

TO: Mayor Savage and Members of Halifax Regional Council

SUBMITTED BY: Original Signed by 
Jacques Dubé, Chief Administrative Officer

DATE: February 20, 2020

SUBJECT: Bedford West Capital Cost Contribution Review

ORIGIN

At the May 12, 2009 Regional Council meeting, a motion was passed to implement a Capital Cost Contribution (CCC) program for the Bedford West Secondary Planning Strategy. The staff report to Council identified capital cost estimates, cost escalation, and development timing as primary risk factors. To mitigate these risks, staff committed to a regular review of CCC charges with a mandate to return to Council in the event that development timing and/or infrastructure costs were significantly different from what was projected. The approved 2009 report can be found in Attachment A. The purpose of this report is to review and update the Bedford West Infrastructure Master Plan.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, Section 284

284 (1) A municipal planning strategy may authorize the inclusion of provisions for infrastructure charges in a subdivision by-law.

(3) The subdivision by-law must set out the infrastructure charge areas in which infrastructure charges are to be levied, the purposes for which infrastructure charges are to be levied and the amount of, or method of calculating, each infrastructure charge.

(4) Infrastructure charges may be set at different levels related to the proposed land use, zoning, lot size and number of lots in a subdivision and the anticipated servicing requirements for the infrastructure charge area.

(5) Infrastructure charges may not be imposed if an infrastructure charge has been paid with respect to the area of land, unless further subdivision of the land will impose additional costs on the Municipality.

RECOMMENDATION

It is recommended that Regional Council approve an amended Infrastructure Master Plan for projects in the Bedford West Secondary Plan Area by revising the projects list as outlined in this report and identified on Attachment C, and subject to availability of funding in future Capital Budgets.

BACKGROUND

Regional Plan

The Regional Municipal Planning Strategy (Regional Plan) provides a balanced approach to growth and seeks to direct much of the Municipality's investment to a series of centres where services such as transit, wastewater and water distribution services can be economically provided. The Plan distributes growth among seven general land use designations which form the framework for achieving its growth management strategy. The Urban Settlement Designation is given to areas where development is to be serviced with municipal water and wastewater systems.

Bedford West is located within the Urban Settlement Designation and is one of three greenfield areas where Secondary Planning Strategies have been approved and therefore urban development is expected to occur within the life of the Regional Plan. The detailed area plan or Secondary Planning Strategy has been approved by Regional Council. As one of these designated areas, Bedford West is required to be serviced with central sewer and water services and developed as a mixed-use community. In addition to serving new development, new and expanded infrastructure that is required to support the development of a greenfield area often provides a benefit to existing residents. The Regional Plan requires that a CCC is established prior to extending the Service Area Boundary, so as not to impose a financial burden on taxpayers.

The Bedford West Secondary Planning Strategy was approved by Regional Council in 2006 and consists of 12 sub-areas totalling approximately 600 hectares/1,500 acres of land. The community is located on the west side of the Bicentennial Highway in the vicinity of Kearney Lake Road, Larry Uteck Boulevard and Hammonds Plains Road (Attachment B).

CCC Policy

Regional Council approved the Capital Cost Contribution (CCC) Policy in July 2002, to replace existing cost sharing policies funded from the general tax rate. In 2006, the Regional Plan recognized the CCC policy as a tool to allocate infrastructure costs of planned development between developers and the Municipality, and this policy was used as a guideline when developing the CCC charges for Bedford West.

The CCC charge was based on an implementation plan that was developed in conjunction with stakeholders and approved by Regional Council in 2009. The implementation plan determines what infrastructure is needed, when the infrastructure is needed, how much the infrastructure costs, and who pays for the infrastructure. The charges collected from developers within a prescribed charge area represent the developers' cost and are used to help pay for new and oversized transportation infrastructure such as collector roads and interchanges that are needed in the master plan area.

The CCC is collected prior to subdivision approval and covers the developer's share of the capital costs of a Master Infrastructure Plan. HRM's share of capital costs is obtained through the capital budgeting process. As shown on pages five and six of Attachment A, the total cost of the transportation related infrastructure over the life of this development was estimated at \$196.9 million. Of this amount:

- The developers will pay approximately \$151.7 million for local roads and \$18.7 million for the cost of shared infrastructure;
- The \$18.7 million is funded through the Bedford South CCC (\$3 million) and Bedford West CCC (\$15.7 million);
- The total cost of shared infrastructure, excluding the \$13.8 million Provincial/Federal share, was estimated at \$31.3 million, and;
- The total HRM share is \$12.7 million. This is for infrastructure that residents, outside of the master plan development, will use.

Assessment of Risks

The Bedford West CCC charges were approved by Halifax Regional Council in May 2009. The staff report to Council (Attachment A) identified capital cost estimates, cost escalation, and development timing as

primary risk factors. To mitigate these risks, staff committed to a regular review of CCC charges with a mandate to return to Council in the event that development timing and/or infrastructure costs were significantly different from what was projected.

It is important to note that adopting the Master Plan does not constitute any regulatory or statutory obligation on behalf of the Municipality to expend funds on infrastructure needed to support development. Adopting a Master Plan does commit Council to consider investments through the normal budget process, and is always subject to the availability of funds.

The purpose of this report is to review and update the Bedford West Infrastructure Master Plan.

DISCUSSION

Transportation Infrastructure

In recent years, the Municipality has made a significant shift in how transportation infrastructure projects are approached and completed. Of most significance, the Municipality has adopted the Integrated Mobility Plan, which focuses on multi-modal mobility rather than strictly vehicular mobility. Additionally, the use of roundabouts has emerged since the adoption of the Bedford West infrastructure Master Plan.

The 2009 Bedford West transportation infrastructure plan requires updating to follow this new strategic direction. The original transportation infrastructure plan included the following:

- Hammonds Plains Road Widening;
- Kearney Lake Road (Now Larry Uteck Boulevard) Widening;
- Kearney Lake Road Connector;
- Highway 102/Larry Uteck Boulevard Interchange;
- Upgrades to the Kearney Lake Road (Now Larry Uteck Boulevard) at Hammonds Plains Road intersection;
- Traffic Signals at the Larry Uteck Boulevard at Bluewater Road, and Larry Uteck Boulevard at Kearney Lake Road intersections.

The following projects have been completed:

- Hammonds Pains Road Widening;
- Highway 102/Larry Uteck Boulevard Interchange;
- Kearney Lake Connector.
- Traffic Signals at Larry Uteck Boulevard and Kearney Lake Road

An updated Infrastructure Master Plan is being proposed, which utilizes roundabouts, focuses on multi-modal transportation modes and abandons the traditional road widening approach. Having completed projects based on the original plan, the remaining projects required to service a fully developed Bedford West have been analysed and the following projects are proposed:

Previous List	Updated List
<ul style="list-style-type: none"> • Larry Uteck Boulevard Widening • Traffic Signals – LUB at Bluewater Road • Intersection Upgrade - LUB at HPR 	<ul style="list-style-type: none"> • Broad Street North Roundabout • Traffic Signals - LUB at Bluewater Road • Broad Street South Roundabout • LUB Corridor Multi-Modal Transportation Upgrades • Intersection Upgrade – LUB at HPR

This updated transportation infrastructure meets the serviceability needs of the Bedford West community while focusing on improving the multi-modal transportation level of service along the Larry Uteck Boulevard corridor.

Development Update

Development of Bedford West was originally forecast to occur over an 18-year period from 2009 to 2027. There was minor development activity from 2009 to 2011 (i.e. former Research In Motion Property, BMO Centre), however, large scale development did not start until 2011 when the Halifax Water CCC was approved. This two-year delay slowed the collection of CCC charges, but also delayed the need for transportation infrastructure in the area.

Attachment B provides an overall map of the master plan as well as individual maps for each subdivision area, illustrating which areas have been developed. Bedford West has seen approximately 687 acres (278 hectares) of the 1,498 developable acres developed as of the end of 2018. This is roughly 46% of the master plan having been developed in seven years, leaving 54% (811 acres/328 hectares) of the plan yet to be developed. This report updates the overall Master Infrastructure Plan to reflect the following:

- Actual costs of master plan infrastructure and build out rates to date; and,
- A revised list of projects to complete the development with input from the Integrated Mobility Plan, revised interest rates, and revised development build-out as discussed below.

Additionally, land acreage has been reviewed upon receiving new survey plans as land has developed. By combining the new land surveys and old aerial photographs, the 2009 acreage has been more accurately defined from 599.5 hectares/1,481.4 acres to 606.4 hectares/1,498.4 acres. This variance is taken into account as part of the financial review of the master plan.

As of 2018, most of the subdivision area developers/owners in Bedford West have been in contact with staff to begin the planning process to develop their land. Notwithstanding this, the timing of development of Sub-area 11 remains uncertain, which in turn poses a risk that the Municipality may not collect CCC revenues on the 82.5-acre residential area.

Transportation Infrastructure Construction Costs

Because of the initial two-year development delay, the approved transportation infrastructure was delayed as well. The following table provides a summary for the completed projects:

Completed Projects	Forecast Year	Actual Year
Engineering Studies	2008	2008
CCC Implementation Team	2008	2008
Hammonds Plains Road Widening - Phase 1	2008	2008
Innovation Drive Oversizing	2008	2008
Traffic Signals – Hammonds Plains Road at RIM Entrance	2008	2009
Completed Projects	Forecast Year	Actual Year
Hammonds Plains Road Widening - Phase 2	2009	2009
Larry Uteck Interchange	2009	2010
Left Turn Lane - Lewis Lane	2009	2012
Traffic Signals - Hammonds Plains Road at Gary Martin	2009	2013
Kearney Lake Connector	2010	2014
Intersection Improvements - LUB at KLR	2012	2015
Traffic Signals – LUB at KLR	2012	2019

In the original 2009 infrastructure plan, these projects were estimated to cost \$20.9 million dollars. However, due to a marked drop of interest rates as well as cost reductions, the actual cost for the projects in the above table was \$17.5 million dollars. As such, the total cost for the completed infrastructure was less than the 2009 estimates by \$3.4 million.

The cost estimates for the remaining projects were updated in 2018. The total estimate for the future projects is \$12.1 million (2018 dollars). By contrast, the original 2009 estimate for the remaining projects was \$10.5 million (2009 dollars).

A summary of the updated costs is shown in Attachment C.

Financial Discussion/Update

As shown in Attachment A, the 2009 average capital cost charge per acre in Bedford West was set at \$10,159. The amount of a charge varies by areas. Furthermore, the per acre area charge is annually indexed to match Halifax’s Consumer Price Index without the need for a by-law amendment. The current 2019 per acre average charge is currently set at \$11,994.

These transportation factors, as shown in the table below, are based on relative trip generation rates which vary depending on the type of development allowed by policy in the subdivision-area. The adjustment factors have been reviewed and are still valid for the area given the new multi-modal approach adopted by the Municipality through the IMP.

Sub-area	Trip Generation	Factor
1	Residential	0.54
2	Res/Community Commercial	0.98
3 and 3BC	Res/Community Commercial	0.98
4	Residential	0.54
5	Residential	0.54
6	Commercial	2.95
7	Res/Community Commercial	0.98
8	Res/Community Commercial	0.98
9	Res/Highway Commercial	1.53
10	Res/Community Commercial	0.98
11	Residential	0.54
12	Res/Highway Commercial	0.98

As Bedford West continues its development, the Municipality continues to collect CCC when a parcel of land is subdivided. Upon review, up to the end of 2018, there has been a total spend of \$17.5 million on installed infrastructure, of which approximately \$8.9 million is recoverable under the CCC program which represents the developer’s share. The Municipality has so far collected approximately \$7.5 million of CCC payments. The unrecovered amount can be attributed in part to the initial development delay (i.e. delay of land subdivision).

Staff have also reviewed the interest rates that were used in the original 2009 analysis and note that interest rates have changed in the past 10 years. Since the original analysis, interest rates continued a downward trajectory and remained low for a number of years. Although the change in interest rate has only a small impact on the amount of the CCC, it does nonetheless represent a risk to the Municipality if rates rise sharply over the short term.

As previously mentioned, the original financial model anticipated that development would be complete by 2027. The financial model has been updated and now accounts for the following:

- Development continuing until 2033;
- Updated interest rates used in the model, and;
- Updated Infrastructure Plan.

The updated financial model supports maintaining the current CCC charge and following the current inflation methodology for Bedford West. As it stands, the Municipality has not over collected on CCCs. Attachment D provides an illustrative comparison in HRM's CCC cash position.

In summary, a slower than expected development rate and a later start to development has created a negative pressure on the CCC. This has been off-set by lower than expected construction costs as well as low interest rates. In addition, there are risks that were identified as part of this review. The identified risks are:

- Further development slow down dependant on market conditions;
- Continued infrastructure cost uncertainty;
- Uncertainty of collecting any CCCs from remaining undeveloped lands and remnant parcels.

These risks are discussed in the Risk Consideration section below, but the CCC can be maintained using the current rate and inflation adjustment methodology.

FINANCIAL IMPLICATIONS

There are no financial implications as a result of this report. Staff are recommending maintaining the Capital Cost Contribution (CCC) charge, which will result in recovery of costs as prescribed in this report.

The increase to the estimate of the remaining projects on the Master Transportation Infrastructure plan is \$1.6M higher than the original estimate but is offset by \$3.4M in savings on projects executed between 2009 and 2019.

In the proposed Three Year Capital Budget, there is \$3M and \$3.2M in the years 21/22 and 22/23 respectively. These funds will be used for the Broad Street North Roundabout and the Broad Street South Roundabout and multi-modal connections. These amounts could change over the next year as the estimate will be refined as design work progresses.

RISK CONSIDERATION

The Capital Cost Contribution program is utilized by the Municipality to recover infrastructure expenditure as development progresses in master plan areas. There are certain risks associated with this program that the CCC policy attempts to alleviate.

Development timing presents a risk. Several factors are utilized to mitigate the risks around the development timing:

- Inflation Indexing – An annual cost escalation factor is applied to all infrastructure estimates;
- Escalation of CCC – An annual adjustment of the per acre charge, which is indexed in accordance with Halifax Consumer Price Index (CPI);
- Financing Charges – In recognition that cash deposited into municipal accounts from CCC will not match the costs required for construction, interest financing costs are applied. Net interest costs are built into the per acre charge paid by developers;
- Regular Review – Staff are tasked with the monitoring and reviewing of CCC;

- Municipal Investment – Delay of infrastructure construction/investment until Development Agreements are in place.

Another risk to the Municipality is that some sub-areas that have been developed to date include remnant parcels that haven't been subdivided. These parcels may include wetlands, watercourse buffers or lands that may be considered undevelopable. It is uncertain if these remnant parcels will be subdivided or not. This uncertainty creates a risk on the Municipality's ability to fully collect the respective CCC.

The risks identified here must be taken in context with the risk associated with unplanned development, which places a strain on the Municipality to provide services. The cost of providing municipal services to development that is not planned, in terms of both density and location, exceeds the costs identified in this report.

To mitigate these uncertainties and risks, the updated Master Infrastructure Plan proposes the following:

- Moving the predicted development date for Sub-area 11 within the financial model to year 2033;
- Moving the completion date for Bedford West to the year 2033;
- Recommending that the current CCC charge be maintained;
- Recommending continuous monitoring and evaluation of the masterplan and returning to Regional Council with a fiscal update in 2024.

COMMUNITY ENGAGEMENT

Two stakeholder (landowner) meetings were held as part of this review. Letters were sent out to all landowners within the master plan area. The first meeting was held on January 24, 2018 and provided the stakeholders an opportunity to ask questions and provide feedback.

A second stakeholder meeting was held on January 29, 2019. In this meeting, stakeholders were provided with the review findings. This meeting also provided all attendees with an opportunity to ask staff questions and provide feedback.

At these meetings, staff shared with the stakeholders the updated transportation infrastructure plan, current and future project expenditures. Discussions were also held on the possibility of reducing the existing CCC pending further internal analysis.

ENVIRONMENTAL IMPLICATIONS

There are no environmental implications associated with the recommendations of this report.

ALTERNATIVES

Regional Council could decide to reject the updated Infrastructure Master Plan. This is not recommended as doing so would be inconsistent with adopted municipal strategies.

ATTACHMENTS

Attachment A – 2009 Council Report Approving Capital Cost Contribution Charges
Attachment B – Bedford West overall and subdivision-area maps (End of 2018)
Attachment C – Master Infrastructure Cost Summary
Attachment D – HRM Cash Position Comparison

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

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EXECUTIVE SUMMARY

Bedford West is designated by the Regional Plan for a mixed use transit oriented community with lands allocated for residential growth and supporting services, high quality public spaces, as well as employment centres. The Bedford West Secondary Planning Strategy was approved by Regional Council in 2006. The Strategy provides detailed direction for land use allocation, environmental protection, municipal service provision and phasing.

Development approvals in Bedford West are also contingent upon adoption of capital cost contribution (CCC) or “infrastructure” charges under the Regional Subdivision By-law. These charges are collected by the Municipality to pay for the developers’ share of new infrastructure needed to service this community.

Transportation related CCC for Bedford West, proposed in Attachment A to this report, have been determined in accordance with a CCC policy document adopted by Council in 2002. This document identifies guiding principles and policies which are used to apportion costs and guide the Municipality’s role and financial commitment. The infrastructure elements are an interchange, collector roads, widening Hammonds Plains and Kearney Lake road as well traffic signal and intersection improvements. A CCC for sewer and water infrastructure will also be adopted under a separate approval process by the NS Utility & Review Board.

An amendment to the Bedford West wastewater servicing policies has also been proposed. A portion of this community will be serviced by the Halifax Wastewater System rather than the Mill Cove Wastewater System. This amendment is intended to provide a more cost-effective and environmentally friendly servicing solution with greater system flexibility in satisfying future commitments.

The total cost of infrastructure over the life of this development is \$196.9 million. Developers will pay \$170.4 million and HRM \$12.7 million. HRM’s share pays for infrastructure used by residents who live outside the development but who will use infrastructure elements such as the proposed interchange.

The Capital Cost Contributions proposed for the Bedford West Charge Area are \$5,486. per acre for areas that are primarily residential, \$9,956. per acre for areas that are mixed use including the business campus, and \$29,969. per acre for areas that are primarily commercial.

BACKGROUND

The Regional Plan:

Bedford West is one of three designated urban growth areas where a detailed area plan or “secondary planning strategy” has been approved by Regional Council. Each growth area is to be serviced with central sewer and water services and developed as a mixed use transit oriented centres with lands

allocated for residential growth and supporting services, high quality public spaces, as well as an employment centre. To achieve this objective, a comprehensive planning process was undertaken for each area with Council's adoption of a "secondary planning strategy" as a condition for proceeding with development approvals.

The Bedford West Secondary Planning Strategy was approved by Regional Council in 2006 in accordance with this directive (the boundaries of Bedford West and its 12 sub-areas are illustrated on Map BW-1 of Attachment A). This new community encompasses approximately 2,000 acres of land on the west side of the Bicentennial Highway in vicinity of Kearney Lake and Hammonds Plains Roads. The Strategy provides direction for land use allocation, environmental protection, municipal service provision and phasing.

Upon adoption of the Secondary Planning Strategy, the Regional Plan states that the Regional Subdivision By-law is to be amended to include the Bedford West lands in the Urban Service Area where central sewer and water services are to be extended provided that an infrastructure or capital cost contribution (CCC) is established. This charge, also approved as an amendment to the Regional Subdivision By-law, is used to pay the developers' share of new infrastructure needed to service this development. Capital cost contributions are collected from developers when property subdivides, and have been used previously by HRM in the Bedford South and Morris -Russell Lake master plan areas. The capital cost contribution program replaces cost sharing programs that were previously funded through the general rate.

The amendments addressed in this report are summarized as follows:

1. Secondary Plan Amendment to Wastewater Servicing Policy:

The Secondary Plan includes a servicing schematic for the wastewater sewer system. The proposed amendment would direct wastewater flow from one sub-area (Sub-area 12) to the treatment facility in Halifax instead of the facility at Mill Cove. A trunk wastewater sewer system currently proposed to be located within the Kearney Lake Road right-of-way would be relocated further to the east.

2. Subdivision By-law Amendment - Adoption of a Transportation CCC:

A transportation Capital Cost Contribution (CCC) would be established under the Regional Subdivision By-law for the entire Bedford West Secondary Plan Area which would replace an interim CCC previously approved for the Bedford West Business Campus July 31, 2007. Capital Cost Contribution for sewer and water will be implemented by Halifax Water under a separate approval process by the NS Utility and Review Board.

CBCL Limited assisted the Municipality and Halifax Water in estimating the cost of required infrastructure improvements (Bedford West Capital Cost Contributions BASELINE STUDY, CBCL Ltd., 2008). Additionally, the CBCL Baseline Study allocates the costs between developers and HRM in accordance with the Municipality's Capital Cost Contribution Policy.

Extension of the Urban Service Area Boundary:

The Subdivision By-law would also be amended by extending the Urban Service Area boundary over the entire Bedford West Secondary Plan Area.

Reserve Accounts:

Staff are also proposing Reserve Accounts be amended to meet the Municipality's share of transportation infrastructure.

Public Consultations:

A public information meeting was held on January 21, 2009. The minutes are presented as Attachment B. Staff subsequently met with interested property owners to review a draft CCC. Submissions received in response are presented as Attachment C. The final CCC proposed in Attachment A incorporated some of the changes requested by property owners.

DISCUSSION

Wastewater Servicing Amendments:

The Halifax Wastewater Treatment Facility is capable of accommodating wastewater from Bedford West, and staff are recommending wastewater from Sub-area 12 be directed to the Halifax wastewater treatment plant for the following reasons:

- A detailed examination determined that it is expected to be less costly. It was originally thought that wastewater from this sub-area could be conveyed by gravity to an existing pumping station on the north side of the Hammonds Plains Road which then sends wastewater through a force main and gravity sewer to the Mill Cove treatment plant. However a new pumping station and force main would have to be constructed as there is insufficient capacity in the existing system.
- More capacity would be available at the Mill Cove treatment plant to service other developments contemplated within its existing sewer boundary. Areas designated by the Regional Plan for further consideration of serviced development include the Bedford Waterfront, Sunnyside Mall area, Lower and Middle Sackville and potentially the Sandy Lake area.
- More wastewater would be transferred away from the Bedford Basin where the assimilative capacity is limited by low flushing rates.

The wastewater forcemain is proposed to be relocated further from the Kearney Lake right-of-way for the following reasons:

- Halifax Water has expressed concern that the blasting required for the trench poses risk to damaging the trunk water main within the right-of-way which conveys water from the Pockwock reservoir into the metro area. The new location is intended to reduce this risk.
- This proposal would allow wastewater from Bedford South to be diverted to this main which could eliminate a pumping station in Bedford South and preserve capacity in the Bedford Highway sewer main. Sub-areas 9 and 10 of Bedford West could commence development earlier than would otherwise occur under the current servicing policies which would allow the Municipality to recover CCC's earlier.

Both amendments are incorporated into the revised wastewater servicing schematic for Bedford West (Schedule BW-4) presented in Attachment A.

The Subdivision By-law Amendments:

1. Extension of the Urban Service Area Boundary

Council has previously approved two requests to extend the Urban Service Area over the Bedford West Business Campus to allow for subdivision and development with water and wastewater services. These lands were capable of utilizing the existing sewer and water systems. An interim CCC charge was concurrently adopted under the Subdivision By-law.

Concurrent with the adoption of a transportation CCC, the Urban Service Area boundary would be extended over the entire Bedford West Secondary Plan Area. However, for those sub-areas to be serviced by the Halifax wastewater system (sub-areas 2, and 4 to 11), the proposed regulations would not allow subdivision approvals to be granted until such time as the NS Utility and Review Board has approved a CCC for sewer and water.

2. The Capital Cost Contribution Charge:

The Capital Cost Contribution (CCC) is used to fund new and oversized infrastructure such as collector roads and interchanges that are needed in the master plan area. In order to determine the amount of a CCC, a study is first carried out that determines what new and/or oversized infrastructure is needed and estimates the capital costs. An implementation plan is then developed in conjunction with stakeholders to determine when the infrastructure is needed, and a CCC is collected prior to subdivision approval to collect the developers' share of the capital costs.

Many of the proposed infrastructure elements will benefit citizens in existing nearby communities. It is for this reason that HRM pays a share of the infrastructure costs.

The total cost of the infrastructure over the life time of this development will be \$ 196.9 million.

- Of this amount, developers will pay approximately \$170.4 million (\$151.7 million for local roads and \$18.7 million for oversized roads and a share of the new interchange.) These costs

include engineering, contingencies, and escalation factors that consider the year in which the infrastructure will be built.

- HRM's share is \$12.7M. This is for infrastructure that people who live outside of the master plan development will use. In other words this is the infrastructure demand which is not being created by new development within the master plan development area.
- Federal and Provincial governments, and utilities will cost share \$13.8M on the Larry Uteck Interchange.
- The average Capital Cost Contribution from developers, including interest costs, is approximately \$10,159 per acre for oversized roads and other transportation infrastructure.

Infrastructure Components and Apportioned Costs

The CCC policy provides a mechanism by which the costs associated with new and oversized infrastructure can be recovered from developers and other stakeholders (including HRM) who benefit from the infrastructure. In broad terms, the transportation related infrastructure needed to support development in Bedford West includes the following components:

- A share of the interchange that was proposed to service Bedford South;
- collector roads within the development;
- widening sections of both the Hammonds Plains Road and Kearney Lake Road; and
- new traffic signals and intersection improvements.

The following table outlines the sharing of costs of this infrastructure between HRM and the developers.

Infrastructure	Total Cost	Cost Sharing	Bedford South	Bedford West	HRM
Interchange and Connector Roads	\$24,491,413	\$13,769,999	\$2,985,565	\$3,542,112	\$4,193,736
Widen Hammonds Plains Road	\$4,743,733			\$1,996,640	\$2,747,092
Widen Kearney Lake Road	\$9,098,522			\$5,459,113	\$3,639,410
Oversized Collector Roads	\$4,534,907			\$3,165,904	\$1,369,004
New Signals	\$707,012			\$383,270	\$323,742
Other Road Infrastructure	\$1,555,772			\$1,151,884	\$403,888
Total	\$45,131,359	\$13,769,999	\$2,985,565	\$15,698,923	\$12,676,872

Infrastructure Charge Calculation

The average Capital Cost Contribution for this area has been calculated to be \$ 10,159 per acre (see Attachment "A"). The calculation of this charge incorporates the cost of the required infrastructure, financial risks to HRM, timing of contributions, phasing of development, costs of financing, and any other considerations that may have financial impacts.

The costs include \$1,371,548. financing costs at 5.65% interest for cash flow funding provided by HRM over the life of the development.

The charge for each single family home, each unit in a semi-detached or townhouse, or apartment building will be approximately \$ 915., assuming 6 units per acre.

Legislative Adoption Process

Development in Bedford West relies on HRM adopting a CCC for transportation related infrastructure, and also relies on Halifax Water adopting a CCC for water and wastewater related infrastructure. This is a separate process and is subject to approval by the NS Utility and Review Board.

Negotiations are underway between stakeholders and Halifax Water regarding the implementation plan.

Assessment of Risks

The Capital Cost Contribution is the basis for recovery of costs as development progresses. While the positive impacts of this have been noted, there are certain risks. Primary risk factors that were evaluated for this Charge Area are addressed by the CCC policy and are described below.

1. Capital Cost Estimates/Cost Escalation

Capital costs set out in the Baseline Study,(Bedford West Capital Cost Contributions BASELINE STUDY, CBCL Ltd., 2008), are presented in 2008 dollars. Construction costs are upward trending and there is little reason to believe this will change, even in the current economic climate. Mitigation of cost escalation risk occurs in two ways:

1) *Shared construction responsibility.* The risk of escalating construction costs rests with the party responsible for construction of a particular asset. HRM and the Developers are responsible for building different items required for the Master Plan area. HRM faces little cost escalation risk for the Hammonds Plains Road widening and the Larry Uteck Interchange as costs are known and the work is ongoing or scheduled to begin this fiscal year.

HRM will have cost escalation risk on the widening of Kearney Lake Road, which is tentatively scheduled 8-10 years into the future. Fortunately, this widening will not be required until a significant amount of development occurs and CCC's will be collected in advance of construction. Traffic lights and left turning lanes will be required throughout the development but are minor in scope.

The Kearney Lake Connector, which will be constructed later in the development, as well as oversized collector roads will be built by the developer.

2) *Inflation indexing.* Non-residential construction and engineering indices were examined for trends over the past 25 years and in detail over the past 5 years. A cost escalation factor of 4.14%/year has been applied to all of the infrastructure in the model and will be adjusted if required.

2. Development Timing

This risk arises from development occurring on a schedule other than the projected one. For example, if development is slower than expected, CCC revenue will be delayed. Some developers in Bedford West have submitted detailed concept plans and obtained approved development agreements while others are not that far along in their planning processes. While the detailed concept plans can be used to control the sequence of development, the pace of development may change. A variety of strategies have been employed to mitigate risks around development timing:

A. Escalation of Capital Cost Charges - This is a departure from the models used in Bedford South and Morris/Russell Lake where the amount of the charge is consistent from year to year over the entire build-out period. This approach provided administrative ease but did not address inflationary impacts.

For example - a \$5,000/acre charge in 2003 is more onerous to pay than the same charge in 2009 due to inflation, and provides a competitive advantage to those who develop their land later. The Bedford West model is indexed annually in accordance with Halifax CPI, and this was supported by stakeholders.

B. Financing charges built into the model - It is recognized that cash flows into HRM from the receipt of CCCs will not match the outflows required for construction. Cash flows are projected and where the cumulative cash flow is negative, interest costs are incurred. Where positive, interest is earned on the balances. Net interest costs are built into the per acre charge paid by developers.

C. Regular review of timing of development - The Infrastructure Planning Office has been tasked with monitoring and review of CCCs. If development timing or infrastructure construction costs or timing differ significantly from what was projected, the Infrastructure Planning Office will return to Council with mitigation strategies.

- D. Delaying municipal investment beyond immediate commitments until Development Agreements are in place - The existence of a Development Agreement, along with detailed community concept plan, brings a higher expectation that CCC revenue will be collected. Development agreements have been approved by community council for sub areas 2, 3 and 4.

Bedford South

The Larry Uteck Interchange is a significant piece of infrastructure that was identified as a requirement under the Bedford South Implementation Plan. It is also required to address traffic concerns on the Bedford Highway, which is currently at capacity. When the CCC was approved for Bedford South, it was anticipated that the interchange would be developed in 2009, and a limit of 2,000 new units was established that could be approved before the interchange. This limit was based on the remaining capacity of the Bedford highway at the time.

Development in Bedford South has been steadily proceeding and has now reached the point where no further development on some parcels can occur until the interchange is approved.

Sandy Lake

A Cost of Servicing Study has recently been completed (CBCL Ltd., 2009) which looked at the cost of providing infrastructure to other green field sites that have been identified for serviced growth in the next 20 -25 years. One of these areas is on the north side of Hammonds Plains Road, commonly referred to as the "Sandy Lake Lands". CBCL have recommended that these lands be serviced by oversizing the wastewater system in Bedford West.

Halifax Water is currently developing a CCC for water and wastewater for the Bedford West Plan Area. The CCC, which is subject to approval of the NS Utility and Review Board, may have an implementation plan that requires Halifax Water to make some initial investment in the core infrastructure for Bedford West. As such, it is anticipated that Halifax Water would not have capacity to further invest in Sandy Lake Lands' costs at this time. Alternatively, HRM or the developers would need to invest in the oversizing, until development is commenced in Sandy Lake.

The cost to preserve capacity in the wastewater system for Sandy Lake is estimated to range between \$1,500,000. - \$3,700,000, depending on the outcome of the Bedford West CCC process for water and wastewater. Council will need to deal with this when the Bedford West CCC process is concluded by Halifax Water.

BUDGET IMPLICATIONS

Previous Budget Approvals

In 2007/08 and the 2008/09 Capital Budget, Council approved funds to carry out Phase 1 of the Hammonds Plains Road widening. This widening, from the intersection of Highway 102 to

Innovation Drive, was required per the Purchase and Sale Agreement on the RIM property. This phase was completed last Fall.

With the Advance Capital Budget for 2009/10, Council approved \$2 million to proceed with Phase 2 of the Hammonds Plains Road widening. This work is now underway.

The Larry Uteck Interchange was brought forward in the 2008/09 budget and further allocations are included in the proposed 5-year Capital Plan in 2009/10 and 2010/11. It was initially assumed that HRM would build the interchange and receive provincial cost-sharing. Through negotiations, it has been agreed that the Province will build the interchange and HRM, as well as the Federal government, will cost share.

Future Infrastructure & Budget Requirements

This report recommends establishing a CCC for transportation over the entire Master Plan area. Until Halifax Water receives approval from the Nova Scotia Utility and Review Board, which is expected within 3-6 months, development will only be permitted to proceed in sub-areas 1 and 3 where an interim charge exists. (Refer to Attachment "F")

Development has begun in the Business Campus section of sub-area 3. HRM can expect to collect approximately \$3.3 million in CCC revenue from sub-areas 1 and 3. This is enough to cover the developers' share for the Hammonds Plains Road widening. There will be a \$2.5 million shortfall in revenues for the developers' share of the interchange though until Halifax Water approves a CCC over the entire Bedford West Plan area, which will allow HRM to collect CCC's beyond areas 1 and 3 as well. Staff will bring forth a strategy to address this shortfall.

The Bedford West Master Plan area will require further investment by HRM for infrastructure such as collector roads, road widening, traffic signals, and intersection improvements. The following table illustrates net budget requirements by approximate year. Approval of this report does not represent approval of all the projects outlined below. Projects planned for 2010 and beyond will be brought forward for Council approval in the applicable budget years.

Year	Project	Gross Budget	Grants	Bedford West CCC	Bedford South CCC	HRM's Share
Previous Budget Approvals						
	HPR Phase 1	2,626,862		1,725,061		901,801
	HPR Phase 2	3,091,286		1,236,514		1,854,772
	Larry Uteck Interchange and Connector	24,491,413	13,769,999	3,542,112	2,985,565	4,193,737
	Traffic Signals at HPR	295,136		279,036		16,100

Future Requirements						
2010/11*	KLR Connector	4,148,497		2,779,493		1,369,004
2012/13	Intersection Improvements and Signals - KLR at LU	946,718		634,301		312,417
2015/16	Widen KLR - Phase 1	2,309,319		1,300,061		1,009,258
2016/17	Widen KLR - Phase 2	2,226,709		1,336,025		890,684
2017/18	Widen KLR - Phase 3	2,318,818		1,391,291		927,527
2018/19	Widen KLR - Phase 4	2,414,737		1,448,842		965,895
2020/21	Traffic Signals - KLR at Bluewater	261,864		26,186		235,678
	Total	45,131,359	13,769,999	15,698,923	2,985,565	12,676,872

Further details on these projects may be seen in Attachment E - Bedford West CCC Phase Costs-Transportation

HRM's Share	\$12,676,872
Less: Approved Reserve Q133 business case	\$ 3,855,000
Less: Approved debt in the 5-year plan	<u>\$ 3,675,000</u>
Balance to be funded by contributions to reserve Q133	\$ 5,146,872

Contributions of \$450,000 per year to Q133 - Bedford South Interchange Reserve are planned until 2011/12, when the reserve will be fully funded per its original approved business case. It is expected that these annual contributions will need to continue until 2023 to fund the remainder of HRM's share of the infrastructure identified in the Bedford West Master Plan. By comparison, the development is expected to be built-out by 2027. If a CCC is adopted, staff will return in the coming weeks with a formal business case for amending the reserve Q133.

*The Kearney Lake Connector Road is planned for the 2010/11 construction season but is not included in the 5-year Capital Plan. It has been flagged as an issue to be prioritized in budget planning next year. Flexibility around timing of this investment depends on the pace of development and will be assessed over the coming year.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ALTERNATIVES

1. Council could approve the amendments presented as Attachment A to this report and adjust the capital cost contribution reserves for Bedford West as presented in this report. This is the course of action recommended by staff.
2. Council could decline to approve the amendments to the Bedford West wastewater servicing schematics. If this course of action is taken, the design and cost of the wastewater sewer and the associated CCC charge will be affected.
3. Council could decline to approve the CCC charge for transportation improvements recommended as amendments to the Regional Subdivision By-law in Attachment A. If this option is chosen, the recommended extensions to the Urban Service Area should also not be approved until a CCC charge is in place.

In addition, not approving the CCC in a timely fashion will place funding for the Larry Uteck interchange at risk, which also impacts development in Bedford South. Bedford South has approved development agreements in place, pending approval of the interchange. These developments would be on hold indefinitely until alternate funding of the interchange is determined.

ATTACHMENTS

- A Proposed Amendments to the Regional Subdivision By-law and the Municipal Planning Strategies for Bedford; Halifax; and Beaver Bank, Hammonds Plains and Upper Sackville.
- B Minutes of the public information meeting held on January 21, 2009
- C Submissions Received and Staff Reply
- D Bedford West CCC Calculation
- E Bedford West CCC Phase Costs - Transportation
- F Letter from Halifax Water

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Peter Duncan, Manager, Infrastructure Planning, 490-5449
Paul Morgan, Planner, Community & Regional Planning, 490-4482

Report Approved by: _____
Austin French, Manager, Planning Services, 490-6717

Report Approved by: _____
Paul Dunphy, Director, Community Development, 490-4933

Report Approved by: _____
Phillip Townsend, Acting Director, Infrastructure & Asset Management, 490-4825

Report Approved by: _____
Cathie O'Toole, Director, Finance 490-6308

Attachment "A": A By-law to Amend the Regional Subdivision By-law and the Municipal Planning Strategies for Bedford; Halifax; and Beaver Bank

A Regional Subdivision By-law Amendments:

The Regional Subdivision By-law is hereby amended by:

1. replacing Schedule N with the following:

SCHEDULE "N" - Bedford West Charge Area

- 1. The area known as the Bedford West charge area is designated as a charge area in which an infrastructure charge is to be levied.**
- 2. The Bedford West charge area includes lands bounded by Hammonds Plans Road to the north, Highway 102 to the east, and Kearney Lake Road to the south and west, and includes approximately 131 acres south of Kearney Lake, more particularly illustrated on map BW-1.**
- 3. The infrastructure charge within the Bedford West Charge Area is levied to recover capital costs associated with new streets and street intersections and traffic signs and signals required to service the Bedford West charge area.**
- 4. (1) The infrastructure charge for the Bedford West charge area shall be \$ 5,486. per acre for sub-areas 1, 4, 5, 11 and residential development in sub-area 9.**
(2) The infrastructure charge for the Bedford West charge area shall be \$ 9,956. per acre for sub-areas 2, 3, 7, 8, 10, and 12.
(3) The infrastructure charge for the Bedford West charge area shall be \$ 29,969. per acre for sub-area 6 and commercial development in sub-area 9.
- 5. The Capital Cost Charges prescribed in this by-law shall be indexed without amendment to this by-law on April 1, 2010, and in each subsequent year on April 1, in accordance with the indexing set out in the Consumer Price Index for Halifax as published by Statistics Canada for the immediate preceding month, as it relates to the same month in the immediate preceding year.**

The fees indexed in this manner shall be reduced to the nearest dollar where they contain a fraction of a dollar less than \$0.5 and shall be increased to the nearest dollar where they contain a fraction of a dollar equal to or greater than \$0.5.

- 6. For the purposes of section 4 "Sub-area" means the sub-areas illustrated on Map BW-1 and the charge per sub-area shall be applied to all lands within the external boundaries of the sub-area including any proposed public streets or highways, walkways and parkland dedications, watercourses, open space areas or**

environmental reserves.

7. No subdivision approvals shall be granted until infrastructure charges for sewer and water services have been approved and are in effect.

2. Revising the title of Schedule “N” in the Table of Contents and Section 20.
3. Including the lands illustrated on Map 1 to the “Urban Service Area” under Schedule B: Service Requirement Map.

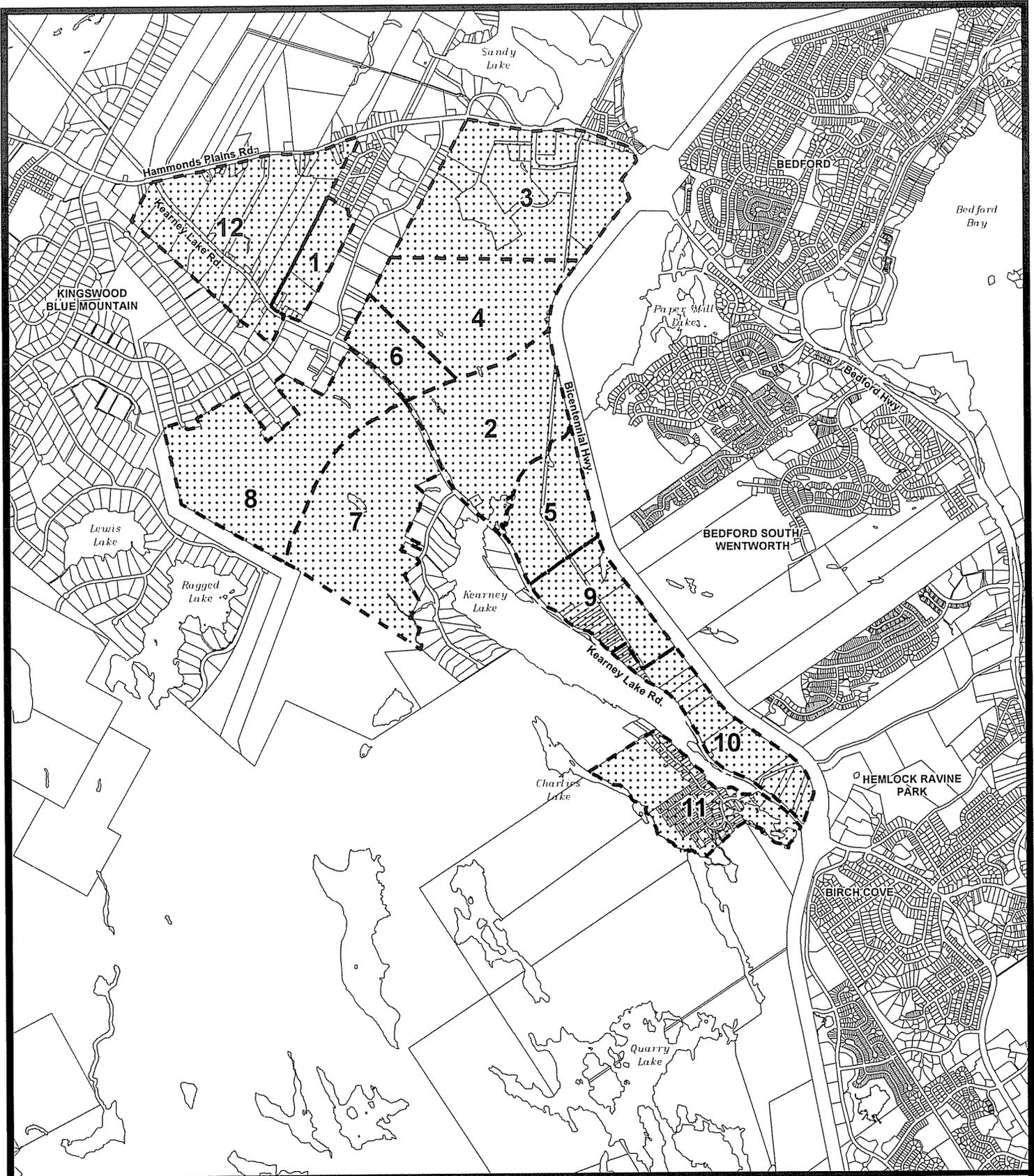
B. Municipal Planning Strategy Amendments:

The Municipal Planning Strategies for Bedford; Halifax and Beaver Bank, Hammonds Plains and Upper Sackville are amended by replacing Schedule BW-4 of the Bedford West Secondary Planning Strategy with Schedule BW-4 attached here to.

I HEREBY CERTIFY that the amendments to the Regional Subdivision By-law as set out above, was passed by a majority vote of the Council of Halifax Regional Municipality at a meeting held on the ____ day of ____, 2007.

GIVEN under the hands of the Municipal Clerk and under the Corporate Seal of the Halifax Regional Municipality this ____ day of _____, 2007.

Jan Gibson
Municipal Clerk



Map BW-1
Development Sub-Areas Bedford West





Map 1
 Areas to be added to the Urban Service Area

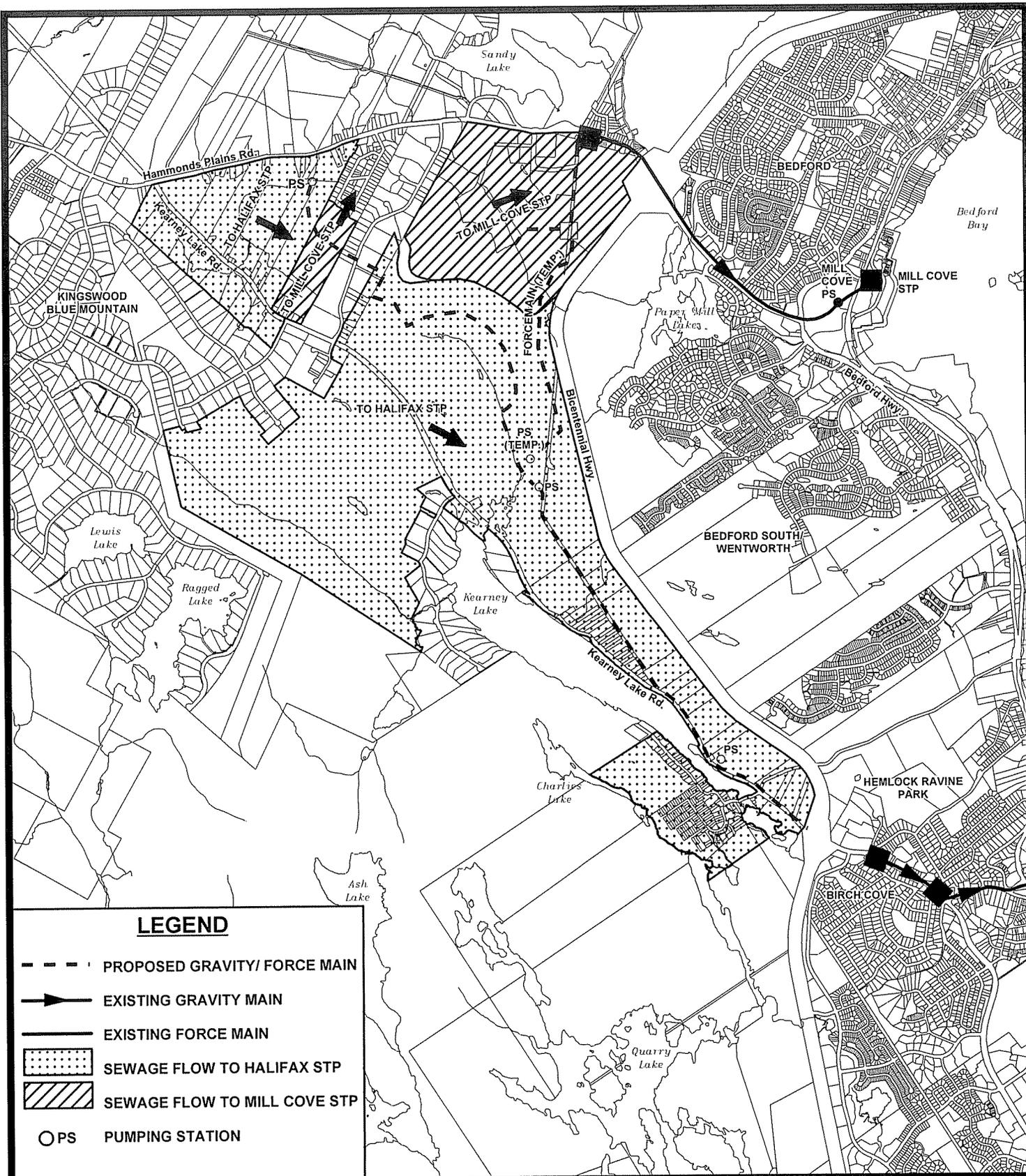
 Areas to be added to the Urban Service Area

 Existing Urban Service Area



May 6, 2009

HRM does not guarantee the accuracy of any base map information on this map.



LEGEND

- PROPOSED GRAVITY/ FORCE MAIN
- ▶ EXISTING GRAVITY MAIN
- EXISTING FORCE MAIN
- SEWAGE FLOW TO HALIFAX STP
- ▨ SEWAGE FLOW TO MILL COVE STP
- PS PUMPING STATION

**Schedule BW-4
Sanitary Sewer Servicing Bedford West**



Attachment B

**HALIFAX REGIONAL MUNICIPALITY
PUBLIC MEETING
CASE NO. 01148 - Bedford West, CCC**

7:00 p.m.

Wednesday, January 21, 2009

Basinview Drive Community Elementary School

STAFF IN

ATTENDANCE: Paul Morgan, Planner, HRM Regional Planning
Thea Langille, Supervisor, HRM Planning Services
Peter Duncan, Manager, HRM Infrastructure Planning
Paul Burgess, Program Engineer, HRM Regional Transportation
Holly Power-Garrett, Financial Consultant, HRM
Holly Kent, Planning Technician, HRM Planning Services
Cara McFarlane, Planning Controller, HRM Planning Services

ALSO IN

ATTENDANCE: Councillor Tim Outhit, District 21
Councillor Debbie Hum, District 16
Councillor Peter Lund, District 23
Jamie Hannam, Chief Engineer, Halifax Regional Water
Commission
Kenda MacKenzie, Development Engineer, Halifax Regional Water
Commission

PUBLIC IN

ATTENDANCE: Approximately 18

The meeting commenced at approximately 7:08 p.m.

• **Opening Remarks/Introductions/Purpose of Meeting**

Paul Morgan introduced himself as the Planner taking the application through the planning process; Councillor Tim Outhit, District 21; Councillor Debbie Hum, District 16; Councillor Peter Lund, District 23; Thea Langille, Supervisor, HRM Planning Services; Peter Duncan, Manager, HRM Infrastructure Planning; Paul Burgess, Program Engineer, HRM Regional Transportation; Holly Power-Garrett, HRM Financial Consultant; Jamie Hannam and Kenda MacKenzie, Halifax Regional Water Commission; Holly Kent and Cara McFarlane, HRM Planning Services.

• **Overview of Planning Process**

Mr. Morgan reviewed the planning process for this application.

- **Presentation of Proposal**

Presentation: Paul Morgan

A context map of the Bedford West Master Plan Area was shown. Bedford West covers approximately 1200 acres of land and extends into three different plan areas (Bedford, Halifax and Hammonds Plains).

The proposal is to amend the Bedford West policies to redirect wastewater from Sub-Area 12 from the Mill Cove sewer treatment plant in Bedford to the new Halifax Peninsula plant and to relocate the trunk sewer system. The long term cost would be cheaper and environmentally better as more wastewater would be directed to the outer harbour which has better flushing capacity than the Bedford Basin.

The proposed site of the pumping station at Kearney Lake Run was shown. Instead of running along Kearney Lake Road the trunk sewer will go up the middle of the property. This will allow some treatment of Bedford South on the other side of the Bi-Hi and reduce the need for an additional pumping station there. It will also allow for some areas in Bedford West to open up earlier and recover some costs quicker.

The introduction of the transportation improvement charges and including the residential portion of Sub-Areas 1 and 3 within the Bedford West within the Urban Service Area Boundary would require an amendment to the Regional Subdivision By-law. If these sub-areas are included in the boundary, this would allow eligibility for central water and sewer services and the developers could proceed with development in these areas.

Mr. Morgan explained capital cost contribution. These charges are collected for water, sewers and transportation at the time a subdivision is approved. HRM is responsible for transportation charges while Halifax Regional Water Commission (HRWC) is responsible for water and sewer.

Presentation on transportation infrastructure: Paul Burgess

Mr. Burgess went over some projects that will accommodate growth:

- The widening of Hammonds Plains Road to four lanes, traffic signals, sidewalks and bike lanes was completed this year. This coming year, further widening of Hammonds Plains Road from Innovation Drive to Gary Martin Drive (a new street proposed between Bens and Bluewater Road) will continue.
- The Larry Uteck interchange halfway between Kearney Lake and Hammonds Plains Roads is being tendered by the Department of Transportation and HRM is a funding partner. There will be some traffic signals at the intersection of the Kearney Connector (a connection from Kearney Lake Road to the interchange) and the interchange. This could occur three to five years down the road maybe sooner.
- A left turning lane is required to provide adequate capacity out of Lewis Drive.
- A portion of Kearney Lake Road (from Kearney Connector to Bluewater Road) will be widened from two to four lanes and either bike lanes or trails created.

The total cost being \$33,393,000 with HRM contributing \$15,781,000 and the developers \$17,611,800. The capital cost contribution charge will be \$9,000 to \$10,000 per acre. The capital cost contribution charge would be paid at the time of subdivision approval of the development.

Presentation on water and wastewater capital cost contribution: Jamie Hannam

Mr. Hannam explained HRWC's approval process. A servicing plan is developed, a cost of the master infrastructure is finalized, a charge is established, an implementation plan is created, seek approval by Halifax Water Board and finally an approval by Nova Scotia Utility and Review Board (NSUARB).

The core water infrastructure will begin with oversizing the Bedford South reservoir to additionally provide for Bedford West. There will be a main (500 mm in diameter) along Bedford South towards Kearney Run to Bedford West as the primary feed. The balance will flow through a 400 mm main throughout the development.

Interconnections will be made throughout the area (shown on screen) with the existing system. The net cost to developers is \$7,400,000 with a development charge of \$4,200 per acre. The charge proportioned is based on permitted densities.

The wastewater plan is to redirect the trunk wastewater system to flow from Kearney Run along Kearney Lake Road to the existing wastewater system on Kearney Lake Road. A large piece of this has to be put in before the core development can occur in the middle of Bedford West. The net cost to developers is \$8,700,000 with a development charge of \$5,000 per acre. The charge proportioned is based on permitted densities.

An interim rate for Sub-Areas 1 and 3 is pending approval from NSUARB. Approval will allow some initial development and collection of capital cost contribution allowing slight expansion. Consultation with stakeholders would occur in February, finalize implementation plan and present to HWB in March, and finally present to NSUARB. NSUARB may take a few months to review the proposal before setting a public hearing date.

- **Questions/Comments**

Peter Douglas, Dartmouth, asked about the widening of Kearney Lake Road to which Mr. Burgess said that it is more of a long term plan. The connector road to Kearney Lake Road has to be built once the interchange is complete and as development proceeds then HRM will look at widening Kearney Lake Road in sections. It would make sense to extend the widening all the way to Hammonds Plains Road but the cost would be huge. Traffic studies show that the traffic on Kearney Lake Road decreases as it reaches Hammonds Plains Road; therefore, the two lanes at that end will be able to handle the flow.

One resident mentioned that there is a floodplain at the foot of Bluewater Road. How will this issue be solved after widening Hammonds Plains Road? Mr. Burgess mentioned that they are aware of the floodplain and at some point in time the idea would be to physically raise the road in that area. The widening of Hammonds Plains Road will stop short of Bluewater Road. There are three lanes now and there is no proposal to widen the road at that area.

One resident has heard that the steep hill on Hammonds Plains Road will be reduced. Mr. Burgess mentioned that the hill between Bluewater Road and Bens is a hazard from a traffic point of view. They are proposing to lower that hill by about 18 feet. The resident asked about the timing for this. Mr. Burgess hopes for approval by Regional Council this year. Staff has been given permission to design and have it go out for tender, but not for construction.

Frank Robinson, Bedford, asked if the cost of the interchange is about \$16 million. Mr. Burgess explained that one component is the actual cost of the interchange, \$12 million, that the Province is covering. There is some cost sharing from the Federal government, HRM, and developers and there are some other components as well (land acquisition, engineering design, etc.). Mr. Robinson asked if the Bedford South developers would contribute as well to which Mr. Morgan said they would along with Bedford West developers.

One resident asked if the pumping station will be increased in size. He mentioned that at the ramp to Bayers Lake the drain cover actually comes off in heavy rains. The problem will only be increased unless something is done about it. Mr. Hannam explained the infrastructure master plan. As development proceeds, oversizing some of the pumps will be considered. Some of the problem at Bayers Lake will improve as a result of the link out of Bedford West.

One resident asked if existing homes in Sub-Area 12 will receive water and sewer. Ms. MacKenzie said it would depend on the development pattern in Sub-Area 12. Shown tonight are the oversized sewer and water main pipes. As development occurs, more local pipes on local streets will branch off of the main ones. There are currently no detailed plans. Mr. Hannam mentioned that this proposal does not necessarily imply the obligation to service existing homes in the area. Mr. Morgan said that before Sub-Area 12 is developed, HRM and the property owners need to come up with a more detailed plan for the area. This infrastructure master plan may allow the capability to connect to the services in the future, although the property owners of the undeveloped land cannot be forced to cover the costs. Mr. Hannam suggested this could be done under a local improvement charge.

One resident asked about the stability of wells and septic during blasting. Will the owner be responsible for any damages? The water table will be disturbed during blasting. Mr. Morgan mentioned that HRM has a blasting by-law in place that requires a pre-blast survey. Mr. Hannam said depending on the situation and complexity of the problem, within some reason the developer and contractor could be held responsible.

MaryAnn McGrath, Halifax, asked what distance is required for blasting. Mr. Duncan explained that the blasting by-law was amended about four years ago to vary the distance depending on the size of the area to be blasted. Ms. McGrath mentioned that there is a lot of rock where the main is proposed which will cause vibration of the blasts to carry substantially. This will certainly cause some disturbance and damage. Mr. Duncan said the by-law sets the threshold and is very safe. One resident mentioned that it is too late after the fact.

Mr. Douglas asked if there would be land expropriation involved with the four lane widening. Mr. Burgess said they won't have to acquire any land on the Hammonds Plains Road as there is enough right of way. He understands the same hold true for Kearney Lake Road.

Councillor Hum, District 16, asked if there will be an opportunity for property owners in Sub-Areas 10 and 11 to hook into the laterals for servicing. Mr. Morgan mentioned that the property owners could hook up into the main but this will be looked at when a more detailed plan is prepared for that area. Ms. MacKenzie mentioned that the residents can petition and initiate a local improvement charge to hook into the services. Councillor Hum asked if the property owners of Hamshaw and Saskatoon area would have the same opportunity. Ms MacKenzie believes the same would apply. Councillor Hum asked if Sub-Areas 10 and 11 would be subject to the capital cost contribution to which Mr. Hannam replied yes.

One resident asked about interest rates. Tax payers are investing in this project. How is the risk factor being included in the interest rates? Ms. Power-Garrett explained that the interest rates reflect the small risk premium but are available for long term borrowing. Recuperation investments occur over time. Development investments are scheduled for five year reviews and are recalculated if necessary.

- **Closing Comments**

Mr. Morgan thanked everyone to attending the meeting and expressing their comments and concerns.

- **Adjournment**

The meeting adjourned at approximately 8:06 p.m.



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WWW.THEPARKSOFWESTBEDFORD.CA

April 1, 2009

Mr. Peter Duncan
Manager, Infrastructure Planning
Halifax Regional Municipality
P.O. Box 1749, Halifax NS B3J 3A5

Dear Mr. Duncan:

RE: Comments, Proposed Capital Cost Charge (Transportation) Bedford West

Further to your recent presentation to stakeholders from the Bedford West master plan area, we wish to make the following observations and suggestions that we hope will be reflected in the final Capital Cost Charge. Since your overview was directed solely towards transportation infrastructure, we reserve the right to make further comments upon receiving a similar presentation on sanitary and water services from Halifax Regional Water Commission.

Trip Generation:

Sub-area 6 is designated "Community Commercial" under the master plan. Consequently, trip generation should be based on community commercial activity rather than highway commercial activity. The majority of visitors to the site will live in the nearby communities of Kingswood, Blue Mountain, West Bedford and Hammonds Plains. This is considered to be "drive by" traffic. We do not anticipate many people leaving the new 102 interchange to frequent this sub-area. Please ensure that the proper trip generation assumptions have been assigned to the sub-area.

Density (Commercial Sites):

As you know, sections of Sub-areas 2, 6, 7, and 8 are set aside for the new Highway 113. The Province has recently acquired the land; however, the timing of the new road is uncertain.

Lands abutting Kearney Lake Road within the Highway 113 corridor are designated "Community Commercial". It is our understanding that the density assigned to the highway corridor was transferred to our abutting lands for the purposes of calculating future trip generations. This is an incorrect assumption and needs to be removed from the trip generation formula.

It is physical impossible to reallocate density from these areas to our commercially designated lands on either side of the interchange. Commercial density and the resulting entitlements are controlled by a variety of factors including but not limited to parking, setbacks, lot coverage, etc. We see no possibility of developing any additional floor space of the remaining lands as a consequent of the sale of the highway corridor to the Province.

Please confirm that the density assigned to the commercial areas of the Highway 113 corridor has been removed from our landholdings. On a related matter, we note that you have assigned too much commercial acreage to Sub-area 2. The approved development agreement for this sub-area entitles us to 12 acres of community commercial activity as opposed to 16 acres identified in the draft CCC.

Density Assumptions (Sub-area 7 and 8):

Trip generation numbers appear to suggest that residential densities that might otherwise be assigned to the Highway 113 corridor have been transferred to our abutting landholdings. We thank you for the favorable gesture, but wish to advise that the abutting lands in Sub-areas 7 and 8 are not capable of accommodating the extra density. These lands have challenging grades – large portions of which are designated Park and Open Space.

We have already made provisions to reallocate a small amount of residential units to Sub-area 3 and 4. Density assigned to the interchange lands will not be absorbed into the remaining acreage of Sub-areas 7 and 8. The same holds true for Sub-area 2, where the existing Development Agreement clearly indicates that the permitted maximum density has not been achieved.

As far as we are concerned the theoretical density assigned to the Highway 113 corridor can stay with the corridor. We do not believe this will have a significant impact on the CCC or the physical design of future transportation infrastructure. However, it may have a bearing on the size of future water and sewer systems.

Background Traffic:

We would be interested in knowing what percentage of HRM's "background" traffic volumes has been assigned to future development outside the master plan areas of Bedford South and Bedford West. HRM continues to approve new residential developments along or near Hammonds Plains Road and Lucasville Road yet there is no mechanism in place to recover monies in support of new infrastructure improvements. These developments generate traffic. As such, they are cost-causers like every property within the Master Plan areas. If HRM is concerned about lowering their risk, the Municipality should move to implement a CCC on these outlying areas in conjunction with the Bedford West CCC. In many ways, this is similar to the CCC adopted region wide in support of the sewage treatment plants.

Financing: Our financial people would appreciate an opportunity to meet with Holley for the purposes of better understanding some of the assumptions reflected in the detailed spread sheets. We will be requesting a meeting in the very near future once we have a better understanding of the final approach to trip generation.

Next Steps:

The time has come to present a CCC to Regional Council. The new interchange is ready for tender; widening of the Hammonds Plains Road is proceeding; and new developments are ready to proceed in Sub-areas 1, 2, and 3. We are supportive of an interim rate that could be applied to the master Plan area until such time as the cost of the new interchange is confirmed.

Peter, we trust these observations are helpful and look forward to the draft CCC being presented to Regional Council. Please advise if you have any questions.

Yours truly,

J. Michael Hanusiak
Project Manager



Ref No. D09027

April 17, 2009

Mr. Paul Burgess, P. Eng.
Transport Project Engineer, Regional Transportation
Halifax Regional Municipality
Eastern Region Office – Alderney Gate, 6th Floor
40 Alderney Drive
Dartmouth, Nova Scotia B2Y 2N5

THE SCIENCE OF
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Dear Mr. Burgess:

Re: **Bedford West Transportation Capital Cost Contribution Charges**

Further to our meeting on April 14, 2009, we have reviewed the proposed Transportation Capital Cost Contribution ranges for varied uses (Residential and/or Commercial).

It is our understanding that other existing charge areas, such as Bedford South and Russell Lake West do not have a varied charge structure (based on land use) for transportation or sewer and water infrastructure.

It is Armco's position that an average rate be applied for the entire area. This is consistent with practices for recent charge areas in HRM.

Please review and advise if you have any questions.

Yours truly,

TERRAIN GROUP INC.

Andrew S. Forsythe, P.Eng.
Manager, Engineering - Dartmouth

hjh

cc. Mr. Rob MacPherson, Armco Capital Inc.

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ENGINEERING | PLANNING | SURVEYING

>>> "Frank Robinson" <f.robinson@stevensgroup.ca> 2:29 PM 06/04/09 >>>
Paul,

As discussed, please forward your power point presentation for my review. I just want to review the pretty pictures!

I know the turn around on comments is short so I would like to provide you with some general thoughts regarding area 12. As you may or may not know there is a review under way by HRM regarding the future development of the HPR in the vicinity of Kingswood and HPR, just outside the BW boundaries. I attended a workshop on Thursday, March 12 and it appeared there was a real movement towards having commercial development that would support the local community. Until the 113 highway becomes a reality, it is my opinion this area (Kingswood/HPR and Kearney Lake Road/HPR) will have to fill the void for both "community and highway commercial" type development. Your evaluation identifying a component for highway commercial seems very reasonable.

I am encouraged by the approach you and your colleagues have taken regarding the planning and implementation of this vast development area. It is refreshing to see HRM take an integrated approach to these very complicated issues. Seamless development planning regardless of past "imaginary" boundaries will allow for a comprehensive community to take shape in the vicinity of area 12.

Thanks again.

Cheers,

Frank P. Robinson, P. Eng.

Pender Developments Limited

>>>

Hello Paul:

As a follow-up to my inquiry during the April 6th Stakeholder meeting regarding the Land Use designation for the RIM Lands and relative to the attached letter, can you please confirm that the RIM property (contained in Area 3 of the Bedford West Master Plan) will remain a Residential/Community Commercial designation with the adjustment factor of 0.87 being applied to the final per acre rate. This rate is currently estimated to be in the order of \$10,500 per acre. We (and I'm sure other stakeholders) are hopeful that this rate will be reduced somewhat once the final Bedford West CCC numbers are presented to HRM council for final approval.

Thank-you,

Michael Laycock, C.E.T.
Asst. General Manager

Annapolis Group Incorporated
165 Hammonds Plains Road
Bedford, Nova Scotia
B4A 4C7

Ph: 832-2520
Fax: 832-2922
Cell: 497-1476



PO Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

May 4, 2009

Dear Property Owner:

**Re: Bedford West Master Plan Area
Transportation Capital Cost Contribution Charge**

This letter is a follow up to the meeting that was held on April 6, 2009 at the HRM Alderney Gate office. I would like to thank you for your comments. After reviewing the information received, HRM staff are recommending the following changes:

1. There will be no difference between Highway Commercial and Community Commercial. The commercial transportation capital cost contribution charge (CCC) will be based on 347 trips per acre.
2. Area 12 will be grouped in with areas 2,3,7,8,and 10.

When highway and community commercial are treated the same, the traffic generated in area 12 is similar to that generated in areas 2,3,7, 8 and 10. Staff recognize that there are multiple parcels of land and there may be a need to re-distribute the CCC in sub-area 12 after a detailed community concept plan is developed.

3. The commercial component to Area 9 will be grouped in with area 6.

The commercial component of area 9 accounts for approximately one half of the area, and should be treated separately.

4. The residential component to Area 9 will be grouped in with areas 1,4,5, and 11.
5. Trip generation for commercial areas will not include lands within Highway 113 and Highway 102 right-of-ways.

The right of way for the highway has been conveyed to the Province, and commercial development within the right-of-way can not practically be re-allocated over other areas.

INFRASTRUCTURE AND ASSET MANAGEMENT , Infrastructure Planning Office

Tel: (902) 490-5578 Fax: (902) 490-5474
E-mail: burgesp@halifax.ca Website: www.halifax.ca

6. For areas 2,7,8, and 12, residential density calculations will be based on the gross area of the sub-area including commercial and institutional land uses. This is consistent with plan policy.

As above, the right of way for the highway has been conveyed to the Province. However, residential development densities within the right-of-way can be re-allocated over other areas.

For the Bedford West master plan area, HRM staff will be recommending to HRM Council the following adjustment factors and charges:

Bedford West Master Plan Area Proposed Transportation Capital Cost Contribution Charges			
Land Use Classification	Sub-Areas	CCC Adjustment Factor	CCC Charge per acre
Residential	1,4,5,9 res ,11	0.54	\$5,486
Residential/Commercial Mix	2,3,7,8,10,12	0.98	\$9,956
Commercial	6, 9com	2.95	\$29,969

There has also been a request for an "interim" rate until the cost of the interchange is confirmed. Council will be asked to approve a CCC rate based on the detailed construction cost estimate so that the cost sharing agreement can be signed with the Province, and land can be purchased. If there is a significant gap (surplus or deficit) in funding after the tender has closed, then Council will by necessity re-visit the rate.

Once again, I would like to thank you for your feedback. Staff plan to present this information to HRM Council on May 12th. Should you have any questions, please do not hesitate to contact me.

Yours truly,

Paul V. Burgess, M.Eng., P.Eng.
Program Engineer

cc Peter Duncan, P.Eng., Manager, Infrastructure Planning Office
Paul Morgan, Senior Planner
Holly Power Garrett, Asset Management Program Coordinator

INFRASTRUCTURE AND ASSET MANAGEMENT , Infrastructure Planning Office

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Attachment "D": Bedford West CCC Calculation

Bedford West CCC Capital Cost Contribution Calculation

	HRM
	<u>Transportation</u>
Total Cost of Oversized Infrastructure	31,361,360
Interest During Construction (avg 1 yr construction)	<u>722,150</u>
Total Cost of Infrastructure Installed	32,083,510
• Recovered by HRM/New Residents	
Portion Benefiting HRM	<u>15,662,437*</u>
Subtotal	16,421,073
Interest/Inflation Adjustment	<u>-1,371,548</u>
Net Cost to Developers	15,049,525
Gross Area of Land (acres)	1481.4
Development Charge per Acre - 2009	10,159
Total Population Based on Average Density	
Average Density / Trip Generation	105.7

* Includes contribution from Bedford South

Attachment "E" - Bedford West CCC Phase Costs - Transportation

Bedford West CCC
Phase Costs ~ Transportation

Year	Project	Cost Transport.	10.00% Engineering	15.00% Contingency	3.04% Net HST	Total Transport.	Esc. Factor	Escalated Transport.	Cost Sharing	Net Escalated Transport.	HRM %	Esc. HRM Share	Charge Area %	Charge Area Share	4.60% Interest during const. (all CCC)	Total CCC
2008	Widen HPR to 4 lanes - Hwy 102 to Innovation	1,282,920	128,292	192,438	48,797	1,652,447	1.0000	1,652,447		1,652,447	54.00%	892,321	46.00%	760,126	34,966	795,091
2008	Traffic Signals - HPR at RIM entrance (electrical only)	73,600	7,360	11,040	2,799	94,799	1.0000	94,799		94,799	10.00%	9,480	90.00%	85,319	3,925	89,244
2008	2008 Innovation Drive oversizing	300,000	30,000	45,000	11,411	386,411	1.0000	386,411		386,411	0.00%	0	100.00%	386,411	17,775	404,186
2008	2008 Allowance for Engineering Studies	150,000	15,000	22,500	5,705	193,205	1.0000	193,205		193,205	0.00%	0	100.00%	193,205	8,887	202,093
2008	2008 CCC Implementation Team	300,000	30,000	45,000	11,411	386,411	1.0000	386,411		386,411	0.00%	0	100.00%	386,411	17,775	404,186
2008		2,106,520	180,652	270,978	68,712	2,626,862	1.0000	2,626,862		2,626,862	0.00%	901,801	100.00%	1,725,061	79,353	1,804,414
2009	Widen HPR to 4 lanes - Innovation to Gary Martin	2,400,000	240,000	360,000	91,286	3,091,286	1.0000	3,091,286		3,091,286	60.00%	1,854,771	40.00%	1,236,514	56,880	1,293,394
2009	Larry Uteck Interchange	18,500,000	1,500,000	1,000,000	13,716	21,013,716	1.0000	21,013,716	-13,769,999	7,243,717	59.70%	4,324,499	40.30%	2,919,218	134,284	3,053,502
2009	Larry Uteck Connector Rd & Roundabout	1,500,000	150,000	225,000	57,054	1,932,054	1.0000	1,932,054		1,932,054	100.00%	1,932,054	0.00%	0	0	0
2009	Land Acquisition - Larry Uteck Interchange	1,500,000	150,000	225,000	57,054	1,932,054	1.0000	1,932,054		1,932,054	100.00%	1,932,054	0.00%	0	0	0
2009	Traffic Signals - HPR at new Bedford West entrance	125,000	12,500	18,750	4,754	161,004	1.0000	161,004		161,004	10.00%	16,100	90.00%	144,904	6,666	151,570
2009	Left hand turn @ Lewis Dr/Hammonds Plains Rd	100,000	10,000	15,000	3,804	128,804	1.0414	134,132		134,132	0.00%	0	100.00%	134,132	6,170	140,302
2009		24,125,000	1,912,500	1,618,750	216,256	27,872,506		27,877,834	-13,769,999	14,107,835		9,050,173		5,057,662	232,652	5,290,314
2010	Kearney Lake Connector (Hwy 102 to Kearney Lake Rd)	2,970,000	297,000	445,500	112,966	3,825,466	1.0844	4,148,497		4,148,497	33.00%	1,369,004	67.00%	2,779,493	127,857	2,907,349
2010		2,970,000	297,000	445,500	112,966	3,825,466		4,148,497		4,148,497	33.00%	1,369,004	67.00%	2,779,493	127,857	2,907,349
2012	Traffic Signals - KLR at Connector to Larry Uteck	125,000	12,500	18,750	4,754	161,004	1.1760	189,344		189,344	33.00%	62,483	67.00%	126,860	5,836	132,696
2012	Intersection Realignment - KLR at Kearney Connector	500,000	50,000	75,000	19,018	644,018	1.1760	757,375		757,375	33.00%	249,934	67.00%	507,441	23,342	530,783
2012		625,000	62,500	93,750	23,772	805,022		946,718		946,718	33.00%	312,417	67.00%	634,301	29,178	663,479
2015	Widen KLR to 4 lanes - Phase 1	1,250,000	125,000	187,500	47,545	1,610,045	1.3281	2,138,259		2,138,259	40.00%	855,304	60.00%	1,282,955	59,016	1,341,971
2015	Double left turning lanes - KLR at HPR	100,000	10,000	15,000	3,804	128,804	1.3281	171,061		171,061	90.00%	153,955	10.00%	17,106	787	17,893
2015		1,350,000	135,000	202,500	51,348	1,738,848		2,309,319		2,309,319		1,009,258		1,300,061	59,803	1,359,864
2016	Widen KLR to 4 lanes - Phase 2	1,250,000	125,000	187,500	47,545	1,610,045	1.3830	2,226,709		2,226,709	40.00%	890,684	60.00%	1,336,025	61,457	1,397,483
2016		1,250,000	125,000	187,500	47,545	1,610,045		2,226,709		2,226,709	40.00%	890,684	60.00%	1,336,025	61,457	1,397,483
2017	Widen KLR to 4 lanes - Phase 3	1,250,000	125,000	187,500	47,545	1,610,045	1.4402	2,318,818		2,318,818	40.00%	927,527	60.00%	1,391,291	63,999	1,455,290
2017		1,250,000	125,000	187,500	47,545	1,610,045		2,318,818		2,318,818	40.00%	927,527	60.00%	1,391,291	63,999	1,455,290
2018	Widen KLR to 4 lanes - Phase 4	1,250,000	125,000	187,500	47,545	1,610,045	1.4998	2,414,737		2,414,737	40.00%	965,895	60.00%	1,448,842	66,647	1,515,489
2018		1,250,000	125,000	187,500	47,545	1,610,045		2,414,737		2,414,737	40.00%	965,895	60.00%	1,448,842	66,647	1,515,489
2020	Traffic Signals - KLR at Bluewater Rd	125,000	12,500	18,750	4,754	161,004	1.6264	261,864		261,864	90.00%	235,678	10.00%	26,186	1,205	27,391
2020		125,000	12,500	18,750	4,754	161,004		261,864		261,864	90.00%	235,678	10.00%	26,186	1,205	27,391
Total		35,051,520	2,975,152	3,212,728	620,444	41,859,844		45,131,359	-13,769,999	31,361,360		15,662,437		15,698,923	722,150	16,421,073



Halifax Regional Water Commission

450 Cowie Hill Road, P.O. Box 8388 RPO CSC, Halifax, Nova Scotia B3K 5M1 phone 902 490-4820 fax 902 490-4808

May 6, 2009

Peter Duncan, P.Eng.
Manager Infrastructure Management
HRM Infrastructure & Asset Management
PO Box 1749
Halifax, NS B3J 3A5

Dear Mr. Duncan:

Re: Status of Bedford West CCC Implementation for Water and Sanitary Infrastructure

In January 2009, the Nova Scotia Utility and Review Board (NSUARB) granted approval for an extension to the interim CCC rate in Bedford West to include Area 1 and the remainder of Area 3. When seeking this approval Halifax Water indicated to the NSUARB that we would return with the final rate upon completion of our stakeholder consultation and development of an implementation plan.

Currently we are finalizing the proposed charge to seek final comments from the stakeholders. We anticipate that this process will take approximately 3 months. During this time we will continue to complete our implementation plan.

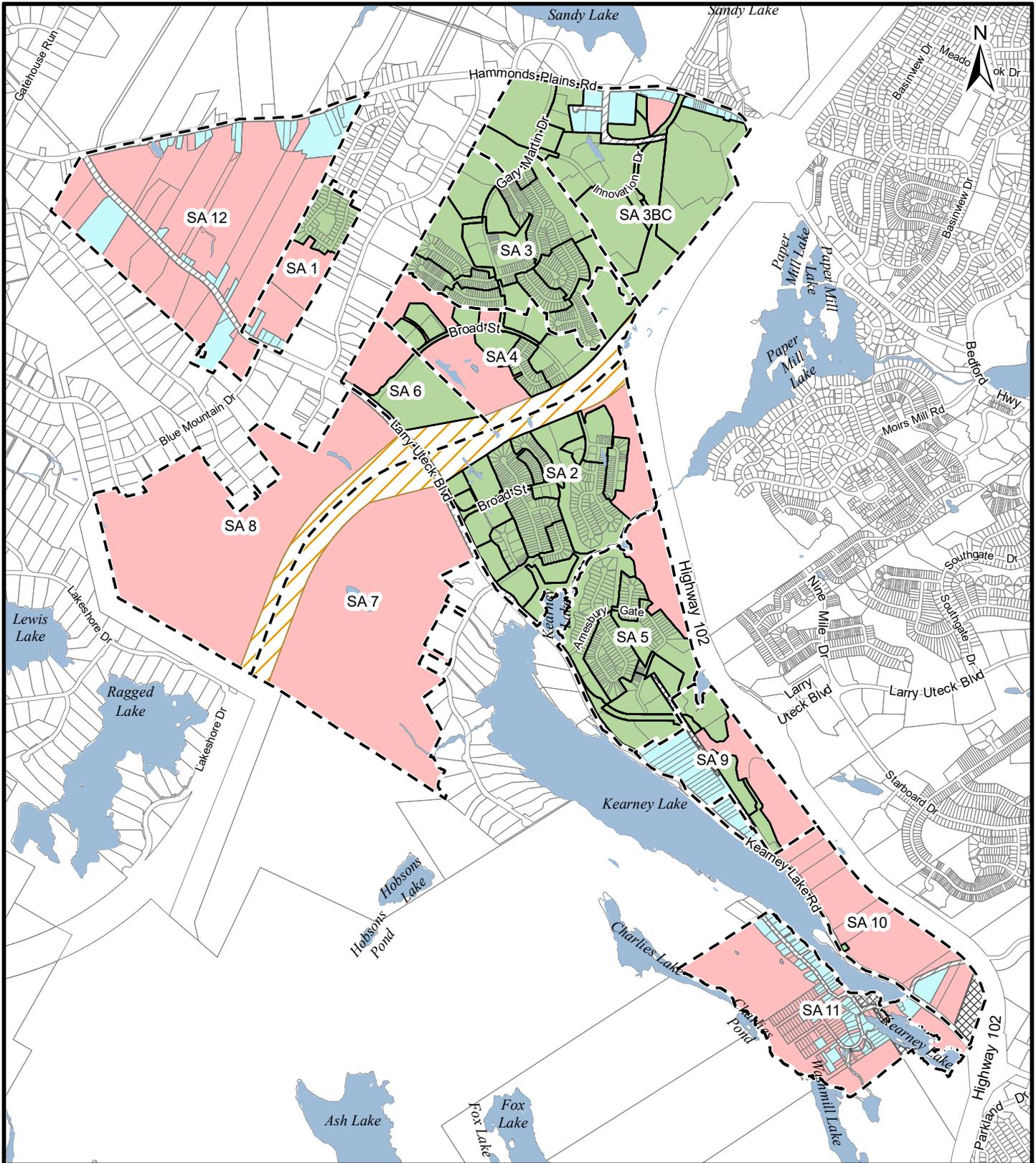
We anticipate presenting a report to the NSUARB within a month of completing the stakeholder consultation process. The timing of the associated public hearing and the review by the NSUARB is dependant on their scheduling.

Do not hesitate to contact the undersigned with any questions or comments.

Yours truly,

Jamie Hannam, P.Eng.
Director Engineering and IS

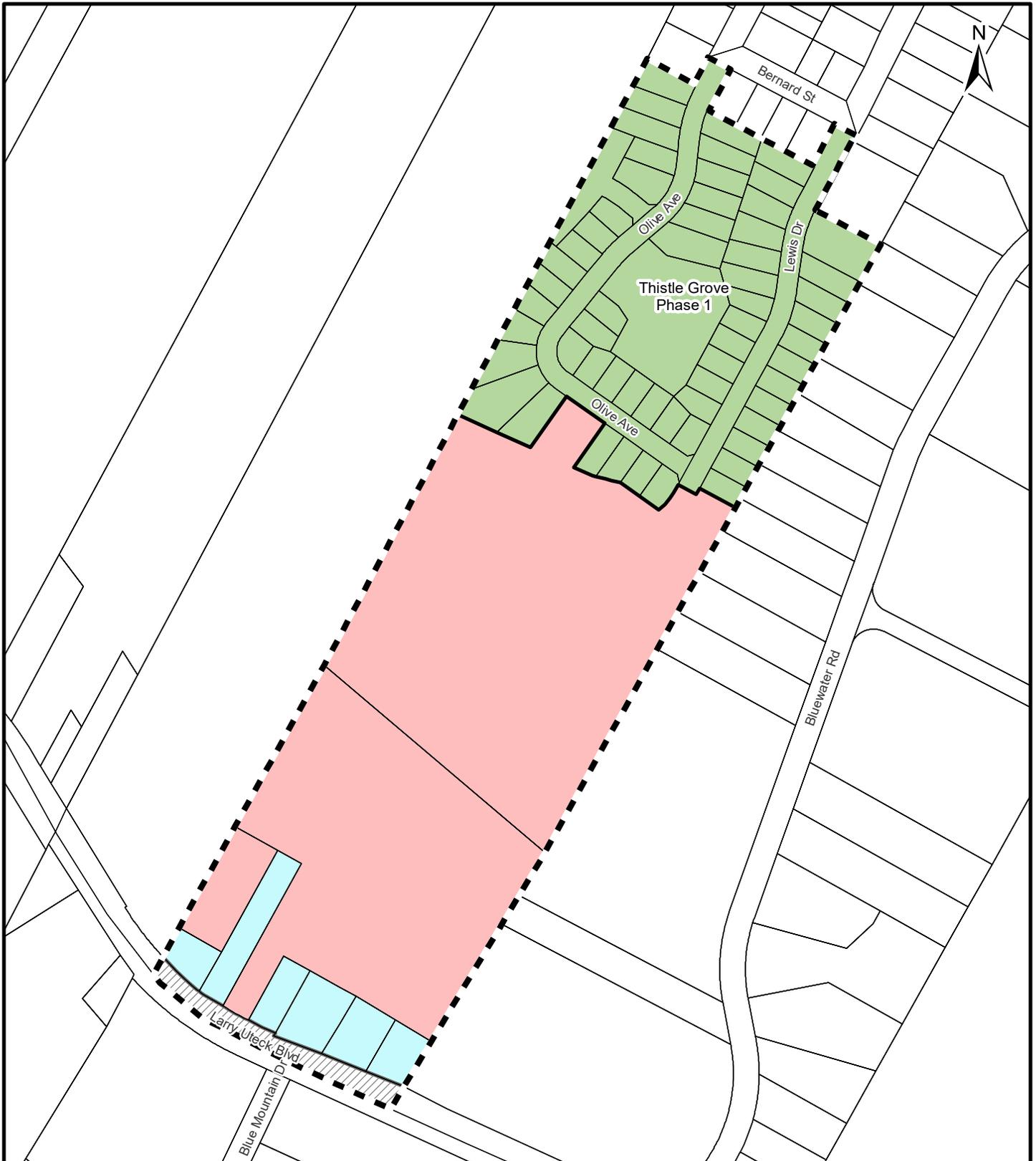
cc. Kenda MacKenzie, Development Engineer, Halifax Water



**Bedford West
Subdivision Areas**

HALIFAX

- | | | |
|---|--|---|
|  HRM ROW |  CCC Paid |  Subdivision Areas |
|  NSTIR ROW |  CCC Due | |
|  Undevelopable |  Existing Development | |



**Bedford West
Subdivision Area 1**

HALIFAX

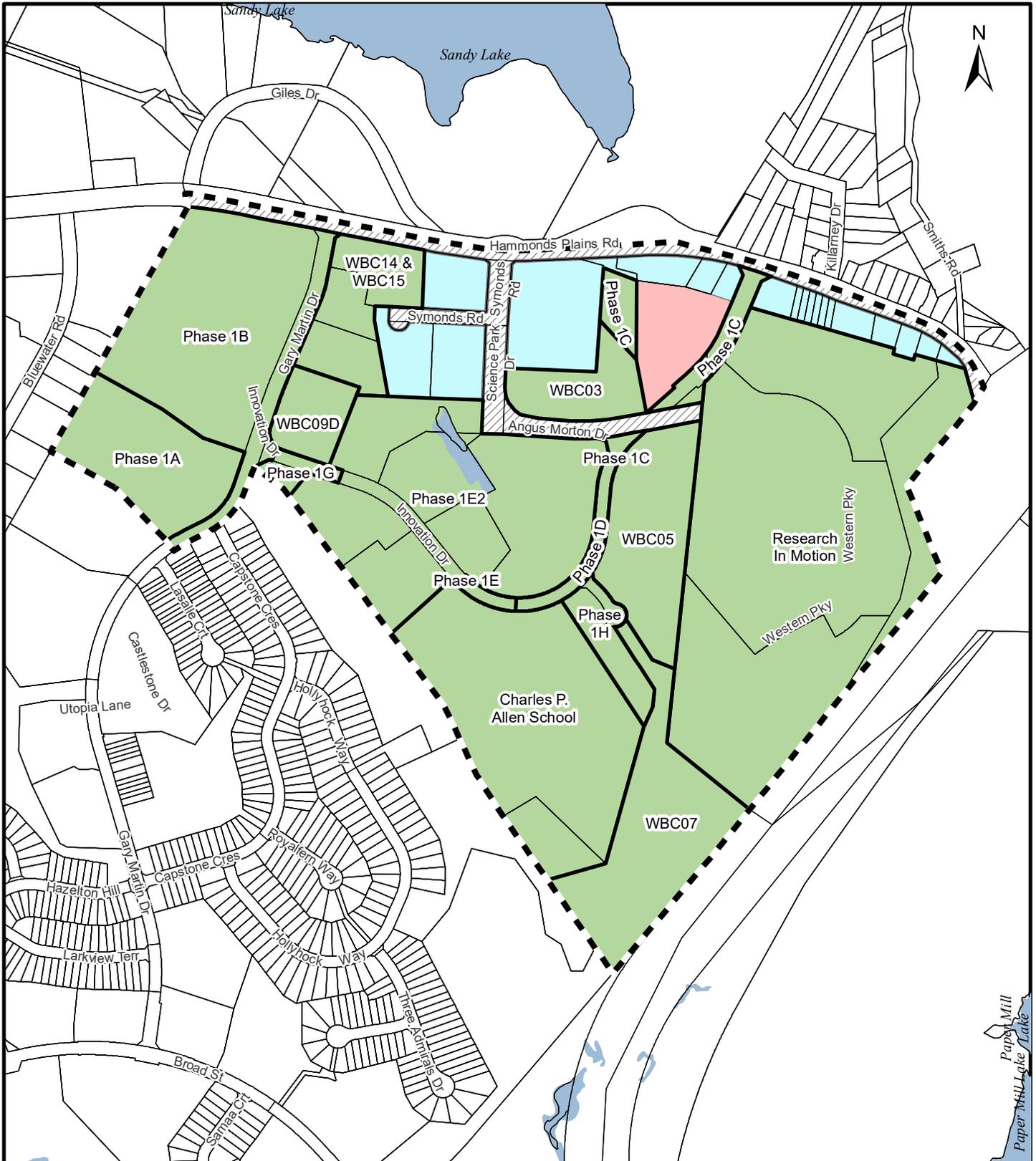
 HRM ROW 1.66 Acres	 CCC Paid 15.96 Acres
 NSTIR ROW 0.00 Acres	 CCC Due 25.21 Acres
 Undevelopable 0.00 Acres	 Existing Development 2.73 Acres



**Bedford West
Subdivision Area 2**

HALIFAX

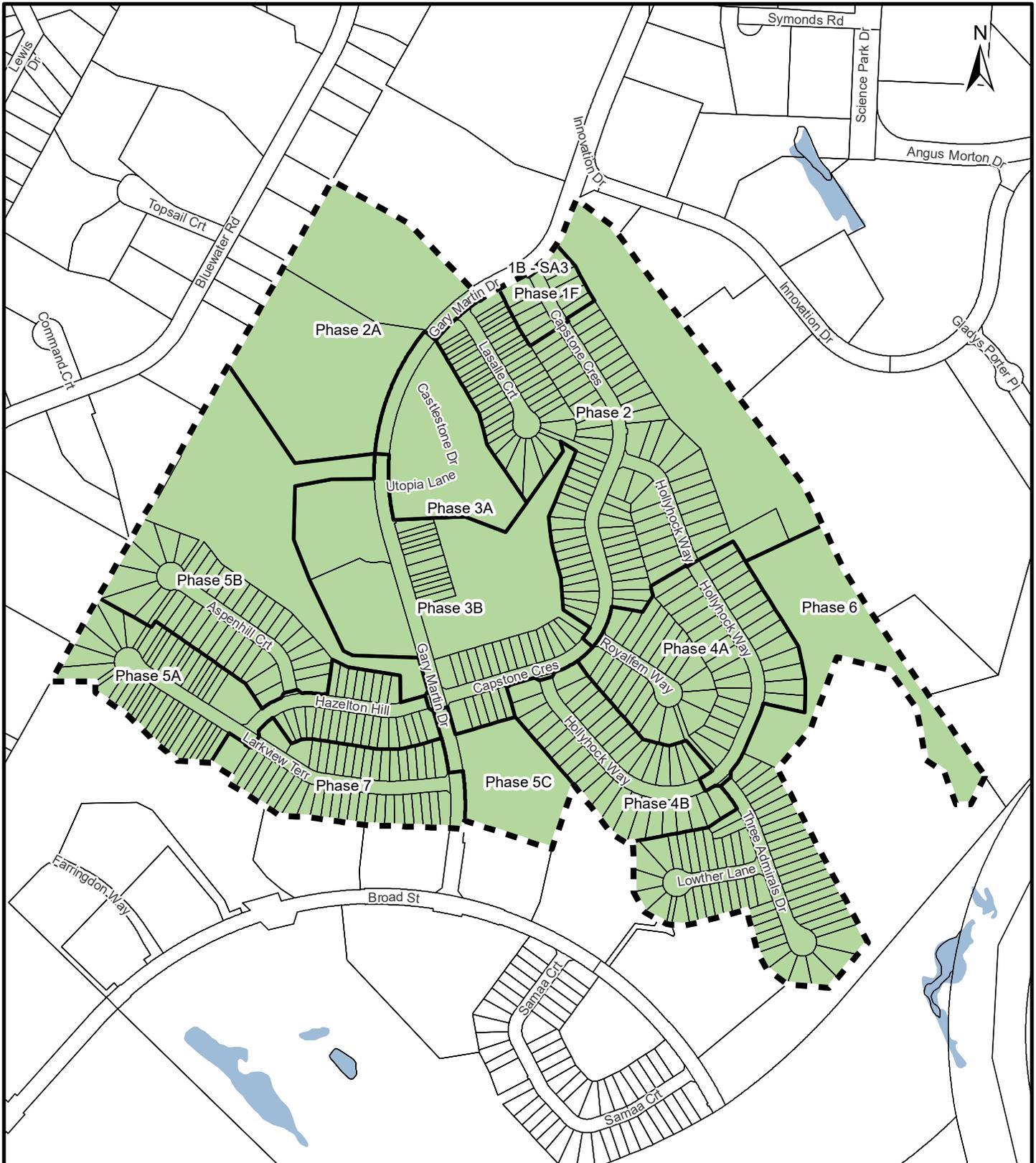
- | | |
|--|---|
|  HRM ROW 3.96 Acres |  CCC Paid 131.00 Acres |
|  NSTIR ROW 22.86 Acres |  CCC Due 19.03 Acres |
|  Undevelopable 0.00 Acres |  Existing Development 0.00 Acres |



**Bedford West
Subdivision Area 3BC**

HALIFAX

- | | |
|--|--|
|  HRM ROW 8.71 Acres |  CCC Paid 151.09 Acres |
|  NSTIR ROW 0.00 Acres |  CCC Due 4.18 Acres |
|  Undevelopable 0.00 Acres |  Existing Development 14.83 Acres |



**Bedford West
Subdivision Area 3**

HALIFAX

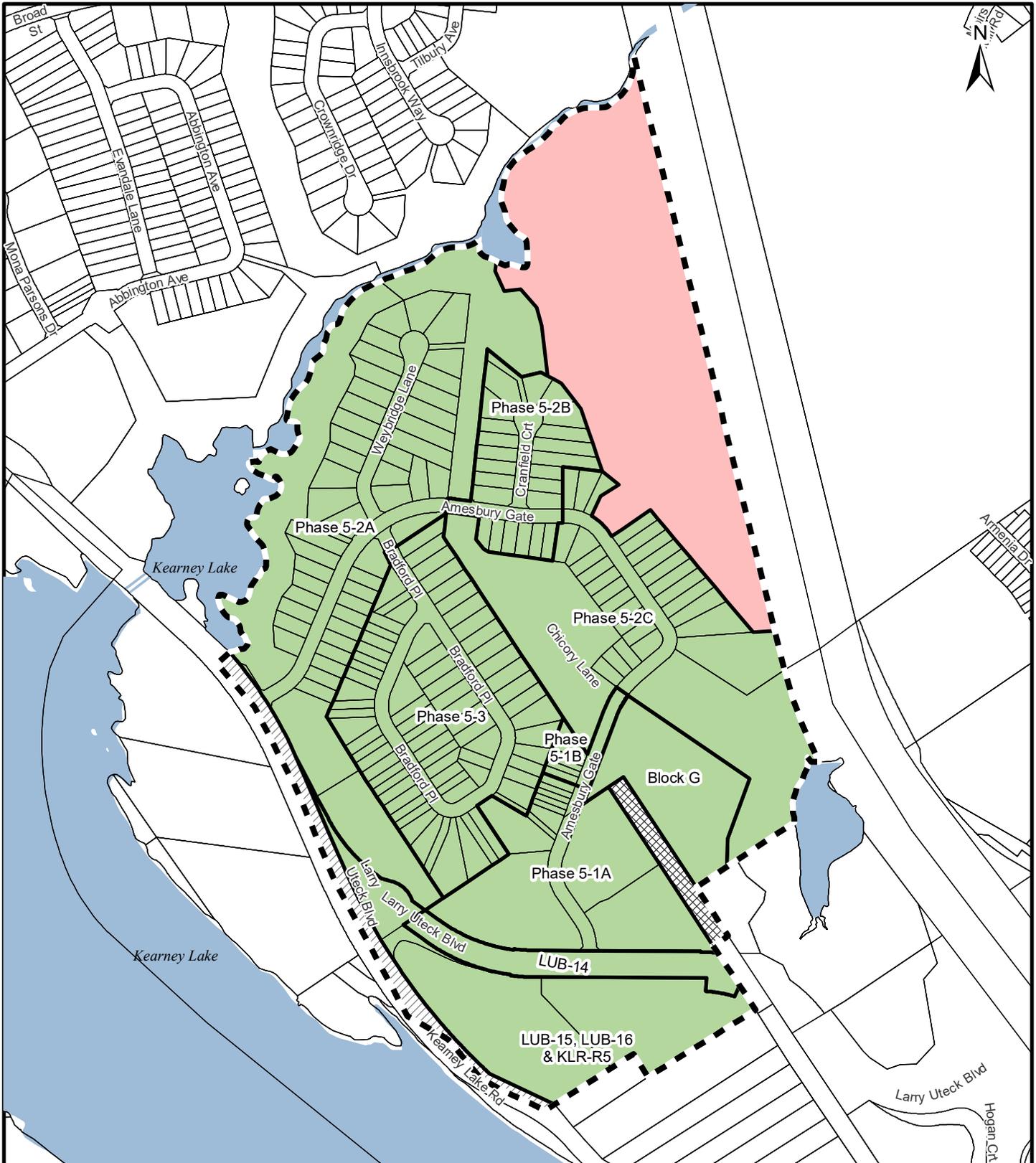
- | | |
|--|---|
|  HRM ROW 0.00 Acres |  CCC Paid 131.88 Acres |
|  NSTIR ROW 0.00 Acres |  CCC Due 0.00 Acres |
|  Undevelopable 0.00 Acres |  Existing Development 0.00 Acres |



**Bedford West
Subdivision Area 4**

HALIFAX

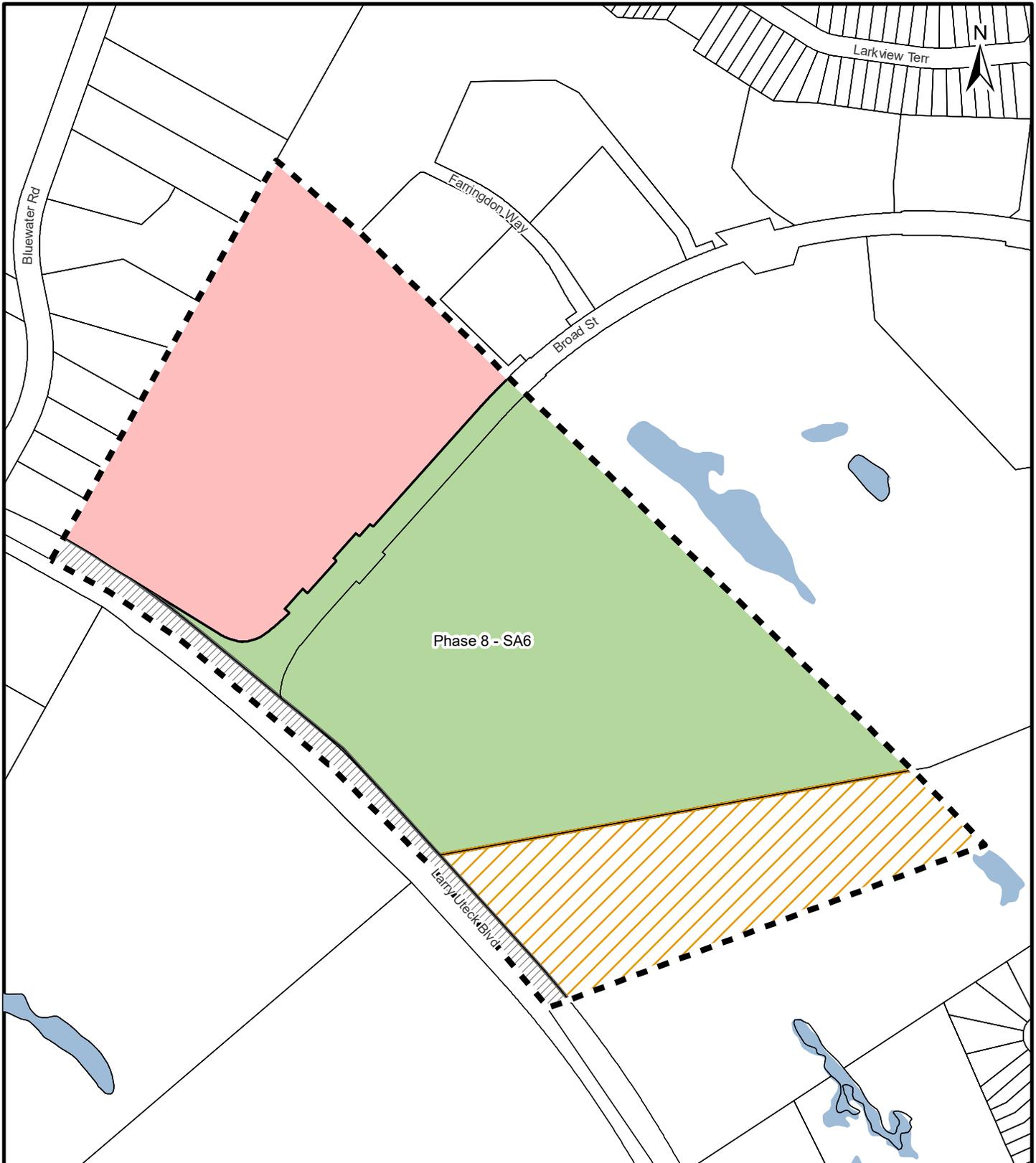
 HRM ROW 0.00 Acres	 CCC Paid 57.63 Acres
 NSTIR ROW 16.27 Acres	 CCC Due 40.21 Acres
 Undevelopable 0.00 Acres	 Existing Development 0.00 Acres



**Bedford West
Subdivision Area 5**

HALIFAX

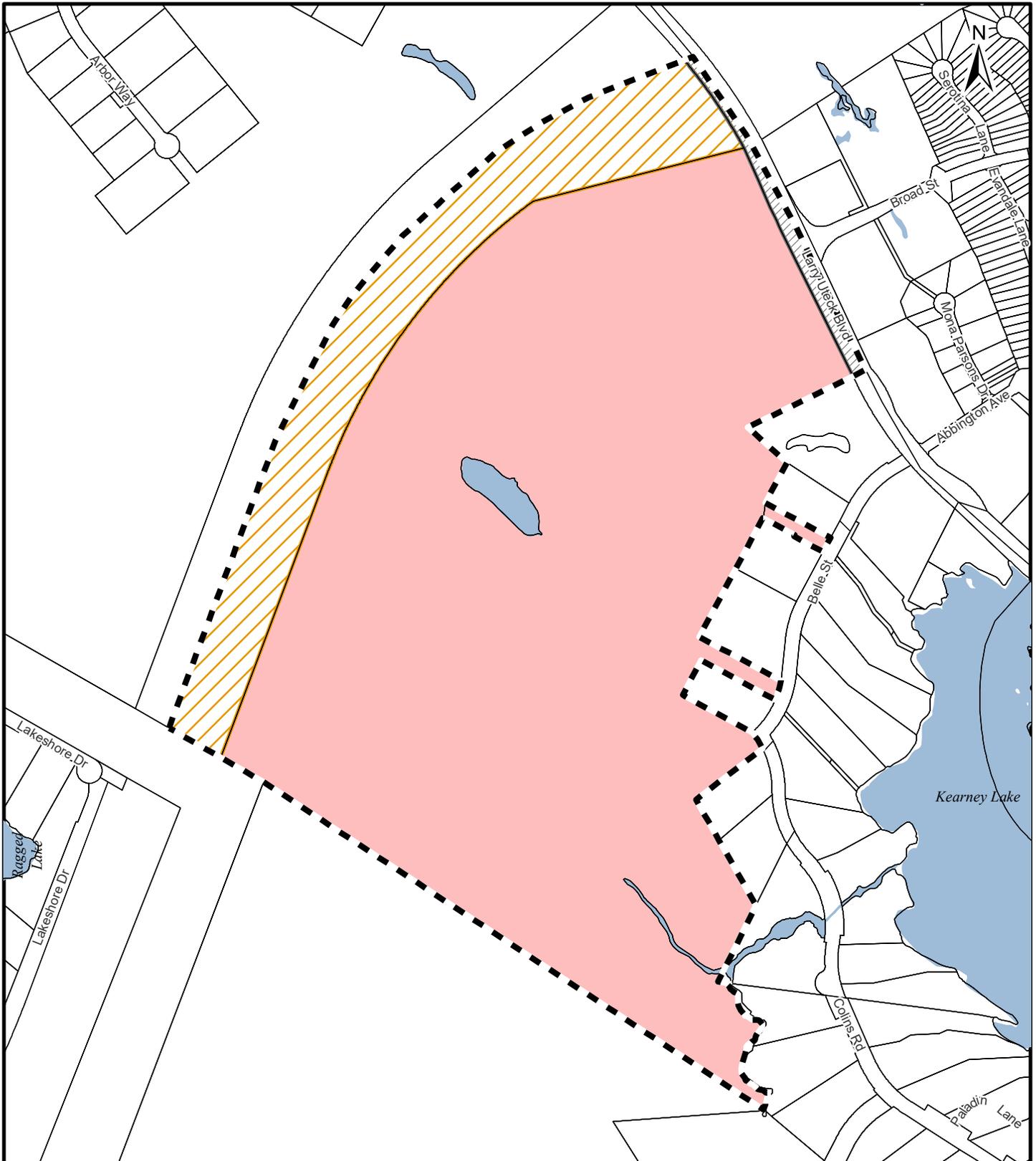
- | | |
|--|---|
|  HRM ROW 1.40 Acres |  CCC Paid 93.08 Acres |
|  NSTIR ROW 0.00 Acres |  CCC Due 21.50 Acres |
|  Undevelopable 1.07 Acres |  Existing Development 0.00 Acres |



**Bedford West
Subdivision Area 6**

HALIFAX

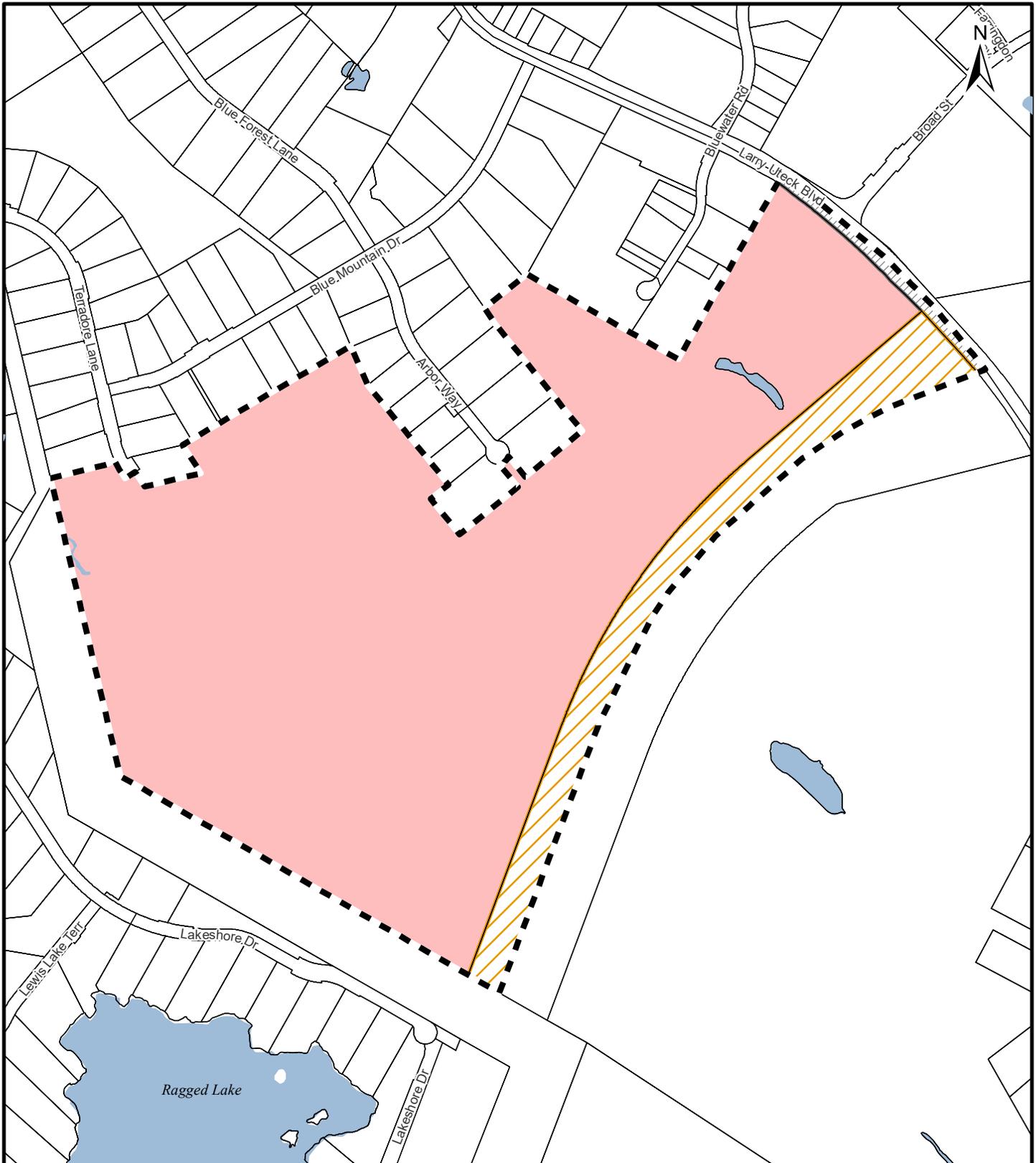
- | | |
|--|---|
|  HRM ROW 2.42 Acres |  CCC Paid 24.53 Acres |
|  NSTIR ROW 9.65 Acres |  CCC Due 16.07 Acres |
|  Undevelopable 0.00 Acres |  Existing Development 0.00 Acres |



**Bedford West
Subdivision Area 7**

HALIFAX

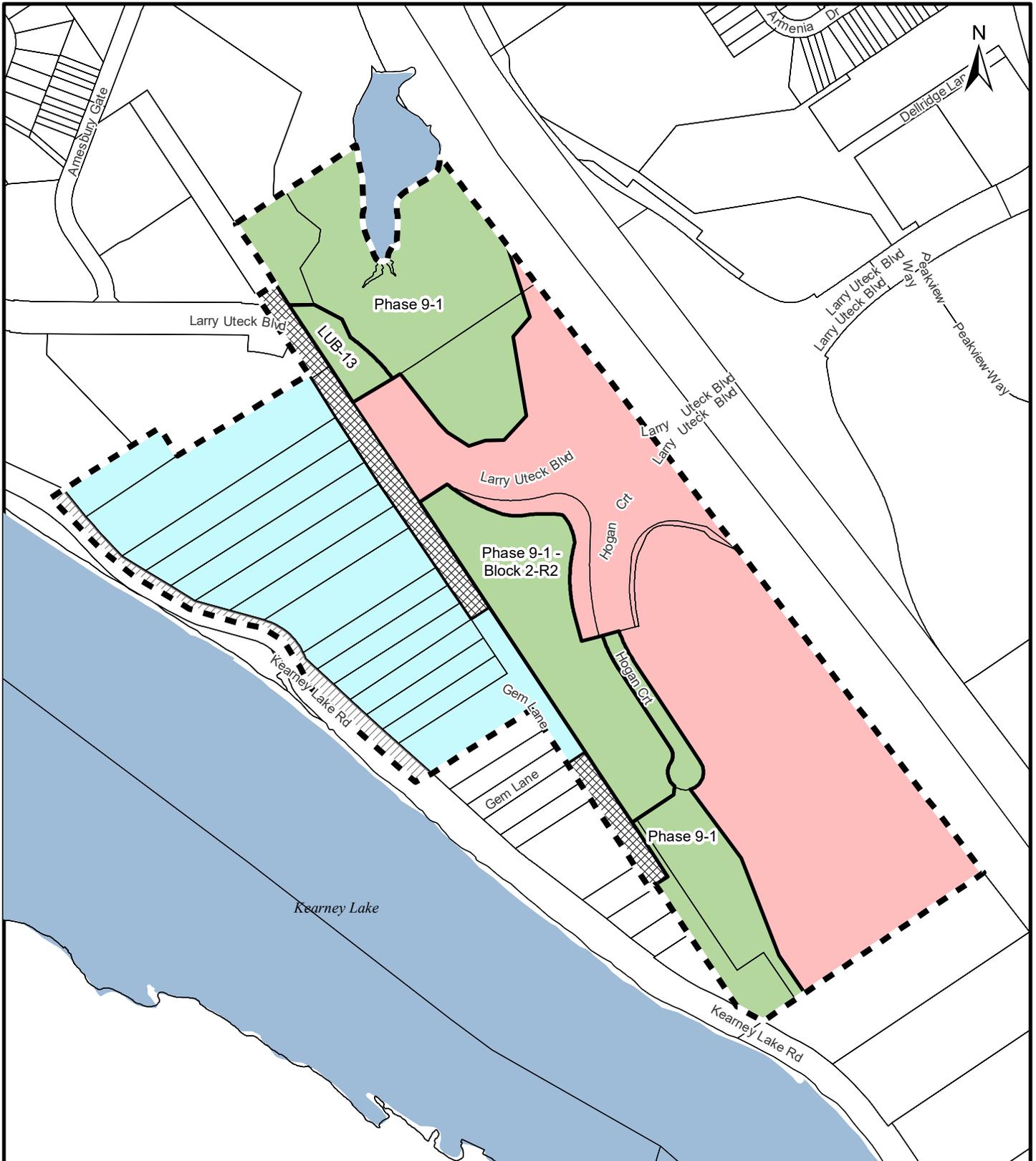
 HRM ROW 1.17 Acres	 CCC Paid 0.00 Acres
 NSTIR ROW 28.50 Acres	 CCC Due 195.31 Acres
 Undevelopable 0.00 Acres	 Existing Development 0.00 Acres



**Bedford West
Subdivision Area 8**

HALIFAX

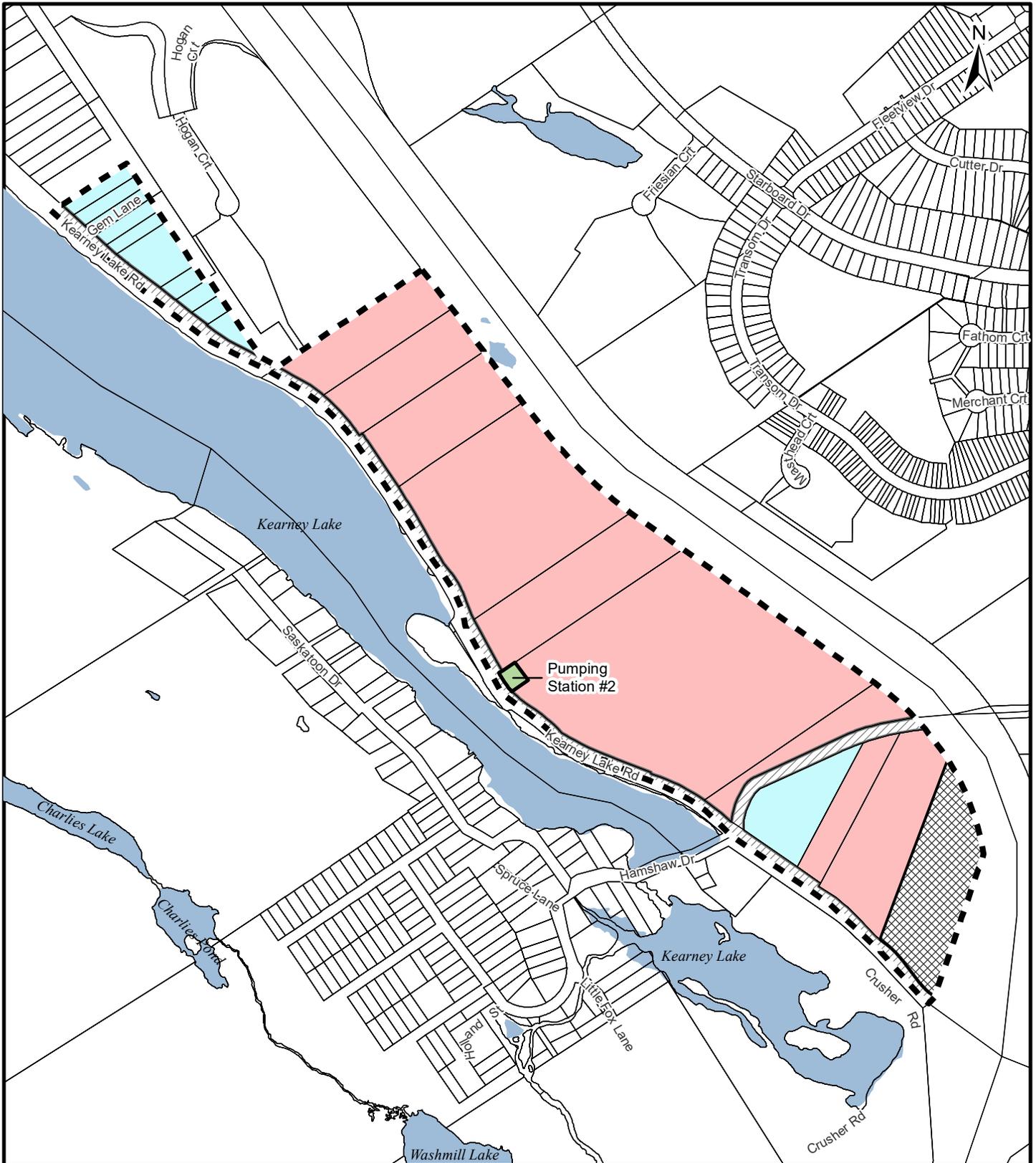
 HRM ROW 1.40 Acres	 CCC Paid 0.00 Acres
 NSTIR ROW 27.60 Acres	 CCC Due 190.64 Acres
 Undevelopable 0.00 Acres	 Existing Development 0.00 Acres



**Bedford West
Subdivision Area 9**

HALIFAX

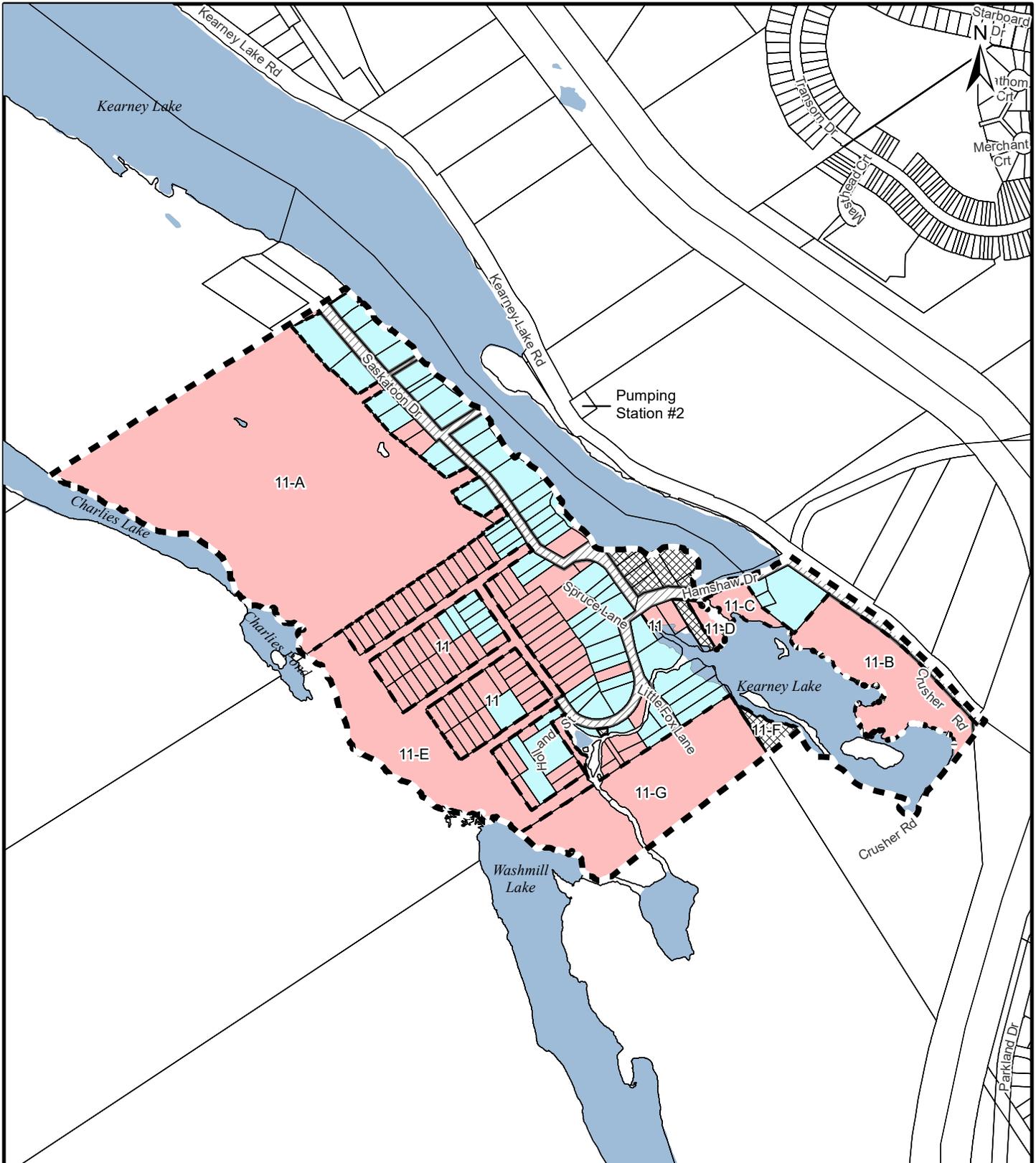
 HRM ROW 1.38 Acres	 CCC Paid 20.97 Acres
 NSTIR ROW 0.00 Acres	 CCC Due 26.21 Acres
 Undevelopable 2.49 Acres	 Existing Development 17.45 Acres



**Bedford West
Subdivision Area 10**

HALIFAX

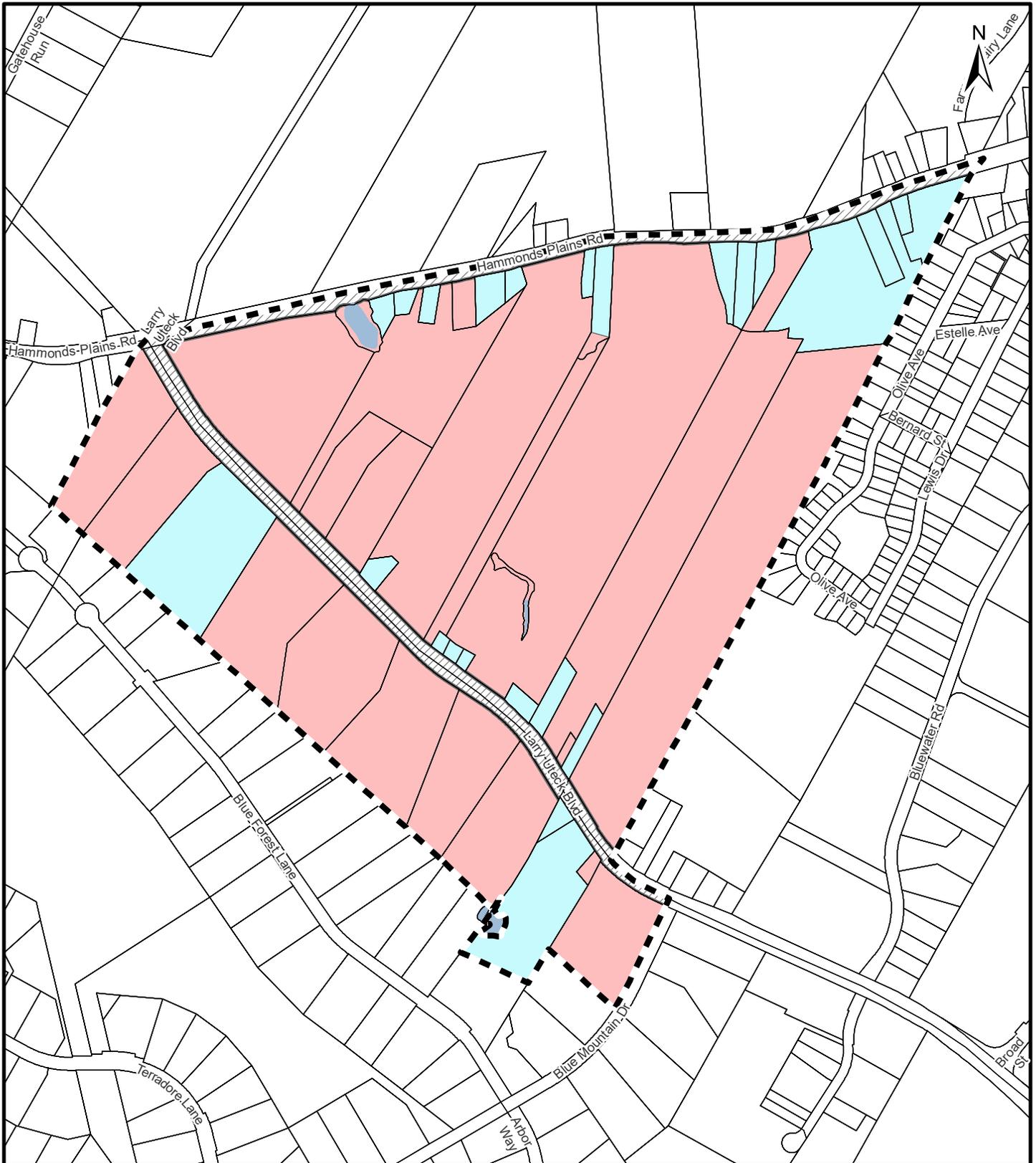
 HRM ROW 6.65 Acres	 CCC Paid 0.19 Acres
 NSTIR ROW 0.00 Acres	 CCC Due 64.28 Acres
 Undevelopable 6.00 Acres	 Existing Development 7.49 Acres



**Bedford West
Subdivision Area 11**

HALIFAX

- | | |
|--|--|
|  HRM ROW 5.68 Acres |  CCC Paid 0.00 Acres |
|  NSTIR ROW 0.00 Acres |  CCC Due 82.47 Acres |
|  Undevelopable 3.17 Acres |  Existing Development 21.42 Acres |



**Bedford West
Subdivision Area 12**

HALIFAX

 HRM ROW 12.48 Acres	 CCC Paid 0.00 Acres
 NSTIR ROW 0.00 Acres	 CCC Due 188.73 Acres
 Undevelopable 0.00 Acres	 Existing Development 34.21 Acres

Attachment C

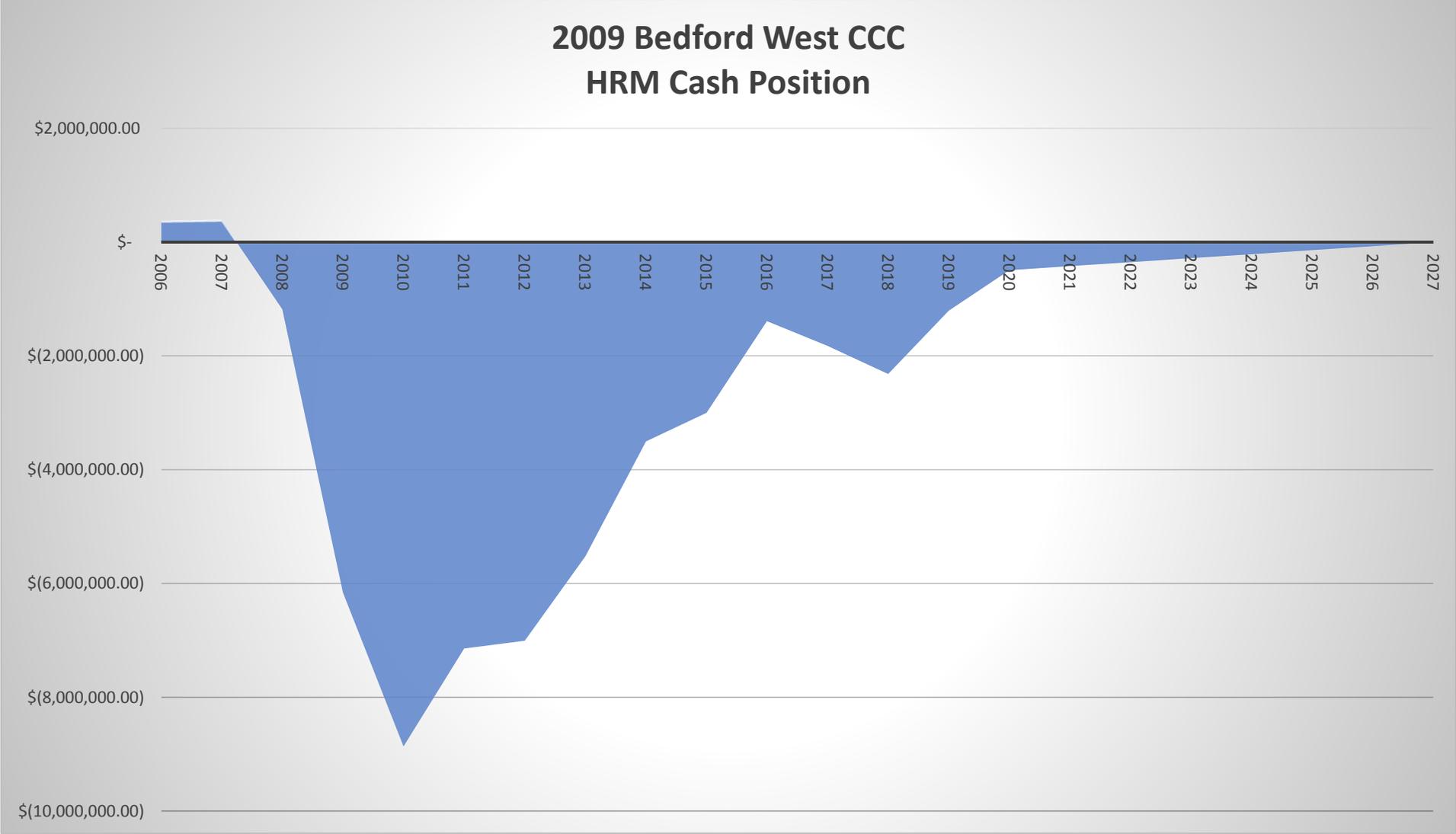
Bedford West CCC Master Transportation Infrastructure

2009 Original Interest Rate During Construction 4.60%
2018 Revised Interest Rate During Construction 3.69%

Completed Projects	2009 Calculations					2019 Revised Calculations				
	Forecast Year	Actual Year	Estimated Escalated Cost	Charge Area %	HRM %	Actual Cost	HRM Share	Charge Area Share	Interest During Construction	Total CCC
Engineering Studies	2008	2008	\$ 193,205.00	100.0%	0.0%	\$ 193,205.00	\$ -	\$ 193,205.00	\$ 8,887.43	\$ 202,092.43
CCC Implementation Team	2008	2008	\$ 300,000.00	100.0%	0.0%	\$ 300,000.00	\$ -	\$ 300,000.00	\$ 13,800.00	\$ 313,800.00
Hammonds Plains Road Widening - Phase 1	2008	2008	\$ 1,652,447.00	46.0%	54.0%	\$ 1,217,410.00	\$ 657,401.40	\$ 560,008.60	\$ 25,760.40	\$ 585,769.00
Innovation Drive Oversizing	2008	2008	\$ 386,411.00	100.0%	0.0%	\$ 386,411.00	\$ -	\$ 386,411.00	\$ 17,774.91	\$ 404,185.91
Traffic Signals - HPR at RIM Entrance	2008	2009	\$ 94,799.00	90.0%	10.0%	\$ 56,472.00	\$ 5,647.20	\$ 50,824.80	\$ 2,337.94	\$ 53,162.74
Hammonds Plains Road Widening - Phase 2	2009	2009	\$ 3,091,285.80	40.0%	60.0%	\$ 3,487,345.00	\$ 2,092,407.00	\$ 1,394,938.00	\$ 64,167.15	\$ 1,459,105.15
Larry Uteck Interchange	2009	2010	\$ 10,721,413.00	40.3%	59.7%	\$ 8,716,164.00	\$ 5,203,549.91	\$ 3,512,614.09	\$ 161,580.25	\$ 3,674,194.34
Left Turn Lane - Lewis Lane	2009	2012	\$ 134,132.00	100.0%	0.0%	\$ 180,658.00	\$ -	\$ 180,658.00	\$ 8,310.27	\$ 188,968.27
Traffic Signals - HPR at Gary Martin	2009	2013	\$ 161,004.00	90.0%	10.0%	\$ 68,899.00	\$ 6,889.90	\$ 62,009.10	\$ 2,852.42	\$ 64,861.52
Kearney Lake Connector - Phase 1	2010	2013	\$ 4,148,496.68	67.0%	33.0%	\$ 2,152,776.00	\$ 710,416.08	\$ 1,442,359.92	\$ 66,348.56	\$ 1,508,708.48
Kearney Lake Connector - Phase 2	2010	2013				\$ 434,514.92	\$ 143,389.92	\$ 291,125.00	\$ 13,391.75	\$ 304,516.75
Kearney Lake Connector - Phase 2A	2010	2013								
Kearney Lake Connector - Phase 3	2010	2014								
Intersection Improvements - LUB at KLR	2010	2015								
Traffic Signals - LUB at KLR	2019	2019	\$ 200,000.00	67.0%	33.0%	\$ 227,756.00	\$ 75,159.48	\$ 152,596.52	\$ 7,019.44	\$ 159,615.96
Broad Street South Design work (Strum Engineering)	2019	2019	\$ 60,000.00	60.0%	40.0%	\$ 59,111.91	\$ 23,644.76	\$ 35,467.15	\$ 1,631.49	\$ 37,098.64

Future Projects	Forecasted Year	Estimated Escalated Cost (2018)	Revised Estimated Escalated Cost	2019 Revised Calculation					
				Charge Area %	Charge Area Share	Interest During Construction	Total CCC	HRM %	HRM Share Estimated
Broad Street North Roundabout	2021	\$ 3,000,000.00	\$ 3,235,147.10	60%	\$ 1,941,088.26	\$ 71,529.10	\$ 2,012,617.36	40%	\$ 1,294,058.84
Traffic Signals - LUB at Bluewater Rd	2021	\$ 200,000.00	\$ 215,676.47	10%	\$ 21,567.65	\$ 794.77	\$ 22,362.42	90%	\$ 194,108.83
Broad Street South Roundabout	2022	\$ 3,200,000.00	\$ 3,538,726.63	60%	\$ 2,123,235.98	\$ 78,241.25	\$ 2,201,477.23	40%	\$ 1,415,490.65
LUB Multi-Modal Upgrades	2024	\$ 3,000,000.00	\$ 3,488,725.58	60%	\$ 2,093,235.35	\$ 77,135.72	\$ 2,170,371.07	40%	\$ 1,395,490.23
LUB at HPR Intersection upgrade	2028	\$ 1,250,000.00	\$ 1,607,506.01	10%	\$ 160,750.60	\$ 5,923.66	\$ 166,674.26	90%	\$ 1,446,755.41

Attachment D – CCC Cash Position Comparison



2019 Update Bedford West CCC HRM Cash Position

