

To the Regional District of Bulkley-Nechako (RDBN)

November 29, 2021.

RE: Proposed construction and location of a Crematorium @ Highway16/Slack/Henry/Lund/Regina Roads

Please consider this written submission regarding the proposed crematorium development on Henry Road (Rezoning Application RZ A-07-21). We do not support the change in zoning or text amendment to permit the construction of a crematorium at the proposed location, and feel that the RDBN cannot approve this application as it is currently presented, for the following reasons:

Application Package Information:

The following are comments related to the public information posted to:

https://www.rdbn.bc.ca/application/files/7216/3778/9163/Public_Information_Package_Nov_24.pdf.

1. The application package indicates that the current change, that includes re-zoning language associated with the current application from C1 to M1A with an expanded text, is only now occurring because of a change that occurred to the OCP informed land designation that moved it from C1 General Commercial Zoning, to M1A in 2020. Prior to the change to M1A, the re-zoning of the C1 zoning to include this use of land to support an incineration business would have been a much further stretch for acceptance as it is not remotely consistent or in common with the permitted uses for C1. This has resulted in what appears to be a 'minor text change', rather than the more significant re-zoning of expanded permitted use, than it really is. There is no information provided about when RDBN staff and Directors were actually made aware of this development interest (there is reference to some June 14, 2021 communication on this and prior letters of support), but the speedy transition in zoning changes over the past year does not clearly separate that administrative process from this development application, and this lack of transparency somewhat supports the perception of a conflict of interest existing somewhere in the zoning change in 2020 and this application processes in 2021.
2. The application package contains no actual site-specific information or assessment data with respect to the environment or the ability of the local airshed to absorb the exhaust and emissions that will be generated from these incineration activities currently declared at 3 cremations per week. As well, the information does not include a declaration of what full capacity service delivery would look like. Instead the application speaks to only a few cremations per week, however there is no doubt that this will not be the maximum level of incinerations that will occur here once the site is developed (the incineration unit suggests it can handle 4-5 cremations per day). The absence of this information does not allow for the RDBN staff, the RDBN Board or the public and adjacent properties, to properly assess and understand the potential impacts that would result locally to established residential property owners and the air that they and their families breathe. This proposed use is a very different reality than the list of currently acceptable uses for what was the C1 zoning, or this new M1A

zoning type; this disconnect significantly elevates concerns regarding property values and the disturbance distance that will actually result when emissions hit the full service capacity emissions loading into the local airshed from a significantly higher number of cremations than 3 per week. The proposed activity is not consistent with retail space or general warehousing as those example permitted uses do not typically result in potential hazards for adjacent properties.

3. The staff report acknowledges that there will be smoke and smell coming from this business. Experience in other communities where this type of business operates corroborates this conclusion, but neither the applicant nor RDBN staff can speak to this as it appears that they have not sought out this information, and yet the proposal has already received 1st and 2nd reading endorsements from the RDBN Board!?! Because of local airshed attributes this smell and smoke will negatively impact nearby residents in excess of 200m away from the exhaust stack. No information is offered in the application by the developer to counter this and as such it must then be accepted as a likely outcome. Negatively impacting adjacent property holders' rights and investments (totalling in the tens of millions of dollars cumulatively), through airshed pollution that would lead to impacting individual and community health and physical wellbeing, is not established under the authorities granted under the Local Government Act or the Community Charter. Without provision of comprehensive, site-specific information the RDBN does not have the authority if acting in the best interests of the community, to approve this development proposal without properly investigating emissions issues known to occur.
4. The rationale speaks to a regional need for this type of incineration service. This is not a point of disagreement; however the site location is due to the known attributes of the local airshed and the expected negative outcomes local residents would suffer. Because the application identifies a regional need, it would only be fair and diligent to undertake a more comprehensive search for properties from across the region that would be better suited upon which to establish this type of business. I contacted the developer by email and in their response on November 20th, they noted that they are not considering any other development site options. A business that is so confident so as to not have a back-up plan/contingency option and isn't even looking at other location options suggests that they have been offered some form of assurance of approval of their application, and this would be non-compliant with fair and due process meant to guide regional decision-making following the public comment period.
5. The application package speak to emissions, however it is misleading in its message. The application speaks predominantly to CO₂ and H₂O with trace amounts of other chemicals that are, "...already in the air we breathe...". Referring to the **EXACT** website offered in the application as a credible source of information (see <https://ncceh.ca/documents/field-inquiry/crematoria-emissions-and-air-quality-impacts>) (see also information provided on page 65 of the application package), the list of emissions that can come from cremation processes resembles the content list of exhaust/emissions from pulp and paper mills (see

<https://environmentallaw.uslegal.com/specific-issues/paper/>). According to the National Collaborating Centre for Environmental Health (website above), the list of chemicals emitted from cremation processes includes: Carbon monoxide (CO), Nitrogen oxides (NO_x) sulfur dioxide (SO₂) and Volatile Organic Compounds (VOCs), particulate matter and fine dust, polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) and polycyclic aromatic hydrocarbons (PAH) amongst others, and Heavy metals such as Mercury (Hg). The pollutants of most concern are those known to be toxic to humans and which can bioaccumulate in tissues (e.g., PCDD/Fs and Hg) as well as fine particulate matter (PM_{2.5}), which can negatively impact the heart and lungs and is associated with some chronic illnesses and adverse birth outcomes. Evidence on the release of radioactive particles, following cremation of deceased patients who had been treated with radioactive substances (e.g., cancer treatments) has not been widely studied but has been raised as an emerging area of public interest and concern. These toxic gases are known to contribute to air pollution. Because this information came from the same website and webpage offered in the application, a diligent review by staff should have discovered this, even if the applicant was honestly 'forgetful' in properly describing this information when including other information sourced from the same report (see page 11 of their posted application). In this regard, RDBN staff failed to adequately review and report out on how they considered the potential negative impacts that would result from approval of the application associated with this property and crematorium proposal.

6. Finally, the application package, and presumably the package that went to the RDBN Board for consideration appears to be incomplete. I am aware of at least one letter/email to the District Planner and Director Fisher, written by myself offering locally relevant information and expressing concern with this proposal that were not included for consideration by the Board. The email with specific content was dated November 11th, 2021 and yet letters of support from people to other municipalities and from who do not reside in this area or have expertise in air quality were included, with the dates of those letters being far in advance of any notification to residents located within a ½ kilometer of the proposed development site. With this one-sided provision of information there is no way for the RDBN Board expected to properly understand community concerns and therefore uphold their duty to act on behalf of the community in an unbiased way; in fairness of process, those support letters should not have been provided for the Board's consideration until such time as the public comment period began. This is because those support letters are exactly that, public comments.

Fettered Decision-making and incorrect information:

The role of staff in regional districts is to accept and review various types of applications and provide recommendations to the board, who is charged with making an informed and unfettered decisions with respect to the proposal or decision package brought before them. In the case of this development proposal, the existing and very new zoning to M1A required an amendment to the list of acceptable uses permitted to occur on that type of zoned, parcel of land. Staff undertook a review and

provided this recommendation in their staff report dated November 18, 2021 from Jason Llewellyn, Director of Planning:

The applicant is requesting a text amendment to the Zoning Bylaw to add Crematorium as a permitted use in the M1A Zone. There are two parcels in Electoral Area A zoned M1A (3844 Henry Road and 8150 Highway 16). The applicant proposes to establish a Crematorium at the 3844 Henry Road property.

Staff recognize that there is a need for cremation services in the region, and do not anticipate that a Crematorium would have a notable negative impact on the area surrounding either parcel.

Therefore, it is recommended that "Rezoning Bylaw No. 1966, 2021" be given first and second reading and be taken to Public Hearing to allow area residents the opportunity to provide input.

The language used in this report to the board fetters their decision-making in three ways:

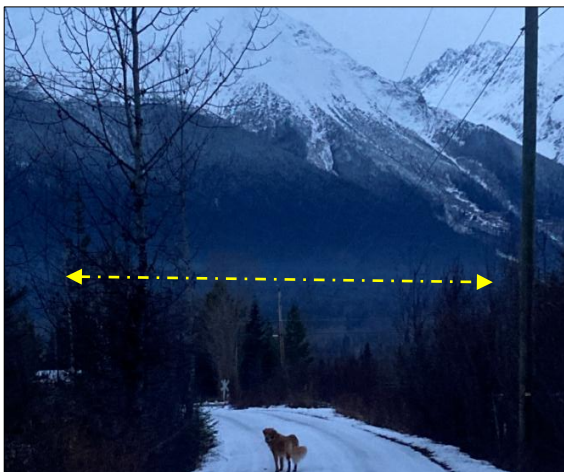
First, by specially listing the property in the endorsement for changes to the zoning language while also ruling out the merits of a second alternative location, the Director of Planning is conveying the sentiment that the board must simply 'rubber stamp' the approval related to this decision as there are no other options (which of course is incorrect); this perception message of approval is occurring well ahead of the public engagement process even commencing on this property, which also undermines our democratic process. In reality, the change to the list of acceptable uses for this type of zoning will be applied more broadly and across all other similarly zoned properties, so this again would have been completely fair and would not have blended the zoning decision with a perception that this site is the only one and must be approved. This also unfairly impacts the developer who has not sought out other sites based on the Director's determination and now they are unable to have an unbiased and fair review of their application.

Second, the next paragraph again fetters the board's independence in its decision-making since the Director of Planning is not limiting his recommendation to just the zoning language amendment and instead he is further extending his influence by also specifically stating that there would be no negative impacts on the surrounding area with respect to air quality or the airshed. It is unclear if the Director has a relevant professional designation that would allow him to make this assertion about air quality and emissions in the absence of real data and study outcomes, depending on his accreditation however, this might be considered non-compliant with the Professional Governance Act of BC. Again, what appears to be an endorsement for the development at this site from a person not professionally qualified to make that determination and if this is accurate, it obstructs and obfuscates due democratic process as even without any site-specific or other assessments, analysis or study, he has already determined that no negative impacts to the surrounding area will occur. This further hampers the adjacent property owners' ability to provide information to the board that they would consider on equal merit, as the advice their own Director has already diminished the credibility of anything the public may offer.

Finally, residents in the Bulkley Valley and Smithers area are all too familiar with the realities that exist in our local airshed. Within the Smithers-Lake Kathlyn area, localized and at times site-specific venting

and cold-ponding conditions occur that significantly impacts air quality and fog conditions in this portion of the valley, with those conditions many times not existing just outside this area or on the upper plateau closer to Houston or even Telkwa (nearer where the alternate property is situated). Because residents living within this unique portion of our airshed know this to be true even without any study, it is disappointing that the Director of Planning in his recommendation (that is also presented as a determination), has concluded with no actual assessment work being completed, that local residents will not be impacted by any emissions coming from the proposed development at this site. This again fetters what is supposed to be the board's independent consideration of comments that may come in later during public engagement on this proposal, where board perceptions of the observations and experiences of property owners in this area will be biased toward those comments being incorrect.

No factual data or information provided by the developer and during the public information Zoom meeting that occurred on November 17, 2021, the speakers actually used the words 'trust me' instead of providing real data for listeners to consider. In a follow-up email response the developer provided the factory testing datasheet for a different model of cremator unit (X3000) than they have stated they intend on using, so I had to follow-up with the developer to request the correct product brochure. It should also be noted that in each piece of promotional product information supplied by the



I was able to take these photos from my driveway, on November 13, 2021 at approximately 4:40PM. In the upper photo you can clearly see the smoke thermocline that regularly exists at the same elevation that our property at 4100 Elgin Avenue is located at and this is a clear example of the poor venting conditions that occur here. In the photo to the right, another common occurrence is a downdraught that causes emissions from within and just above the development site lowland area to receive concentrated impacts to the local airshed.

manufacturer, they are careful to note that although not defined, the emissions information is relevant to new cremation equipment that is “..specific to a project with the given conditions.”. There is a high likelihood that this may not be locally relevant for a site where absorption of emissions by the local airshed is in any way compromised (such as by air flow, cold-ponding or venting).



They also measured their emissions a minimum of 20m away from the stack/chimney, so again, where air movement is good, the concentrations of pollutants 20m away from the point of impingement (i.e., the end of the chimney) fall just below some jurisdictions' acceptable limits (e.g., Ontario).

Unfortunately though, none of the information or data supplied to the RDBN or upon request has included any locally relevant information about how emissions would impact the local airshed that is prone to poor venting conditions and the example sites are very different than the existing site making them erroneous in application due to that significant difference in topographic reality. As well, there are installations in BC for the X1000 unit, so why was information at least relevant to BC not provided? The haste at which this proposal is moving forward has not allowed adjacent property owners any time to offer alternative and locally relevant information in defence of their rights as existing property holders in this local area, nor is it allowing the developer to study, monitor and assess comparable units located within the Province.

Air Traffic

You may also be interested in knowing that over the past year there have been 2 flights cancelled out of the Smithers Regional Airport due to local environmental conditions (i.e., ground fog). Ground fog is a weather event often created by cold-ponding conditions and when these conditions occur at the airport, they also occur on the neighbouring properties as well as the proposed development property. Of course this is a poor estimate since our world was effectively shut down due to Covid, so flights were not even scheduled, but it does demonstrate that cold-ponding and zero venting conditions do occur in this portion of the valley and that their effective area of coverage is well beyond 200m in distance from the proposed property.

Airport staff further identified that the number of cancellations due to visibility can be highly variable depending on the weather that year and also stated the 2 is not a representative number of more normal years. Although this process has initiated a very short turnaround for comment, I do have other date-stamped and geo-referenced photos that demonstrate my observations and comments about ground fog and cold-ponding effects in this neighbourhood.

Other Municipalities

In an effort to better understand the business being proposed I contacted the developer, Laurel Menzel and requested information she'd offered during the Zoom meeting on the 17th, "... *in what other municipalities has the same combustion unit been built?*". Laurel provided me with the following reply to my question, "*I cannot confirm that the exact Pyrox unit I am purchasing has been installed at the locations, but I do know that Pyrox has installed their units in Pine Grove Crematorium in Kamloops as well as Comox and I believe Quesnel, but I'm not positive about that one. Note that Pyrox doesn't manufacture "low end" models that perform on a sub-par level compared to units installed currently.*". Following this I reached out to the City of Quesnel, the Town of Comox and the City of Kamloops asking if they had received any complaints about these crematory sites: the Town of Comox replied that they

had no such business operating within their municipality and when I offered that information to the developer she suggested I contact the City of Courtney – I received same ‘no such business’ response from their cemetery management staff; the City of Kamloops indicated that while they have not had complaints about emissions or noise from the crematorium there, both cemetery staff and the public have commented on the ‘odd’ smell associated with operations; and the City of Quesnel representative commented that although no official complaints had been received by the city, his personal observations were that the cremator does emit black smoke occasionally (I would make the assumption that this smoke would have a smell associated with it, but that was not verified by the representative). This information differs from, and in some way contradicts, information offered to the public to date and it appears that even the developer is uncertain where information about operating experiences can be obtained, since her reference to Comox and Courtenay appear to be completely incorrect. In this regard the RDBN Director of Planning in relying on these examples of operating sites, cannot then make an informed determination that a crematorium would not have a notable negative impact on the surrounding area (as stated in the staff report dated November 18, 2021). Because of this, the Board of the RDBN is subsequently unable to uphold its fiduciary responsibility and act in the best interest of the community and local property owners; these constituents have owned and resided at their properties (some for over 2 decades), with property investments valued in excess of ½ a million dollars with some approaching 1 million dollars and more in market valuation.

In an attempt to further understand what has been experienced by other municipalities and citizens I have read numerous web-posts. I fully recognize that each one would likely involve a different cremator unit than the X1000 proposed for use here, however what struck me was that each developer used the same script, citing that smoke for your bbq when grilling a hamburger, or the exhaust from a diesel truck, is much worse than exposure to emissions from a cremator. That said, all the scripting failed to consider that bbq smoke and diesel truck exhaust is a very short-term exposure that is completely different than the currently proposed site would offer, where prolonged periods of poor venting, cold-ponding and stagnant air is common and would be the true level of exposure to residents in our neighbourhood. I offer this link and web-page chains from it as an example of the scripted responses:

<https://www.cbc.ca/news/canada/new-brunswick/fredericton-crematorium-concerned-residents-1.6255666>

As I noted the business owner presents same diesel truck example, however the crematory is at a fixed location; the truck drives away and you can get a reprieve from that exhaust. I recognize that vehicle manufacturers are making huge improvements in managing exhaust and emissions standards for diesel trucks are improving, but still, the exhaust example may not be their best endorsement of air quality alternatives to offer if you consider the actual duration of the exposure period.

They also use the same burger smoke argument, yet no one would stick their head into their bbq’s smoke for a day or more at a time and declare that was a healthy living choice. Local residents in this

area of the valley and in nearby Smithers know how the airshed can be impacted. This is another webpage:

<https://www.cbc.ca/news/canada/newfoundland-labrador/crematorium-newfoundland-tough-sell-1.4403304>

Here residents are upset over smoke and smell created by the cremator unit. The reviews all indicate that volume of burns can dramatically impact the degree to which adjacent property owners are impacted by the business. Once the RDBN approves the current site for installation of the creation unit with an unspecified number of cremations per day, there is no way for residents to escape whatever exhaust is emitted and there will be impacts to residential values. Some business investors would suggest that you could move, but the current landowners have invested and resided in their homes, most for decades. In addition, where in the immediate area can properties with similar attributes be found? The reality is that they simply can't be found, but, there are numerous potential locations for a crematorium burner to be constructed in areas that have appropriate venting and airshed qualities, to ensure neighbouring property owners are not impacted. In fact the re-zoning amendment package contained one such property where it appears the landowner is amenable to a cremation business being established (i.e., based on the same report generated by the Director of Planning), although using the same information as in his endorsement he informed the Board that the alternate site was not an option, but perhaps this is not actually a reality.

Recommended Minimum Setback Distances

Information publicly available, as well as information references provided by the same organizations as other information referenced and provided by the developer, suggest that different jurisdictions employ different setbacks from dwelling places or other types of buildings simply referred to as 'habitable buildings', and yet this information was excluded from the package offered to the RDBN for consideration. Information I found on these websites show that most areas use these minimum setback distances as a guideline with some areas further requiring a consideration of location specific considerations. In reference information provided by the developer as sources of information, this Table 3 and associated text indicate that actual site conditions must be considered to fully understand the potential impacts to adjacent properties, and it also presents minimum setbacks for dwelling ranging between 150 and 500m, inferring that for some areas a 200m threshold would be viewed as inadequate by those jurisdictions.

Table 3. Selected example setback distances for crematoria from around the world - Source:

<https://ncceh.ca/documents/field-inquiry/crematoria-emissions-and-air-quality-impacts>

Country/Jurisdiction	Minimum distance
England and Wales (UK Cremation Act) ⁴⁶	200 yards (183 m) between a crematorium and any dwelling house and 50 yards from a public highway to protect residents from nuisance smoke and fumes and provide privacy to funeral proceedings

West Australia ⁴⁷	200-300 m between crematoria and sensitive land uses
South Australia and the Australian Capital Territory ^{48,49}	150 m minimum separation distance
South Africa, Department of Health ⁵⁰	500 m from any habitable building
US (Sacramento County, California) ⁵¹	500 feet (152 m) from any agricultural-residential, residential, or interim residential zoning district

This information supports the need for further study and examination of site airshed qualities, beyond the RDBN's arbitrary 200m limit imposed by staff in their review.

Operational Considerations

Letters of support presented in advance of the actual public comment period, do not consider the location but instead speak to the need for the service locally and the travel distance required to the nearest facility; one even speaks to pet cremations about which the public was informed on November 17th, that no pet cremations would occur at this facility. Locating the business in the Telkwa or Houston areas would still locate the service within the region and would also address the transport concerns raised in the letters, while not impacting property owners adjacent to the currently proposed site. Other sites would very likely position the business in an area less prone to poor airshed conditions and poor venting.

Information offered to the public during the November 17th meeting indicated that the burner would be active for only a few hours per week, even though information offered by the manufacturer indicates that the X1000 model can only combust approximately 175lbs per hour; the package offered for the RDBN board's decision is based on an estimated 3 cremations per week. There is of course, no question that this volume will increase once the business opens and it is further more likely to increase significantly through the life of the business to potentially 3-4 per day. Under this type of combustion workload the cremator unit will not perform to the same levels of high efficiency as a new unit and will require higher level of diligence in regular maintenance of the unit. Some reductions in burn efficiency might be expected to occur under high volumes and when nearing the required maintenance cycle dates. To this end the board must know the outcomes in terms of the number of cremations that are more likely to occur and therefore cannot ignore future operating volumes when moving toward decision on this development at this specific location. The question of real significance in the Board's mind should be, at full/expected operating capacity, what is the best location in terms of airshed for this business to be located at that is within adequate travel distance? After all, it is the adjacent tax-paying property owners who will have to live with the increasing volumes of emissions, smoke, smell and local impacts and waste generated from this business. Those existing property holders' rights should have precedence over a new business proposal. This site is known to be prone to poor air quality and inversions, and I have offered just a couple photos of examples of venting issues, so there

are other superior choices for building sites within the region that offer far better airshed capabilities and located away from the base on the mountain.

Compliance

During engagement to date there was some suggestion that operator compliance with emission standards would be administered by the Ministry of Environment. That however may not be correct in that a Regional District through a ruling cannot create a compliance and enforcement liability for a Provincial Ministry. Instead, the Local Government Act and provisions of the Community Charter empower establishment of bylaws, designation of officers and undertaking bylaw enforcement responsibilities to the prescribing Regional District. There is an absence of any information related to emissions standards that will be implemented by the RDBN for any incineration type business. As such there are questions about how this development approval could be in compliance with the provisions of Section 15 of the Community Charter. Information that describes both these standards and monitoring and enforcement/compliance process associated with those emission limits that must ensure that local air pollution does not result and cause harm to resident health and the environment, must be developed prior to any approval of this application for a currently non-conforming new business.

Geographic Scope

According to the Provincial website: <https://www2.gov.bc.ca/gov/content/governments/local-governments/governance-powers/councils-boards/board-organization/board-directors>, “Board members as a whole or as a smaller sub-groups participating in a service make collective decisions in the best interest of the region or communities within the region.”. The site further described Board member responsibilities to “Consider the well-being and interests of the region, as well as the community they represent, when making decisions”. I respectfully understand that at times the notion of ‘best interests’ is variable and at times contradictory between the community/residents and prospective developers depending on an individual’s sentiments on the scale at which ‘community’ is defined by them. In relation to this proposal there are many local residents in our community who have invested significant money into their homes and properties (cumulatively tens of millions of dollars) and who contribute significantly to the local economy and way of life in this area. The new venture being proposed has invested nothing into the local neighbourhood, community, nor the regional district to date; regardless, it is the RDBN’s responsibility to ensure that the geographic scale at which the term ‘community’ is measured against, must be employed consistently. If the scale at which ‘community’ is considered is more regional in scale, suggesting that the wishes of local neighbourhood residents hold less influence than the proposed developers’ desires, then certainly using the same scale of ‘community’ would show that the developer does have other options for locations to start their business venture within that same regional scale ‘community’, and hopefully in a location where neighbourhood communities and local airshed impacts do not result.

Closing

I feel that I have provided enough information to support my position that the developer has failed to provide the RDBN Board with sufficient, accurate and locally specific information upon which to adjudicate this application; and that the RDBN Staff may have over-stepped their authority and compromised the Board's ability to make an independent, unbiased and unfettered decision in accordance with the Local Government Act, the Community Charter and local government guidance related to considerations of the 'community's' best interests. How this relates to decisions already made during approval of the 1st and 2nd readings remains unclear, but may suggest those approvals are challengeable.

We do not support approval of the application and would welcome a written and detailed response to this submission to help in our understanding of this process to date and concerns we raise herein.

Yours truly,
Bill & Diana Jex
4100 Elgin Avenue

Cc: Office of the Ombudsperson of British Columbia