

**Halifax and West Community Council**  
**October 7, 2013**

**TO:** Chair and Members of Halifax and West Community Council

**SUBMITTED BY:** Original signed by:  
Peter Stickings, Acting Director, Planning and Infrastructure

**DATE:** September 5, 2013

**SUBJECT:** Purcell's Cove Servicing Feasibility Study

### **INFORMATION REPORT**

#### **ORIGIN**

On February 8, 2011, Regional Council initiated the process for the Purcell's Cove Servicing Feasibility Study including consultant services and a public participation program.

On November 27, 2012, Regional Council approved a motion to exclude Study Area 2 (Attachment 1, Map 1) from any future Local Improvement Charge By-Law process. Council also reaffirmed that the entire Study Area (including Area 2) remain as part of the Servicing Feasibility Study.

Status Sheet Item 10.2.3: At the Regional Council meeting of September 11, 2012, the Municipal Clerk submitted a petition of opposition to the extension of central services on behalf of the Purcell's Cove Area 1 Residents Association.

On April 9, 2013, Regional Council discharged the Community Steering Committee of their duties and directed staff to submit a final report to Halifax and West Community Council on the servicing feasibility study.

#### **LEGISLATIVE AUTHORITY**

Halifax Regional Municipality Charter, Part I, Section 25 - Powers and Duties of Community Council; and Section 32 - Community Committees.

## **EXECUTIVE SUMMARY**

The Purcell's Cove Study Area is not a designated Growth Centre in the Regional Plan. To address concerns regarding water supply quantity and quality, Regional Council initiated the Servicing Feasibility Study to determine planning rationale for future community growth and provide cost estimates for the extension of central services.

Public participation during the Study resulted in a majority of property owners not supportive of extending central services. Per property cost estimates for the provision of central services ranges from \$17,500 to \$73,000, depending on the servicing option and cost sharing arrangement.

The Traffic Impact Analysis mandated as part of the feasibility study, identifies existing and proposed conditions that additional development in the catchment area is projected to exacerbate. While it is recognized a more detailed analysis is required to provide traffic infrastructure improvements and solutions, the necessary level of detail is beyond the scope and budget of this Servicing Feasibility Study.

## **BACKGROUND**

Following the January 4, 2012, CAO award of contract services to CBCL Limited, staff and the consultant have worked with the Community Steering Committee (CSC) on the planning and engineering components in accordance with the issued Request for Proposals.

At the February 25, 2013 meeting, the Committee were presented the cost estimates for various servicing scenarios to both complement the consultation to date and to provide alternatives. Previous meetings were dedicated to community consultation and engagement, including the hosting of an open house/workshop, as well as the distribution of a mail-out questionnaire to study area property owners.

The scheduled March 25, 2013, CSC meeting was cancelled due to lack of quorum resulting from CSC member resignations.

## **DISCUSSION**

The Servicing Feasibility Study Area (Map 1) extends along Purcell's Cove Road from the termination of existing services at Wenlock Grove to Fergusons Cove Road. The Study Area is further divided into two:

- Area 1 extending from Wenlock Grove Road to and including Oceanview Drive; and
- Area 2 continuing west of Oceanview Drive encompassing the remainder of the Study Area to Ferguson's Cove Road.

On October 5, 2011, HRM issued a Request for Proposals for a planning and engineering feasibility study to include land use planning, civil engineering, traffic impact, and public

engagement services. This multi-disciplined approach was selected to firstly determine the community's aspirations for future growth and to then factor this growth into the servicing options.

As part of the deliverables, the February 16, 2012, awarded contract to CBCL Consultants Limited, required the consultant to work with a Community Steering Committee in consulting the Purcell's Cove community and to identify a variety of servicing options complete with cost estimates.

**Planning Component:**

The initiating staff report for the servicing feasibility study was approved by Regional Council on February 8, 2011. In that report, staff indicated the proposed Engineering and Planning Study will not propose that the Purcell's Cove Road area become a major new growth area for the municipality as this would be inconsistent with the policies and intent of the Regional Plan. Issues such as extensive environmentally sensitive lands, steep topography, existing community form and road network capacity issues are reasons why the area should be maintained for relatively low growth. Thus, the lands for potential central servicing should be kept relatively confined.

Also, as part of the supporting rationale for the staff recommendation to proceed with the Feasibility Study, it was reported that 65% of the petition respondents were in favour of having services extended to their property. Further review of the petition results has revealed a calculation error that effectively reduces from 65% to 52% the reported number of respondents in support of extending services.

Comprehensive community consultations conducted over the past year, including an open house/workshop, property owner mail-out questionnaire, e-mail correspondence, as well as frequent CSC meetings public participation opportunities, have resulted in little support for additional growth. The majority of participants indicated satisfaction with the status quo with regard to well water quality and quantity, on-site sewage system and the limited form of low density residential development.

In response to the CSC mandate of consulting with study area property owners, Clayton Developments, owner of 353 acres of undeveloped lands on the west side of Williams Lake, provided the Consultant with future residential development details for scenario inclusion. These details include a full build-out of 1200 residential units, with an initial phase of 600 units tributary to Purcell's Cove Road.

Accordingly, the Consultant considered a future growth pattern for the Study Area based on existing land use zoning and subdivision requirements for the creation of additional parcels of land, with access from Purcell's Cove Road only (no side streets). While the right-sizing of infrastructure to accommodate for future growth of Area 1, Area 2 and the full build-out of the Clayton Developments proposal was included in costing estimates, in keeping with the limited growth rationale contained in the initiating staff report, staff directed the Consultant to limit the Clayton proposal consideration to 600 units for this study.

Located within the Urban Reserve Designation of both the Regional Plan and the Halifax Mainland Community Plan, consideration of this proposal would require Regional Council approval of amendments to several Planning documents, as well as undergo a comprehensive secondary planning process including community consultation.

**Servicing Options:**

The RFP required the Consultant to evaluate three specific servicing scenarios for extending services along Purcell's Cove Road: pumping back into the existing system; a separate wastewater treatment plant on the Northwest Arm; and connecting to Halifax system across Northwest Arm. In addition, the Consultant was to also investigate other servicing options. All public and private streets within the study area were included in the analysis along with engineering constraints/opportunities for the installation of services.

While the RFP directed the Study to assess the feasibility and costs of providing central services to Area 1 and Area 2 independently, any servicing options developed for Area 1 must be suitably oversized to accommodate the potential future inclusion of Area 2.

For each servicing scenario, the Consultant was required to describe the opportunities/constraints for each option and make recommendation(s) as to the most feasible in terms of design, costs, and other land use or servicing implications.

The Consultant initially developed six servicing options, eliminating one early in the process due to similarity with Option 2 and significant wetland impact due to routing. The resultant five servicing options are detailed in the attached report (Attachment 2) and summarized below in Table 1. Each servicing option for Area 1 has been sufficiently oversized to accommodate the potential future inclusion of Area 2. An alternative central sewer servicing design concept using small diameter pressure sewers was also developed for the side streets of Study Areas 1 and 2.

Table 1 provides a summary of the estimated capital cost per Area 1 property for each of the Area 1 concept servicing options identified. These cost estimates are based on existing and future subdivision of lots in Area 1 and 600 potential lots on the Clayton lands.

**Table 1: Summary of Estimated Capital Cost Per Area 1 Property (With 600 lot Development on Clayton Lands)**

Servicing Option	Possible Cost-sharing Scenario			
	Base Cost Shared by Area 1 Property Owners	Base Cost Shared by Area 1 Property Owners and Clayton Developments	Total Cost Shared by Area 1 Property Owners and Clayton Developments	Common Infrastructure Base Cost Shared by Area 1 Property Owners and Clayton Developments
<b>1. Purcell's Cove Road</b>	\$61,000	\$17,500	\$22,000	\$43,000
<b>2. North Backlands</b>	\$59,500	\$17,500	\$23,000	\$44,000
<b>3. South Backlands</b>	\$62,000	\$18,000	\$23,500	\$45,000
<b>4. Wastewater Treatment Facility</b>	\$59,500	\$17,500	\$22,000	\$44,000
<b>5. Pump To Atlantic School of Theology</b>	\$73,000	\$21,000	\$21,000	\$53,500

In the first cost sharing scenario (Base Cost Shared by Area 1 Property Owners), if the proposed Clayton development were not to receive approval to proceed, then the estimated capital cost for Area 1 property owners to receive central water and sewer service could range between \$59,500 and \$73,000 per Area 1 property. However, should the proposed Clayton development receive approval to proceed, the capital cost per Area 1 property would be reduced. The amount of the reduction would be dependent on the cost sharing scenario negotiated as part of the development approval process.

The second scenario (Base Cost Shared by Area 1 Property Owners and Clayton) would provide the lowest cost per Area 1 property. However, this scenario would require Clayton Developments Limited to share in the base cost for a large portion of infrastructure that it does not need to service its land.

The third scenario (Total Cost Shared by Area 1 Property Owners and Clayton Developments) would result in the Area 1 property owners and Clayton Developments sharing in the total costs of the project, less the Area 2 upsize cost which would be paid by HRM.

A fourth scenario (Common Infrastructure Base Cost Shared by Area 1 Property Owners and Clayton) allows for the developer to share in the base cost of the infrastructure that is only needed to service their lands and pay fully for any upsize costs related to their development. The Area 1 property owners would pay for their share of the base cost of infrastructure needed to service Area 1, as well as the Clayton lands. They would also pay for the complete base cost of the remaining infrastructure that is not needed to service the Clayton lands.

Each of the servicing options presents opportunities and constraints, which are explained in more detail in the attached Consultant Study.

Notwithstanding Regional Council's motion of November 27, 2012, to not consider extension of services for Area 2, in accordance with the issued Request for Proposals, Area 2 cost estimates for the provision of central services is \$12m.

Halifax Water staff has reviewed the Consultant Study with regard to servicing specifications and are in agreement with the findings and recommendations.

**Consultant Recommendations:**

Of the five servicing options proposed by CBCL, the Consultant has identified two preferred central water and sewer servicing options for Area 1: the Purcell's Cove Road option and the North Backlands option. These two options are preferable for the following reasons:

From an estimated construction perspective, they both have the lower estimated base cost and overall cost. They also present the lowest estimated cost from a cost per lot perspective for Area 1 properties. Both options are comparable with the Wastewater Treatment Facility (WWTF) option in terms of estimated capital costs. However, the WWTF option contains some inherent disadvantages that the others would not possess including:

- significant further study to confirm viability;
- operational costs (treatment and monitoring); and
- location conflicts with Halifax Water's Wastewater Management Plan.

The South Backlands Option is slightly more expensive and the route would likely have impacts on existing wetlands.

The Pump to AST option is significantly higher in estimated capital costs and conflicts with Halifax Water's Wastewater Management Plan and may require a "no anchorage" zone in the Northwest Arm.

The Consultant further recommends a more detailed engineering analysis be completed to determine whether Option 1 or Option 2 to be the most suitable. However, at this concept design stage, the North Backlands is the preferred servicing scenario for the following reasons:

- The Purcell's Cove Road option would involve the construction of two significant sewage pumping stations (compared to one for the North Backlands option) and would involve significant disruption to the residents of the Wenlock Grove/Pinebluff neighbourhood during construction; and
- The North Backlands option involves the installation of trunk sewer infrastructure across the Clayton lands and may offer some advantages related to negotiation of land easement acquisition costs, infrastructure cost sharing and potential environmental enhancements along the pipeline route.

**Traffic Impact Analysis:**

The RFP also required the Consultant to determine the traffic impacts for the servicing options developed, including level of service impacts on Purcell's Cove Road, Purcell's Cove Road/Herring Cove Road and the Armdale Roundabout. Proposed traffic improvements/solutions were not identified within the scope of the RFP.

In summary, the a.m. peak travel period for right turning vehicle movements onto Herring Cove Road from Purcell's Cove Road, presents unacceptable delays. Conversely, the p.m. peak for left turning vehicle movements from Herring Cove Road onto Purcell's cove Road operates at a satisfactorily level of service.

CBCL's analysis of the road network and study intersections identifies existing deficiencies that would be further exacerbated by additional development. The Herring Cove Road/Purcell's Cove Road intersection is highlighted as requiring design improvements to handle additional traffic capacity. Factors include local existing traffic, as well as pressure from recent and on-going developments in the Governor's Brook residential subdivision.

HRM Development Approvals and Strategic Transportation Planning staff, confirm additional traffic study impact is required prior to advancing any servicing scenario.

### **FINANCIAL IMPLICATIONS**

This Servicing Feasibility study was funded through Project No. CDV00723 (Halifax Harbour Plan).

Council is also aware that should it eventually approve the extension of central services along the Purcell's Cove Road, those property owners receiving the services will bear the total cost, unless Council allocates funding to the project and/or unless external sources of funding are secured.

### **COMMUNITY ENGAGEMENT**

Regional Council authorized Halifax and West Community Council as the reporting and governing body for the Community Steering Committee. Committee members were appointed by Community Council. Committee composition included a representative of the local stakeholder organizations, the Royal Nova Scotia Yacht Squadron, the Williams Lake Conservation Company, six property owners from the study area, and the District Councillors.

With the support of staff and the Consultant, the CSC held seven Committee meetings inclusive of a public participation component, conducted a mail-out questionnaire, and hosted a workshop and open house, to solicit Community input with regard to future growth aspirations.

### **ATTACHMENTS**

Attachment 1	Study Area Map
Attachment 2	CBCL Consultant Report: Planning and Engineering Feasibility Study- Purcell's Cove Road Servicing, Halifax

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

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