

## Part 1 – Bell Sand Farms’ Extraction Proposal Poses Serious Risk of Harm

Bell Sand Farms’ aggregate extraction application poses danger to surrounding ecosystems and protected wildlife. Further, a below-water pit in this sensitive area would create groundwater contamination risks likely to exacerbate Significant Drinking Water Threats within the bisecting Grand River watershed. The technical reports propose measures to mitigate risks of harm that are highly questionable and lack sufficient justification for claimed effectiveness.

The first part of this response will outline the risks posed to protected species in the area from expansion of aggregate extraction, and potential groundwater contamination. The second part will critically examine proposed mitigation measures and why they are likely to fail to prevent irreparable harm to vulnerable ecosystems and human health in the surrounding area.

### a) Protected Species and Vulnerable Ecosystems

The Barn Swallow, listed as a threatened species under the *Species at Risk Act* (SARA), was observed to forage within Community 1.<sup>1</sup> Community 1 consists of a Mixed Cedar Coniferous/Hardwood Forest.<sup>2</sup> Barn Swallows forage and nest in forests, but also rest and eat in open habitats like grassy fields, pastures, cottage areas and farmyards.<sup>3</sup> Breeding Bird Survey data from 1970 to 2009 show a statistically significant decline in population of 3.6% per year, corresponding to a 76% total decline over the 40-year period.<sup>4</sup>

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<sup>1</sup> Government of Canada, “Species Profile (Barn Swallow)” (29 November 2011), online: *Species at Risk Public Registry* <[www.faune-especes.canada.ca](http://www.faune-especes.canada.ca)> [<https://perma.cc/V98C-JDJZ>] [*Species Profile*]; MTE Consultants, *Natural Environment Report (NER) – Level 1 and 2* (Kitchener: MTE Consultants, 2021) at 13 [*NER*].

<sup>2</sup> *NER*, *supra* note 1 at 10.

<sup>3</sup> *Species Profile*, *supra* note 1.

<sup>4</sup> *Ibid.*

The Natural Environment Report limits the habitat of the Barn Swallow to the farmyard building.<sup>5</sup> This is an inadequate assessment of the factors that constitute the Barn Swallow's habitat, and as such, respective foreseeable impacts on the species. With respect to wildlife species, SARA defines "habitat" as "the area or type of site where an individual or wildlife species naturally occurs or depends on directly or indirectly in order to carry out its life processes".<sup>6</sup> The Species Profile notes that suspected factors causing the main decline of the Barn Swallow populations include the loss of *nesting and foraging habitats* due to the conversion of land.<sup>7</sup> A proper assessment of the Barn Swallow's habitat must include the land in Community 1 outside of the farmyard building in order to meet the definition of "habitat" set forth by SARA and to properly protect the species from threats and further population decline.

The Natural Environment Report also notes maternity roost trees for Protected bat species may exist within the 120m Adjacent Lands.<sup>8</sup> Yet no targeted studies were completed, as the potential bat habitat lies outside the proposed Extraction Limit.<sup>9</sup> Similarly, there are several Candidate Significant Wildlife Habitats outside the Licence Boundary, including Communities 5-9, that could not be confirmed because of property boundary restrictions.<sup>10</sup>

Inadequately defined and unconfirmed significant habitats create discrepancies with the Provincial Policy Statement, which states that "*development and site alteration shall not be permitted in ... significant wildlife habitat ... unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions*".<sup>11</sup> Without proper

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<sup>5</sup> *NER, supra* note 1 at 20.

<sup>6</sup> *Species at Risk Act*, SC 2002, c 29, s 2(1).

<sup>7</sup> *Species Profile, supra* note 1.

<sup>8</sup> *NER, supra* note 1 at 14.

<sup>9</sup> *Ibid* at 15.

<sup>10</sup> *Ibid* at 21.

<sup>11</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 2.1.5(d).

assessments of Candidate Significant Wildlife Habitats, it is impossible to demonstrate whether development and site alteration will pose negative impacts to potential ecological functions.

Given suspected risk despite limited scientific evidence, the precautionary principle should be invoked. The precautionary approach is defined in Principle 15 of the *Rio Declaration on Environment and Development*, stating “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”.<sup>12</sup> Canada endorsed the Rio Declaration in 2012, yet continues to fall short in upholding its principles in practice.<sup>13</sup>

### Lack of Indigenous Consultation

The Provincial Policy Statement “recognizes the importance of consulting [Indigenous] communities on planning matters that may affect their section 35 Aboriginal or treaty rights” and encourages planning authorities to “build constructive, cooperative relationships through meaningful engagement with Indigenous communities to facilitate knowledge-sharing in land use planning processes and inform decision-making”.<sup>14</sup> A review of the Natural Environment Report shows little to no cooperation with Indigenous communities during the land use planning process.

The preamble of SARA recognizes that “the roles of the Aboriginal peoples of Canada and of wildlife management boards established under land claims agreements in the conservation of wildlife in this country are essential” and that “the traditional knowledge of the Aboriginal

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<sup>12</sup> *Rio Declaration on Environment and Development*, UN Doc A/CONF.151/26 (vol 1); 31 ILM 874 (1992).

<sup>13</sup> Canada, Public Health Agency of Canada, *Rio Political Declaration on Social Determinants of Health: A Snapshot of Canadian Actions 2015* (Minister of Health, 2015) at 1.

<sup>14</sup> *Supra* note 11 at 5.

peoples of Canada should be considered in the assessment of which species may be at risk and in developing and implementing recovery measures”.<sup>15</sup>

First Nations, Metis, and Inuit have been stewarding lands and waters for millennia. A report by the World Bank in 2008 notes that while Indigenous peoples make up only 5-6% of the global population, their traditional territories encompass 22% of the Earth’s land surface, encapsulating 80% of the planet’s biodiversity.<sup>16</sup> Indigenous-managed lands possess high levels of native species diversity compared to non-Indigenous-managed lands.<sup>17</sup>

As of August 24, 2021, the Heritage Impact Report recognizes that the subject property is “situated within territory of the Anishinabewaki, Attiwonderonk (Neutral), Mississauga, Anishinaabe” associated with Treaty 29, 1827.<sup>18</sup> Yet there is no mention of any Indigenous collaboration elsewhere in the document. This will be further considered in examining potential impacts to Six Nations reserve, located outside the assessment area but implicated in effects on drinking water sources.

#### b) Groundwater Contamination and Drinking Water Threats

The area is highly vulnerable to groundwater contamination. The licence area is designated as a Significant Groundwater Recharge Area (SGRA) and Highly Vulnerable Aquifer (HVA).<sup>19</sup> As legally recognized in the *Clean Water Act* regulations, SGRAs and HVAs are

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<sup>15</sup> *Species at Risk Act*, SC 2002, c 29.

<sup>16</sup> Claudia Sobrevila, *The Role of Indigenous Peoples in Biodiversity Conservation: The Natural but Often Forgotten Partners* (World Bank, 2008).

<sup>17</sup> Turcotte et al., “Fixing the Canadian *Species at Risk Act*: identifying major issues and recommendations for increasing accountability and efficiency” (2021) 6 FACETS 1474 at 1484.

<sup>18</sup> MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC), *Heritage Impact Assessment* (Kitchener: MHBC, 2021) at 4.

<sup>19</sup> Thames-Sydenham and Region Source Water Protection, “Significant Groundwater Recharge Areas (SGRA) Vulnerability” (2014), online (pdf): <[http://www.sourcewaterprotection.on.ca/wp-content/uploads/sp\\_plan3/SupDocs/AR/UTRCA-AR/Appendices/A1-Maps/Map4-2-](http://www.sourcewaterprotection.on.ca/wp-content/uploads/sp_plan3/SupDocs/AR/UTRCA-AR/Appendices/A1-Maps/Map4-2-)

critical areas to monitor and regulate land use, where development is likely to cause significant adverse effects to the environment as a drinking water source.<sup>20</sup> Yet the assessment reports fail to consider the interconnected and cumulative impacts posed by disruption of this vulnerable area to watershed flows.

SGRAs are porous areas of land that receive large volumes of water from precipitation and surface water.<sup>21</sup> 84% of the extraction area is located within an HVA designation,<sup>22</sup> indicating high porosity and rapid water travel from surface to ground.<sup>23</sup> From there, groundwater flows from the southeast to the northwest, toward the Shakespeare Avon Wetland Complex, and Silver Creek and Central School Drain further north.<sup>24</sup> According to the topography of the area, Silver Creek flows into the Grand River.<sup>25</sup> Curiously, while the Upper Thames-Sydenham Conservation Authority and its Source Water Protection Committee designates the bisection of the site within its jurisdiction as SGRA and HVA, the Grand River Conservation Authority and its Source Protection Committee does not.<sup>26</sup>

The “important hydrogeological connections between the water features and the wetland” include the surface to groundwater flows from the licence area toward the wetland and tributary streams that flow into the Grand River.<sup>27</sup> Indeed, the chemical composition of the water systems are very similar and indicate mixing of ground and surface water, supporting the fact that the site

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[2%20SGRA%20Vulnerability.pdf](#); MTE Consultants, Bell Sand Farms Pit Extension: Level 1 and 2 Water Report (Kitchener: MTE Consultants, 2021) at 7 [*Water Report*]; *NER*, *supra* note 1 at 8.

<sup>20</sup> O Reg 287/07, s 1(1).

<sup>21</sup> Thames-Sydenham and Region Source Water Protection, “Frequently Asked Questions” (2021), online: Drinking Water Source Protection <<https://www.sourcewaterprotection.on.ca/approved-source-protection-plan/frequently-asked-questions/>>.

<sup>22</sup> *Water Report*, *supra* note 19 at 8.

<sup>23</sup> Thames-Sydenham and Region Source Water Protection, *supra* note 19.

<sup>24</sup> *NER*, *supra* note 1 at 8.

<sup>25</sup> *Water Report*, *supra* note 19 at 16.

<sup>26</sup> Grand River Source Water Protection Committee, Grand River Source Protection Plan (2 February 2021) at 11-15, online (pdf): <[https://www.sourcewater.ca/en/source-protection-areas/resources/Documents/Grand/GRSPA\\_SPP\\_updated\\_S11-Perth\\_clean.pdf](https://www.sourcewater.ca/en/source-protection-areas/resources/Documents/Grand/GRSPA_SPP_updated_S11-Perth_clean.pdf)>.

<sup>27</sup> *NER*, *supra* note 1 at 7-8.

is a contributing watercourse.<sup>28</sup> Water quality assessment of the Shakespeare Avon Wetland Complex and its tributary streams show heightened levels of heavy metals ranging from phosphorus, aluminum, arsenic, cobalt, and iron.<sup>29</sup> Indeed, upstream contamination is a principle and ongoing concern for the Six Nations of the Grand River.<sup>30</sup> Significant Drinking Water Quality threats have been identified as disproportionately occurring in off-reserve source water intake zones, where upstream off-reserve land use has been mentioned in previous public engagement by the Six Nations Water Task Force, and continually raised in empirical research.<sup>31</sup>

## Part 2 – Proposed Mitigation Measures Will Not Prevent Harm to the Environment

Since 2014, the Ontario provincial policy statement has encouraged the separation of “major facilities” including aggregate operations, and “sensitive land uses”. Sensitive land includes natural or built features of the environment potentially vulnerable to adverse effects.<sup>32</sup> But as analyzed in detail by Osgoode Hall Law Professor, Dr. Estair Van Wagner, who specializes in Natural Resource Law, aggregate extraction is approved “*despite* adverse impacts and risks to public health and safety” from extraction on sensitive lands.<sup>33</sup>

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<sup>28</sup> *Water Report*, *supra* note 19 at 14-16.

<sup>29</sup> *Ibid* at 14.

<sup>30</sup> CBC News, “Grand River is full of contaminants, says award-winning Indigenous McMaster prof” (3 November 2021) online: <[https://www.cbc.ca/news/canada/hamilton/water-award-mcmaster-1.6234501?fbclid=IwAR229\\_G\\_44cg1FTugwarBvm58QEugwthEi1vjw3UR5FZ3wJ66nAHpzHoes](https://www.cbc.ca/news/canada/hamilton/water-award-mcmaster-1.6234501?fbclid=IwAR229_G_44cg1FTugwarBvm58QEugwthEi1vjw3UR5FZ3wJ66nAHpzHoes)>

<sup>31</sup> Suzanne M. Smith, “Exploring the Source Water Protection Interface Between Six Nations of the Grand River and the Province of Ontario” (MA, University of Guelph, 2009) at 71, 74, 79; Leslie Collins, Deborah McGregor, Stephanie Allen, Craig Murray, & Chris Metcalfe, “Source Water Protection Planning for Ontario First Nations Communities: Case Studies Identifying Challenges and Outcomes” (2017) 9:550 *Water* 1 at 7; Julia Baird, Ryan Plummer, Diane Dupont, and Blair Carter, “Perceptions of Water Quality in First Nations Communities: Exploring the Role of Context” (2015) 10:2 *Nature and Culture* 225 at 242; Thomas Dyck, Ryan Plummer, & Derek Armitage, “Examining First Nations’ approach to protecting water resources using a multi-barrier approach to safe drinking water in Southern Ontario, Canada” (2015) 40:2 *Canadian Water Resources Journal* 204 at 217.

<sup>32</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 1.2.6.1; Estair Suarez Van Wagner, *The Place of Private Property in Land Use Law: A Relational Examination of Ontario’s Quarry Conflicts* (Ph.D., Osgoode Hall Law School, 2017) at 191, online: <<https://digitalcommons.osgoode.yorku.ca/phd/37/>>.

<sup>33</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 1.2.6.1-1.2.6.2; Estair Suarez Van Wagner, *The Place of Private Property in Land Use Law: A Relational Examination of Ontario’s Quarry*

Prevention of adverse effects is not required. If “avoidance” of harm is “not possible”, minimizing or mitigating adverse effects is sufficient.<sup>34</sup> In 2014, the default policy of preventing harm was changed to include prevention *or* mitigation.<sup>35</sup> Above all, the hierarchy of provisions in the provincial policy statement, as they apply to aggregate extraction in Ontario, are designed to ensure the long-term viability of major facilities, with cumulative detrimental impact to the environment over time.<sup>36</sup>

a) Protected Species and Vulnerable Ecosystems

Dr. Van Wagner emphasizes concerns about “adaptive management plan[s]...rooted in the approach by the aggregate industry”.<sup>37</sup> The current mitigation measures mirror an adaptive management plan in the limited focus on changes in land immediately surrounding the licence boundaries. The measures fail to see, or more appropriately, choose not to see, the larger scale and long-term, negative effects of mining on biodiversity across interconnected landscapes and regions.

The proposed setback measures of 10 to 50m will not prevent impacts of mining that occur over greater distances. For example, the spread of geochemical waste discharge when some ores are exposed to the air, like dusts, aerosols and acids released from oxidized minerals.<sup>38</sup> Impacts outside of the licence boundaries are potentially more extensive, and their pathways

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*Conflicts* (Ph.D., Osgoode Hall Law School, 2017) at 191, online: <  
<https://digitalcommons.osgoode.yorku.ca/phd/37/>>.

<sup>34</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 1.2.6.1.

<sup>35</sup> Van Wagner, *supra* note 32 at 194.

<sup>36</sup> *Ibid.*

<sup>37</sup> *Ibid* at 332.

<sup>38</sup> Laura J Sonter et al., “Mining and biodiversity: key issues and research needs in conservation science” (2018) 285 *Proc Biol Sci* 1 at 2.

more complex in considering the habitats of endangered species in the area.<sup>39</sup> While important that the management of our land and resources reflect immediate needs of the community, land use planning must take into account the constraints of the environment to ensure long-term environmental health for future generations. In line with the Rio Declaration's principle 3, "the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations".<sup>40</sup>

The Impact Assessment states that "post-extraction, the site will be naturalized as [a] shallow littoral/shallow shoreline and pond habitat with adjacent grassy slopes" to support a variety of native faunal and floral species.<sup>41</sup> The creation of a pond habitat is an interesting attempt to support native species survival, yet there is no pre-existing habitat like this in the area.

Indeed, the use of man-made features to support environmental health has been handled in previous aggregate disputes. Similarly in *Walker*, a dissenting adjudicator rejected the majority's conclusion that rehabilitation of a large man-made lake would "maintain the natural environment" based on natural and cultural features.<sup>42</sup> Despite attempts to naturalize the site, the footprint of the site will remove key original features and functions that rely on each other as part of an efficient and fully functioning ecosystem. As noted analogously by the tribunal, "This will diminish the remaining natural features, functions, and systems in the area, including linkages, and surface and groundwater flow and recharge, and leave isolated and oddly shaped landforms of uncertain long-term ecological value."<sup>43</sup> Moreover, seeding and planting vegetation post-

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<sup>39</sup> Laura J Sonter et al., "Mining drives extensive deforestation in the Brazilian Amazon" (2017) 8:1013 *Nature Communications* 1 at 2.

<sup>40</sup> *Rio Declaration on Environment and Development*, UN Doc A/CONF.151/26 (vol 1); 31 ILM 874 (1992).

<sup>41</sup> *NER*, *supra* note 1 at 20.

<sup>42</sup> *Re Walker Aggregates Inc. (Re)*, 2012 CLB 16274 [Walker]

<sup>43</sup> *Ibid.*



extraction insinuates a “Net Gain” approach, where “any remaining biodiversity losses are ‘offset’ by equivalent and measurable biodiversity gains elsewhere”.<sup>44</sup> However, there is ongoing debate about the extent to which mitigation can indeed deliver Net Gain, where development impacts are irreversible.<sup>45</sup>

With respect to irreversible impacts, the Provincial Policy Statement recognizes the “interim nature of extraction”.<sup>46</sup> However, most old pits and quarries are not being properly rehabilitated.<sup>47</sup> “Less than half of the land disturbed for aggregate production between 1992 and 2001 has actually been rehabilitated” and the total time period of activity until complete rehabilitation was found to be between 58 to 80 years.<sup>48</sup> Such a time-span does not reflect an interim use of the land, but rather permanent changes in land ecology.

b) Groundwater Contamination and Drinking Water Threats

The suggested mitigation measures propose 15m extraction setbacks from the wetlands with fencing to control erosion and sediment movement.<sup>49</sup> This does nothing to stop groundwater flow underneath these fences. Over time, it is inevitable that impacts to the immediate area will eventually affect interconnected ecosystems like downstream tributaries.

Cumulative effects assessment in Canada has been poorly implemented and currently amounts to a “glorified checklist”.<sup>50</sup> The responsibility for assessing cumulative impacts is

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<sup>44</sup> Julia Patricia Gordon Jones et al., “Net Gain: Seeking Better Outcomes for Local People when Mitigating Biodiversity Loss from Development” (2019) 1:2 *One Earth* 195.

<sup>45</sup> *Ibid* at 195, 199.

<sup>46</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 2.5.3.1.

<sup>47</sup> Toronto Environmental Alliance, “3. The Environmental Impacts of Aggregate Extraction” online: <<https://www.torontoenvironment.org/gravel/impacts#w infieldtaylor1>>

<sup>48</sup> *Ibid*; Van Wagner, *supra* note 32 at 274.

<sup>49</sup> *NER, supra* note 1 at 22.

<sup>50</sup> Cole Atlin & Robert Gibson, “Lasting regional gains from non-renewable resource extraction: The role of sustainability-based cumulative effects assessment and regional planning for mining development in Canada” (2017) 4 *The Extractive Industries and Society* 36 at 37.

placed on project proponents, who contract out environmental assessment consultants, with the explicit purpose of gaining project approval.<sup>51</sup> Project level assessment offers only “one puzzle piece”, without fully considering how aggregate development might contribute to regional level impacts.<sup>52</sup> Limiting cumulative effects analysis to so-called “zones of influence” neglects the reality that small “insignificant” impacts may combine with existing vulnerabilities, or future development, to create serious detrimental effects on humans and the environment.<sup>53</sup>

The cumulative effects analysis on zone of influence (after phase 1 and after 1 year) clearly show that the water table of the Shakespeare Wetland Complex will be affected across time.<sup>54</sup> The below-water-table pit will involve no removal of water, yet predicted water table drawdown ranges from 0.5-4m, depending on distance from the extraction zone.<sup>55</sup> Moreover, no impact assessment on the water balance of the Shakespeare Wetland Complex was conducted – only Silver Creek and Central School Drain tributaries.<sup>56</sup>

The lack of consideration given to cumulative impacts within the aggregate regime’s environmental impact assessment is noted by Dr. Van Wagner.<sup>57</sup> In aggregate applications specifically, the Environmental Commissioner has noted the lack of comprehensive cumulative impact analysis.<sup>58</sup> The Provincial Policy Statement suggests that cumulative impact analysis with regard to source water risks be conducted, but assessment is not required.<sup>59</sup>

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<sup>51</sup> *Ibid* at 41; Van Wagner, *supra* note at 178.

<sup>52</sup> Atlin & Gibson, *supra* note 50 at 41.

<sup>53</sup> Atlin & Gibson, *supra* note 50 at 40.

<sup>54</sup> *Water Report*, *supra* note 19 at figures 15-16.

<sup>55</sup> *Ibid*.

<sup>56</sup> *Ibid* at 16-17.

<sup>57</sup> Van Wagner, *supra* note 32 at 185.

<sup>58</sup> Environmental Commissioner of Ontario, *Losing Touch: Annual Report 2011/2012 Part 1* (Toronto: Environmental Commissioner, 2012) at 24-25.

<sup>59</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 2.2.1.

Proposed mitigation amounts to a groundwater monitoring program, complaints procedure, and contingency plan if hydrocarbons from the use of heavy equipment make “direct contact with the exposed aquifer” once extraction begins.<sup>60</sup> The questionable language that hydrocarbon spills would only impact “shallow groundwater” may bear little meaning if the water table is lowered.<sup>61</sup> At the same time, the porous nature of the land increases the risk that hydrocarbons swiftly make their way into groundwater flow, and toward the Shakespeare Avon Wetland Complex. The speed of water travel would drastically increase if the water table were lowered, making the distance from surface to ground 0.5-4m less than if there were no aggregate pit.

The Water Assessment Report only identifies one vulnerable private well, which if its viability as a drinking water source is destroyed, Bell Sand Farms will “restore or replace” the supply of water.<sup>62</sup> Yet Bell Sand Farms says nothing about the detrimental impact to downstream communities as extraction and water flow increases across time, and with it, the mixing of contaminants in the Shakespeare Wetland Complex with its tributaries.

The Grand River is connected to the Silver Creek tributary stream. While communities like Cambridge, Kitchener, and Waterloo all have access to water treatment facilities and adequate infrastructure, Six Nations of the Grand River have faced water insecurity issues for over 20 years.<sup>63</sup> Without implementing a precautionary approach to protecting drinking water sources for the Six Nations reserve, drinking water threats and water quality insecurity will be exacerbated by aggregate extraction. Rather than ensuring public accountability, the burden is

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<sup>60</sup> *Water Report*, *supra* note 19 at 20.

<sup>61</sup> *Ibid* at 19-20, 22.

<sup>62</sup> *Ibid* at 22.

<sup>63</sup> APTN National News, “‘It doesn’t make sense’: Feds pledged spend billions on First Nations water plants, but not on the pipe to carry fresh water to homes” (23 February 2021), online: <<https://www.aptnnews.ca/national-news/water-plants-first-nations-water-pipes/>>.

placed on individuals to take up responsibility to enforce an industry-driven compliance regime.<sup>64</sup>

The reactive and limited protection offered by mitigation measures is a sign that Ontario has neglected one of the fundamental environmental protection principles guiding the prevention of harm to the environment. The precautionary approach in environmental matters has been recognized as a stable principle of customary international law and has been recognized by the Supreme Court of Canada.<sup>65</sup> It is also incorporated in the Minister's statement of environmental values which are meant to guide the ministry in environmental decision-making. Despite being a guiding principle pursuant to section 7 of the *Environmental Bill of Rights*, an "adaptive management" approach has been endorsed in other contexts,<sup>66</sup> and is now clearly a part of the aggregate extraction regime in Ontario. Despite the provincial policy statement's endorsement of long-term protection,<sup>67</sup> aggregate resources are protected,<sup>68</sup> while environmental harms only need to be minimized if not avoided.<sup>69</sup>

### Conclusion

Given the risks previously outlined, Bell Sand Farms quarry expansion proposal should not be authorized. As a proponent-lead process that favours aggregate development over environmental protection, risks posed to wildlife, ecosystems, and human health should be prevented by invoking a precautionary approach that considers cumulative impacts over time.

Even if mitigation measures can justify long-term cumulative impacts, there is a history of lack of enforcement and monitoring to ensure mitigation measures are actualized. As noted by

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<sup>64</sup> Van Wagner, *supra* note 32 at 178.

<sup>65</sup> *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, 2001 SCC 40 at para 32.

<sup>66</sup> *Canadian Parks and Wilderness Society v Canada (Ministry of Canadian Heritage)*, 2003 FCA 197 at para 24.

<sup>67</sup> Ontario, Lieutenant Governor in Council, *Provincial Policy Statement, 2020* at s 2.1.1.

<sup>68</sup> *Ibid* at s 2.5.1.

<sup>69</sup> *Ibid* at s 2.5.2.2.

Dr. Van Wagner, the Environmental Commissioner reviewed the self-reporting compliance system, finding that its quality was lacking.<sup>70</sup> In 2005, out of 121 sites, 100 had compliance issues.<sup>71</sup>

Adaptive management plans that act to minimize rather than prevent harm involve reactive solutions after harm has occurred, implicating endangered species, drinking water sources, and the livelihood of interconnected ecosystems. Rather than identifying particular projects and their significant effects, a more realistic solution than project-by-project based assessment and mitigation would involve a “regional, sustainability-based” form of planning.<sup>72</sup> The reality is that while particular zones of development may be regarded as “insignificant”, they combine with other “modest” effects to produce serious impacts.<sup>73</sup> This includes increasing aggregate extraction in this region.

The Perth County Official Plan was updated in 2020, yet continues to rely on old data regarding the number of active aggregate pits, claiming that Perth County does not have “an abundance of mineral aggregate resources”.<sup>74</sup> Yet a review of pits and quarries in the area shows one of the highest concentrations of aggregate extraction in Ontario, located within the North-East part of Perth County.<sup>75</sup> Rhetorical emphasis on an ever-present “need” or “demand” for aggregate in Ontario, feeds into a proponent-lead system, where supply/demand analysis is not

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<sup>70</sup> Environmental Commissioner of Ontario, *Developing Sustainability: Annual Report 2001-2002* (Toronto: Office of the Environmental Commissioner of Ontario, 2002); Van Wagner, *supra* note 32 at 176.

<sup>71</sup> Environmental Commissioner of Ontario, *2005/06 Annual Report - Neglecting our Obligations* (Toronto: Environmental Commissioner of Ontario, 2006) at 43.

<sup>72</sup> Atlin & Gibson, *supra* note 50 at 41.

<sup>73</sup> Atlin & Gibson, *supra* note 50 at 40.

<sup>74</sup> Perth County, Ministry of Municipal Affairs, *Perth County Official Plan* (2020).

<sup>75</sup> Ministry of Natural Resources and Forestry, “Pits and Quarries Online” (2021), online: <[https://www.lioapplications.lrc.gov.on.ca/Pits\\_And\\_Quarries/index.html?viewer=Pits\\_and\\_Quarries.Pits\\_and\\_Quarries&locale=en-CA](https://www.lioapplications.lrc.gov.on.ca/Pits_And_Quarries/index.html?viewer=Pits_and_Quarries.Pits_and_Quarries&locale=en-CA)>.

required, but merely assumed.<sup>76</sup> Aggregate extraction is the only land use in the Provincial Policy Statement where demonstration of need is not required.<sup>77</sup>

There are currently no clear guidelines for balancing the need for aggregate extraction and protections for natural heritage or source water. During the 2017 amendments to the *Aggregate Resources Act*, concerns about environmental protection were voiced during second reading, where there is still “no clear obligation to screen out pit or quarry applications that conflict with the government’s own protections...as the Environmental Commissioner recommended a decade ago”.<sup>78</sup> Ontario’s *Environmental Bill of Rights* lacks a substantive right to a healthy and safe environment – this forum is the limited public participation provided to Ontarians to stop harmful development projects.<sup>79</sup> We hope this analysis does not fall on deaf ears, becoming a statistic in the Ontario government’s continued approval of extraction projects that pose serious risks of harm to the environment.

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### **JURISPRUDENCE**

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<sup>76</sup> Van Wagner, *supra* note 32 at 182; *Provincial Policy Statement, 2020* at s 2.5.2.1.

<sup>77</sup> *Capital Paving Inc v. Wellington (County)*, 2010 CarswellOnt 697, OMB Case No: PL080489, January 19, 2010, at para 16.

<sup>78</sup> Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41<sup>st</sup> Leg, 2<sup>nd</sup> Sess, (15 November 2016) at 0940 (Jennifer French).

<sup>79</sup> Ontario, “Environmental Bill of Rights” (26 October 2021), online: <<https://www.ontario.ca/page/environmental-bill-rights>>.

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