007 Century Street
Winnipeg MB R3H 0W4 E-mailed to: publicregistry@gov.mb.ca
Re: Comments on CanWhite Sands Corp. - Silica Sand Extraction Project – File 6119.00
Seven southeastern municipalities have established a Municipal Silica Sand Advisory Committee
(MSSAC) to serve as an advisory body to the municipal council of each participating Municipality regarding independent review and obtaining of information to better understand the effects that may arise as a result of the silica sand extraction project proposed by CanWhite Sands Corp. Committee members are the rural municipalities of Tache, Ste. Anne, La Broquerie, Hanover, Brokenhead, and Reynolds, and the City of Steinbach. Collectively, we respectfully submit the following comments for your consideration.
First and foremost, a public hearing on this project, together with the proposed processing facility (File 6057.00 in the Public Registry) should be conducted by the Clean Environment Commission. Separate correspondence directly to the Minister of Conservation and Climate is making this formal request. This project is very complex and the methodology for extraction appears to be unproven, and the potential for significant negative impacts to the groundwater resource in southeastern Manitoba is too risky not to have the project more fully scrutinized by

the public, municipalities, subject matter experts and other interested parties. We feel that the Environment Act Proposal document is incomplete and leaves many unanswered questions about our precious water resource. There very well could be a way to safely extract silica sand from the sandstone aquifer, however this proposal does not demonstrate with any degree of certainty that what is being proposed will not have negative effects.

The primary intent of this EAP should be to address concerns regarding the most sensitive issues with this project; the extraction process and the treatment of the contaminated groundwater before it is pumped back into the sandstone aquifer.

It appears that the EAP is more focused on water quantity. Very little attention is given to the processes that pose the greatest risks and have the most unknowns; extraction of the silica sand and treatment of the groundwater prior to being returned to the aquifer.

Very little detail is provided in regard to the extraction methodology. We feel that more analysis is required to address concerns with how this process will be executed without compromising the integrity of the shale layer separating the limestone and sandstone aquifers.

The EAP states that the silica sand extraction is by airlift, a commonly used approach to extract cuttings to create a borehole. It appears that no actual testing of the extraction process has been conducted by the proponent and the proponent has not indicated whether this approach has been used elsewhere. Given that it appears that this methodology has never been used before, it seems quite risky to approve it until it is in some way proven.

Over the first four years of the project, CanWhite Sands proposes to drill over 1,500 extraction wells through the shale layer. Over the 24-year duration of this project, this number will near 10,000 extraction wells, but could become even larger if other players decide to open extraction operations. Each one of these wells would be a potential source of contamination to and between the aquifers.

The applicant simply states that they intend to seal the shale layer in each well hole with grout. We are skeptical with the long-term performance of these seals. As well, no details are provided regarding how this would impact the aquifer hydraulics or how the shale layer would respond to this.

Each aquifer has its own unique water chemistry and the mixing of the two would have serious consequences, such as the numerous municipalities that draw their water from these aquifers having to change their water treatment processes. Mixing of the groundwater between two aquifers is also prohibited under Manitoba Law, for obvious reasons.

The proposal acknowledges that the drawdown from their operations could negatively effect private wells. The only mitigation they offer is lowering of the pumps once the issue has presented itself, which is not possible with many of the wells that could be negatively affected, leaving residents without drinking water until the aquifer is allowed to recharge at this location or a new well is drilled.

It appears that the proposal does not properly address concerns regarding the void spaces and potential for settlement when material is extracted from the sandstone aquifer.

The EAP states that the extracted water will pass through a UV treatment system before being immediately returned to the extraction well and into the sandstone aquifer. UV systems disinfect water by inactivating organics such as bacteria, coliform, viruses, etc. When the water is brought to the surface, aerated, and returned to the aquifer, there is a possibility that it will generate arsenic, acid, and heavy metals due to the sulphides that exist in the water. A UV treatment process would not effectively treat this water before returning to the aquifer.

It appears that this study is assuming that the isolated area where they performed well testing is representative of the entire project area. Should this testing program not be expanded to have a more representative picture of the entire project area and provide an idea of the variability that could be encountered?

This EAP only covers the first four years of the operation because the extraction process is expected to be developed over time. Is only an Alteration to the Licence required for the subsequent 20 years of operation? What approval process will be required if extraction is proposed to occur in other municipalities (where numerous other land claims were made)? We find it hard to believe that the approval of this EAP and a proposed 24-year operation wouldn't be extended given the significant initial capital investment in the treatment facility, equipment, and conveyance infrastructure.

Appendix C lists mining claims and the note at the bottom of the page states "Expiry date for all listed mining claims: 2021-12-03." Does the proponent have plans to renew these claims as well as all the other claims throughout southeast Manitoba (i.e., BRU, DEN and ALY Properties)?

Nine mitigation and monitoring follow-up plans are identified and described in the EAP. Most of the plans' descriptions are about the purposes, objectives, what they are designed to do, what components will be addressed, etc. It is concerning that the details of the plans will not be available until after the deadline for comments has passed. The EAP contains no information regarding how a Waste Characterization and Management Plan, Water Management Plan, Groundwater Monitoring and Impact Mitigation Plan and Progressive Well Abandonment Plan will be developed and implemented to protect groundwater quality and guide responses to potential impacts from their activities. For example, in the Groundwater Monitoring and Impact Mitigation Plan, what are the primary mitigation measures that aim to avoid impacts? What will the secondary mitigation measures to reduce impacts look like? If a homeowner or business well is contaminated, how is the contamination eradicated? Does silica sand extraction cease until it is?

What the Frack Manitoba has raised numerous issues and concerns about the proposed silica sand extraction process and its potential impacts to groundwater quantity and quality. They appear to have engaged subject matter experts. We cannot determine if the EAP adequately addresses these issues and concerns, and so suggest that that occur in the public realm for everyone to see.

The EAP states that there are low to absent concentrations of minerals prone to oxidation (e.g., pyrite and pyrrhotite) but it is unclear if this is in the area for the four-year operation or the 24-year operation.

The EAP states that “injection of oxygenated water may reduce concentrations of iron and manganese in the vicinity of the extraction wells”, but what impact will this have on domestic wells with respect to more or less rusty colored water?

One municipality has experienced lithium in the groundwater supply and how is this addressed by the proponent?
Yours truly,
Mayor Justin Bohemier, RM of Tache, Chair of the MSSAC
Reeve Paul Saindon, RM of Ste. Anne
Reeve Lewis Weiss, RM of La Broquerie
Reeve Stan Toews, RM of Hanover
Reeve Brad Saluk, RM of Brokenhead
Reeve Trydy Turchyn, RM of Reynolds
Mayor Earl Funk, Mayor of Steinbach

RE: Canwhite Sands Corp file 6119.00

I have attended both on-line open houses held by the company. In both instances, I asked a number of questions. To date none of these questions has been addressed.

I am very concerned that the technology they are using needs further testing and oversight to ensure that there will be no impacts to the aquifer in SE Manitoba. I get my water from a well, and if affected it will mean I will no longer have a viable home. I have not heard any info from CanWhite as to their responsibilities to correct or compensate (including purchase of my home) should they damage the aquifer. Would this default to you the government to fix a companies mistake? This would be a crime.

I do not support this project and request that answers asked are formally responded to and that a full environmental review be undertaken before any further progress is taken on the project. In addition, if approved, I would like to see all constituents of southern Manitoba to be fully compensated directly by the company should any impacts occur.

D Kerr

East St Paul

Greetings

I live in the project regional area and support the PC government. Unfortunately, I have grave concerns with the silica sand extraction mining. Obvious my concerns revolve around our drinking water and long term impacts. How can the average person understand a report that seems biased and only a scientist understand. I am requesting a Clean Environmental Commission public hearing.

In light of the news items pertaining to clean drinking water I do not see how the government can approve this project. The risks would last forever.

Barry and Gail Olinkin
Anola Manitoba

Hello,

I have attached a letter from Mayor Shelley Hart, RM of East St. Paul, regarding CanWhite Sands Corporation Environment Act Proposal File No. 6119.

Original letter sent via Canada Post 10/6/21.

Thank you,

Suzanne Ward C.M.M.A

RM of East St. Paul

Attached Letter:

RURAL MUNICIPALITY OF EAST ST. PAUL

October 4, 2021

Environmental Approvals Branch
Manitoba Conservation and Climate
1007 Century Street
Winnipeg, MB
R3H 0W4
publicregistry@gov.mb.ca

RE: CanWhite Sands Corporation Environment Act Proposal File No. 6119

Thank you for the opportunity to comment on the CanWhite Sands Corporation Environment Act Proposal File No. 6119 pertaining to the Vivian Sand Processing Facility and the related extraction process. The RM of East St. Paul has number of specific suggestions and comments for the project that we ask to be considered.

Aquifer Impacts

What impact will the CanWhite Project have on the affected aquifer(s) water quality and water level? What is the sphere of influence of the proposed project, and will the proposed CanWhite Sands project impact the RM of East St. Paul in any manner?

Aquifer Monitoring

What monitoring of the affected aquifer(s) will be undertaken during the life of the project? Will the monitoring measure impacts pertaining to either water quality or depletion? How will monitoring of the aquifer occur, and will data be available in real-time or logged for download at a later date?

The RM of East St. Paul requests access to information collected from all aquifer monitoring sites including the network of aquifer monitoring sites. The establishment of monitoring sites near the Oasis well field and at the proposed Bray Road well site are also desired. It is also suggested that well monitoring information be made available to the public or neighbouring municipalities via an open data portal or other means.

Operational and Environmental Response

What response plans are in place in the event the impact of the CanWhite Sands Project is not as anticipated, or in the event an unforeseen Operational or Environmental incident occurs during construction or operation of the proposed project? Will these response plans be made public? Will incidence of the activation of these plans be publicly disclosed?

Thank you again for considering our comments and suggestions for the CanWhite Sands Corporation Environment Act Proposal File No 6119.

Sincerely,

[redacted]

Mayor Shelley Hart
RM of East St. Paul

Please find enclosed my report on environmental concerns about the CanWhite silica sand mining proposal.
Please confirm to me that the report has been received
Thank you!

Jack Kowalchuk

Attached comments:

October 5, 2021
Box 352
Beausejour, Manitoba R0E 0C0
The Public Registry
Winnipeg, Manitoba
The CanWhite Sands Operation - Vivian, Manitoba
Silica Sand Extraction Project - File:6119.00
I am writing this letter because I am concerned about the proposal submitted by the consultant, AeCom, on the silica sand mining operations at Vivian in the RM of Springfield. The consultant indicates the mining by drilling will have a minimal effect on the environment and the immediate surrounding area. They also claim, they (Can White Sands & AeCom) will not be held accountable for any liability to any environmental damage(s) and cleanup. Who will be responsible for the cleanup after the silica sand has been removed and restoring the property to its original state? It will definitely not be AeCom or Can White Sands. It will be the residents of the municipality! Taxpayers should not be held responsible for any industrial damage cleanup!
I have worked in the Vivian area as a Manitoba conservation officer 1974 to 1977 and 2000 to 2010. The entire escarpment immediately east of Vivian is sponge-like and leans directly towards the Brokenhead River. All of the surface and in between water will
eventually enter into the Brokenhead River. The Brokenhead River is a major spawning bed for the Lake Winnipeg fishery. The river is also home to many protected aquatic species. This river should not become a dumping ground for industrial development and industrial waste in the RM of Springfield. I strongly recommend an independent party conduct a complete environmental impact study for the entire mining and processing operation. A Clean Environmental Commission public hearing should be held before any mining licence is issued by the provincial government.
Contaminated groundwater can never be cleaned up!
The drilling for the silica sand, the slurry loop operation will cause serious damage to the Brokenhead River and to the water aquifer below. This aquifer is the main water source and supply to numerous residents. The Brokenhead First Nations draw their water supply from the Brokenhead River. When the mining starts, the drilling operation and the processing of the silica
sand will be ongoing 24 / 7. The drilling and processing noises and the nightlights will

have a serious health and lifestyle effect on all the wildlife and residents in the immediate and surrounding area and in the village of Vivian. A residential and wildlife environmental impact study should be performed before the environmental licence is issued.
The consultant put forward a favourable report for the applicant to obtain government approval for the licence. Remember the consultant is paid by the applicant.
Please reconsider and think about the well being and health of the Brokenhead River and the water in the aquifer for the entire area for all residents who may become affected by this proposal;the City of Steinbach, the RM of Tache, RM of LaBroquerie, RM of Ste. Anne, RM of Hanover, RM of Stuartburn, RM of Springfield, RM of Reynolds, RM of Piney, RM of Brokenhead, RM of St. Clements, The Town of Beausejour, and The
Brokenhead First Nations.
Once the silica sand has been removed and the damage has been done to the water aquifer and surrounding area, there will be no cleanup by Can White Sands because CanWhite Sands will unfold and disappear becoming non-existent. If costly environmental issues arise, mining or processing problems occur, Will Can White Sands and their Associates disappear like “Thieves in the night?”
What are the guarantees?
Jack Kowalchuk
Resident
RM of Brokenhead

October 6th, 2021

As an engineering student, the lack of studies by our government agencies and CanWhite/AECOM is a clear sign they are avoiding public concerns based on sound research. The truth is, the research for a project of this magnitude takes years. It seems as if CanWhite is trying to fast track their approval process. Once the project is up and running, it's very hard to shut down. I'm wondering if The Seine Rat River Conservation District has been included in discussion or voiced any concern as to what might happen if up to 500 wells a year are drilled and sand extracted? I would assume they would have a heavy opinion. I have some knowledge on aquifers and how fragile they are. This summer's extreme drought saw some citizen's wells dry up. If CanWhite doesn't plan to replace the equal volume of sand being extracted, our water table will drop significantly. This year's drought and well problems will look insignificant compared to what could happen in the future. Anything other than clean pure drinking water replacing this sand in the aquifer will contaminate and alter the Ph balance. I'm sure there's been no study as to what a change in Ph would do to the limestone under the surface. A higher Ph would eat away at the rock causing it to weaken and eventually the structural integrity of the stone formation would give way. A collapse into this aquifer would be the end of our clean drinking water. Over one hundred thousand people rely on this aquifer for drinking water and all runoff would be contaminated with fertilizer from farmer's fields, acid rain, and other runoff pollutants. Simply put, our drinking water needs to be protected. Flint Michigan is a prime example of the damage that can be done, and the lasting effects years later. No company's profits should be put above the health and safety of our drinking water, this is why I'm calling for a full

Clean Environmental Commission hearing. Protocol's need to be in place for any change in the quality, color or taste of our drinking water if it is compromised. What usually happens when problems are exposed, is the company brings these allegations to court and ties them up for years. Fracking companies use these same tactics forcing citizens to prove they (fracking company) are at fault. Municipalities and citizens shouldn't have to show proof and cause. CanWhite/AECOM wants to use our sand while potentially compromising our clean water supply, they should be the ones performing the tests, partnering with the community to ensure our safety is the first priority. CanWhite/AECOM should have to defend their own operation and provide data to prove they're innocent. I want our Province to ensure our freedom of clean drinking water is the first priority when any concerns arise, even for colour or taste. Even potential allegations should be a signal that our water quality has been compromised. Mining should be halted until the source of the problem can be verified. Sure, it seems outlandish, but we have every right to be fearful when our clean drinking water is the reason we live here and it may be in jeopardy. If it's compromised, the majority of citizen would have no problem throwing their house keys and walking away. I know I would. My quality of life would be directly affected by water pollution and therefore I would have no reason to live where I do.
I am not an environmentalist, I'm a citizen that is prepared to ensure my quality of life that I've worked so hard to build, is not given to a company for profit. I want to see frequent fail-safe testing performed. I want these tests explained to the public. How these tests are performed, why they do them, and what the data is telling us. Fail-safe guards like this shouldn't have to be asked for, they should be mandatory.

Thank-you for your time,

Shaun Sturby

I invite you, to come & visually look at the Brokenhead River, which will be environmentally destroyed by White Sands. The water levels in all our rivers are so low, all aqua & human life will be detrimentally affected. I beg you, please put a stop...
Wayne Wasylenko

Please remember that people will be here for many generations and they will need clean water ! Stop the mine now ! At least do a fair study before you start !
mike jaques

I demand an environmental hearing into this proposed mining project.
Sincerely,
Bonnie Cruse

Submission re Manitoba Environmental Act Proposal

– Public Registry 6119.00

The Silica Sand Extraction Project proposed by CanWhite Sands Corp

I write with several concerns about the 6119.00 - Silica Sand Extraction Project - CanWhite Sands Corp.

The proposed mine will take sand from the Winnipeg Formation of the Sandilands Aquifer. Since this aquifer is an important water source for tens of thousands of Manitobans in south-eastern Manitoba, it is vital that extreme care be taken in assessing this proposal. Contamination of groundwater is virtually irreversible, so there is only one chance to review this and it is very important that the review be done well. The quality of the water in the Sandilands Aquifer is currently very high – indeed has been called the best groundwater in the world. Contamination of this water supply must be taken extremely seriously. It is important to take the side of safety and prudence in any decision made.

1) The method of extraction, while combining a number of already utilized techniques, has not been tested on such a large scale as is proposed. What is worrisome is that we are have already heard from people who live nearby where the test drilling has been done and we are told their wells now have an unusual odour, taste, increased iron content and the water is less clear than it was. When considered in the context of concerns which have already been raised with regard to a lack of care in putting in the original test boreholes, this finding is extremely worrying.

2) The use of the sand from the Vivian sand mine. It is my understanding that the levels of iron in the Vivian sand is such that it makes the use of the sand less desirable for electronics. The Company had initially indicated that some or much of the sand would be used in fracking, and yet we understand that companies involved in fracking are now sourcing sand which is of lesser quality located nearer the fracking sites and there is thus some uncertainty in how much demand there will be in the future.

3) There is a concern that oxygen will be allowed into the aquifers usually anaerobic environment. The entry of oxygen could mean that there will be oxidation of sulphide (present in the shale aquitard) to sulphuric acid. The sulphuric acid then can mobilize heavy metals. Also of concern, selenium can be oxidized directly to a soluble form. The geochemical tests by CanWhite Sands show selenium levels of concern in the carbonate aquifer, the sandstone aquifer and the shale aquitard. (Of note, the potential for selenium leaching was one of the reasons the Grassy Mountain Coal project was not approved by a joint IAAC and provincial review.) A similar oxidation of sulphide to sulfuric acid occurs in acid mine drainage when mine tailings are exposed to air. While the level of oxidation may be much less than with tailings fully exposed to the air, the potential for oxidation needs to be considered in view of the fact that the aquifer's waters are used for drinking water by many residents in south-eastern Manitoba.

4) Subsidence of local areas where sand is extracted is a concern. The extent to which such subsidence will occur is unknown. This is a variable which needs to be taken very seriously as it could have significant effects on above ground structures. There is no plan to address subsidence should it occur. One additional potential major problem with subsidence is that it would result of mixing the Winnipeg formation and the carbonate aquifer. This would be a major problem. Any mixing of the two aquifers would have the potential to cause major problems in the supply of drinking water to people in south-eastern Manitoba. (Of note mixing of the aquifers can also occur without subsidence. In addition to deterioration of water quality, mixing of the aquifers is a violation of regulations of the Manitoba Groundwater and Water Well Act. Mixing of aquifer water is simply not allowed and concern that this could occur is sufficient reason to halt the project).

5) The total number of planned boreholes in the short term (578) is large and the large number of production wells planned over the next 24 years (9000) is enormous. The total area covered by the initial mining claim is massive. The potential for widespread effects exist. This is of significant concern, and is a reason why great care needs to be exercised in reviewing the CanWhite Sands proposal. The concern is even greater given the reports during the exploratory phase that CanWhite Sands was not following specified procedures sufficiently enough when it came to test wells.

6) Microbial contamination of the groundwater. The UV light sterilization may not be effective due to the level of iron and manganese, or because of the expected high turbidity levels. CanWhite Sands will have to use some other method of sterilization. Without any sterilization, the possibility exists of contamination of the aquifer by harmful microbes.

7) Considerations with respect to a major spill and actions to be taken in the case of a major spill. The CanWhite Sands submission does not adequately address actions to be taken were a major spill to occur. Of note, abrasive sand will be circulating for many years in the HDPE pipes if the proposal proceeds. The feeder line pipes are continually decoupled and moved. There could be a spill of residual slurry in the pipe upon movement. Small spills add up. The CanWhite Sands project does not quantify the chance of a major or frequent minor spills. Should one occurs it will cause major problems. (It is to be noted that the extremely toxic monomer acrylamide that occurs from the breakdown of the flocculant polyacrylamide used in the clarifier tank. The water in the slurry tank is to be endlessly recycled and even stored over the winter. Soluble contaminants like acid, arsenic, selenium, fluoride, and acrylamide will build up over the entire 24 year proposed operation period (or longer). Such a long term buildup could not continue to occur without major fouling of the line or corrosion of pumps and wash plant vessels from acid build up resulting in a potentially large spill of extremely toxic water.) A major spill could see up to 24 cubic meters of slurry spilled per minute. This would fill an Olympic size swimming pool in 1 hour 40 minutes. While detection methods are in place to detect a leak, damage will already be serious before it could remedied. The detection measure will not however detect any gradual leakage which over the long term could be more damaging as it goes unmitigated.

8) Risk to Winnipeg's aqueduct. The size and the scope of the CanWhite Sands project means it is likely that there will be slurry lines crossing the line of Winnipeg's Aqueduct. It is a concern should there be subsidence under the Aqueduct, or a spill of toxic chemicals in proximity to the Aqueduct.

Sincerely,

Jon Gerrard
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Regards,

Shandi

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