1 Infrastructure and Planning Assessment

Given the more tangible, development-oriented tactics and outcomes envisioned as part of BEDC's future work, this section provides a high-level assessment of Burlington's infrastructure (e.g. water and wastewater servicing, electricity, communications connectivity and capacity, transportation links), employment lands, and planning and economic development policies, with a particular interest in identifying factors that influence development opportunities or approaches. The assessment is not meant to be comprehensive or exhaustive, but focuses on highlighting infrastructure, development, and policy issues that influence the establishment of Burlington's economic vision.

1.1 General Infrastructure Assessment

Generally speaking, much of the infrastructure needs concerning Burlington's vacant employment land supply were assessed at a high-level in the Employment Lands – Phase Two Report, completed by Dillon Consulting and Watson and Associates in 2014[1] and the High Level Servicing Review, completed by Dillon Consulting in 2014.[2] Those studies looked at the current vacant and underutilized[3] employment land supply with regards to the availability of water and wastewater, power, telecommunications, and gas, offering insight into the current conditions of infrastructure, and any investments that may increase the marketability of currently vacant lands for development.

Both studies confirmed that providers of hydro, natural gas, and telecommunications do not anticipate any problems with providing services to the vacant or underutilized employment land supply, nor was there any specific network-level investments needed to accommodate development on any given site. [4] Only area-specific issues were outlined, including[5]:

- Radial, rather than looped hydro lines to areas west of Waterdown Road, potentially impacting reliability in the area
- Limited connectivity to existing 27.6 kV high voltage lines for nine parcels with intensification potential around the city

[1] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

[2] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands.

[3] Underutilized lands are defined in the ELOP as those with the potential for intensification to minimum market standards, ranging from 50% site coverage (office) to 35% coverage (industrial/commercial), or those sites with the potential for the creation of a new development lot through severance.

[4] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands.

[5] Ibid.

- Limited existing availability of natural gas to the west of Highway 407 (Aldershot), and between Mainway, Upper Middle Road, Burloak Drive, and Appleby Line (solutions are currently being investigated and contemplated for Aldershot)

However, depending on the characteristics of development on each parcel (e.g. power demand, need for higher gas delivery pressure) these assumptions may need to be revisited as development proceeds. The Employment Lands Operational Plan (ELOP)[6] contemplates mostly office-oriented and light industrial uses on the vacant or underutilized employment lands in the city, so it is reasonable to suggest that limited investment would need to be made beyond specific infrastructure intended to deliver the respective hydro, gas, or telecommunications service to the site. For example, the type of knowledge-based and higher density development envisioned in the ELOP seems less likely to require high capacity power or gas infrastructure characteristic of medium/general to heavy industrial uses.

As a result, this section focuses on other key elements of regional and local infrastructure like water/wastewater, stormwater, road, and transit servicing, where specific need for investment and improvement has been outlined on either a network or local/site-specific level.

1.1.1 Water and Wastewater Servicing

Halton Region is responsible for water purification and distribution, and wastewater treatment and collection in Burlington, and the other lower-tier communities in the region. Halton's water system represents over $3.1 billion in infrastructure assets, contained in three lake Ontario-based water plants supplying 25 reservoirs and booster stations, nine groundwater treatment systems supplying six reservoirs and pumping stations and seven bulk water stations, and approximately 2,200 kilometres of watermains and feedermains and over 33,235 fire hydrants and valves. The region is home to $3.3 billion in wastewater assets separated among 1,850 kilometres of wastewater mains, 28,200 maintenance holes, eighty wastewater pumping stations, and seven wastewater treatment plants.

Maintenance and replacement of the existing infrastructure remains a key consideration in capital plans. The overall water system in Halton is rated as good by the region, reflecting the relatively young age of infrastructure in some parts of the region (e.g. Milton), and ongoing investments in replacement and maintenance programs. Approximately 36% of water infrastructure is rated as fair or poor, meaning these assets are reaching the end of their life, and require ongoing monitoring to identify and prioritize their replacement/repair. Similarly, the region's wastewater system is rated as good

[6] BEDC. (2012). Employment Lands Operational Plan.

overall. However, like water infrastructure, approximately 40% of infrastructure is rated as fair or poor, necessitating a focus on monitoring, investment, and renewal.

Overall, the region's 10-year state-of-good-repair capital budget for water and wastewater projects sat at $673.1 million in 2015 ($741.1 million, including considerations for infrastructure to be built over the next 10 years).[7] Major water and wastewater capital plans in the state-of-good-repair program over the next 10 years include[8]:

- $344,4 million for rehabilitation and replacement of the regional distribution system
- $306.6 million for plant/infrastructure upgrades and replacements, including the Burlington Skyway Wastewater Treatment Plan, the Burlington Water Purification Plant, and a pumping station in the Burlington East area

In comparison though, the 10-year capital plan for development-related water and wastewater infrastructure sat at $889.6 million in 2015, suggesting the accommodation of new growth remains a priority across the region as well.[9] The $889.6 million in capital investments to support new development includes[10]:

- $452.1 million to service region-wide capacity-related infrastructure
- $309.6 million to service infrastructure in greenfield areas
- $82.4 million to service infrastructure within the built boundary
- $45.5 million to service employment lands (e.g. Milton Business Park Phase Two, Oakville Winston Park West, and Halton Hills 401 Corridor)

Generally speaking, the region faces the need to finance the construction of new infrastructure to serve employment and residential growth in greenfield areas, as well as the need to finance the maintenance and rehabilitation of infrastructure in the existing built-up areas to support redevelopment and intensification. Except for the inherent challenges of financing new growth while maintaining present infrastructure conditions, there appears to be few barriers to accommodating new employment growth in greenfield or built-up areas in the region based on existing capital plans. As with all other municipalities in Ontario though, this requires the municipality to maintain a strong fiscal position, of which revenues from tax assessment play a key role.

[7] Halton Region. (2015). Budget and Business Plan 2015, Water and Wastewater Overview.

[8] Ibid.

[9] Halton Region. (2015). Budget and Business Plan 2015, Water and Wastewater Overview.

[10] Ibid.

The High Level Servicing Review of Employment Lands provides an overview of the municipal servicing of the city's vacant and underutilized employment land supply, including an assessment of which employment lands are serviced or serviceable, which properties may require upgrades to the regional systems to accommodate employment growth, and the general cost implications of addressing opportunities and challenges. Overall, the majority (71%) of vacant and underutilized parcels in the study (114 of the 160 parcels, or 385 hectares of the total 570 hectares under consideration) are considered to be serviced, having access to water, wastewater, and stormwater services.[11] An additional 14 parcels (20 hectares) are considered to be serviceable with the potential need for off-site infrastructure to connect to municipal systems adjacent to the parcel, and 32 parcels (165 hectares) considered as serviceable if required off-site extensions are built to connect to municipal systems.[12] Generally speaking, the assessment determines that all vacant and underutilized lands are theoretically serviceable (should off-site infrastructure be constructed in some cases), with a strong portion of lands already serviced. This mirrors the conclusions for vacant lands in the Employment Land Strategy – Phase Two report. [13]

Generally speaking, both the employment lands strategy and high level servicing review concluded that development on the city's vacant and underutilized employment lands can be accommodated on an aggregate level (i.e. capacity exists within existing capital plans and facilities to accommodate development, pending confirmation through submission of development applications for specific sites), based on employment forecasts at the regional level used in the employment lands strategy[14] and Best Planning Estimates (BPEs) at the regional level used to create the Regional Water and Wastewater Master Plan (WWMP).[15]

However, the preferred strategy for Burlington still requires a range of infrastructure investments in the regional water system within those capital forecasts, including specific upgrades to watermains, pumping stations, and reservoirs, as well as investments in water purification plants (WPP):[16]

- An upgrade to the Oakville WPP from 109 to 130 million litres per day (MLD) by 2016, and design (2012-2016) and construction (2017-2021) of intake pipe extension

[11] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands.

[12] Ibid.

[13] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

[14] Ibid.

[15] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands.

[16] Ibid.

- An upgrade of the Burloak WPP from 55 to 165 MLD by 2016, as well as a class EA (2017-2021) and design and construction (2022-2026) of an expansion from 165 MLD to 220 MLD
- Maximization of Burlington WPP through distribution transfer to the Oakville WPP

Wastewater servicing capacity for vacant and underutilized employment lands development in the city can generally be accommodated through the improvements to the Skyway Waste Water Treatment Plant (WWTP), which are intended to be complete by the end of 2015.[17] As with the regional water system, the development of vacant and underutilized employment lands will require investments in wastewater mains and pumping stations to meet demand as well.

As noted previously, regional level capital plans seem to highlight few, if any, issues preventing the servicing of unserviced lands, given scheduled construction, maintenance, and repair. The recommended upgrades to both WPPs and the Skyway WWTP are either underway or scheduled for completion over the next 10 years (with construction for additional capacity under consideration as well), and all of the identified and recommended investments to water and sewer infrastructure that would improve (to serviced parcels) or service (to serviceable properties) currently vacant and underutilized parcels are scheduled to be completed in the next 10 years within the region's existing capital plans.

When considering the sufficiency of infrastructure to accommodate employment growth on vacant and underutilized lands, it is worth noting the differences in the proposed level of employment growth for the city. The ELOP proposes aggressive employment growth targets for the city, of 1,526 total jobs per year to 2031, or a total increase of 28,995 from 2012 to 2031[18]. This translates to total employment of 123,395 in the city by 2031. In contrast, the employment forecast for Burlington based on Regional BPEs expects employment growth of 679 per year to 2031, or total employment growth of 12,900.[19] Under that scenario, employment in the city is expected to reach 107,300 by 2031, a figure that is considered build-out by regional planners.[20]

The Regional estimates were used as a basis for capital planning for south Halton. Pending the densities and characteristics of employment that ultimately locates on these vacant and underutilized lands then, it may be possible that additional infrastructure investment may be needed. The high level servicing strategy contemplated the need for additional capital investment beyond what is envisioned in the current WWMP. For water, the high level servicing strategy concluded that there was good potential for the existing and planned system to support employment beyond what is contemplated in the WWMP, based on uncommitted capacity in the Burlington WPP and interconnections with adjacent

[17] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands

[18] BEDC. (2012). Employment Lands Operational Plan.

[19] Ibid.

[20] Ibid.

lake water based WPPs in south Halton (e.g. Burloak, Oakville).[21] However, the study also concluded that the Skyway WWTP may represent a barrier to higher employment growth than envisioned in the Regional BPEs, given that there is limited additional room for expansion on the site.[22] Additional concerns were raised about the type of industry that may be attracted to vacant or underutilized lands, and the potential impacts that heavy wastewater treatment demand might have on the network.[23]

In short, employment growth levels envisioned in Regional BPEs on vacant and underutilized employment lands can be accommodated by the existing and planned water and wastewater infrastructure in the city, with potential need for additional local infrastructure investment to connect parcels to the municipal system or increase local capacity, as noted in the high level servicing strategy. While the more aggressive employment targets of the ELOP can be accommodated within the existing and planned water system, limitations in the wastewater system may represent a barrier to longer term growth above what has been allocated to Burlington in the BPEs. However, given that much of the development envisioned in Burlington's key employment areas in the ELOP is light industrial or office-oriented in nature, little may need to be done beyond projected investments to accommodate things like heavy process water demand, typical of more general industrial uses, perhaps reducing the barriers posed by the limitations in the wastewater system.

1.1.2 Stormwater Servicing

Stormwater management and storm drainage are the responsibility of the City of Burlington, with Conservation Halton having regulatory authority over watercourses. Overall, the City of Burlington holds $131 million in net tangible capital assets across both urban and rural stormwater management facilities, primarily associated with linear assets like stormwater sewers.[24]

The Employment Land Strategy – Phase Two undertook a network-wide and site-by-site analysis of stormwater servicing needs across Burlington's vacant employment lands inventory, with a general conclusion that stormwater servicing does not pose a major risk to the development of employment lands. From a network-wide perspective, several capital projects were highlighted as required to facilitate employment land development in the Highway 403 West Corridor Employment Area:

[21] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands

[22] Ibid.

[23] Ibid.

[24] Ministry of Municipal Affairs and Housing. (2013). Municipal Financial Information Return (FIR), City of Burlington.

- Falcon Creek erosion control, including North Shore Boulevard to Hamilton Harbour (2016-2017) and Highway 403 to CN Rail line (2018-2020)
- Falcon Creek Stormwater Management Master Plan

On a site-by-site basis, the analysis concluded that the majority of vacant employment lands (90% of sites) were considered to be serviced, having existing stormwater services immediately adjacent to the site.[25] The remaining seven sites were deemed to require additional off-site extensions to the municipal stormwater servicing system, with required stormwater lines ranging from 35 metres (Burlington Innovation District) to 205 metres (501 North Service Road) to allow for servicing.[26]

As with water and wastewater servicing, the existing capital plans (in this case at the City level) appear positioned to accommodate development of employment lands, with the extension of off-site infrastructure required likely to be financed through growth-related revenues, and constructed with the construction/rehabilitation/improvement of transportation facilities in the area. When considering underutilized lands as well, the High Level Servicing Review did not highlight any anticipated challenges with existing and planned stormwater infrastructure.[27] Overall, there do not appear to be any major barriers to the development of the existing employment land inventory related to existing or required stormwater servicing facilities.

1.1.3 Transportation

Burlington has access to a range of multi-modal passenger and goods movement infrastructure, which greatly improves its investment prospects. The following section discusses the existing characteristics of the transportation network in Burlington, as well as any anticipated issues or challenges preventing employment land development in Burlington. Given the absence of major cargo rail (e.g. intermodal yards) and air infrastructure and assets within the city, the assessment focused on the issues and opportunities associated with the transportation infrastructure most likely to influence economic development in the city – roads and highways, and transit.

[25] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

[26] Ibid.

[27] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands

Roads and Highways

One of Burlington's strongest location factors is its positioning along provincial highway corridors. Burlington provides access to both the QEW/403 corridor, as well as the Highway 407 express toll route. Beyond the provincial transportation routes, the city has access to major regional routes with inter-regional connections, including Regional Road 1 (Guelph Line), Regional Road 5 (Dundas Street), and Regional Road 7 (Derry Road).

Few major capital projects are planned along the QEW/403 corridor in the short-term, with the exception of bridge rehabilitations at Appleby Line, Burloak Drive, and Plains Road/Highway 403 off-ramp, which generally will not affect longer term employment land prospects. Perhaps the most notable recent expansion was the widening of the QEW through Burlington to accommodate High Occupancy Vehicle (HOV) lanes, which was completed in 2010. The Halton Region Transportation Master Plan (TMP) noted several provincial transportation infrastructure investments expected to be in place by 2031, with impacts on Halton Region. Only one project is expected to have direct impacts on Burlington:

- Implementation of new east-north and north-east ramps at the Highway 403 and QEW interchange, currently under study by MTO

As noted in the High Level Servicing Review though, MTO has jurisdiction on regional roads within 800 metres of highway interchanges, which has the potential to limit access to these roadways from vacant and underutilized parcels.[28] So while there are few infrastructure improvements planned for provincial highway corridors in the city, MTO may still have a bearing on the design and completion of transportation improvements in the Highway 403 West, Highway 407, and Prosperity corridors.

The Regional Capital Plan (2015) lists several projects in Burlington with a potential impact on transportation capacity in the city:

- Widening of Dundas Street to six lanes from Appleby Line to Tremaine Road, 2015-2017
- Widening of Dundas Street to six lanes from Guelph Line to North Hampton, 2016-2019
- Widening of Dundas Street to six lanes from Guelph Line to Halton/Hamilton boundary, 2016-2017
- Intersection improvements at Brant Street and Plains Road, 2016
- Intersection improvements at Guelph Line and Harvester Road, 2015-2016
- Grade Separation (CNR Crossing) at Dundas Street between Appleby Line and Tremaine Road, 2016
- Widening of Guelph Line to six lanes from Mainway to Upper Middle Road, 2017-2021
- Widening of Guelph Line to six lanes from Upper Middle Road to Dundas Street, 2022+

[28] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands

- Widening of Brant Street to six lanes from North Service Road to Dundas Street, 2017-2022
- Widening of Appleby Line to six lanes from Fairview Street to Taywood Drive, 2018-2024
- Widening of Upper Middle Road to six lanes from Appleby Line to Burloak Dive, 2021-2024

Though not exclusively focused on improving transportation flow or assets in the city's key employment districts, these regional level improvements may facilitate greater traffic flow across the city, which will likely assist with tackling key emerging issues like increasing traffic congestion across the city.[29] The City of Burlington's 2015-2024 Capital Forecast outlines a number of planned transportation investments across the city's key employment areas, as outlined below:

- Highway 407 Corridor, Harrison Court northerly extension, linking the commercial and industrial areas in the northeast quadrant of Appleby Line and Dundas Street, 2015-2017
- Prosperity Corridor, intersection improvements and widening at Appleby Line and Harvester Road, 2016-2024
- Prosperity Corridor, intersection improvements and widening at Harvester Road and Guelph Line, 2016-2018
- Prosperity Corridor, widening of Harvester Road from Guelph Line to Walkers Line, 2016-2024
- Highway 403 West Corridor, extension of South Service Road from Aldershot Station to King Road, 2016-2024
- Prosperity Corridor, intersection improvements and widening at Harvester Road and Walker's Line, 2017
- Prosperity Corridor , grade separation (CNR) at Burloak Drive, 2019-2024
- Prosperity Corridor, reconstruction and widening of Harvester Road, 2019-2024

The majority of these improvements are focused on improving capacity and traffic flow, particularly along local roads that have seen increasing demand over the last several years, particularly in AM and PM peak periods (e.g. Harvester Road) and in site-specific areas experiencing continuing challenges (e.g. CNR crossing at Burloak). Most of these planned improvements to 2024 likely have some positive impact on development prospects in the city, particularly in the city's prosperity corridor.

The ELOP, completed in 2012, outlined several key employment area-specific transportation improvements to be undertaken by the City, Region, and development community, to increase the development capacity in the area:

- Improved access to North Service Road from the QEW at Walker's Line, particularly to support further development of vacant lands to the north of the QEW
- Expansion of North Service Road to three lanes, noted as a current project in the City's Capital Plan

[29] City of Burlington. (2014). Transportation Master Plan: Current State of Transportation in Burlington, Discussion Paper 1

- Construction of new road network extending Sutton Drive from Upper Middle Road to Mainway, and a road connecting Sutton Drive and Burloak Road, to support the development of a business park in Bronte Meadows
- Widening of Burloak Road, to ensure greater capacity in support of the development of Bronte Meadows
- Widening of the Waterdown Road bridge over Highway 403
- Creation of a new South Service Road from Waterdown Road to King Road
- Reconstruction of King Road

Some of these requirements are either complete, or in the regional or city level capital forecasts for completion over the next 10 years. For example, the widening of the Waterdown Road bridge is in its final stages, while projects like improved access to North Service Road from Walkers Line and the construction of a South Service Road from Waterdown Road to King Road are currently being addressed (at least in part) in Regional and City-level capital forecasts respectively.

However, several recommended improvements remain outside of currently projected capital needs. This is likely a result of the need for their development falling outside of the capital forecast term, or the fact that the improvements are currently under study. For example, the recommended internal road network in the Bronte Meadows area remains outside of current capital plans at the City level, given the anticipated longer term timeline for development in the area. Similarly, the widening of Burloak Road remains outside of regional plans, given limited current need for increased local capacity. As a result, continued advocacy for these projects that are needed to make these lands shovel ready and more marketable is needed, particularly if development timelines accelerate.

The High Level Servicing Review also made comments about challenges facing the development of vacant and underutilized employment land, even with these projected capital improvements. Despite intersection improvements and widening at Guelph Line and Harvester Road, and Appleby Line and Harvester Road, there is little potential for additional capacity in the future.[30] For employment land development in the vicinity of those intersections – or relying on them for access – there will likely be continued constraints related to congestion, particularly at peak periods. In short, though there are capital plans and forecasts addressing transportation challenges, the continued growth of Burlington – particularly in line with ELOP targets - may be constrained by transportation issues.

[30] Dillon Consulting. (2014). High Level Servicing Review of Employment Lands

Transit

Burlington is served by both regional and local transit services. Regional transit is provided by Metrolinx through GO Transit. GO Transit provides all day, two-way train service to the city's three train stations on the Lakeshore West line, as well as bus connections to regional centres west, north, and east of the city. This provides the city and its residents with a viable alternative connection to downtown Toronto, as well as a rail-based connection to Pearson International Airport as UP Express Service launches from Union Station.

GO Transit and Metrolinx are making continued investments in service in Halton Region through *The Big Move*, including expansions to stations and parking facilities in Burlington, as well as the longer term electrification of the Lakeshore West corridor to increase frequency. Burlington's GO Stations are generally in close proximity to employment lands, with the Aldershot Station (also connected to VIA rail) within the 403 West Corridor, the Burlington and Appleby Stations within the Prosperity corridor, and the Highway 407 carpool lot within the 407 Corridor. Local transit in the city is provided by Burlington Transit, which provides a varying range of service to the city based on day of the week and time of day (i.e. peak and off-peak hours). The transit system is well integrated with regional transit hubs, particularly for peak hour service along the lakeshore west line to and from Toronto, as well as offering limited connections to adjacent transit systems in Hamilton and Oakville.

Though stations and transfer points are well situated (in some cases within employment areas), and routes are dispersed across the city (and integrated with adjacent systems), many of the key employment areas remain underserviced from a transit perspective, suggesting potential difficulties with getting employees to work, particularly for businesses that operate outside of traditional weekday hours, those that require access to employees that may or may not have other transportation, and those that draw on a more regional labour pool. In short, the connections with regional transit through Burlington Transit do not necessarily serve businesses in Burlington's employment areas, as much of the peak and off-peak movement is oriented to commuters that work outside of Burlington, rather than in the city. For example, existing connections would do little to provide employees in the planned Burlington Innovation District from outside of the city with an alternative to automobile transportation.

The Employment Land Strategy – Phase Two report noted that the Highway 403 West Corridor, the Highway 407 Corridor, and Bronte Meadows areas were not well-served by existing transit services.[31] Though the Prosperity Corridor was noted as well-served – due to access to Burlington and Appleby GO Stations, as well as a range of major Burlington Transit routes – it should be noted that the area remains largely unfriendly to transit and other forms of alternative

[31] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

transportation, with a lack of pedestrian and cycling infrastructure through much of the employment area (e.g. sidewalks, multi-use trails, cycling lanes).

Overall, almost half (44%) of vacant parcels in the city are not within 400 metres of a local transit route, and 91% of vacant parcels are more than 800 metres away from a GO Station or Mobility Hub.[32] Though varying in importance for different businesses, the availability of transit in employment areas can have a key influence on location decisions, mandating a continued effort on the part of the city to ensure employment land planning is well integrated with regional and local transit planning.

1.2 Employment Lands and Policy Directions

The availability of land is an essential component of investment readiness with regards to the attraction of businesses to an area, as well as the level of support that can be provided to existing businesses to facilitate growth. This section of the assessment outlines the characteristics of Burlington's vacant employment land supply, and the policy directions that may impact development opportunities or approaches.

1.2.1 Employment Land Assessment

The Burlington Employment Lands Study – Phase Two inventoried a total of 308.1 net hectares (761.3 net acres) of vacant employment land in the city.[33] Accounting for internal infrastructure in some of the larger parcels (e.g. Bronte Meadows) and a long-term vacancy factor, the inventory was noted as slightly smaller, at 248.3 net hectares (613.6 net acres).[34]

This excludes opportunities for redevelopment or intensification of existing lands, which the ELOP noted as opportunities for the downtown core and older industrial areas. The ELOP estimates that there is a total supply of 445 gross hectares of vacant land in the municipality, with an additional 364 gross hectares of underutilized land available for redevelopment or

[32] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

[33] Ibid.

[34] Ibid.

intensification through higher density redevelopment or severance of lands for redevelopment.[35] The vacant and underutilized land inventory in the city displays the following characteristics, summarized by theme below.

- **Parcel Size:** The majority of vacant and underutilized parcels in the ELOP inventory are smaller in size, with parcels smaller than two gross hectares making up 44% of the total inventory. By size, these smaller parcels make up just 8% of the inventory though, with parcels over 10 hectares making up the majority of the inventory (53%). Of the 445 gross hectares of vacant land, approximately 64% are in parcels of 10 gross hectares in size of greater, suggesting notable remaining opportunities for both large and smaller scale (through subdivision) development in the remaining inventory. Of the vacant land inventory included in the Employment Lands Study – Phase Two, all parcels were considered to have potential as development sites based on their size and configuration.[36]
- **Land Use Permissions:** The majority of vacant and underutilized parcels in the ELOP (48%) are zoned for General Employment (GE)[37] uses, with an additional 15% zoned for Business Corridor (BC)[38] uses, intended to be more prestige in nature. The remaining parcels are spread among the Employment Commercial (CE), Regional Commercial (CR), Development (D), North Aldershot Mineral Resource (MRNA), Mixed Use Corridor Employment Oriented (MXE), and Open Space (O2) zones. Though some employment land-type uses may be permitted on these lands not presently zoned for employment uses, these lands may also require an amendment to their existing regulations to facilitate development as envisioned in the ELOP.
- **Environmental Constraints:** The Employment Lands Strategy – Phase Two study noted that the majority of environmental risk sites in the city are associated with active businesses, with only one vacant property considered to have potential for environmental contamination (low potential). [39] However, a community improvement plan study suggested that there were 13 key sites along the QEW, Highway 403, Highway407, and CN Rail corridors that fit the Ministry of Municipal Affairs and Housing (MMAH) definition of a brownfield (i.e. vacant or underutilized sites with potential for redevelopment, and potential contamination).[40] Though there are a limited number of vacant and underutilized employment lands with the potential for environmental contamination, it is worth noting that as the city ages, some of the remaining 281 properties identified in the 2010 study as not currently vacant or underutilized (as

[35] BEDC. (2015). Employment Land Operational Plan.

[36] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

[37] Includes all lands zoned for General Employment uses, including site-specific regulations and lands with a hold.

[38] Includes all lands zoned for Business Corridor uses, including site-specific regulations and lands with a hold.

[39] Based on the Classification of Properties and Risk of Migrating Contaminants Study conducted for the City of Burlington in January 2007 by MMM.

[40] MMM Group, Metropolitan Knowledge International. (2010). City of Burlington Recommended Brownfield Remediation Assistance Program Community Improvement Plan.

well as others identified since) may become vacant or available for redevelopment, potentially greatly increasing the environmental barriers to development on higher priority sites.

- **Municipal Servicing:** As noted previously, all vacant and underutilized sites in the city are considered serviced or serviceable (at least, in theory) with off-site extensions. In total, the ELOP identified 111 total serviced sites (69% of total number of parcels), representing 522 gross hectares (or 65% of the total vacant and underutilized land area in the city). Though site-specific improvements and investments may be needed to service the remaining vacant and underutilized properties, the development of the ELOP vacant and underutilized land inventory to full municipal standards (e.g. municipal water, wastewater, stormwater services) appears technically possible, depending on demands from individuals users and network constraints (e.g. wastewater treatment).

The Employment Land Study - Phase Two assessed the current vacant employment land inventory to accommodate anticipated levels of growth. Forecast demand for the Burlington to 2031 was estimated at 149 hectares, suggesting that there is a sufficient supply of land to accommodate growth in the city, with the city's existing supply to be exhausted sometime between 2031 and 2044.[41] As a result, the study recommends maintaining all employment lands for employment purposes, while continuing to ensure that infrastructure and planning decisions facilitate development in strategic locations with limited amounts of serviced or investment-ready land (e.g. Bronte Meadows, 403 West Corridor).

However, this assessment is based on the more conservative employment forecasts noted previously, which are notably slower than employment growth objectives outlined by BEDC and the city through the ELOP. That said, the ELOP also advocates for higher density employment forms than previously present in Burlington, with density moving from 41 jobs per hectare to 59 jobs per hectare.[42] This would be accommodated primarily through intensification and redevelopment opportunities along the Prosperity Corridor.

As this has the potential to reduce the absorption of land (and thus improve the sustainability of the employment land supply), this places more emphasis on effective planning of new greenfield employment lands – particularly the city's large supply or large employment land parcels – but also an increased emphasis on ensuring that new developments are more densely concentrated (e.g. through transit supportive development or mixed-use development), and older employment areas are redeveloped to accommodate new growth.

[41] Dillon Consulting, Watson & Associates Economists. (2014). Employment Lands Study – Phase Two.

[42] Ibid.

1.2.2 Policy Directions for Economic Development

As part of a two-tiered municipal structure, economic development and planning decisions are subject to planning policies at both the local and regional level. Further, the major provincial infrastructure in the city (e.g. Highway 403/QEW) and natural heritage features (e.g. Niagara Escarpment, Ontario Greenbelt, Lake Ontario) makes land use policy subject to provincial policies, as well as regulatory policies from Conservation Halton.

The interests of the province are largely reflected in both local and regional planning policies through direction from provincial policies (e.g. Provincial Policy Statement, Places to Grow), with Conservation Halton playing a regulatory role with regards to natural hazards (e.g. watercourses, wetlands, shorelines of inland lakes, and the Great Lakes-St. Lawrence river system). As such, Conservation Halton reviews all planning policy and amendment applications at the city level where natural hazards might be affected, potentially impacting the prospects for development in vacant employment lands – including the net developable area available to accommodate employment uses when accounting for regulatory setbacks from hazard areas. Lands within the Highway 403 West Corridor are likely most impacted by Conservation Halton policies, though development on a number of other vacant or underutilized employment lands would also be subject to Conservation Halton review based on the presence of small watercourses and other natural heritage features.

Regional land use policies are outlined in the Halton Region Official Plan (ROP). Part II of the ROP includes the objectives and policies of the Urban Area in the region, of which the majority of Burlington falls within. Section 77.4 establishes regional policies with regards to Employment Areas in Halton, with the overall intent of maintaining employment areas for employment uses, strategically investing in infrastructure to support development of employment areas, and promoting intensification and increased density of development in new and existing employment areas.

Part IV of the ROP contains regional policies for economic development, with an overall goal of achieving “sustainable economic prosperity for Halton on the basis of its competitive location, innovative businesses, skilled labour force, high quality infrastructure, sustainable natural resources, positive business environment, and diversified economic base.” This includes objectives to support innovative capacity and knowledge of businesses and labour force; support entrepreneurship, business startup, and business retention and growth; diversify the economic base; protect an adequate land base to maintain competitiveness; and provide the necessary infrastructure to ensure timely development of employment areas.

The ROP includes the following policies which can assist with outlining strategic economic directions for the City of Burlington:

170(1) Support the continuous education and training of Halton’s labour force.

170(4) Encourage local municipalities to phase the development of employment lands concurrent with nearby residential lands.

170(4.1) Consider strategic investment in infrastructure to enhance the timely development of employment lands.

170(4.2) Protect employment lands for economic development during the current planning period to 2031, in accordance with sections 77.1, and 77.2, of this Plan.

170(5) Prepare and update regularly, in conjunction with the local municipalities and in consultation with the business and education sectors and the general public, an Economic Development Strategic Plan that will include:

a) An assessment of the current economic health of the Region based on information from the State of Sustainability Report and the monitoring reports under Section 170(2.1),

b) An assessment, based on available sources and information, of global, national and regional economic trends and structural changes in the economy,

c) Identification of the growth sectors, new economic opportunities for Halton, and necessary adjustments in human resources, infrastructure, land supply and government policies to take advantage of such opportunities,

d) Identification of possible impact of the changing economy on existing businesses and industries in Halton and necessary remedial action,

e) Direction for the Joint Infrastructure Staging Plan, and

f) An agenda for action by the various stakeholders, including the business, government and education sectors.

170(6) Encourage the establishment of regular liaison and discussion among the heads of regional and municipal councils in Halton and representatives of the business community.

170(7) Participate with municipalities in the Greater Toronto Area in the development of strategies, plans, and programs to promote the Greater Toronto Area as a large, diverse, competitive, and dynamic economy and to attract foreign direct investments.

170(10) Encourage and direct office, commercial, cultural, and institutional uses and compatible industrial uses to locate within intensification areas.

170(12) Encourage local municipalities to:

a) Ensure, through studies, land designation and revisions to their Zoning By-laws, that retail needs of residents are satisfied within the municipality or *Halton*;

b) Make provisions for the redevelopment and rehabilitation of older industrial areas; and

c) Implement plans and programs for the preservation, improvement, redevelopment and/or revitalization, as the case may be, of downtown core area(s).

170(14) Monitor the opportunities and constraints on future expansion of existing businesses within Halton, and within the policies of this plan, promote the growth of those businesses in Halton.

170(15) Recognize the importance of entrepreneurship and the contribution by small businesses to the local economy and support plan and programs to maintain and strengthen their role.

The ROP also includes sector-specific policies directing the development and promotion of Halton as a tourism destination, based on its natural and cultural heritage resources; the maintenance of a region-wide 10-year supply of vacant employment lands; and the production, collection, and dissemination of data to be used for economic development planning purposes (e.g. employment forecasts).

In part, this policy direction is implemented across the region through the Halton Region Economic Development Vision and Strategic Directions, 2012-2021. The strategy includes over-arching direction for the region in five key areas:

- Employment lands, including servicing of lands and assistance with advocacy for servicing of lands, support for site selection inquiries, and delivery of an annual employment survey
- Existing and emerging sectors, including supporting the sector-based efforts of local municipalities for higher-density employment uses, and supporting Halton's agricultural community
- Investment attraction and retention, including development of an investment attraction strategy and programming, representation of the region in broader regional activities (e.g. GTMA), collection and dissemination of economic research and investment information, and maintenance and improvement of the region's competitiveness in terms of business costs (e.g. development charges, tax rates)
- Entrepreneurship and innovation, including marketing the services of small business and innovation services in the region, extending service areas of current small business assistance structures, supporting entrepreneurship among youth and new Canadians, and establishing business incubation infrastructure
- Quality of place, including promotion of Halton's quality of life through web and social media channels, supporting physician recruitment, and collaborating with partners on regional tourism development

The City of Burlington`s Official Plan further outlines policies that further influence the economic vision for the city. Several of the Guiding Principles of the plan, outlined in Part I, Section 3.0, speak directly to the city's vision from an economic context:

a) Provide a community plan and growth strategy aimed at creating an attractive, livable community that offers a wide range of housing, employment, transportation, and leisure opportunities for all its citizens

e) Create a community development pattern that supports the existing business community and promotes new business development opportunities, by protecting critical areas of economic enterprise and promoting a variety of locations for economic activity

f) Support a vigorous local economy

h) Promote the efficient use of land through intensification within appropriate areas of the City, in accordance with Provincial growth management objectives, while recognizing the need for balancing this objective with other planning considerations

Section 4.3 builds on these guiding principles and the present state of the city, to establish a vision for the future built form and natural environment in Burlington. Among other directions envisioning characteristics like greater neighbourhood stability, intensification, compact community form, preservation of natural heritage, and promotion of transit-oriented development, the Plan responds to the changes in the nature of employment that are expected across the city over the term of the plan. Namely, the City anticipates the need to create policies and land use designations that allow for the integration of information based technology, research, and services activity with traditional manufacturing and warehouse uses. Fiscal sustainability of the City and a stronger live-work relationship are key elements of the vision as well.

Part III of the Official Plan outlines the land use policies for the city`s urban area, with Section 3.0 establishing the policies regarding employment lands in the city. Employment land planning in the city is based on the principles of strengthening the local economic base; increasing jobs and assessment base; balancing physical, social, economic, and environmental demands; ensuring land use compatibility; allowing a full range of industrial and office uses; servicing by public transit; and ensuring a sufficient supply of employment lands. These principles guide the general objectives of balancing industrial/manufacturing development with professional office employment growth; limiting the development of non-employment uses; providing a balance market choice in available lands; and promoting convenient access to infrastructure (e.g. high voltage power lines, rail sidings, truck routes).

The General Employment and Business Corridor designations play a key role in accommodating economic development growth in the city, particularly industrial and commercial office uses, with limited potential for competition from non-employment land uses (e.g. large-format retail, residential). Generally speaking, the policies in these land use

designations strike a balance between encouraging a full range of employment land uses, while ensuring development proceeds according to the City's objectives through policies guiding floor area ratios, building heights, ancillary uses, and site plan considerations. The permitted uses in each land use designation are detailed below.

FIGURE 1: PERMITTED USES AND INTENT OF EMPLOYMENT LAND DESIGNATIONS, CITY OF BURLINGTON OFFICIAL PLAN

Designation	Permitted Uses	Notes
General Employment	Industrial uses that involve assembling, fabricating, manufacturing, processing, warehousing and distribution uses, repair activities, communications, utilities, transportation storage, service trades and construction uses; office uses; research and information processing; recreational uses; large scale motor vehicle dealerships; adult entertainment uses Limited range of retail uses such as convenience stores, and a limited range of service commercial uses such as restaurants and banks subject to policies restricting size/scale	Uses that have only a limited impact on surrounding areas will be permitted in locations adjacent to residential uses
Business Corridor	A broad range of office uses; industrial uses that involve assembling, fabricating, manufacturing, processing, warehousing and distribution uses, research and information processing, communications, utilities and transportation uses, and service trades, provided these uses are located within an enclosed building and are unlikely to cause significant pollution or excessive noise; hotel, conference and convention uses Limited range of retail uses such as convenience stores, and a limited range of service commercial and recreation uses such as restaurants, banks, and fitness centres subject to policies restricting size/scale	Provides for more prestige-type offices and industrial uses that require good access and high visibility Establishes high design and development standards

As noted previously, the existing designations in the City's official plan are well positioned to accommodate a full range of general industrial to prestige (i.e. enclosed) employment uses, with limited potential for competition from non-employment land uses (e.g. commercial retail) or conversion for other non-employment uses.

Overall, the existing land use and economic development policies across the region and city provide a broad framework from which Burlington can establish an economic vision. Existing policies are supportive of growth in the municipality, particularly with regards to the promotion of intensification of new and existing employment areas in the urban area.

Further, policies allow for the accommodation of a range of investment while ensuring the integrity of the city's limited supply of employment lands.

However, some challenges may remain with regard to accommodating demand in line with the more aggressive forecasts, as well as ensuring development moves in a timely fashion. For example, the present land use policies that limit floor area ratio of office uses in General Employment and Business Corridor areas may not necessarily align with the higher density and mixed use vision for employment lands in specific corridors – namely the Prosperity Corridor – outlined in the ELOP. Similarly, zoning regulations around site coverages in the employment areas may also limit potential for the types of development envisioned in the ELOP. Further, the two-tiered structure of land use planning in Halton introduces the possibility of a misalignment between the vision and intent of each jurisdiction for specific properties in the urban area, which has the potential to affect approval timelines for both specific applications, as well as policy documents (e.g. Official Plan, secondary plans). On a more local level, the timelines associated with development of policies for major areas of infrastructure (e.g. mobility hubs) and the broader land use policies for the city (i.e. Official Plan), is perceived as placing the city in a competitive disadvantage.

In general, the current policy directions at the regional and local level do not appear to pose significant challenges to employment growth in the municipality, and appear supportive of the development of an economic vision for the city. However, to accommodate employment growth more in line with the aggressive targets of the ELOP, there may need to be alternative approaches to land use planning that allow for more flexibility in development and built for in vacant and underutilized sites. More important than the policy environment though, development of employment lands appears to require a closer relationship between economic development and land use interests at both the regional and local levels, in order to investigate the potential for innovative approaches to land use planning that accomplish the objectives of both jurisdictions.