

HALIFAX

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Item No. 14.1.11
Halifax Regional Council
July 31, 2018

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed by 

SUBMITTED BY: Jacques Dubé, Chief Administrative Officer

DATE: June 18, 2018

SUBJECT: Federal Infrastructure Framework Phase 2 Projects

ORIGIN

April 24, 2018 motion that Council request a staff report with respect to the extension of municipal services to the community of Harrietsfield be extended to the 1400 block as part of the recently announced infrastructure program.

April 10, 2018 announcement of the Canada-Nova Scotia bilateral infrastructure agreement.

May 14, 2018, call for potential projects from Nova Scotia Municipal Affairs.

January 16, 2018 motion that Council resubmit the full scope of the Herring Cove water servicing project in the amount of \$7,311,190 as originally described on June 21, 2016, for phase 2 of the federal infrastructure funding program, as HRM's top priority request.

LEGISLATIVE AUTHORITY

HRM Charter Section 74 – permits HRM to enter into agreements with the Province or Government of Canada to provide or administer municipal services.

RECOMMENDATION

It is recommended that Halifax Regional Council submit the following for inclusion in the three-to-five year Provincial infrastructure funding framework under development:

- 27 projects with an estimated total cost range of \$318.2M to \$386.4M under Public Transit Infrastructure Fund;
- 24 number of projects with an estimated total cost of \$296.9M under the Green Infrastructure Fund: Climate Change Stream;
- 4 projects with an estimated total cost range of \$14.5M to \$17M under the Green Infrastructure Fund: Adaptation, Resilience & Disaster Mitigation Stream;
- 15 projects with an estimated total cost range of \$290.55M under the Green Infrastructure Fund: Environmental Quality Stream, with the Herring Cove water servicing project noted as HRM's top water and wastewater priority project; and

- 10 projects with an estimated total cost of \$142M under the Communities, Culture and Recreation Fund.

BACKGROUND

Through the Investing in Canada Infrastructure Plan (ICIP), the Government of Canada has a plan to invest more than \$180 billion over 12 years in five main infrastructure priorities:

- Public Transit Infrastructure
- Green Infrastructure
- Social Infrastructure
- Trade and Transportation
- Rural and Northern Communities

Budget 2016 committed \$14.4 billion for Phase 1 of the 12-year plan. Phase 1 focused on accelerating federal investments in the short term by providing funding for the rehabilitation, repair, and modernization of existing public transit, green and social infrastructure.

During Phase 1, HRM received \$39 million in federal and provincial funds for seven water and wastewater projects, and \$31 million in federal funds for seventeen public transit projects. These projects will all be complete by March 31, 2019.

Phase 2 of the Investing in Canada plan will see an additional \$81 billion flow over 10 years in the same five priority infrastructure streams. The federal government has negotiated separate bilateral agreements with each province, so each agreement may have different stipulations and cash flows to reflect individual circumstances. Nova Scotia's agreement was announced on April 10, 2018. Nova Scotia's funding allocations for the ten-year period are as follows:

- Public Transit Infrastructure Fund (PTIF) is \$289,589,324.
- Green Infrastructure Fund is \$381,914,606.
- Community, Culture and Recreation Infrastructure fund is \$51,245,475.
- Rural and Northern Communities fund is \$105,743,756 (this fund is limited to municipalities under 100,000 and HRM is not eligible to apply)

These funds may be accessed by municipalities, the provincial government, Indigenous groups, not-for-profit organizations, and private sector groups in collaboration with governments or not-for-profits. The Province is to ensure the project list includes a fair balance of municipal projects. To this end, the Deputy Minister of Municipal Affairs issued a call for priorities on May 14, 2018, to assist the Province in developing its infrastructure plan.

DISCUSSION

Cost-sharing for Phase 2 infrastructure projects has been set out in the bilateral agreement. Cash flow estimates for each year are included in the agreement, but the Province has indicated there is some flexibility to change the cash flow depending on project needs. The federal government will contribute 40% of project costs for municipal projects. The Province is also mandated to contribute 33% of project costs, leaving municipalities with a 27% cost-share.

The Province is required to submit an initial infrastructure plan to the federal government by September 30 with projects for funding consideration, and this plan will be updated annually each May to reflect any changes in project submissions. Given its 33% funding contribution, the Province is developing a framework that will align approved projects with provincial priorities. The Department of Transportation and Infrastructure Renewal (TIR) is leading this work, with input from other relevant departments such as Municipal Affairs, Energy, and Environment. Municipal Affairs' call for priorities is intended to solicit

information that will inform the framework. It is important to note that this is not an official call for applications. Municipal Affairs is seeking projects that could potentially proceed in the first three to five years of the Investing in Canada plan, to develop a better idea of municipal infrastructure needs across Nova Scotia. Municipalities are not required to ultimately apply for the projects they submit in this initial framework consultation, nor are they bound by the cost estimates provided at this early stage. There is a recognition that infrastructure needs and timelines may shift. A formal call for applications will follow after the framework plan is submitted to the federal government in September and an intake process is established. Further calls for applications are expected throughout the 10-year program. It appears there will be a rigorous application process that includes GHG, climate change resilience, and community employment assessments, which will allow municipalities to develop more detailed cash flow estimates.

As noted above, HRM is not eligible to apply to the Rural and Northern Communities Fund. Below are potential projects HRM could submit for funding consideration for the first five years of the Investing in Canada Plan. It is recommended that Council submit the projects listed below to Municipal Affairs for inclusion in the infrastructure framework being developed, and to go to the federal government as part of the infrastructure plan due by September 30, 2018. Once a call for applications is issued, staff will return with recommendations that prioritize the projects and include more detailed project plans and cash flows. At that time staff will also be able to determine whether funds may be used to expand already-planned projects – for instance, a building upgrade could be expanded to include more energy efficiency aspects with the support of federal and provincial funding.

Public Transit Infrastructure Fund (PTIF)

PTIF's focus is on service expansion and building new transit networks. The federal government will provide a 40% cost share on new build and expansion projects. Rehabilitation projects are capped at 15% of the fund, but will receive a 50% federal cost share. Bus replacements are new purchases and therefore considered new projects, so they do not come under the 15% rehab cap. Allocation within Nova Scotia is based solely on municipal transit system ridership, meaning HRM will receive 96% of the fund, or \$278 million in federal funding over 10 years. PTIF projects are also intended to receive 33% cost share from the provincial government.

There is a clause in the bilateral agreement that states the federal government will consider requests from Nova Scotia to transfer funding under the public transit stream to the green infrastructure stream, specifically the climate change mitigation sub-stream, after March 31st, 2021. This request can be made if municipalities and transit authorities attest that they do not require the federal funds for the remainder of the Investing in Canada Plan timeline. Demonstrating HRM's need for these transit funds is important, as they are necessary to realize the goals of the Integrated Mobility Plan (IMP).

PTIF monies may be used for incremental projects, as long as they do not displace municipal funds. Therefore projects listed in Halifax Transit's multi-year capital plan may be submitted, as long as no funding has been attached to them. A number of transformative IMP projects fall under this category, and provide ample demonstration of HRM's need for PTIF funding.

A number of HRM's active transportation (AT) projects could potentially fall under either PTIF or the Green Infrastructure Fund. In order to leverage the funding available in both streams, active transportation projects have been listed under the Green Infrastructure Fund at this time. The most appropriate funding stream will be determined once a call for applications is received.

Recommended projects for submission for five-year timeline:

Project	Estimated Total Project Cost
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Access-A-Bus Expansion	\$1M - \$2M
Access-A-Bus Replacement	\$5M
Bike share	\$3M
Burnside Transit Centre Roof Repairs	\$4M
Bus Stop Accessibility & Improvements.	\$4M
Cobequid Terminal	\$2M
Cogswell Redevelopment: AT and Transit facilities to create complete streets, bus shelters and bike facilities.	\$5M
Commuter Rail	\$48M
Conventional Bus Expansion	\$25M
Conventional Bus Replacement	\$45M
Dartmouth North Ferry Study	\$500K
Electric Buses	\$10M
Ferry Maintenance Facility	\$2M-\$8M
Macdonald Bridge Ramp structural changes to allow buses to travel to bridge from Barrington Street.	\$1M
Margeson Drive MetroX – requires 6 new buses and paving for park & ride.	\$4.4M
Mumford Terminal Replacement	\$17M
New/Expanded Transit Centre	\$100M-\$150M
Onboard GPS Based Transit Priority	\$2M - \$8M
Penhorn Terminal Refurbishment	\$2M
Ragged Lake Transit Centre Expansion	\$8M
Robie Street Transit Priority Corridor	\$5.8M - \$11M
Transit Priority Corridors - Bayers Road (excludes property acquisition)	\$6M
Transit Priority Measures – various small to medium sized solutions.	\$2M
West Bedford Park & Ride	\$2.5M
Woodside Ferry Terminal Refurbishment	\$8.6M

Wrights Cove Terminal	\$2.4M
Young Street Transit Priority Corridors	\$2M
Total project costs	\$318.2M to \$386.4M

Green Infrastructure Fund

There are three streams under the Green Infrastructure Fund. The largest is the Climate Change Mitigation stream, with 45% of the Green funds (\$171.8 million of Nova Scotia's allocation). The two other streams, Adaptation, Resilience & Disaster Mitigation, and Environmental Quality, do not yet have funding amounts established. The cost share under each fund is 40% federal, 33% provincial and 27% municipal. The Province will report annually on how projects contribute to a national, 10-tonne reduction in greenhouse gas emissions.

Detailed performance measures are attached to the Green Infrastructure Fund. All projects submitted to the Climate Change Mitigation stream are required to include a greenhouse gas emissions assessment with a cost-per-tonne calculation, as do any projects over \$10 million submitted in the other two streams. A climate change resilience assessment is required for all projects submitted under the Adaptation, Resilience, and Disaster Mitigation stream, as do any projects over \$10 million submitted in the other two streams. These assessments must be undertaken by ISO-qualified professionals and are required up front as part of the application process. If a project is approved, the funds to conduct the GHG and resilience screens will be eligible for cost sharing retroactively. Screening costs for projects not approved for funding are ineligible.

Eligibility details for the three streams and recommended projects are outlined below.

- **Climate Change Mitigation**

This stream is the largest under the Green Infrastructure Fund. Projects in this stream must meet one of four outcomes:

1. Increased capacity to manage more renewable energy
2. Increased access to clean energy transportation
3. Increased energy efficiency of buildings
4. Increased generation of clean energy

Recommended projects for submission for five-year timeline:

Project	Total Estimated Project Cost
Acquisition of 25 light-duty EV/PHEV fleet vehicles, and additional training for fleet mechanics, as conventional internal combustion engine (ICE) vehicles are retired and replaced	\$1M
AT Crossings at Provincial highways - Upgrades to substandard AT crossings at provincial highways	\$10M
Brunswick/Rainnie bike lane - Includes a protected bike lane, streetscaping and undergrounding.	\$ 1.5M
Building Optimization/Recommissioning and Energy Efficiency Upgrades for corporate facilities	\$30M
Burnside Connector and AT Greenway	\$ 8.2M
Burnside Drive AT Greenway - Construct AT greenway between Commodore and Wright, and Wright to Akerley.	\$ 2M Each phase could also proceed independently with a \$1M cost

Energy Retrofit Projects - Waste/Heat Recovery from Arenas	\$2M
Ferry electrification and installation of high voltage chargers	\$5M
Fuel-switching from heating oil (#2 distillate) boilers to a combination of NG boilers and solar PV-supported heat pumps at all HRM recreation centres within the gas service boundary	\$7M
Install electric vehicle charging infrastructure	\$7M
Installation and maintenance of AUX-IOX cables for fleet vehicle AVL geotag systems to permit enhanced engine activity monitoring for idling and fuel consumption reduction	\$100,000
Landfill gas (LFG) to renewable natural gas (RNG)	\$16M
Organics Management (anaerobic digestion to renewable natural gas)	\$72M
Pedestrian wayfinding - This would include wayfinding outside of transit and AT facilities design	\$2M
Pool filtration system upgrades	\$600,000
Priority AT Greenway network connections	\$12M
Recommissioning of 30 existing solar energy systems on HRM-owned buildings	\$500,000
Regional Centre Bike Network - Include wayfinding in project scope	\$17M
Rural pedestrian program implementation - Consideration of sidewalks in Musquodoboit Harbour, Porters Lake.	\$15M
Solar photovoltaic systems on all suitable HRM-owned buildings and community demonstration projects	\$60M
Transit Terminal Connections - This walkability audit would determine next steps in connecting all transit terminals to sidewalks and the bike network.	\$2M
Upgrade building automation system to improve energy management and reduce energy consumption	\$5M
Urban Forest Masterplan Implementation – tree planting and maintenance, education, research and monitoring	\$15M
Waste heat recovery and district energy – BMO and Burnside 4-pads	\$6M
Total Project Costs	\$296.9M

Projects without Cost Estimate Currently Identified
Car Share/Ride Hail pilot project - The NS Department of Energy has contributed Connect 2 Funding for this project, which increases transportation options in rural areas.
Halifax Road Safety Framework implementation
Real time metering for oil and natural gas for HRM buildings

- **Adaptation, Resilience & Disaster Mitigation**

To qualify for funding under this stream, projects must increase structural and/or natural capacity to adapt to climate change impacts, natural disasters, and/or extreme weather events.

Recommended projects for submission for five-year timeline:

Project	Total Estimated Project Cost
Bluewater stormwater management in Hammonds Plains	\$2.5M – \$5M

Hawthorne Street overpass/bridge rebuild to replace drainage infrastructure between Lake Banook and Sullivan's Pond	\$5M
Karlson's Wharf and Lower Water Street stormwater management (Cogswell redevelopment)	\$1M - \$1.25M
Point Pleasant Park – Shoreline & Seawall – Shoreline Erosion Mitigation	\$6M
Total Project Costs	\$14.5M to \$17.25M

- **Environmental Quality**

This stream is the main source of funding for water and wastewater projects. Eligibility criteria includes:

- Increase capacity to treat and/or manage wastewater and stormwater
- Increase access to potable water
- Increase capacity to reduce and/or remediate soil and air pollutants

Recommended projects for submission for five-year timeline:

Project	Total Estimated Project Cost
Herring Cove water and wastewater servicing Phase 2B - install: 1500 metres of water main, 2200 metres of wastewater pipe, two wastewater pumping stations and all related appurtenances.	\$7.3M
Sullivan's Pond Storm Sewer Renewal Phase 2 Project – Replace 300mm of existing 3000mm storm sewer with new box style partially open/closed storm system complete with fish passage	\$13.25M
Lake Major Water Supply Plant – Replacement of Raw Water Low Lift Pumping Station and Lake Intake Project – Replace existing low lift pumping station and construct new deep water intake structure and raw water transmission main	\$10.7M
Cogswell Area District Energy Project – Development of a wastewater effluent based district energy (heating, cooling, DHW) system for the Cogswell Redevelopment Area in downtown Halifax	\$19M
Cogswell Redevelopment Area Trunk Wastewater & Stormwater System Relocation Project – Install approximately 2.6 km of sewer main to facilitate the Cogswell Redevelopment area	\$6M
Cogswell Redevelopment Area Water Transmission System Relocation project – Install approximately 0.5 km of new watermain and renew approximately 1.3 km of watermain to facilitate the Cogswell Redevelopment	\$9.5M
Burnside to Bedford Connector Water Transmission Main Project - Install approximately 8500m of 600mm water transmission main from Akerley Blvd to Duke Street in conjunction with NSTIR Connector Highway construction	\$17M

JD Kline Water Supply Plant Process Upgrade – Upgrade the WSP treatment process to include a full stage clarification process ahead of the existing filters to address water quality issues relating to environmental lake recovery	\$75M
Halifax Peninsula North End Feeder Tunnel Water Transmission Main Replacement project – Install approximately 1500m new 900mm water transmission main system between Titus Street and Windsor Street	\$17.5M
Beechville Lakeside Timberlea Wastewater Conveyance System Project – Elimination of existing wastewater treatment facility (WWTF) discharging to fresh water and replace with a pumping station and forcemain system to convey waste to the Halifax WWTF	\$22M
Ellenvale Run Storm Sewer System Retaining Wall Replacement project – Replace existing gabion wall structures lining the channel with precast concrete liner for extended life and increased capacity	\$13.4M
Halifax Peninsula Water Transmission Main Project – Replace/structural line approximately 2600m of existing water transmission main at the end of its service life on various streets along corridor from the Armdale Rotary to the Willow Tree intersection	\$11.4M
Mill Cove WWTF Upgrade and Expansion project – Upgrade the existing wastewater treatment facility and expand treatment capacity to improve effluent quality and increase hydraulic capacity	\$55M
Maynard Lake Storm Sewer Outfall project - Install 1600m of 1200mm diameter stormsewer pipe to separate storm water flow from Maynard's Lake and the surrounding area from the existing combined sewer	\$3.5M
Fall River Village (October 31, 2017 Council motion)	\$10M minimum
Total Project Costs	\$290.55M

Community Culture and Recreation Fund (CCRF)

The objective of CCRF is to strengthen communities and social inclusion. Almost 10% of the fund (4.9 million in Nova Scotia) is reserved for the benefit of Indigenous people not living on reserve. Eligible projects must improve access to and quality of cultural, recreational and/or community infrastructure, including Indigenous and vulnerable populations.

This fund focuses on community-oriented, non-commercial projects. It will not support projects limited to a private membership, facilities for professional or semi-professional sports teams, or for-profit recipients.

It should be noted that Not-for-Profit organizations are also eligible for funding under this program. Staff recognizes there are currently several cultural and sport organizations seeking support from HRM for infrastructure projects. HRM typically supports these organizations through grants because HRM does not own the infrastructure; therefore, these projects are not represented in the list below.

Recommended projects for submission for five-year timeline:

Project	Total Estimated Project Cost
Alderney Gate library renovations	\$4M
Greenbank Building for Point Pleasant Park - Replacement for Shakespeare by the Sea, interpretive centre, washrooms, park support, etc.)	\$3M
Halifax Forum Rehabilitation	\$60M
Halifax North Memorial Library renovations	\$4.5M
HRM Regional Museum (New Build)	\$12M
Needham Recreation Centre Replacement	\$23M
New Bedford District Library	\$12M
Sheet Harbour Community Centre Replacement	\$7.5M
St. Mary's Boat Club Rehabilitation	\$4M
Timberlea (BLT) Recreation Centre Replacement	\$12M
Total Project Costs	\$142M

Harrietsfield Water Servicing

As described in the Planning District 5 MPS (includes Harrietsfield), wells in the area have been investigated for high levels of contaminants, particularly uranium, since at least 1981. Both the Provincial government and the former County of Halifax studied the issue and considered potential solutions, including provision of central water service. In 1987 a pollution control study for Harrietsfield-Williamswood was completed which provided pollution control management options for both drinking water and sewage system malfunctions. The report found that provision of central water and sewer service was prohibitive and instead recommended rehabilitation treatment for affected private wells.

Under the current MPS, Harrietsfield has both Residential and Village Centre designations. The Residential protects existing low-density residential development patterns, and Village Centre supports the development of a community and commercial service centre. North Harrietsfield has a Commercial/Industrial designation. None of the designations envision central water service for the area. The closest service boundary is approximately 6 km away, along a low-density road that is not earmarked for development. Introducing water service could have unintended consequences on the scale of development, which is not consistent with the MPS for the area. Density levels also impact the size of piping used to deliver water service, and without accurate projections on pipe size and number of properties ultimately serviced, it is difficult to establish a cost estimate.

Both public health and environmental regulation fall under Provincial jurisdiction. The Provincial government has taken the lead in monitoring water quality concerns in Harrietsfield from a public health and environmental perspective. The Minister of Environment has issued orders for site remediation on the former RDM Recycling site which has added contaminants to the water, and the issue is currently before the courts. In 2017 the Province asked HRM for assistance in providing water treatment systems at eight residences directly affected by the RDM site. The proposal would have the Province oversee capital costs

for installation of the treatment systems, with HRM taking on maintenance of the systems for 5 years. However under the HRM Charter, HRM cannot spend money on private property for ongoing maintenance, and the Municipality was unable to agree to the Province's proposal. The Province proceeded to install the eight water treatment systems throughout summer 2017.

Given the Provincial responsibility for Harrietsfield's water quality issues, the conflict with MPS goals and the resolution of the water quality problems for the residences affected by the RDM site, it is not recommended that HRM pursue a funding application to provide central water services to Harrietsfield.

Other Capital Priorities

The lists above do not represent Council's overall strategic capital priority list. They are projects that likely meet eligibility criteria for federal and provincial funding. There are other HRM capital projects that do not qualify for any federal funding streams and so do not appear in this report. These lists also do not include stakeholder-driven projects. Not-for-profit groups are eligible to apply for funds independently. If a private sector group wishes to apply for funding in collaboration with HRM, that proposal would come to Council for direction.

Emergency services infrastructure is not eligible under any of the funding streams described above. However Halifax Regional Fire and Emergency (HRFE) is investigating a potential project that would see Station # 3 refurbished to accommodate both a newer fire station, a community hub with temporary or geared to income housing for newcomers, and a transit stop. HRFE is discussing potential partnerships with ISANS and the Province to gauge the potential for this project. While there are no housing monies in the infrastructure funds for municipalities, it is recommended that HRM include this project in its submission noting that it may align with the Social Infrastructure Fund available to the Province.

FINANCIAL IMPLICATIONS

There are no financial implications. This report merely captures a list of potential projects for future funding applications. Financial implications associated with prioritized projects and funding applications will be outlined in a future report.

RISK CONSIDERATION

The risks associated with the recommendations in this report are rated low.

COMMUNITY ENGAGEMENT

N/A

ENVIRONMENTAL IMPLICATIONS

N/A

ALTERNATIVES

Council could choose not to submit a list of capital projects to the Province. This is not recommended as HRM's capital plans represent a major cost driver for the Provincial cost-share in the federal infrastructure programs, and will impact how the Province develops its funding framework.

Council could submit an alternate list of projects. This is not recommended as the projects outlined in this report represent capital initiatives that best meet eligibility requirements for the federal infrastructure programs.

ATTACHMENTS

N/A

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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