

Mark Kornder
Box 35, Site 308, RR3
Saskatoon, SK, S7K 3J6
SW9-T34-R6 W3rd
RM Vanscoy

Honourable Lorne Calvert
Premier of Saskatchewan
Room 226
Legislative Building
Regina, SK
S4S 0B3

March 23rd, 2007

Dear Premier Calvert:

I am writing to ask you to help my community convince the Saskatchewan Indian Gaming Authority (SIGA) and Whitecap Dakota First Nation (WDFN) to alter the current lighting plan for the Dakota Dunes Casino. As you are aware this development will be a major cause of light pollution once it opens this September. The poorly designed lighting that SIGA has embraced includes a giant “teepee of light” that will be visible for miles around. Located on a height of land, it will negatively impact hundreds of neighboring rural residents through light trespass, needlessly increase greenhouse gas emissions and disturb the natural light-dark cycle of our natural environment. Compounding the problem of this monumental waste of energy are an additional 126 high-intensity light fixtures that will shine high above the casino parking lot. These streetlights are currently being tested and the “outlook” for neighboring residents is not good. The fixtures are mounted on 25-foot tall poles (four fixtures per pole) at 45-degree angles, so the direct negative impact on my community is significant; I can already count 30 bright lights shining directly at my property from inside my home, which is located adjacent to Pike Lake Provincial Park. This is serious light trespass! We are also told that a hotel and convention centre is planned for the future; will these be dark-sky compliant so that the properties and skies of adjacent good neighbours are not trespassed upon? So far not one aspect of this casino’s lighting design is dark-sky friendly.

These lights will negatively impact my family as we live adjacent to Pike Lake Provincial Park, only 5 miles from the casino. We will be forced to view these annoying lights every night of the year, as will hundreds of other rural residents, cottage owners and park visitors. I am extremely worried that the lights will decrease the economic value of our property because light pollution does not add value to rural real-estate, especially in an area known for its natural beauty and dark sky. Furthermore, my family's dream of opening a bed and breakfast catering to star-gazers is now ruined. The destruction of our "living skies" will also negatively impact the spiritual well-being of my family. Instead of pondering the beauty of the universe as we look to the heavens we will ponder the extreme waste of energy and the negative environmental and societal impacts! Simply put the current design is unacceptable and we desperately need your help to rectify this situation.

As you will recall, I wrote to you and to other cabinet ministers last November indicating my concern with the lighting design, describing how it will negatively affect my family and community, and asking for assistance from the provincial government to prevent this unnecessary blemish on our "land of living skies". I know that many people from my community and other surrounding areas also wrote similar letters. Our Pike Lake area letter campaign has been coordinated with people on the east side of the river, in the vicinity of the Hamlet of Beaver Creek. The Royal Astronomical Society of Canada's Light Pollution Abatement Committee is also assisting us with technical support and articulate letters. In January, 2007, we received an official response from the Minister of Environment saying that light pollution and light trespass are property rights issues traditionally dealt with through the courts or through municipal bylaw or band council resolution. Minister Nilson encouraged us to work directly with SIGA and WDFN to find a solution. We do not want to go to court if we can at all help it; I doubt that we could pay for a legal team as powerful as the one that could be assembled by the owners of a 60-million dollar casino. Since November 2006, we have been trying to meet with Mr. Zane Hansen of SIGA and Chief Darcy Bear of WDFB to discuss our concerns in a respectful, open and frank manner. Unfortunately, we have had no success. Mr. Don Morgan, MLA Saskatoon Southeast, has been trying to arrange a meeting on our behalf since before the New Year and he has also been unsuccessful. That is why I am asking you Mr. Premier to please become personally involved to help us secure a meeting with SIGA and

WDFN and to help us solve this problem. I suspect Mr. Hansen and Chief Bear would agree to meet with us if you requested the meeting and committed yourself to attend. We seem to be “small fish” in the eyes of the casino proponents so we need your help! Our alternative is a media campaign and/or the courts, neither of which is an attractive solution for anyone.

Please keep in mind that this conflict is not about race-relations or an “anti-casino” sentiment. We are simply against the tremendous amount of light pollution that will afflict our local community. The casino proponents need to be good neighbors and change the current design. Other casinos have actually won awards for their dark-sky-compliant lighting designs, including the Edgewater Casino on Vancouver’s waterfront and the Native American owned Desert Diamond Casino in Arizona. We have been asking SIGA and WDFN to follow these progressive examples but do not know how they feel about these ideas. Closer to home, Wanuskewin Heritage Park has a lighting design that is fully dark-sky compliant. One wonders why SIGA cannot follow the example of this world-class facility. Mr. Premier, I believe that you have the ability to convince them to do the right thing and embrace such progressive lighting designs.

I believe the Government of Saskatchewan has an obligation to help us stop this light pollution for many reasons including:

- Your government approved the construction of this casino and will receive nearly 40% of the profits generated. Given this, your government has a responsibility in how that profit is made; therefore, in the opinion of those citizens fighting the casino lighting design your government is jointly responsible for the light pollution created by this casino, however unintended. On Feb 6th, 2007 the Hon. Deb Higgins spoke on behalf of your government about how the residents of WDFN and the surrounding area will experience numerous benefits from this casino. Is light pollution one of these benefits? Does this mean that your government sanctions the harmful light pollution the casino lighting design will cause? Is light pollution considered a measure of a successful business venture by your government?
- Your government is promoting energy conservation through the efficient use of electricity. Therefore, would it not make sense to stop the Dakota Dunes Casino light

pollution as part of your government's campaign to conserve energy? I find it ironic that society is teaching our children about the virtues of energy conservation while at the same time wasting it through the poorly planned lighting exemplified at this casino. Will our children call us – their parents and elected officials - hypocrites once their dark skies are gone? I urge the Government of Saskatchewan to help us resolve this particular and immediate light pollution problem and to take steps to enact provincial legislation that prevents such problems from occurring in the future. Saskatchewan should require mandatory dark sky compliance for all future developments and work to retroactively fix existing problems; the City of Calgary is a leader in this regard, why not Saskatchewan?

- Saskatchewan's Cypress Hills Inter-provincial Park is a Dark-Sky Preserve and other parks are working to adopt dark-sky compliant lighting policy that I understand is to be phased-in over time. Ironically, Pike Lake Provincial Park is at risk for having its dark skies eliminated by the Dakota Dunes Casino. When I contacted the Parks Branch of Saskatchewan Environment to ask if they were concerned about this, a bureaucrat told me that while the light pollution is unfortunate nothing could be done. I strongly and respectfully disagree; this demands action – not hand wringing! Well respected astronomers and educators at the Royal Astronomical Society of Canada and the University of Saskatchewan tell me that Pike Lake Park is *the* perfect candidate to be our next provincial dark sky preserve because it is uniquely situated close to a large urban centre yet still enjoys a relatively dark eastern, southern and western horizon. As planned, the casino lights will render your park systems' own dark-sky policy meaningless and will drastically reduce the quality of ongoing astronomical education opportunities at this popular park, not to mention the harm it will cause to the quality of life of local residents. Does this concern the Government of Saskatchewan? Is this the legacy we want to leave our children?

In conclusion, we citizens fighting the lights have tried our best to meet with SIGA and WDFN but have been unsuccessful. In good faith, we have deliberately chosen not to go to the major news media with our story because we felt it might needlessly put the casino proponents on the defensive and make securing a meeting even more difficult; a local country newspaper has fairly covered our story. We do believe that we have a very compelling national media story

should we be forced to play that card. We are also seeking council as to our potential legal options. Mr. Premier, we really do not want a national media spotlight or a court battle. We want to live in our homes, enjoy dark starry skies and raise our families. I therefore request your assistance in resolving this unfortunate but very solvable problem. Help us make Saskatchewan a land of truly living skies, at all hours day or night.... one that our children will be proud of when they gaze at the heavens with wonder and amazement.

Thank you very much for reading my letter. I look forward to your response in the near future. You can reach me at the following phone numbers: 249-2003 (evenings); 665-7356 (work: daytime); 222-4810 (cell). I would welcome the opportunity to meet with you in person and my family would like to invite you to our home to view our beautiful night skies and see for yourself why this is an issue so dear to our hearts. We are a short drive from your riding.

Regards,

Mark Kornder

C.c. Honourable John Nilson, Q.C., Minister of Environment

C.c. Honourable Deb Higgins, Minister Responsible for Liquor and Gaming Authority

Enclosed: On the following pages I have attached technical estimates of the energy requirements of the lighting design of the light teepee and parking lot, kindly provided by the Saskatchewan Light Pollution Abatement Committee. I have asked that SIGA provide us with the technical specifications or the lighting design of their casino but have not received any such information from SIGA.

An Estimate of the Technical Specifications of the “Teepee of Light”:

The following represents information that local citizens and Saskatchewan Light Pollution Abatement Committee have pieced together from press releases, media stories, observations of test lights and discussions with the casino’s building contractor. *Note that SIGA was asked to provide exact technical specifications for the spotlights but so far has not done so.*

- Seven 4000-watt spotlights - with Xenon gas bulbs and parabolic reflectors - will shine into the night sky. The total wattage is 28,000 watts
- Power generation required by the teepee of light will cause the emission of approximately 70 tons of CO₂ into the atmosphere each year (7 spotlights at 4000 watts each)
- The beams will meet at a height of approximately 500 feet above the casino and then cross to form a giant teepee before continuing into the heavens
- The spotlights will operate 365 days a year from dusk until closing time (7.5 hours per day on average)
- The spotlights will be visible from as far away as Delisle and Saskatoon’s southern city limits. SIGA intends these to attract visitors traveling on major highways or by air travel
- From a distance the beams will look like a giant funnel in the sky, not a teepee

Local people have been wondering how bright these lights will be? Two test beams were used in October 2006 at full strength and these were visible from Delisle on a clear starry night. Delisle is approximately 30 kilometers from the casino.

To put things in perspective, the 28,000-watt teepee of light would represent 186 standard streetlights operating at 150 watts each, placed on a single building and beamed straight into the sky using parabolic reflector. This is going to be incredibly bright!

The following is the official architect’s rendition of the casino provided by WDFN. It is ironic that the drawing shows the northern lights because they will not be visible in the surrounding area when the casino is lit up. The glow from the casino facility will also be greater!



Estimate of the Technical Specifications of the Parking Lot Lights at Dakota Dunes Casino:

SIGA is currently testing the parking lot lights. Approximately 25% of the fixtures have been turned on. A member of the Royal Astronomical Society of Canada drove to the construction sight to see the lights first-hand and has provided the following information:

- There are 126 light fixtures in the parking lot on 30 individual poles approximately 25-feet tall (4 lights per pole)
- Every light is placed at a 45-degree angle on the pole. Pointing horizontally at 45-degrees wastes approximately 50% of the light produced and the bulbs are directly visible from the yards of neighboring rural residents. Note that these lights could be mounted at 90-degrees and would then be fully shielded with all the light pointing straight at the ground; the wattage could then be reduced and provide more than adequate parking lot light.
- The light fixtures appear to use powerful 500-watt metal halide bulbs – much brighter than a typical 150-watt streetlight. At 500-watts per light fixture the total wattage of the parking lot lights would be about 63,000 watts, 50% of which is wasted through horizontal light loss.
- The casino is also built on a hill approximately 75 feet higher than the surrounding land so it is clearly visible on the horizon.

