



P.O. Box 1749
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Item No. 13.1.5
Harbour East Marine Drive Community Council
August 4 2016

North West Community Council
August 8, 2016

TO: Chair and Members of Harbour East Marine Drive Community Council

SUBMITTED BY: Original Signed

Bob Bjerke, Chief Planner and Director, Planning & Development 902.490.1627

DATE: June 7, 2016

SUBJECT: Port Wallace Secondary Plan

ORIGIN

On March 4, 2014, Regional Council passed the following motions:

1. Approve the public participation program for the Master Infrastructure Plan Study and Secondary Planning Strategy for Port Wallace as presented in Attachment A of the February 11, 2014 staff report (Attachment A – February 11, 2014 Staff Report);
2. Adopt the Port Wallace Secondary Plan Area Boundaries shown on Attachment B of the February 11, 2014 staff report, as interim boundaries for Port Wallace Secondary Planning Area (Attachment A – February 11, 2014 Staff Report);
3. Direct staff to assess the merits of including the additional lands requested by WSP Canada Limited in the Secondary Plan Area as outlined in Map 1 of Attachment E of the February 11, 2014 staff report, under the Land Suitability and Pre-design Baseline Infrastructure Capacity studies (Attachment A – February 11, 2014 Staff Report); and
4. Include stormwater management facilities on private property in the future design requirements for Port Wallace, with the objectives of achieving the water quality objectives recommended by AECOM in the Shubenacadie Lakes Subwatershed Study and the Regional Municipal Planning Strategy and not increase peak runoff, as recommended by the Regional Watershed Advisory Board and the Harbour East-Marine Drive Community Council.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter (HRM Charter), Part VIII, Planning & Development

RECOMMENDATIONS

It is recommended that the North West and Harbour East – Marine Drive Community Councils recommend that Halifax Regional Council:

1. Include the 53 and 242 acre parcels shown on Attachment A within the Port Wallace Secondary Planning study area; and
2. Initiate an MPS amendment process to zone the Conrad quarry lands shown on Attachment A for industrial and highway commercial uses and follow the public participation program for municipal planning strategy amendments as approved by Regional Council on February 27, 1997.

BACKGROUND

Port Wallace is identified as a potential future growth area for a community to be serviced with municipal sewer and water services. In 2014, Regional Council directed that a planning process for the area be undertaken to design the community and determine servicing needs and the boundaries for services. Once completed, detailed policies and regulations pertaining to uses, layout, densities, open space and other community amenities will be presented in a secondary planning strategy for consideration by Regional Council. The lands are identified as the Port Wallace Urban Growth Area on Attachment A.

Studies and Plans Required

For development to proceed, the Regional Plan policies require the following:

- a watershed study first be undertaken;
- areas to be retained for natural areas and corridors and cultural landscapes be identified;
- a secondary planning strategy and associated land use and subdivision by-law amendments be approved by Council; and
- capital cost contribution charges to pay for the oversizing of water and wastewater systems that are of benefit to the entire proposed development need to be determined and approved by the N.S. Utility and Review Board.

The watershed study was completed in 2013. The study concluded that Port Wallace could be developed while maintaining acceptable lake water quality provided that stormwater is effectively managed.

A land suitability assessment study was completed earlier this year and presented at a public workshop in May. The study used a scoring system to determine the significance of the environmental and cultural assets of the site, identify areas that should be and mitigate the impacts of potential development. The study executive summary is reproduced in Attachment B and the cumulative constraints map is presented as Attachment C.

HRM and Halifax Water have also prepared baseline infrastructure reports that examine the surrounding water distribution, wastewater collection and transportation systems (roads, transit and active transportation). The reports review the opportunities and challenges that will have to be considered in the design of the new community.

Halifax Water has advised that it will require a water and wastewater master plan prior to finalizing a decision regarding the necessity of a Capital Cost Contribution (CCC) Charge. The Utility has also advised that it is currently approaching the limit of acceptable risk with current CCC charges as there are currently several CCC charges in a negative position. The N.S. Utility and Review Board requires the utility to manage CCC charges in such a way as to minimize risk and ensure there is a net positive position.

The watershed, land suitability and baseline infrastructure studies as well as previous staff reports and other information pertaining to this project can be found at:

<http://www.halifax.ca/planhrm/portwallace.php>

Secondary Planning Study Area

At the March 4, 2014 meeting, Regional Council considered a staff report that recommended that two additional parcels be included in the secondary planning process. The recommendation originated from a request received from the property owner.

The Conrad family proposed to develop a serviced residential community on a 53 acre parcel between the Forest Hills extension (Hwy. 107) and the Waverley Road. The family also proposed to develop an industrial park over its 525 acre quarry site of which 242 acres abutting the north side of the Forest Hills extension and Montague Road is proposed to be serviced with municipal water and wastewater services (see Attachment A). The serviced land are also proposed to allow highway commercial uses. Approximately 55 acres of the north-east portion of the property are within the Lake Major water supply watershed. A submission in support of these requests, prepared by East Point Engineering Ltd. on behalf of the Conrad's, is presented as Attachment D.

The quarry is currently regulated by three land use by-laws (Shubenacadie Lakes, Dartmouth and Cole Harbour–Westphal). In addition to the public water supply zone, portions of the site are zoned for industrial uses and other portions for residential uses.

Council directed that the merits of these requests be considered under the land suitability assessment and the baseline infrastructure studies and that staff report back for direction prior to undertaking further work.

The Conrad's have subsequently requested that the requested quarry rezoning proceed independently of the Port Wallace Secondary Plan. The secondary planning is expected to take some time to complete and the Conrad's wish to build a maintenance building on a portion of the quarry that is currently zoned residential. They acknowledge, however, that the request for municipal water and wastewater services is related to and dependent upon servicing of the Port Wallace area and therefore the quarry lands would remain serviced with on-site systems until such time as servicing approvals are obtained for both the quarry and Port Wallace Secondary Plan area.

DISCUSSION

The Regional Plan directs that, when preparing secondary planning strategies, studies first be undertaken to identify the lands that should be retained for natural areas and natural corridors. The studies include the recognition, preservation and promotion of significant cultural landscapes and resources. The land suitability assessment study was undertaken for these purposes and the coverage was extended to the Conrad land holdings. The methodology used in identifying natural and cultural assets was useful in assessing the suitability of the Conrad lands for the proposed uses. Similarly, the baseline transportation, water and wastewater studies provide insight on the merits of the Conrad requests.

Land Suitability Assessment (LSA)

A staff team and a consultant retained by the Municipality to undertake a peer review are satisfied that the study findings and conclusions are reasonable. The land suitability assessment report identified two areas which should not be developed. These areas are identified as totally constrained on the cumulative constraints map (Attachment C). The larger and most important area was the wetlands around Barry's Run/Mitchell's Brook, which is considered an important natural corridor containing several land features identified as having elevated potential for cultural and heritage significance. The other area deemed totally constrained was over an isolated parcel to the east of Avenue du Portage which is within the Topsail Lake public water supply watershed.

The study identifies a number of other important natural and cultural landscapes throughout the study area and recommended that “when moving forward through secondary planning, the particular land uses being considered for development should pay attention to, and respond to, the natural and culturally significant features identified through this LSA”. As the project moves into the design stage of secondary planning, permitted uses and the form of the development will reflect the character and sensitivities of the natural and cultural assets identified in the LSA.

The Conrad land holdings are scored as having minor to moderate constraints. The quarry was largely considered as having minor constraints as there were no watercourses, wetlands, cultural features, or forest cover. Some areas are identified as having elevated constraints due to steep slopes and hazards. The 53 acre parcel proposed for residential development was identified as having more significant areas of moderate constraint due to steep slopes and forest cover.

The LSA provided no evidence to suggest that the requested residential and industrial uses were unsuitable on the lands proposed by the Conrads.

Water and Wastewater Services

The baseline infrastructure regarding water and wastewater services found that a connection to the North Dartmouth Trunk Sewer on the south side of Lake Charles (on the north side of Wright Avenue adjacent to the HWY 118 interchange) would have to be established as the existing sewer system on Waverly Road cannot support additional development. The connection is expected to be a substantial cost which will be the responsibility of the developers.

Transportation

The baseline traffic analysis of the Port Wallace area found that sections of Forest Hills Extension, Braemar Drive, and Main Street are almost at capacity. As a result, a connection to Forest Hills Extension and other road network improvements are important to enabling the future development of the study area. At this juncture, the extent and cost of transportation improvements needed to provide a satisfactory level of service is unknown, but previous studies suggest that the costs could be substantial.

A cost of serving study prepared for the Municipality in 2009¹, estimated that the cost of transportation infrastructure upgrades needed to service development of the Port Wallace secondary plan area at \$9.0 million. These costs included widening Braemar Dr. from Maple Street to Mic Mac Dr., a major collector from the study area to Hwy. 107 with a signalized roundabout and upsizing of a minor and major collector. This estimate assumed that the Province had constructed the Highway 107 (Cherry Brook) by-pass which would allow Hwy. 107 to be downgraded and allow an at grade roundabout intersection to the collector road with Port Wallace (Provincial policy does not allow for at grade intersections with 100 series highways).

The Province had advised at that time that the by-pass was not expected to be constructed within the next 20 years. For Port Wallace development to proceed prior to the by-pass, staff estimated that an interchange would raise the total cost of transportation upgrades to \$33 million. Construction of the by-pass is not in the Province’s current five year budget plan. It is highly unlikely that the total cost of upgrades to the provincial highway system would be affordable to the property owners or the Municipality.

Property owners within the study area believe that a better resolution to traffic congestion throughout this area would be to upgrade Hwy. 107 from the interchange at Montague Mines Rd. to Burnside. Staff believes that there may be merits to this solution, but the cost is likely to be high. Further investigation will be needed to determine the feasibility and cost with the Province, which is the owner of this infrastructure.

¹ Cost of Servicing Plan: Regional Greenfield Sites. CBCL, 2009. Prepared for Halifax Regional Municipality. A copy can be found at the link referenced in the introduction section of this report.

In summary, the baseline studies suggest that upgrades to the wastewater and transportation systems needed to service the Port Wallace study area are likely to be expensive. Further investigation is needed to determine whether the costs are affordable. Additional infrastructure studies are planned to better quantify the potential costs.

Conrad Requests

Staff reviewed all available information and remains supportive of the Conrad requests to consider its' proposals for the following reasons:

- the watershed study concluded that developments serviced by on-site wastewater systems around the lakes pose more risk to water quality degradation;
- the LSA study did not identify any reasons why the proposed uses were unsuitable;
- the servicing issues raised by the baseline study are general to the area;
- the quarry lands are not suited for residential development but offer an excellent opportunity for industrial and highway commercial uses that would benefit from having direct access to the regional highway network; and
- regional plan policy states that "*HRM may consider permitting private business parks in appropriate locations within or adjacent to designated growth centres*".

The request to allow for industrial rezoning of the quarry lands to be considered independently from the Port Wallace Secondary Plan also has merit. The link between industrial development of the quarry lands and the community development proposed for Port Wallace lands is the shared municipal water and wastewater infrastructure and possible upgrades to the transportation system.

These servicing matters will be addressed through infrastructure design and costing studies. The Regional Plan does not allow for extension of municipal services until charges needed to pay for transportation upgrades have been approved by Regional Council and CCC charges needed for the oversizing of the water and wastewater systems have been approved by the N.S. Utility and Review Board. Therefore, there is no reason that the request for industrial rezoning cannot proceed independently.

The quarry is bordered by single unit dwellings on its eastern boundary and to the west along the Montague Road. Staff proposes that the public participation program entail a public meeting to seek input from neighbouring residents on the merits of the rezoning request. Items for review include buffering requirements and the range of highway commercial and industrial uses which should be permitted.

Conclusion

Staff advise that requested rezoning of the quarry lands has merit regardless of any future development of the Port Wallace Secondary Plan area. By allowing a separate planning process, community engagement and staff review can focus on issues pertaining to industrial and commercial development on this property. In addition, the LSA does not show that the Conrad lands are unsuitable for serviced residential and industrial development and would allow for cost sharing. In general, the baseline studies suggest that servicing costs may be quite high and further study is needed to determine if they are affordable.

FINANCIAL IMPLICATIONS

The MPS amendment process for the Conrad quarry lands can be carried out within approved 2016/17 budgets and available resources for cost centre C320 – Policy & Strategic Initiatives, Planning &

Development.

RISK CONSIDERATIONS

There were no risks identified with the Conrad rezoning request for the quarry lands. The principle risks identified through the baseline infrastructure studies are the potentially high costs of upgrading the wastewater system and road network needed to allow for new serviced development within the Port Wallace Secondary Plan Area and on the quarry lands. These risks will be evaluated through in detailed servicing studies to be undertaken in conjunction with the secondary planning process and Council will be advised of the total costs and their allocation prior to any decision being made to extend services.

COMMUNITY ENGAGEMENT

The land suitability assessment and the baseline transportation studies were presented at an afternoon and evening open house held on May 26, 2016 at the Port Wallis United Church. Following the presentation, there was a question and answer period. Meeting notes from these sessions are presented as Attachment E.

Members of the public were also invited to express their views on the study and the Conrad requests on the HRM website, the Shape Your City website and to staff by E-mail or telephone. Two submissions have been received to date which are presented as Attachment F.

The submission request that wastewater system be designed to allow for future servicing of residences located between the Waverly Road and the lake in close proximity to the 53 acre Conrad property. These properties are currently serviced with municipal water and on-site wastewater systems.

Given the watershed study to keep septic fields away from the lake, there would appear to be merit in this request. There are currently ten residences in this area so the estimated additional demand on the system would not be expected to be significant. Staff will therefore investigate this request when the servicing studies are being completed and will advise Council on the feasibility and any additional costs.

ENVIRONMENTAL IMPLICATIONS

There was no evidence in the watershed study or the land suitability assessment study to suggest that the Conrad serviced residential or industrial development proposals were unsuitable at the intended sites.

ALTERNATIVES

1. Council could direct staff to give no further consideration to the Conrad requests for municipal services or rezoning. For the reasons outlined in this report, staff feels that these requests merit further consideration. In the event that further information comes to light that these requests should not be supported, Council has the ultimate authority to deny them.
2. Council could direct that the request to allow for industrial rezoning of the quarry lands be considered in conjunction with the Port Wallace Secondary Plan. For the reasons given in the discussion section, staff is of the opinion that this request should proceed independently.
3. Council could direct that further work on the Port Wallace Secondary Plan be deferred pending a resolution of transportation related issues – possibly through the integrated mobility plan currently being undertaken. Staff believes that land use and transportation planning for this community are interrelated and should proceed concurrently. In the event that a resolution to the transportation issues does not appear viable or is prohibitively expensive, Council will be advised and a decision

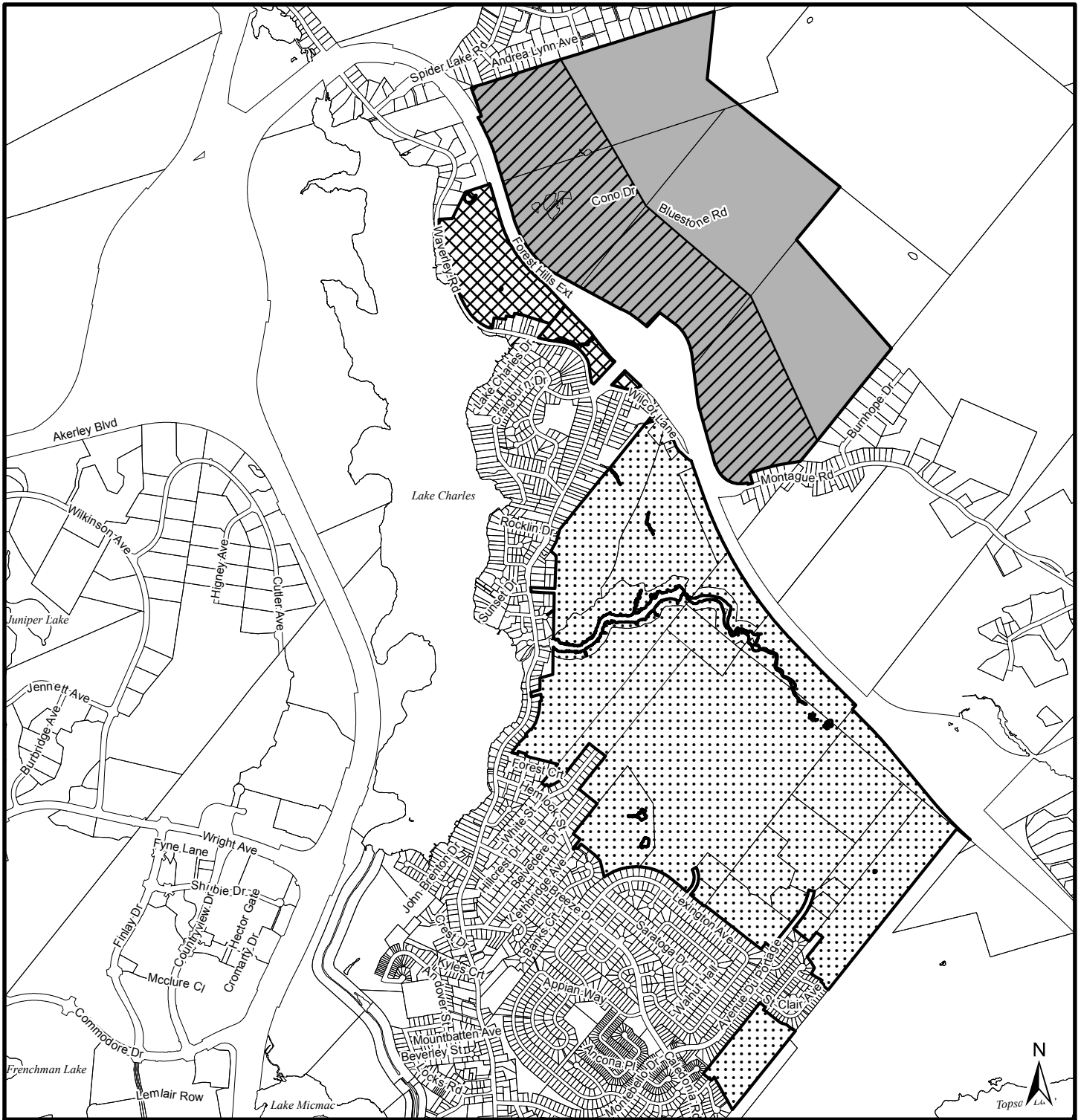
whether to proceed can be made at that time.

ATTACHMENTS

- Attachment A: Port Wallace Area Map
- Attachment B: Executive Summary to the Land Suitability Analysis undertaken for the Port Wallace Secondary Planning Study Area (WSP Canada Inc. and Associates, February 23, 2016).
- Attachment C: Cumulative Constraints Map
- Attachment D: Submission in support of Conrad request
- Attachment E: Meeting Notes from May 26, 2016 open houses
- Attachment F: E-mail Submissions received



A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/index.php> then choose the appropriate Harbour East Marine Drive Community Council and the North West Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Paul Morgan, Senior Planner, Community & Regional Planning, 902.490.4482



Attachment A - Port Wallace Area

HALIFAX

-  Port Wallace Urban Growth Area (Regional Plan - 500 Acres)
-  Request for Secondary Planning (Conrad Lands - 53 Acres)
-  Conrad Quarry Lands - Request for Industrial Zoning (470 Acres)
-  Request for Municipal Services (242 Acres)



The accuracy of any representation on this plan is not guaranteed.

EXECUTIVE SUMMARY

On March 4, 2014, Regional Council passed a motion to proceed with the Port Wallace Secondary Planning Process. However, Regional Council directed that, before concept plans can be prepared for the Port Wallace Secondary Planning Study Area (PWSPSA), a Land Suitability Analysis (LSA) would be required in order to determine areas of environmental and cultural importance. The LSA process involved public consultation, background literature review, technical reporting, and field investigation in order to evaluate natural environmental and cultural landscape features critical to maintaining ecological functions within the PWSPSA. As such, the following six primary land features (layers) were assessed against a consistent evaluative framework designed to spatially explore where development should and should not occur:

- Layer 1: Forested Areas
- Layer 2: Watercourses
- Layer 3: Wetlands
- Layer 4: Slopes
- Layer 5: Contaminated Sites
- Layer 6: Heritage & Cultural Assets

The above listed primary land features (layers) were researched, investigated and examined at desktop and field reconnaissance levels. Desktop identification sources included municipal and provincial mapping databases and inventories, satellite and aerial photography, background studies, and reports and literature. Field reconnaissance identification sources included wetland delineations, tree stand delineations, public and stakeholder consultations, and ground-truthing exercises to identify natural habitats and areas of cultural and heritage significance.

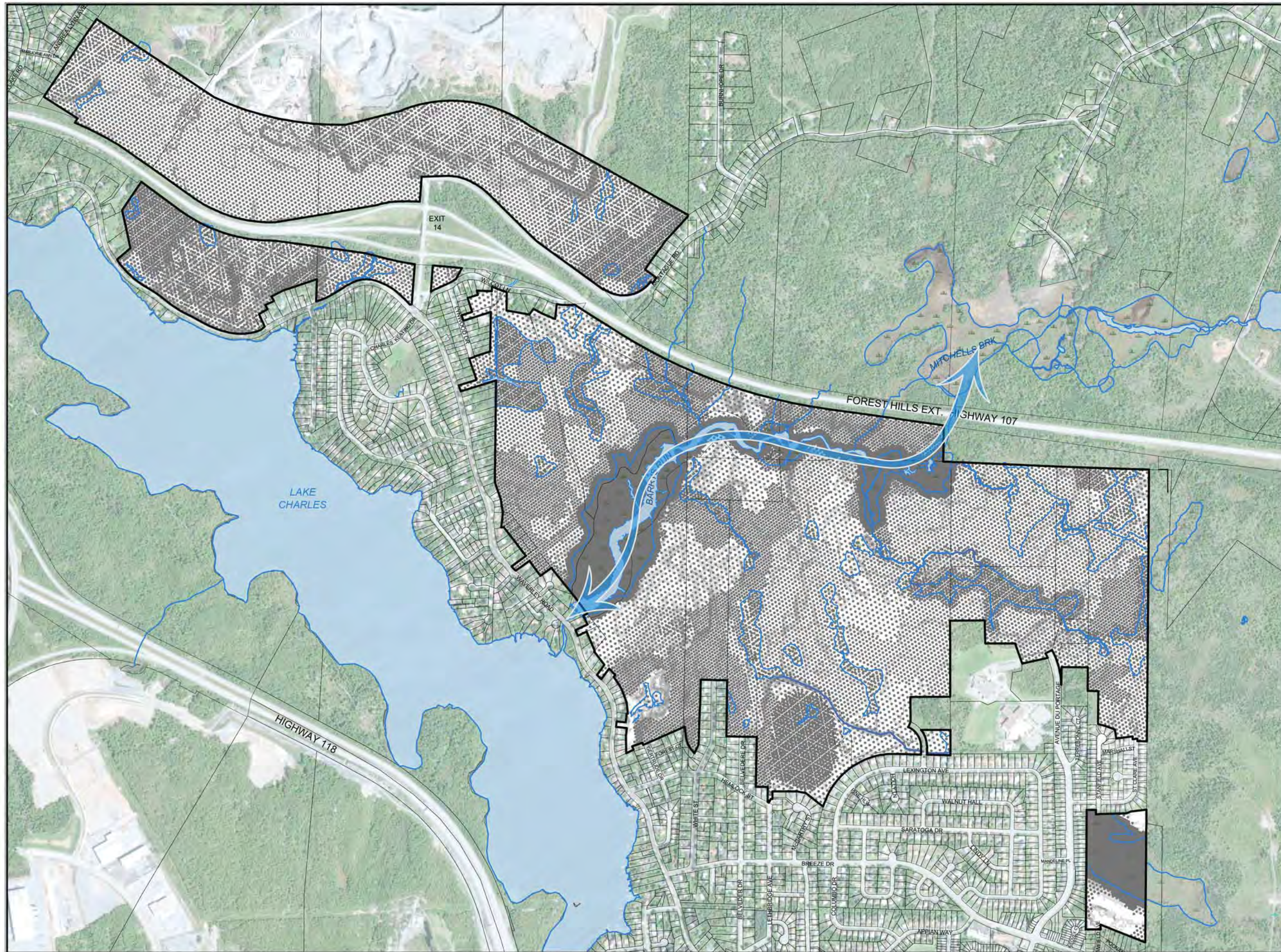
Once land features were identified and catalogued within each layer, a consistent 0-4 score was applied to each land feature in order to determine their 'level of development constraint'. 'Constraint', in the context of this LSA, means a land feature's ability to respond to potential development pressures. In other words, the higher the constraint value (i.e. the higher a primary land feature scores on the 0-4 spectrum), the less suitable that area of land is for development. Once scored, each land feature, and associated score, was mapped as a visual representation of land constraint. The table below outlines the consistent scoring methodology applied throughout this LSA:

SCORE	DEFINITION	MAP COLOUR
0 = Not Constrained	means land where the primary function is intended to support development	White (opaque)
1 = Minor Constraints	means land suitable for development where the purpose of the land is to be developed in response to natural and cultural landscape features	Green
2 = Marginally Constrained	means land somewhat suitable for development where some environmental and cultural conservation or mitigation efforts may be required in order to preserve ecological function	Yellow
3 = Moderately Constrained	means land with features in support of ecological function and cultural value where additional studies are required to verify the presence of significant habitats prior to development	Orange
4 = Totally Constrained	means land where the primary function is intended to support environmental and cultural conservation efforts. Natural corridor, passive recreation, and some active recreation and infrastructure, such as bridges and roads, may be permitted where they do not undermine the ecological or cultural function of the land	Red

Following the evaluation of each primary land feature, the findings from each layer were accumulated on a single constraints map to visually represent areas of elevated environmental and cultural and heritage significance. Where scored primary land features overlapped on the map, the area of land impacted was then assessed on a new cumulative scoring approach with values totaling between 0-16. The 0-16 was then scaled into five classifications/definitions consistent with the '0-4' scoring methodology and definitions applied consistently for each layer. The table below outlines the cumulative scoring approach applied in this LSA, and the final results of the Cumulative Scoring Exercise are found in **Figure 4.1-1**:

CUMULATIVE SCORE (SCALED VALUES)	CLASSIFICATION
0-2	0 = Not Constrained
3-5	1 = Minor Constraints
6-8	2 = Marginally Constrained
9-11	3 = Moderately Constrained
12-16	4 = Totally Constrained

The results of this LSA suggest that Natural Corridors should be protected in order to preserve significant ecological and cultural landscape features. The findings - visually represented on the individual layer and cumulative maps - highlight key areas within the PWSPSA where development should and should not occur based on areas having been identified as having an augmented 'level of development constraint'. Moving forward through Secondary Planning, particular land uses being considered for development should pay attention and respond to the natural and culturally significant features identified through this LSA.



LEGEND

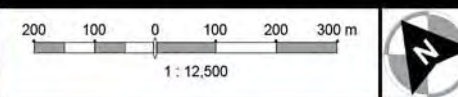
- Study Area Boundary
- Property Boundaries
- Watercourse
- Wetlands
- Natural Corridor Primary

Cumulative Score (Scaled Values)	Score Classification
	0 - 2 Not Constrained (Score 0)
	3 - 5 Minor Constraints (Score 1)
	6 - 8 Marginally Constrained (Score 2)
	9 - 11 Moderately Constrained (Score 3)
	12 - 14 Totally Constrained (Score 4)

NOTES:

- Property lines approximate only. Site subject to survey

LAND USE SUITABILITY
FIGURE 4.1-2
NATURAL CORRIDORS MAP
 DARTMOUTH, NOVA SCOTIA
 PORT WALLACE SECONDARY PLANNING STUDY AREA
 OCTOBER 26, 2015 B07057-127-R1-SCR_GREYSCALE



1 SPECTACLE LAKE DRIVE
 DARTMOUTH, NOVA SCOTIA CANADA, B3B 1X7
 PHONE: 902 835-9955 - FAX: 902 835-1645 - WWW.WSPGROUP.COM

FILE: K:\DARTMOUTH\00007057_R1\PORT WALLACE\WORKING\FIGURE4.1-2\SCR_GREYSCALE.FRM
 Sheet NAT CORR

APPENDIX A

Interim Boundaries: Conrad Lands

THE FOLLOWING APPENDIX WAS COMPLETED BY: TOM SWANSON, P. ENG., EAST POINT ENGINEERING LTD.

The Lands of Conrad Brothers Ltd. (Conrad Lands) are currently located within the Rural Commuter designation boundary. This means that in order to extend water and sanitary services to these lands, a Regional Planning Amendment will be required. However, the Conrad's Port Wallace lands present a unique case, where by historical planning intent, existing water quality objectives, and future industrial development opportunities, suggest that a portion of the Conrad Lands should indeed be considered for Servicing and Secondary Planning. As indicated in the Staff Report to March 4, 2014 Regional Council meeting. "There may be merit in including some of the Conrad Lands within the Port Wallace Secondary Planning and Servicing Area". This is supported by Regional Planning **Policy S-2**:

<p>Policy S-2 Where requests are received to initiate secondary planning for <i>Port Wallace</i>, considerations shall be given to:</p> <ul style="list-style-type: none">a) The need for additional lands and the fiscal implications to HRM and Halifax Water and their capacity to meet additional financial commitment; anb) The implications for achieving the HRM growth targets.

This Appendix, therefore, expands upon and clarifies the request to include a portion of the Conrad Lands within the Secondary Planning Process, and for an extension of the servicing boundary. It outlines the benefits to HRM and its residents from granting the request.

BACKGROUND AND CURRENT USAGE

Background

Based on former County of Halifax and City of Dartmouth planning approaches, the Conrad Lands were intended to be included for future development since 1975. It was not until the 2006 *Regional Plan*, with the adoption of the 'Urban Settlement' designation, when the Conrad Lands were omitted from future

planned development. Even still, the *Cost of Servicing Study (2009)* and *Sub-Watershed Study (2013)* included the entirety of the Conrad Lands when considering future development opportunities. A number of other events have occurred which support the inclusion of a portion of the Conrad Lands within the Secondary Plan and Servicing Area and a rezoning to industrial for the Conrad quarry lands. These include:

1. The construction of the 107 Bypass severed the Conrad Lands and consequently left small strips of R-1 zoning within the Dartmouth Planning District beyond the 107 Bypass which are no longer appropriate;
2. The various 'Greenfield Sites' identified in Regional Planning exercises from 2004 through 2009 identified all of the Conrad Lands as being within the Port Wallace Secondary Planning Area. The 2009 cost of servicing study by CBCL Ltd. indicated that the inclusion of the area A outside of the 107 Bypass (Conrad Lands) would significantly decrease the per acre cost for the provision of trunk services;
3. In deliberations leading to RP+5 Amendments to the Municipal Planning Strategy Regional Council decided that within the current planning time horizons allowing serviced residential development beyond the 107 Bypass could lead to urban sprawl and would be contrary to the plan objective of increasing residential density within serviced residential areas in order to lower municipal costs;
4. Conrad's understand and respect this decision, and it is not their intent to allow residential development on their quarry lands (lands beyond the 107 bypass). However these lands have over two kilometers of frontage along the Highway 107 bypass right of way and direct access to the 100 series highways via the Montague Road/Waverley Road interchange. Conrad's are confident that they will be able to generate significant increases in commercial/industrial employment and assessments through expansion of existing tenant businesses on their lands and sale of sites to interested third parties, if municipal water and sewer services and industrial zoning are extended to the front portion of their quarry lands;
5. HRM Development regulations have been tightened so it is no longer possible for Conrad's to build buildings associated with and necessary for the quarry and related industrial operations in the residentially zoned portion of their quarry lands. This has resulted in a deferral of planned new construction and prevents the most effective operation of their facilities;
6. An application to rezone all of Conrad's quarry lands, outside of the Lake Major Protected Water Supply zone to industrial has been made via separate application to HRM;
7. When Halifax Regional Council authorized proceeding with a secondary planning for the Port Wallace area Greenfield site, requests were made by WSP on behalf of the land owners to incorporate the Conrad Lands between the Waverley Road and Highway 107 Bypass, approximately 22 hectares

within the servicing boundary with the area to be planned and developed for residential development. A further request was made to extend the servicing boundary to include a portion of Conrad's quarry lands fronting along the 107 Highway Bypass and a section of Montague Road to facilitate development of industrial and highway commercial uses.

Current Zoning

The Conrad Lands fall within three different planning districts and are covered by seven different zones, as shown on the **Existing Zoning Plan** and listed below:

1. The lands between the Waverley Road and the 107 Bypass and a small portion of lands across the Bypass are in the Dartmouth Planning District and are zoned R-1. About two-thirds of the remaining lands are in Planning District 14 and 17, the Shubenacadie Lakes plan area. About 20 percent of these lands in turn closest to the 107 Bypass and either abutting it or the R-1 Dartmouth zoning are zoned I-3, light industrial and contain most of the offices and other buildings associating with the businesses described later in this appendix. The remainder of the lands in districts 14 and 17 are zoned R-1b comprising about 70 percent with PWS (Protected Water Supply) covering about 10%;
2. The remainder of the Conrad Lands fall within the Cole Harbour Westphal Planning District with the front portion nearest to Highway 107 and the Montague Road zoned R-1 and R-7 and the back portion zoned PWS.

As mentioned above a separate application has been made to HRM Planning on behalf of Conrad Brothers Ltd. to amend the planning district boundaries so that all of Conrad's quarry lands all fall within Planning District 14-17 and to rezone all of the non-watershed lands to industrial.

Current Usage

The Conrad family acquired the first parcel of the lands which currently make up the Conrad Brothers Limited lands within the Port Wallace Greenfield Site in 1951. They started their quarry operations in 1963, and shortly thereafter acquired additional adjacent parcels so that they now own approximately 237 hectares (585 acres); 22 hectares (55 acres) between the Waverley Road and the 107 Bypass and 215 hectares (530 acres) outside of the Bypass. The original quarry operations were based on Waverley Road access and located on the parcel currently inside of the 107 Bypass. After this highway was constructed, Conrad's moved their operations to outside of the Bypass at the request of the Dartmouth City engineer. However the former quarrying operations have left a few site issues which we propose should be dealt with through the secondary planning and development process. These include:

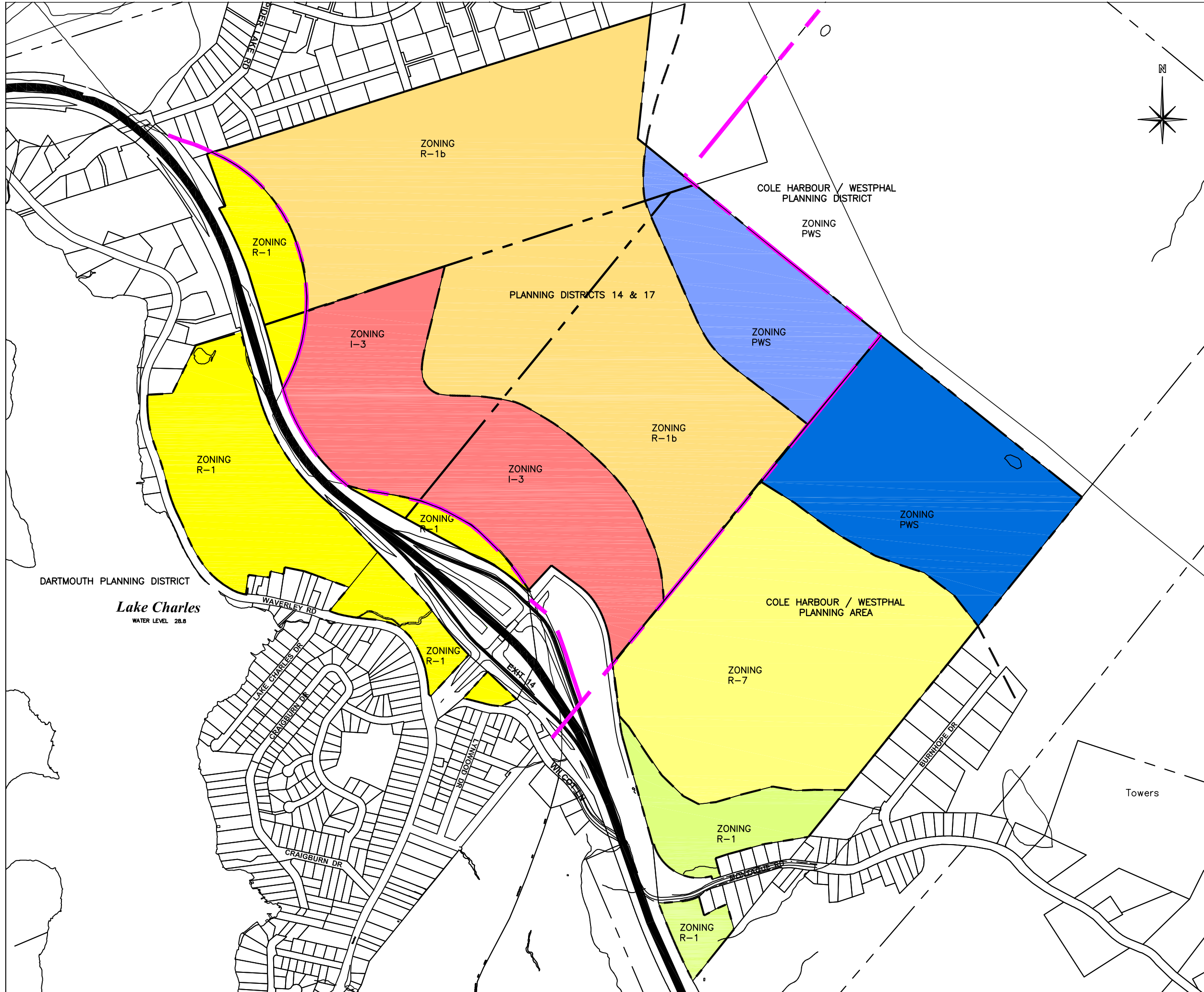
1. A few near vertical rock faces were left which should be modified in the interests of public safety.

2. A few large piles of oversized boulders were left which should be removed or modified in the interest of public safety.
3. Some man made settling ponds were created which are no longer used and have essentially dried up but which show up as wetlands on some older mapping. These should either be restored if they are useful as water management features or infilled with the sites integrated into the development.

Over the years as the quarry business expanded a number of related and complementary businesses have been developed on the Conrad Lands. Notwithstanding some seasonal fluctuations, about 200 people are currently employed by the businesses located on the Conrad Lands. These include:

1. The Quarry Operation;
2. Trucking and Transportation businesses (these were originally related to the quarry but have expanded into heavy hauling, container handling and related services including warehousing and load consolidation);
3. An Asphalt and Ready Mix Concrete Company;
4. Contractor Equipment Storage and Repair;
5. Soil Treatment and Remediation;
6. Firewood Processing and Delivery;
7. Car Dealer Excess Vehicle Storage;
8. RV Parking and Storage; and,
9. Offices related to each of the above.

All of these businesses operate within the present quarry site outside of the 107 Bypass.



KEY PLAN SCALE = 1:50,000

LEGEND	ZONING	PLANNING DISTRICT
	R-1	CITY OF DARTMOUTH
	I-3	14 & 17
	R-1b	14 & 17
	PWS	14 & 17
	R-7	COLE HARBOUR WESTPHAL
	R-1	COLE HARBOUR WESTPHAL
	PWS	COLE HARBOUR WESTPHAL

No.	Date	Revision	Description	Appr'd

Summit Rock Developments Ltd.
 DEVELOPMENT CONSULTANTS
 1801 HOLLIS ST. SUITE 1500
 Halifax, Nova Scotia Canada B3J 3M4
 Tel: (902)422-0263 Fax: (902)422-1919

EastPoint ENGINEERING LTD.
 1801 HOLLIS ST. SUITE 1500
 Halifax, Nova Scotia Canada B3J 3M4
 Tel: (902)422-2000 Fax: (902)422-1919

PREPARED FOR
CONRADS BROTHERS
 Waverley, Nova Scotia

EXISTING ZONING PLAN

Date	Sept. 2014	Drawn	K.N.WILTON	Project No.	140701
Scale	Horz. 1:400	Engineer	T.SWANSON	Plan No.	140701-001
Reference	Approved			Mun. No.	00000000
Surveyed	Sheet	OF			

LANDS BETWEEN THE WAVERLEY ROAD AND THE 107 BYPASS

We request the sanitary sewer and water servicing boundary be extended to incorporate all of Conrad's lands between the Waverley Road and the 107 Bypass; and that these lands be designated for development within the Port Wallace Secondary Plan.

RATIONALE FOR REQUEST TO INCLUDE LANDS WITHIN SECONDARY PLAN

1. Historically these lands have been within the City of Dartmouth and designated and zoned (R-1) for residential development whenever servicing was extended to the area.
2. A 350 mm diameter waterline passes along the Waverley Road along the entire frontage of these lands and a sewage lift station near the end of Lake Charles Drive, constructed by the city of Dartmouth, is actually located on Conrad's land. Conrad's lands have not been developed to date because of inadequate downstream sanitary sewer capacity in the Waverley Road system beyond the civic 390 Waverley Road pumping station. When the lift station was installed on Conrad's property they were told that serviced residential development rights would be granted for these lands as soon as sanitary sewer servicing capacity was provided through construction of connections to the north Dartmouth trunk sewer, which is necessary to service the Port Wallace Secondary Planning area;
3. The current R-1 zoning permits development of these lands on wells and septic tanks; however there are several valid reasons for facilitating serviced development of these lands instead. These include:
 - a. The *Shubenacadie Lakes Subwatershed Study* (2013) indicated that to allow these lands to be developed based on or site services in lieu of central sewer services will negatively impact the Lake Charles water quality.
 - b. The 107 Bypass provides a logical barrier separating serviced and un-serviced residential development.
 - c. If Regional Council deems the benefits to HRM of allowing serviced industrial development of the front portion of Conrad's quarry lands are desirable, these may be achieved at lower costs both to Conrad's with lower ongoing operating costs to Halifax Water via a gravity rather than pumped sewer service. This may only be achieved by installing gravity sewers through Conrad's front lands; and,
4. Furthermore, developing these lands presents a logical extension of the type and scale of development which is experienced in this neighbourhood already. Serviced residential development will help better connect the Portobello residential area with the Waverley Road residential areas. Also, servicing these lands will provide an opportunity to introduce small neighbourhood commercial uses as a central node to the community, at the gateway to the Highway 107 interchange from the Waverley.

BENEFITS TO HRM

Although this request should be granted to fulfill long term commitments, it will also benefit HRM as indicated below:

1. It will provide better utilization of existing water and sanitary sewer services adjacent to the property which have been sized to service these lands;
2. Servicing of the lands will provide a parallel loop to a portion of the single feed Waverley Road water line thereby increasing reliability;
3. Servicing of the lands will greatly reduce the risk of contaminated runoff into Lake Charles (serviced development versus on-site septic systems); and,
4. Servicing of these lands will increase the acreage to be developed in the Port Wallace capital cost contribution area, thereby allowing for a decrease in the average cost per acre for the infrastructure for the remaining Port Wallace Greenfield site and reducing capital costs to HRM/Halifax Water for their portion of infrastructure upgrades.

LANDS ABUTTING THE 107 BYPASS AND MONTAGUE ROAD

In general these are the lands shown on the previous submission by WSP (See **Image A-1**: Original request to include Conrad Lands (approx. 222 acres), Letter to the Community Design Advisory Committee, June 20, 2013. below); however, this submission, as part of the LSA, has been modified to request that the back-boundary line be amended slightly for two reasons. First we have proposed a slight increase in depth back from the 107 Bypass. This has been done because to utilize these lands most effectively it is necessary to have an internal loop street system both for emergency vehicle movement and to provide appropriate water service looping. With this in mind and to provide appropriate average lot depths for industrial lots, of 90 meters more or less with two 20 meter road ways we are requesting a depth of serviced land of approximately 400 meters from the highway. This is slightly more than shown on the previous sketch and after Parkland dedication will allow approximately 80 hectares (200 acres) of usable serviced land including streets. A second requested change is that rather than the servicing boundary following a series of curves shown on the original submission **Image A-1**: Original request to include Conrad Lands (approx. 222 acres), Letter to the Community Design Advisory Committee, June 20, 2013, we are now proposing three straight lines to make up the back boundary of the serviced area so that they may be more easily laid out in the field. This amended request is contained herein as **Image A-2**: Sketch showing request to include Conrad Lands with modified alignment of back boundary on quarry lands (Approximately 222 usable acres)., showing amended servicing boundary for Conrad Lands.

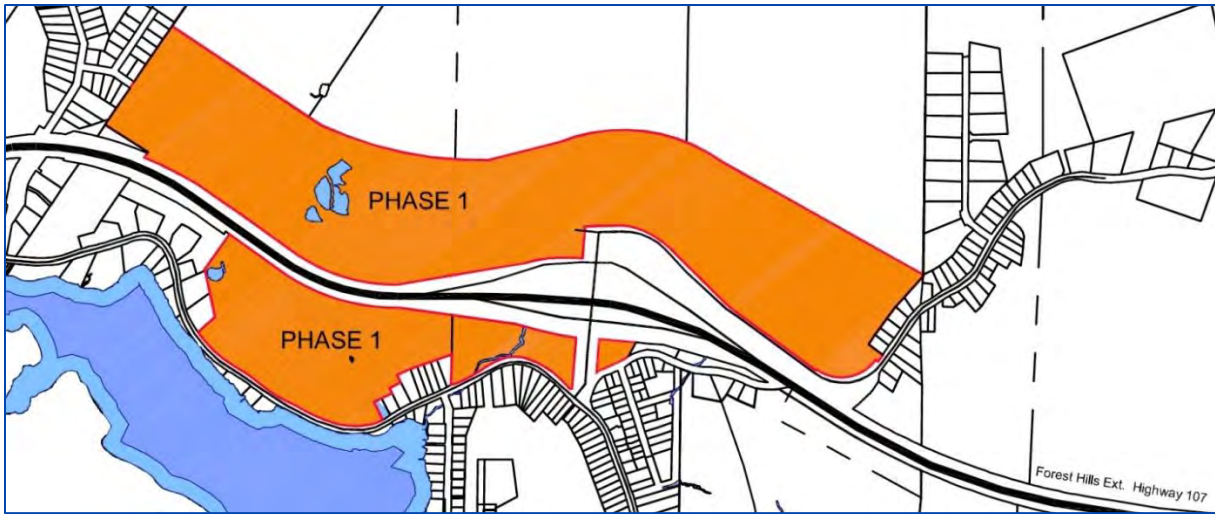


Image A-1: Original request to include Conrad Lands (approx. 222 acres), Letter to the Community Design Advisory Committee, June 20, 2013.

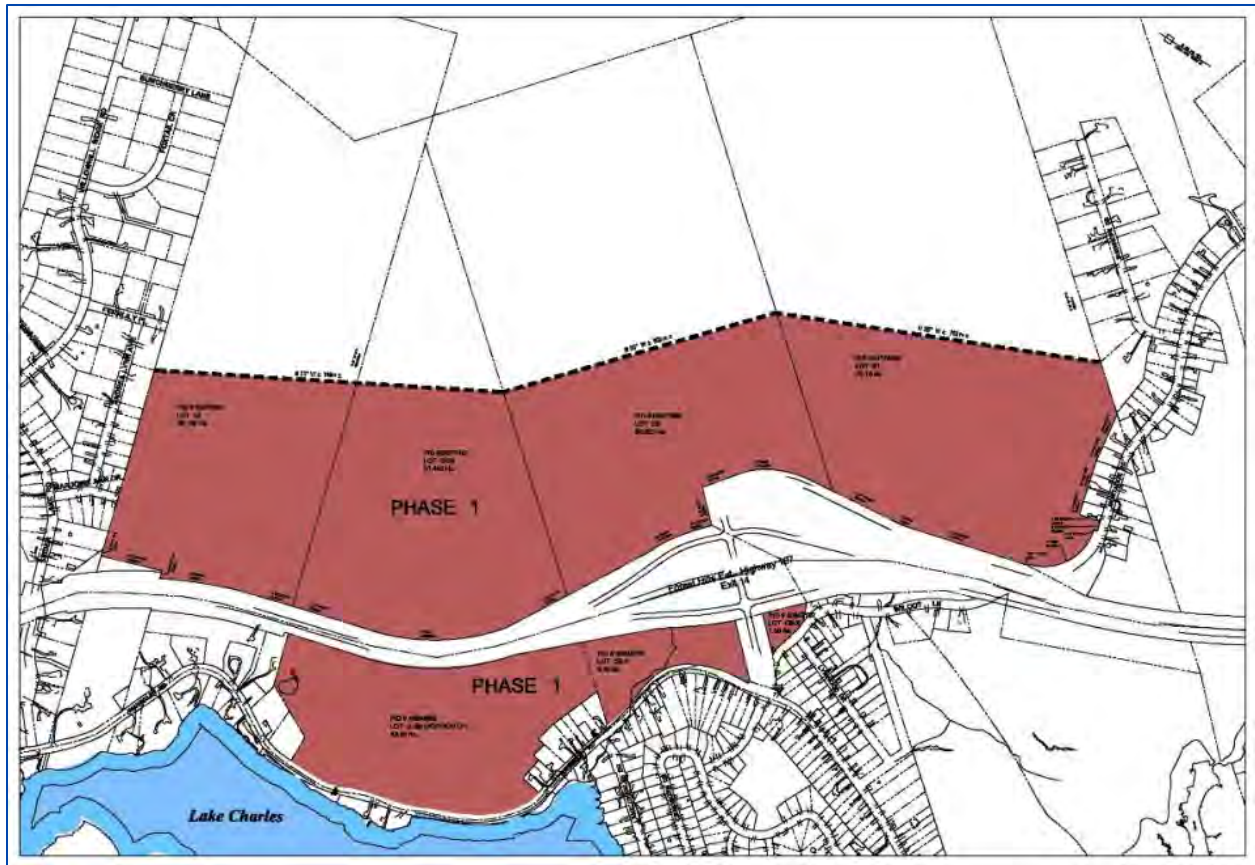


Image A-2: Sketch showing request to include Conrad Lands with modified alignment of back boundary on quarry lands (Approximately 222 usable acres).

RATIONALE FOR REQUEST TO INCLUDE LANDS WITHIN SERVICING BOUNDARY

Based on earlier discussions with Dartmouth and Halifax County officials, Conrad's have understood that they would eventually be permitted to carry out serviced development on all of their lands in this area. They do not object to the Council's decision to prohibit residential development beyond the Highway 107 Bypass. However, because of the fact that the Conrad Lands have approximately 2 km of frontage with excellent visibility along the Highway 107 Bypass, with a major access point to the 100 Series Highways opening directly on to their land, a light industrial/commercial strip running parallel to the 107 Bypass would provide significant benefits to the existing businesses operating from these lands and new businesses interested in the area, which in turn will have significant benefits to HRM. The majority of these benefits may only be realized if central servicing is provided to these lands.

The reasons for this are that businesses operating on the Conrad Lands are currently restrained from expanding due to:

1. Current zoning which prohibits new or expanded industrial buildings on all except the small portion of the site currently zoned I-3. This is currently being dealt with under a separate application to HRM Planning.
2. Businesses are reluctant to locate in this area or expand unless they have a reliable potable water supply for their employees, operations and fire protection. Ground water supplies in adjacent residential subdivisions on Montague Road and the Spider Lake area were of such poor quality that Halifax Water and its predecessors considered it necessary to extend municipal water to them. Complicating the well water option even more is the fact that Conrad's intent to continue operating their quarry business for a significant period of time which could further interfere with well water supply.
3. Fire risk and fire insurance costs without an adequate public water supply are excessive.
4. The area adjacent to the 107 Bypass which Conrad's propose to use for development is quarried over land which is particularly ill suited for on-site sewage disposal systems. This drives up the cost for such systems and as pointed out in the AECOM watershed report for Conrad's R-1 lands, such systems could ultimately lead to deterioration of water quality in Lake Charles, compared to disposing of sewage via modern central services.
5. Most new and expanding business finance at least a portion of their capital costs via mortgage on their land and buildings. This can only be done following subdivision of lands into parcels allowing individual ownership. Generally, constructing streets to facilitate subdivisions of industrial lots, without central services, due to the excessive lot sizes and low lot values, is not a viable business.
6. Un-serviced industrial developments generally attract low budget operations which will not create the attractive image or level of employment which are appropriate for this highly visible site, close to an expanding residential community.

HRM has indicated that:

*"Land suitable for industrial use is in limited supply. HRM has only one business park (Burnside) with land available for industrial development and, at the current rate of development, this capacity will be exhausted in less than ten years."*¹

¹ HRM, RFP #14-304,

Providing services to the Conrad Lands abutting the 107 bypass for industrial development will open up medium and long term development opportunity for much needed industrial development in Halifax.

BENEFITS TO HRM

Numerous and diverse benefits will accrue to HRM and its citizens through the granting of this request, including:

1. Create new serviced land for Industrial Development – adjacent to existing highway infrastructure with excellent access to the 100 Series Highways, Burnside, Halifax International Airport and Halifax Harbour – where there is currently an identified shortage within the Municipality;
2. A significant increase in local employment close to the developing Port Wallace area residential community. Conrad's estimate, based on their own plans and discussions with current tenants, that within a few years of water and sewer services being made available to their lands and their being permitted to construct streets and services, and subdivide lots on the front portion of their quarry land, that employment within the area would at least triple (200 employees to 600 employees). After this initial spurt, growth is expected to continue with one or two new businesses or expansions per year;
3. Associated with the business expansion would be a significant increase in industrial and commercial assessments and taxes;
4. Looping present water lines from where the Montague Road water supply crosses under the 107 Bypass to the existing water distribution system on Spider Lake Road, which are both fed from a single Waverley Road supply line would result in a significant increase in water system reliability and fire flow capacity. This will be further enhanced upon completion of water distribution lines through the remainder of the Port Wallace Secondary Plan Area;
5. Fuller utilization of existing sanitary sewer infrastructure. An existing 450 mm gravity sanitary sewer extends from the intersection of Wilcot Lane and Lynwood Drive adjacent to the Conrad's property, for which we have requested residential zoning, along the Waverley Road to the pumping station at civic 390 Waverley Road. A preliminary analysis has confirmed that this existing gravity pipe has adequate capacity to service the 80 Hectares of requested industrial zoning (at a sewage generation rate of $35\text{m}^3/\text{Hectare}/\text{day}$ as suggested by NSDOE for lands with light industrial zoning, plus the Conrad's residential lands). Further preliminary design investigation indicates that these lands with the exception of a small portion of residential lands immediately abutting the Waverley Road may all be serviced to the 390 Waverley Road pumping station by gravity. A new pumping station and force mains are proposed at the 390 Waverley Road pumping station location to move the sanitary sewage from that location to the north Dartmouth trunk sewer. Upon approval in principal Conrad's consultants will work with Halifax Water engineering staff to confirm sanitary sewer alignments and capacities and appropriate water system design details. It should further be pointed out that allowing

serviced development of 80 hectares at 35m³/HA/day will utilize less than 50 percent of the sanitary sewer capacity allocated to the Port Wallace Greenfield area “A” in the *Cost of Servicing Study* (CBCL, 2009);

6. By allowing 200 acres of serviced industrial zoned lands on the Conrad property the Port Wallace Greenfield site serviced area would be increased resulting in a reduction to the costs per acre for the Port Wallace infrastructure through spreading the cost over a larger base. This in turn will reduce cost both to other developers and for the portion which HRM/HW would absorb for their share to be allocated to existing residences;
7. Provide a potential site for public infrastructure and facilities, such as Park and Ride Bus Terminal to support the Port Wallace area, which was recommended in the 2009 Cost of Servicing Study;
8. Provide a potential community commercial service area for the growing Port Wallace residential community thereby lessening highway traffic; and,
9. If desired, parkland on the Montague Road end of the Conrad’s lands could provide a location for additional active recreation fields for the community, away from the immediate residential neighbourhoods.

SUMMARY

Expanding the service boundary to include the requested portion of the Conrad Lands as part of the Port Wallace Secondary Planning Process should have no negative impacts or consequences to HRM. On the other hand they should result in better utilization of existing services; provide increased employment opportunities; significantly increase industrial and commercial assessments and developable areas; provide reduced capital costs to HRM/HW in relation to the existing resident’s share of capital costs for the infrastructure upgrades needed to facilitate the overall development of the Port Wallace Secondary Plan Area; and, facilitate reduced per acre development costs.

Attachment E



Port Wallace Meeting Minutes - May 26th, 2016

There were approximately 32 people at the 3pm presentation, and 31 people at the 6pm presentation

- After the Spider Lake area was developed there was a noticeable effect on Lake Charles. The lake quality suffered.
- Concerns about how concrete the data is for Lake Charles.
- Stormwater concerns from many residents.
- Concerns about low residential density being proposed.
- Concerns about water quality and deforestation.
- Comments about blue/green bloom, and decrease in water quality.
- A suggestion was made regarding an addition to the development agreement that would allow for water quality monitoring.
- Concerns about the sidewalk being located on one side of the Waverley Road, and how the development could impact that.
- Speed and traffic concerns on Waverley Road.
- Concerns about the bus stops being on the side of the Waverley Road that does not have a sidewalk.
- Concerns about disturbing the wetlands.
- Consider a roadway design that does not draw traffic through the existing neighbourhood.
- Consider drafting community design guidelines before any plans are made.
- Do not allow any stormwater runoff from the newly developed area. Should adopt a zero net increase policy for the development.
- Should consider policy and guidelines addressing quantity and quality of any stormwater onsite.
- Why develop Port Wallace at all, why not another place with less servicing, traffic, and environmental constraints. Who has the final say?

Morgan, Paul

From: Morgan, Paul
Sent: June-16-16 10:04 AM
To: Frank Woodbury
Subject: RE: Development of the Whebby and Conrad lands

Thank you for your correspondence. You are the first and only submission received to date. I will make sure that Regional Council receives this.

From: Frank Woodbury
Sent: June-15-16 7:56 PM
To: Morgan, Paul
Subject: Development of the Whebby and Conrad lands

June 15, 2016.

Paul Morgan,

Re: Development of the Whebby and Conrad lands.

Christine and I enjoyed meeting you in person and hearing about the all the factors which go into planning an urban development on the proposed lands. As the plans are fleshed out we will be interested to follow the subject and perhaps give input.

As residents who live on Lake Charles, we are concerned about the impact which the development could have on the waterway. At the meeting a gentleman expressed concern about how the large amount of organic material was going to be handled with this project and he made the point that if the bushes and trees are cut down at one time and large amounts of organic material are left in the area, it creates a risk of phosphate run-off getting into Lake Charles risking an algal bloom. We encourage you to take necessary steps to deal with the organic materials resulting from clearing the land in a way which mitigates this risk.

We learned at this meeting that the watershed study states that the greatest risk to the water is the existence of septic fields in the properties bordering Lake Charles. Ours is one of those properties. The development of the Conrad lands would bring the city sewer further along the Waverley Road and it makes sense that the city would build in the extra capacity to allow sewer to be brought to the houses along the Waverley Road as far as the overpass to protect the lake.

Sincerely,

Frank and Christine Woodbury

Morgan, Paul

From: Morgan, Paul
Sent: July-20-16 4:10 PM
To: Stefan
Subject: RE: Port Wallance Community Planning Comments

Hi Stephan: I am going to attach our entire message exchange to the staff report which will be tabled with two community councils and regional council so that all your concerns and recommendations will be known.

From: Stefan [redacted]
Sent: July-11-16 12:16 PM
To: Morgan, Paul
Subject: Re: Port Wallance Community Planning Comments

Thanks for the response Paul. I have been thinking about it quite a bit and am happy to participate in the planning process. The neighborhood is very disappointed by the planning process that was applied for Dartmouth Crossing and I want to try and avoid the same thing from being repeated.

I am not sure if your department realizes it or not but DC was a huge miss. I know HRM was under a lot of pressure to approve the rezoning given the economic impact and that it made the North American lawsuit go away, but a lot more thought should have been given to the impact on the lake, the recreational corridor and residents living on the lake given the view planes. The re-zoning was approved with a notification area covering only trees and Dartmouth Crossing itself and proceeded at a time when we didn't even have a municipal councilor or a provincial MLA in place. This explains why no one opposed the re-zoning yet over 200 angry residents showed up a meeting after the project had already proceeded. To give as-of-right approval to that much retail including a 350K SF building at that location is irresponsible planning in my opinion.

Is there anything that staff can do to mitigate concerns at this point? I think all people are looking for is a reasonable landscaping plan along the highway (rather than a rock face and with a blue monstrosity at the top), some care on the lighting and signage, a reasonable setback, and water quality protections. Thankfully it looks like North American is going above what is required for storm.

From: Morgan, Paul <morgano@Halifax.CA>
Sent: July 8, 2016 6:44 PM
To: Stefan
Subject: RE: Port Wallance Community Planning Comments

Thank you Stefan. I can see you put a lot of thought into this. I have circulated this with our engineers and with Halifax Water staff. I will also table your submission with the staff report that will be presented to Regional Council.

From: Stefan [mailto:[redacted]]
Sent: July-08-16 3:00 PM
To: Morgan, Paul
Subject: Port Wallance Community Planning Comments

Hi Paul,

You suggested that participants attending the LSA session to email you any ideas or concerns regarding the Port Wallace Community Plan. I am a member of the Canadian Institute of Planners and am a resident of the neighborhood. Below are some comments and recommendations for your consideration.

Thanks,
Stefan

Stefan Hoddinott, MCIP, LPP

Dartmouth, NS



1. Transportation/Traffic Concerns Along Waverly Road

- Residents are concerned about traffic increases, particularly along Waverly Rd.
- It is already at or near capacity now during peak periods along the stretch from Breamar to Breeze Drive, particularly at the Montebello intersection.
- Waverly road is actually used quite heavily by pedestrians for recreational use, particularly from Breeze Drive to Breamar Drive. It connects the residential neighborhoods to the Lake and Shubie Park.
- It has a designated bike lanes that are heavily used by recreational bikers.
- Much of Waverly road only has a sidewalk on one side, and it is difficult for residents to cross the road to access the sidewalks when vehicular traffic is high.
- The options to increase traffic capacity along Waverly Road is essentially limited to improved traffic control devices and timing given the limited ROW width.
- **Recommendation:** Given the limitations of the Waverly road collector the proposed development should be designed to encourage the use of the 107 for travel outside the neighborhood while discouraging it along Waverly Road. Upgrades are required to the 107 including a new interchange servicing the development. This new infrastructure should be an upfront condition of HRM approval for this development.

2. John Brenton Drive Sewer Servicing & Sidewalks

- It is my understanding that the existing sewer system is at capacity requiring infrastructure upgrades including a new sewer main. As I understand it, the most likely route of this sewer main is along Waverly Rd and down John Brenton Drive.
- As a resident of John Brenton Drive, I can tell you that the existing sewer infrastructure on our street is inadequate. The pump station located at the corner of John Brenton @ Jaybe cannot keep up with the flow during significant storm events (mostly due to water infiltration into the system). Some homes have had sewer backups along John Brenton as a result, and sewer service has been disrupted for up to 24 hours. During these times Halifax Water has to continually use pumper trucks to prevent our street from flooding with sewer and to minimize runoff into Lake Charles. There is also some evidence that the system may be leaking (e.g. some driveway subsidence and unusual water flow from weeping tile etc.). Concerns have been raised with Halifax Water and they seem unable or unwilling to address the issue.

- By residential suburban street standards John Brenton has a lot of vehicular, pedestrian and bicycle traffic as it is main entrance to Shubie Park and the Shubie Camp Ground. The street has no sidewalks and there is an awkward intersection between Jaybe and John Brenton. The street essentially takes a 90 degree turn with no traffic control measures in place. The neighborhood has lobbied for a stop sign in the past, but requests have been denied as the intersection does not meet standards. There have been a few pedestrian/vehicular accidents at this location as a result, and many more close calls. Traffic calming measures could improve the situation, but are likely not practical given that large recreational vehicles frequently use the road for access to the camp ground.
- **Recommendation:** The existing sewer system deficiencies on John Brenton Drive and elsewhere should be addressed at the same time as the new Sewer Main installation required for the new development. The street will be excavated anyway, so it offers an opportunity to do this is a cost effective way while limiting impact on residents. Consideration should be given to the installation of sidewalks at the same time, and a review should be completed to determine how the Jaybe/John Brenton intersection can be made safer. Stop signs seem like the most viable solution.

3. Storm Water/ Environmental Concerns

- The proposed development is located directly on Barney's Brook, which is a major inflow point to Lake Charles. Lake Charles flows towards Lake Mic Mac and Lake Williams. As such, an impact on Lake Charles could potentially extend throughout the entire watershed.
- Lake Charles and the rest of the lakes are the recreational and cultural heart of Dartmouth that required adequate protections.
- **Recommendation:** Storm water management that goes well beyond the provincial minimum requirements should be required. There should be water quality management as well as the required quantity management.

4. Storm Water / Flooding Concerns

- Lake Charles is an extension of the Storm Water system.
- With the expansion of Dartmouth Crossing, Burnside and now this proposed development with huge amounts of impervious surfaces will dramatically increase the volume of storm water that needs to be dealt with. I realize that the developer will be required to design to pre and post, but we all know that during significant storm events (which scientist say are increasing in frequency and severity) that these systems can easily be overwhelmed.
- Many of the homes located on Lake Charles have low Finished Floor Elevations that were set in the 1970's and the early 1980's. During storm events the lake level changes significantly, and this has increased dramatically with more powerful storm events possibly increased inflow.
- According to long term residents (40+ years) Lake Levels are now getting much higher and lower than they ever did in the past. During a major store event last year many yards along Lake Charles were flooded. If the Lake level increases any further as a result of increased storm flow homes will undoubtedly be flooded.
- **Recommendation:** HRM should require storm water retention design that goes well above the minimum requirements. A flood study should be completed to confirm the capacity of Lake Charles as an extension of the storm water system relative to the FFE of homes along Lake Charles. It may be necessary to upgrade water level dams so they can be adjusted as required. Currently they just have wood that is set at a specific level.

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