

Theme Area	Current	What's Going On	Predicted	Economic	Action
	Condition		Direction	Costs	Required
Health	Decreased health due to dramatic rise in chronic diseases	<ul> <li>car-dependent spraw has contributed to a dramatic rise in chronic diseases – including premature deaths</li> <li>12,500 new cases of diabetes each year in the GTAH alone – increasing from 546,000 cases in 2000 to 1.9 million cases in 2020 (Ontario-wide)<sup>1</sup></li> <li>Air pollution: 712-997 premature deaths/year and 2812-3939 hospitalizations/year in the GTAH<sup>2</sup></li> <li>Leading to a dramatic increase in health care costs <ul> <li>\$ 1.4 billion/annually in direct health care costs</li> <li>\$ 305 million annually for the 12,500 new cases of diabetes = for 10 years \$3 billion<sup>4</sup></li> <li>Which is a key driver in projected increase in health care costs from 40+% to 70% of Ontario's budget (without direct intervention)<sup>5</sup></li> </ul> </li> <li>Win-Win <ul> <li>The Ministry of Health's 2013 Strategic Plan calls for active transportation based community planning/design as a key way to contain these costs<sup>6</sup></li> </ul> </li> </ul>	Worsening	Increased health care costs	High Firm Urban Boundary + Active Transportation based Community Planning/ Design
Water	Significant degradation and ongoing decline	<ul> <li>Urban sprawl is resulting in significant degradation of both the quality and quantity of our ground and surface waters</li> <li>Great Lakes hold 1/5 of the world's surface water from which 80% of Ontario gets their drinking water<sup>7</sup></li> <li>Major storm water-related discharges to the Great Lakes exceed 90,000 tonnes/year of sediment, oil and other contaminants<sup>8</sup></li> <li>Contaminants are leading to the recent algae bloom proliferations in our Great Lakes<sup>9</sup></li> <li>Surface waters in urbanized portions of GGH are rated as being in "Very Poor" or "Poor" shape<sup>10</sup></li> <li>Assimilative capacity of inland rivers/lakes to receive sewage virtually maxed out<sup>11</sup></li> <li>Predictive modelling shows water quality is expected to worsen with increased growth in the Lake Simcoe Watershed<sup>12</sup></li> <li>The average Aquatic Stress Index for Ontario watersheds increased by 7.5% between 2003 and 2013 with watersheds in the Mixedwood Plains Ecozone having the highest Stress Index values<sup>13</sup></li> <li>Quality in Streams: chloride levels were high near urban areas, nitrate levels were high in SW Ontario and phosphorus levels were above thresholds at almost 50% of monitoring stations<sup>13</sup></li> </ul>	Worsening Overall (with some stabilization in Greenbelt)	Loss of resource, increased treatment costs, need for pipelines, reduced economic potential	High GGH Wide Natural Heritage & Water Resource System + Low Impact (ie. green) Development Standards in Urban Areas
Natural Features & Ecological Function	Significant loss and ongoing decline	<ul> <li>Urban sprawl is resulting in significant loss and degradation of natural features and their ecological functions</li> <li>72% of historic wetlands in Ontario have been lost<sup>14</sup></li> <li>Between 1982-2002, an average of 8,600 acres of large wetlands (10ha or greater) were lost each year<sup>15</sup></li> <li>Between 2002 and 2011, a total of 6,152 ha of wetlands were lost representing 0.6% of the remaining wetland area in southern Ontario<sup>16</sup></li> <li>Woodlands in urbanized portions of GGH are rated as being in "Very Poor" or "Poor Shape"<sup>17</sup></li> <li>Annual worth of Natural Capital (ecological goods and services) in the Greenbelt = roughly \$2.6 billion<sup>18</sup></li> </ul>	Worsening (primarily outside of Greenbelt	Loss of ecological goods and services	High GGH Wide Natural Heritage & Water Resource System + Low Impact Development Standards in Urban Areas



		<ul> <li>Annual value of ecological goods and services in southern Ontario = \$84 billion<sup>19</sup></li> </ul>			
Biodiversity	Significant loss and ongoing decline	<ul> <li>Urban sprawl is the major contributor to habitat loss which is the key cause of the loss of biodiversity</li> <li>Habitat loss and fragmentation threaten close to 90% of species at risk in Ontario – including 97% of Greenbelt species at risk<sup>20</sup></li> <li>Human development is the direct cause of the biggest loss of species (the 6th Extinction)<sup>21</sup></li> <li>There are currently 180 alien species in the Great Lakes<sup>22</sup></li> <li>The average Aquatic Stress Index for Ontario waterseds increased by 7.5% between 2003-2013<sup>23</sup></li> <li>Ontario's Ecological Footprint has been reduced, but is now larger than biocapacity, which has decreased<sup>24</sup></li> </ul>	Worsening (primarily outside of Greenbelt)	Loss of ecological goods and services	<b>High</b> GGH Wide Natural Heritage and Water Resource System
Agriculture	Severe and ongoing loss	<ul> <li>Urban sprawl is the primary cause of the severe and ongoing loss of prime agricultural land</li> <li>Only 5% of Ontario's land area is viable for agricultural production with a much smaller portion containing Class 1, 2 and 3 prime lands<sup>25</sup></li> <li>Since 1921 Ontario has lost over 40% of its farmland – going from 9 million to 5 million ha of which only 4 million is farmable<sup>26</sup></li> <li>Since 1976, the GGH has lost an additional 20% of its remaining farmland including about 161,000 acres (4.3%) just between 2006-2011<sup>27</sup></li> <li>Roughly 250,000 additional acres or 7% of the remaining farmland in the GGH has already been approved for urban expansion<sup>28</sup></li> <li>Development interests have speculatively secured 10's of thousands of additional hectares of farmland in expectation of conversion to urban use<sup>29</sup></li> <li>Combined with existing losses, the GGH has only about 40% of its original farmland left (3.5 million acres)<sup>30</sup></li> <li>Once lost, farmlands are gone forever – yet GGH agriculture and the agri-food sector contribute \$12.3 billion and 212,000 jobs to the regional economy (while provincially contributing \$35 billion and 720,000 jobs)<sup>31</sup></li> <li>The Greenbelt only covers 21% of GGH – the remainder is eligible for conversion to non-farming uses<sup>32</sup></li> <li>From 2006-2011, 350 acres of farmland were lost per day across Ontario – or 128,396 acres annually. During this five year period, 161,287 acres of agricultural land were lost in the GGH<sup>33</sup></li> <li>Ontario's agriculture and agri-food sector contributes \$34 billion annually to GDP and supports 767,000 jobs. The GGH contributions total \$6.3 billion in annual economic activity<sup>34</sup></li> </ul>	Continued loss (primarily outside of Greenbelt)	Loss of agricultural /agri-food economic opportunities, reduced food security, loss of ecological goods and services provided by farmland	<b>High</b> GGH Wide Agricultural System
Climate Change	Degraded due to increased emissions	<ul> <li>Car dependent, low density sprawl is highly energy consumptive, and a significant source of GHG's</li> <li>The transportation sector is the largest contributor to Ontario's overall GHG emissions at 34% in 2012. An increase of 24% from 1990-2012<sup>35</sup></li> <li>Extreme weather in Ontario costs about \$6 billion/year<sup>36</sup> Ontario is on a path to fall short of its 2020 and very short of its 2050 emissions targets<sup>37</sup></li> <li>Increasing the Growth Plan density target to for the DGA to 70 people and job/hectare and the intensification target to 60%, we could offset the anticipated increase in vehicle miles traveled, as our population grows towards the 2041 forecasts<sup>38</sup></li> <li>Many existing/approved areas of the GGH will not be served and much of the greenfield development</li> </ul>	Accelerating	Increased insurance claims, higher infrastructure costs	High Firm Urban Boundary + GGH Natural Heritage, Water Resource & Agriculture Systems



		approved is for a continuation of low density, car dependent development – with no transit <sup>39</sup>			
		<ul> <li>If emissions continue at the current rate, warmer weather may impact agricultural viability in Southern Ontario, introduce new pests and infections and increase extreme weather events<sup>40</sup></li> </ul>			
Energy	High comsumption per capita	<ul> <li>Low density, car dependent sprawl is highly energy consumptive (both buildings and transportation) and a high generator of GHG's</li> <li>High-density neighbourhoods adjacent to a suburban city centre can produce between 50% to 67% fewer emissions than the single-family homes<sup>41</sup></li> <li>Compact development could reduce vehicle miles traveled</li> <li>Single-use, car-dependent neighbourhoods produce nearly 3x more annual emissions than mixed use, compact neighbourhoods<sup>42</sup></li> </ul>	Consumption and GHG's to rise	Higher energy and climate change costs	<b>High</b> Firm Urban Boundary
Transportation	Significant gridlock + longer commute times	<ul> <li>Low density, car dependent sprawl is the cause of severe gridlock</li> <li>Every year, the Greater Golden Horseshoe loses \$6 billion/year in productivity, because of traffic congestion<sup>43</sup></li> <li>This figure is expected to grow to \$15 billion by 2031<sup>44</sup></li> <li>The Growth Plan density target of 50 people/jobs/ha is the minimum needed to support 20-30 minute bus service – which is not sufficient to shift modal shift patterns<sup>45</sup></li> <li>While the Big Move will help, many existing and approved areas of the GGH will not be served and much of the greenfield development approved is for a continuation of low density, car dependent development – with no transit and /or projected modal split well under 10% in vast majority of GGH<sup>46</sup></li> <li>Intensification and greenfield density targets have been reduced significantly in a number of outer ring municipalities<sup>47</sup></li> <li>Currently, more than two million automobile trips are made during the peak travel period each morning in the GTHA, with that number forecast to approach three million trips by 2031<sup>48</sup></li> <li>The increase in vehicle kilometres travelled due to the increased number of cars could be offset by increasing the density target to 70 people/jobs/ha and the intensification target to 60%)<sup>49</sup></li> </ul>	Worsening	Lost productivity	High Firm Urban Boundary + Big Move + Transit Supportive Planning & Design
Infrastructure	Significant infrastructure deficit	<ul> <li>Low density sprawl is a key cause of Ontario's structural infrastructure deficit <ul> <li>Ontario currently has an infrastructure deficit of approximately \$100 billion<sup>50</sup></li> <li>Various studies show compact urban form can save from 30-50% of life cycle costs including a 2009 Study from Calgary which concluded that a development 25% more compact could save \$11.2 billion (33%) in capital, operation and replacement of infrastructure costs<sup>51</sup></li> <li>Low density residential, commercial or industrial development does not generate enough revenue to cover life time costs of infrastructure40 (see Mississauga)<sup>52</sup></li> <li>Continuation of low density development patterns will result in continuation of a structural infrastructure deficit<sup>53</sup></li> <li>Rate of increase of total road length has slowed since 1985, however, the total length of paved roads has continually increased<sup>54</sup></li> </ul> </li> </ul>	Continuation of low density patterns	Increased deficit due to fiscally unsustainable development patterns	<b>High</b> Firm Urban Boundary



Housing	Low density sprawl is costly to service contributing to higher housing costs Development charges in greenfield communities can be 3 times higher than developing in already built up areas where infrastructure is in place <sup>55</sup> Less than 50% of households could afford a house costing \$350,000 without spending more than 30% of their gross income <sup>56</sup> A household could save up to \$250,000 over a 25-year mortgage if only needing 1 rather than 2 cars <sup>57</sup> Of the 1 million people added to the GTHA between 2001 and 2011 only 14% were accommodated through intensification with 86% of the net new population was housed in suburban subdivisions <sup>58</sup>					
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