NOVA SCOTIA REGULATORY AND APPEALS BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF AN APPLICATION by HALIFAX REGIONAL WATER COMMISSION for approval of the Windsor Street Exchange Redevelopment Project – Construction for a cost of \$64,769,000

BEFORE: Julia E. Clark, LL.B., Vice Chair

Steven M. Murphy, MBA, P.Eng., Member Bruce H. Fisher, MPA, CPA, Member

APPLICANT: HALIFAX REGIONAL WATER COMMISSION

Kenda MacKenzie

INTERVENORS: CONSUMER ADVOCATE

David J. Roberts, Counsel Michael Murphy, Counsel

HALIFAX REGIONAL MUNICIPALITY

Kelsey Nearing, Counsel

FINAL SUBMISSIONS: September 23, 2025

DECISION DATE: October 23, 2025

DECISION: Application approved with the changes directed in this

Decision, subject to a Compliance Filing.

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1.0 INTRODUCTION

- On April 7, 2025, Halifax Regional Water Commission (Halifax Water or the Utility) applied to the Nova Scotia Regulatory and Appeals Board (Board) for approval of the Windsor Street Exchange (WSE) Redevelopment Project Construction, at a total project cost of \$69,275,000, including construction and design costs.
- [2] The WSE Redevelopment Project, led by Halifax Regional Municipality (HRM), involves a planned reconfiguration of the Bedford Highway, Windsor Street and Lady Hammond Road intersection and the surrounding road network. Throughout the WSE project area, Halifax Water has existing water, wastewater, and stormwater infrastructure. The water system in the area includes the North End Feeder (NEF) transmission main and local distribution watermains within the street right of way. Existing local and trunk wastewater collection systems also pass through the WSE intersection, which is also a common collection point for existing stormwater drainage from surrounding streets.
- [3] Halifax Water explained that completing such projects in a collaborative manner with HRM gives the benefit of cost and schedule efficiency for both parties. Under the program, a cost sharing agreement is typically established for surface reinstatement features, allowing HRM and Halifax Water to split the related costs, resulting in measurable cost savings to both entities, including Halifax Water's ratepayers.
- [4] HRM's project management team has chosen to utilize an integrated design-build project model, referred to as a Progressive Design Build (PDB) model, for this project. Halifax Water says the PDB model allows for a collaborative and progressive approach for the project management team and design-builder to develop design solutions before moving into detailed design and construction work. Under the PDB

model, the project will proceed in two phases. Phase 1 is the Collaborative Design phase. Then, once the design is appropriately defined, the design-builder will provide a formal commercial proposal for Phase 2, which consists of Final Design and Construction Services.

- The total project funding approval request includes \$4,505,000 for Phase 1 design costs for the WSE Redevelopment Project, including design fees for the NEF component and the Young Street Stormwater Pocket Route to the Harbour component (Young Street Pocket). The funding for these design fees was previously approved by the Board in a letter dated March 7, 2025 (Matter M11999). The project's estimated construction cost of \$64,769,000 (later revised to \$62,331,000) is the focus of the current matter.
- [6] The application package included the following attachments: Halifax Water's application for Board approval of the funding of the WSE Design costs; WSE Drawings; NEF and Kempt Road Concept Alignments; and the Project Cost Estimates.
- The Board issued a Hearing Order on April 11, 2025, setting out a timeline for its consideration of this application, which was dealt with in a paper hearing process. Notices of Intervention were received from HRM and the Consumer Advocate (CA) on April 16 and 17, 2025, respectively. Halifax Water's responses to initial Information Requests (IRs) from Board Counsel Consultants (BCC), William Brown and James Goldstein, the CA, and Board staff were filed on May 22, 2025. Halifax Water responses to a second set of IRs from Board staff were filed on June 19, 2025. HRM filed a letter dated July 2, 2025, supporting Halifax Water's application.

[8] As no intervenor evidence was submitted by the Hearing Order deadline, the Board issued an amended Hearing Order, with a revised, shortened timeline, on July 4, 2025. The CA filed Closing Submissions on July 24, 2025. Halifax Water's Reply Submission was filed on July 31, 2025. On August 11, 2025, Halifax Water filed an attachment to Board IR-37b) that was omitted in its original IR response.

2.0 APPLICATION

[9] The application described the coordination between Halifax Water and HRM regarding an annual program of water, wastewater, and stormwater infrastructure renewal projects with HRM street recapitalization projects. By avoiding the need to complete two separate projects in the same area, HRM and Halifax Water can achieve infrastructure improvements more efficiently and cost-effectively, and with less disruption to road networks and impact on the public.

As it relates to the current matter, HRM is the project owner. HRM issued an order requesting Halifax Water's confirmation of its intention to integrate planned work within the WSE Redevelopment project area. If the planned work is not integrated, Halifax Water will not be able to proceed with any of its proposed infrastructure work in the area until at least 2029. Further, an extensive recapitalization project on the MacKay Bridge by Halifax Harbour Bridges is expected around 2030, which will result in construction impacts near the WSE project area. Finally, any Halifax Water infrastructure work within the project area completed after HRM finishes its project work will be entirely at Halifax Water's cost.

- [11] HRM has secured funding for the project from Transport Canada. The funding agreement requires improvements in truck traffic to and from the Ceres Container Terminal to be completed by the end of December 2027. To meet this timeline, the PDB project delivery method was chosen by the HRM project team. HRM will be the contracting entity with the PDB team. Halifax Water also applied for funding through the Canada Housing Infrastructure Fund (CHIF) program. It had not yet received a decision on the CHIF but noted that it intends to proceed with the WSE Redevelopment Project regardless of the outcome of the funding application.
- The project is intended to be undertaken by HRM and its PDB team on an over-lapping, phased basis. The current application to the Board has been made in advance of the PDB team finalizing its 100% design Class 1 project cost estimate. This estimate was not expected until at least September 2025, to allow time for the regulatory approval process while still maintaining the project schedule.
- [13] HRM's WSE Redevelopment Project includes the following Halifax Water infrastructure:
 - 1. Local Water Improvements within HRM's Project Area;
 - 2. Local Wastewater within HRM's Project Area;
 - 3. Local Stormwater Improvements within HRM's Project Area;
 - 4. Halifax Water's NEF Water Main Project; and
 - 5. Halifax Water's Kempt Road Stormwater Upgrades Project.
- The NEF Water Main Project and Kempt Road Stormwater Upgrades Project (Items 4 and 5), include construction work that is within HRM's WSE Redevelopment Project area. The related costs are included in the current funding approval request before the Board. Both items also include construction work that is outside the limits of the WSE Redevelopment Project. That particular work will be

completed in future years and will be the subject of separate future funding approval applications to the Board. However, design costs for related infrastructure, both inside and outside the WSE Redevelopment Project boundary, are included in the \$4,505,000 previously approved by the Board in Matter M11999.

The application stated that Halifax Water is taking the opportunity to improve local water, wastewater, and stormwater infrastructure within the limits of the work scope for the WSE Redevelopment Project. At the time of filing the application with the Board, CBCL, a consultant working on behalf of Halifax Water and HRM had completed a 30% concept design for the project's roadway realignments and underground infrastructure. This was incorporated into the PDB team's submission for the Phase 1 design work.

The application also provided a description of the proposed water, wastewater, and stormwater infrastructure improvements included in the project, noting that the full extent of this work has not yet been determined. The local water infrastructure work will include renewal of watermains on Forrester Street, MacKintosh Street, and within the WSE intersection. The local watermain on Lady Hammond Road will also be renewed, as it is nearing the end of its service life. It is anticipated that a portion of this watermain may also need to be relocated to facilitate the installation of the proposed NEF. The extent of the relocation and related removals will be determined as the project design work proceeds. A new pressure reducing valve (PRV) chamber will also be constructed.

[17] The project's scope of work for each of the proposed local stormwater and wastewater/combined sewer infrastructure will include replacement/rehabilitation of the infrastructure due to condition and/or capacity concerns. The project's cost estimate

assumes the worst-case scenario of full replacement of this infrastructure. However, final decisions will be made on a case-by-case basis as design proceeds. Based on the PDB team's phasing plan, some of this infrastructure may be suitable for lining rather than full replacement. The application states that Halifax Water will identify cost-effective solutions for this infrastructure through collaboration with the PDB team during the design phase.

Regarding the proposed replacement of the NEF, CBCL issued a report in October 2019 that reviewed the potential options for a new shallow bury alignment for the water transmission main. The existing NEF, a difficult-to-access concrete transmission main that supplies most of the water to the north end of the Halifax peninsula, is nearing the end of its lifespan. In 2020, CBCL was the successful Request for Proposal (RFP) proponent for the NEF concept design through construction phase services. CBCL is currently working on refining the alignment for the NEF route. CBCL will complete the detailed design of the NEF under its current contract with Halifax Water, in coordination with the PDB team. The installation of the NEF within the WSE project limits will be completed as part of the overall project by the PDB team. The scope of the work includes a new 900 mm diameter transmission main and connection from this new main to a PRV chamber located in the right-of-way green space off Bayne Street.

The Kempt Road Stormwater Upgrades Project involves combined sewer separation and associated stormwater upgrades on Kempt Road to Bayne Street, which are critical to Halifax Water's strategy to accommodate growth within the Young Street area. WSP, a consultant retained by Halifax Water through an earlier competitive RFP process, finalized the concept alignment for the stormwater pipe along Kempt Road. The PDB team will integrate the concept alignment through the WSE project area into their

detailed design for the project and will design and construct the portion of the stormwater collector through this area as part of the overall project. The scope of work in the WSE Redevelopment Project includes a new 1,500 mm diameter stormwater pipe from the end of Kempt Road connecting to existing stormwater infrastructure on Bayne Street.

This application also included information about proposed onsite construction inspection services, in response to issues identified by the Board in its decision regarding the project's design fees (Matter M11999). Halifax Water explained that it intends to provide a full-time Halifax Water inspector to oversee the local infrastructure work within the WSE Redevelopment Project and provided a list of the inspector's roles. It noted that the inspector's cost is budgeted for three years (156 weeks), with the total cost divided equally among the budgets for local water, wastewater, and stormwater infrastructure improvements under "Internal Halifax Water Costs" (\$112,598 per infrastructure element).

[21] For onsite construction inspection services by others related to the project's local water, wastewater, and stormwater improvements, and the Kempt Road Stormwater Upgrades (within the WSE limits), Halifax Water explained that full-time construction inspection is included in the PDB team's construction cost, with the PDB team being the engineer of record.

[22] For the NEF component within the WSE limits, Halifax Water intends for CBCL to provide onsite construction inspection services, as CBCL is the engineer of record for the NEF. Halifax Water believes that during construction, it is more efficient for CBCL to coordinate unanticipated alignment conflicts with the PDB team than if Halifax Water were to provide NEF construction inspection services itself.

The application also listed other considerations the Utility relied on to justify CBCL providing full-time onsite inspection services for the NEF. The Utility stated that the estimated cost for CBCL to provide this service for a one-year (52-week) construction duration is approximately \$237,500, compared to \$210,000 for Halifax Water staff. However, the Utility noted that CBCL would require additional inspections by the Engineer of Record if Halifax Water staff provide onsite NEF inspection services. The Utility estimated that an additional \$40,000 would be required for the CBCL Engineer of Record to complete this additional work. Halifax Water estimated that the cost for CBCL to complete the Engineer of Record work with a CBCL inspector on site amounts to \$30,000 of the total \$237,500 estimated cost of inspection services for the NEF.

[24] CBCL developed an opinion of probable costs (OPC) for the WSE Redevelopment Project. The OPC included a preliminary cost share breakdown for unit rates, indirect costs, and overall construction project management items. The PDB team provided non-binding unit pricing on the quantities developed by CBCL's OPC, from which Halifax Water's cost estimates for this application are based.

[25] Based upon this information, a table in the application shows a breakdown of the five separate components of Halifax Water infrastructure included within the WSE Redevelopment Project. The Table also indicates, among other things, the items covered by the current funding request and the estimated costs of work outside of the HRM project area.

[26] The five items are described as:

- Windsor Street Exchange Redevelopment Water Infrastructure Construction.
- Windsor Street Exchange Redevelopment Wastewater Infrastructure Construction.

- 3. Windsor Street Exchange Redevelopment Stormwater Infrastructure Construction.
- 4. North End Feeder (NEF).
- 5. Young Street Pocket Sewer Separation Route to the Harbour.

[27] Halifax Water's initially-estimated project cost (\$69,275,000, inclusive of design costs) for the WSE Redevelopment Project work integrated with HRM's current project, is identified in items 1 through 5 above. This amount, the subject of the current application, consists of the entire costs of items 1 through 3, and the portion of items 4 and 5 that are within the WSE limits.

[28] For the current application, the primary driver for the WSE items (1-3) and the NEF (4) is asset renewal, to be funded through Halifax Water's debt and depreciation. For item 5 (Young Street Pocket) funding is to be based on 18.75% asset renewal driven (Halifax Water debt/depreciation funded), 75% growth driven (Regional Development Charge funded) and 6.25% to be funded by HRM, based on the Integrated Resource Plan (IRP). Halifax Water expects that the full cost of the project work will be finalized later this year upon completion of the various work package designs.

[29] Halifax Water believes there is a need to undertake the WSE work because many of the assets involved are nearing the end of their life, and parts of the system are reaching capacity constraints. The alternative to Halifax Water not proceeding with the project now is to wait until the completion of the HRM led WSE Redevelopment Project. Halifax Water does not recommend this option, as the delay could impact its ability to meet the IRP strategy, along with the additional costs, complexity, and significantly greater impact on the public associated with proceeding with two separate projects instead of one integrated project with HRM.

The application concluded by noting that, after pausing the WSE project on January 25, 2025, HRM Council voted to proceed with the project on February 25, 2025, as per the current funding agreement and PDB contract. Halifax Water is working with HRM and the PDB team on the continuation of the design process. The design schedule for the 60% and 90% deliverables for five "work package areas" was provided in the application and updated in the IR responses (Board IR-1d). The final 90% design submission (for construction work package 5) is not expected until the end of December 2025. The 90% design submissions for other construction work packages are due between July and September 2025.

3.0 RESPONSES TO INFORMATION REQUESTS

3.1 Responses to the Consumer Advocate and Board Counsel Consultants' IRs

- The CA's IRs focused on customer rate impacts associated with the project. Halifax Water responded that the project is expected to increase its annual revenue requirement by a total of approximately \$4.6 million across water, wastewater, and stormwater services. In response to CA IR-1, Halifax Water noted that it currently has a rate application before the Board (Matter M12257). Based upon the methodology used in that application, i.e., applying the associated increase in revenue requirements solely to consumption charges, the annual rate increases to the average residential customer resulting from the WSE project would be approximately \$19, or 1.8% in Year 1 and \$30, or 2.4% in Year 2.
- [32] Halifax Water responded to IRs from BCC that concentrated on the project's infrastructure elements, asking how and when Halifax Water will decide whether to

replace or rehabilitate local stormwater and wastewater infrastructure within the project. In response, Halifax Water explained that the road network design will impact decisions on replacement versus rehabilitation, and that it is actively working with the PDB team to make decisions as the design drawings advance.

Halifax Water also explained that the Utility's 2019 Infrastructure Master Plan (IMP) identified the need for a 1,050 mm stormwater pipe to accommodate growth in the project's area. However, it is currently sized at 1,500 mm diameter based on the results of a detailed modelling exercise to determine pipe size requirements. Regarding increases in construction costs since the completion of the 2019 IMP, Halifax Water stated that the Kempt Road stormwater upgrade costs were estimated in the IMP at approximately \$13 million and the current cost estimate is \$36 million. Halifax Water described the current cost estimate to be based on the specific project assessment that includes an increase in pipe size, assessment of pipe depth, allowances for bypass, a CN crossing, and coordination with HRM on the project.

3.2 Responses to Board IRs

[34] Halifax Water responded to two sets of IRs issued by Board staff that covered numerous issues related to the project.

[35] An updated design schedule for the 60% and 90% design deliverables for the five proposed project construction work package areas was provided (Board IR-1d)), as well as details on the specific scope of Halifax Water work within each of the work package areas (Board IR-6). Each work package includes tasks related to all five components covered by Halifax Water's funding request.

[36] The contract between HRM and the PDB team includes an "off-ramp" provision, as referenced in the project's design phase application (Matter M11999). This

provision allows either party to exit the contract if an agreement cannot be reached on the Phase 2 cost and commercial terms. Halifax Water explained that if HRM opts to use the "off-ramp" provision, the Utility will have no contractual relationship with the PDB team to proceed with the construction phase (Board IR-4). However, the pre-construction contract terms allow the Utility ownership of a complete design package (at the 90% project design stage) for all underground infrastructure work as part of the WSE Redevelopment Project.

[37] Halifax Water provided the age and break history of the watermain infrastructure to be replaced within the project scope. Each of the watermain sections described have reached or are nearing the end of their useful service lives and have recorded several leaks and/or breaks (Board IR-8).

[38] Halifax Water stated that it is actively working with the PDB team to make decisions on whether the local stormwater and wastewater infrastructure within the project area should be replaced or rehabilitated. The current cost estimates are based on replacement of this infrastructure and Halifax Water confirmed that if full replacement is not required, those materials and work will be removed from the scope of work, with the assumption that this will reduce the project cost estimate (Board IR-10) and (Board IR-11).

The Board's decision regarding the project's design phase (Matter M11999) directed Halifax Water to file the proposal from WSP for the detailed design of the Young Street/Kempt Road Sewer Separation project in advance of proceeding with the related design activities. The Board further stated that it expects Halifax Water to fully scrutinize the submitted proposal costs for the related services given that the budget for this task

and the proposal from WSP will not be subject to cost competition from others. In response to the current IRs, Halifax Water indicated at the time that it expected to have this proposal by the end of August 2025 (Board IR-13b)).

[40] Halifax Water stated that at the time of the application, a breakdown of the PDB team's full-time on-site inspection costs was not available. It added that the application includes the cost related to Halifax Water's share of the PDB team's Project Cycle Management (PCM) cost forecasted at the 30% design stage. The PCM cost was described as including the PDB team's project management process of planning, organizing, coordinating, and controlling the project effectively and efficiently through the construction phase. A list of items included in this task was provided in response to Board IR-15.

[41] Halifax Water provided the current estimated forecast of its share of the PCM cost, totaling \$7,330,882, broken down by each of the five project components. It noted:

The Halifax Water portion of the work is \$44,914,202 not including contingency. In this scenario, the PCM fee represents 16% of the total cost. The Halifax Water portion of the work is \$58,388,462 including contingency. In this scenario, the PCM fee represents 13% of the total cost.

[Exhibit H-5, Response to Board IR-48a)ii.a.]

[42] A draft copy of the construction cost sharing agreement between HRM and Halifax Water was filed. Halifax Water stated that it anticipates finalizing the agreement after receiving cost information from the PDB team and Board approval. It expects to execute the cost share agreement in November 2025 (Board IR-16b)i.).

[43] In response to BCC IR-1, Halifax Water confirmed that the PDB team identified capacity constraints in the existing local stormwater system in the project area in their active work packages. Inspection using Closed Circuit Television (CCTV) was

undertaken, and related Pipeline Assessment Certification Program (PACP) condition grades assigned to the existing local stormwater piping. In response to Board staff IRs, Halifax Water stated that the costs associated with design and construction to address capacity constraints and local stormwater pipe condition concerns will be included in the PDB team's final pricing submission. It added that when underground assets are exposed during construction, conditions may differ from what is expected even though Halifax Water and the PDB team have done their due diligence to minimize the risk. The Utility noted that it cannot guarantee there will not be any extra cost claims related to existing pipe conditions (Board IR-27).

In response to BCC IR-2, Halifax Water stated that it had not identified any capacity concerns for the combined/wastewater system in the project's active work packages. Halifax Water further confirmed it undertook CCTV inspection and that PACP condition grades were assigned to the existing local combined/wastewater piping. As design work is ongoing, it is too early to confirm that there will be no costs associated with addressing combined/wastewater capacity and pipe condition concerns (Board IR-28).

In response to BCC IR-4a, Halifax Water stated "Within the project area most of the sewer system is a combined system. Sewer separation will be completed along Kempt Road as part of the stormwater upgrade project." Halifax Water confirmed that there is no sewer separation work included in the project area except along Kempt Road (Board IR-29).

[46] The most current cost information for work packages 1 and 2 was provided in response to Board IR-30. This information was compared to the amounts included in the original application. The updated cost estimates for both packages have increased

beyond those included in the original application. Halifax Water noted that these work package areas are still under design and the cost information provided will be subject to future changes.

[47] Halifax Water provided spreadsheets of cost estimates for work packages 1 and 2. Halifax Water indicated in an earlier IR response (Board IR-2b)) that the cost estimate for each work package will be further divided into the WSE local water, wastewater, and stormwater, NEF and Young/Kempt Road elements to match the capital budget breakdown of expenditures identified in the original application. This information was not provided by the Utility in the format requested in Board IR-34.

[48] Halifax Water indicated that the 90% design submission from the PDB team will include 100% of Halifax Water's design and construction costs. Given the project's schedule, Halifax Water anticipates cost certainty on its portion of the project work around October 30, 2025 (Board IR-31).

[49] Halifax Water noted that project construction is expected to start in August/September 2025 under the "early works" portion of the Phase 1 agreement between HRM and the PDB team. Halifax Water described the "early works" scope to be within the five project work package areas, as identified in Halifax Water's response to Board IR-6N. The "early works" specific to Halifax Water include:

- Underground infrastructure on Forrester Street, extension to Bayne Street and share of reinstatement.
- Underground infrastructure on Mackintosh Street and share of reinstatement.
- Pipe materials for NEF in work package areas 1 and 3.

[50] The final cost for the "early works" was expected to be confirmed by the end of July 2025, with the rates for the "early works", like the rates for the remainder of the work, not procured competitively. (Board IR-33).

[51] Halifax Water explained that the May 12, 2025, start date for construction identified in the project schedule represented a potential start date for "early works" under the Phase 1 agreement at the time of preparing the schedule. It added that the overall project construction schedule will be updated with more detail once there is an agreement on the scope and cost of the "early works", and that based on current information, the "early works" portion was still anticipated to start in August/September 2025 (Board IR-36c)).

[52] Halifax Water explained its plans to ensure that the PDB team pricing for construction of subsequent work packages is reasonable and in the best interest of ratepayers:

CBCL will review the cost of the work as their role as the owner's engineer to validate construction costs by independently reviewing construction estimates to ensure alignment with the scope of work and industry standards. HRM also intend to procure an independent third-party cost consultant to review the final Phase 2 cost proposals submitted by the Design-Build team.

[Exhibit H-5, Response to Board IR-32e)i.a.]

[53] Halifax Water noted that work on the preliminary and detailed design reports related to the NEF is ongoing (Board IR-37).

[54] Halifax Water confirmed that only the existing stormwater system within the WSE will be upsized, with the combined system to remain the same size (Board IR-43).

In response to an IR requesting a copy of the resume for Halifax Water's proposed on-site inspector for the project, Halifax Water indicated that it does not maintain copies of its inspectors' resumes. A copy of the job description for the position of Engineering Technologist II (Capital Project Inspection) was provided (Board IR-47a)).

[56] Halifax Water explained its response to a previous Board question related to potentially using its own site inspector, rather than a CBCL inspector, for the NEF portion of the project:

For a project of this size and complexity, it is Halifax Water's recommendation that inserting a Halifax Water site inspector to report to the CBCL Engineer of Record has the potential to create more project risk, unnecessary confusion and delay in resolving design conflicts due to logistics and reporting relationships.

[Exhibit H-5, Response to Board IR-15b)i.]

[57] Halifax Water also provided a summary of what it considers potential additional risks related to having its own inspector report to the CBCL Engineer of Record. These include "fragmented oversight", "accountability gaps", "inconsistent quality control", "potential unnecessary confusion", and "potential causes of delay in resolving conflicts." (Board IR-48)

[58] Halifax Water indicated that the estimated construction time for the NEF portion of the WSE project is 87 weeks. This differs from the estimated 52 weeks of full-time inspection used in Halifax Water's project cost estimate in its original application and as noted in response to Board IR-15b) (Board IR-48c)i.).

[59] Also referring to the response to Board IR-15b), Halifax Water provided additional information on the cost estimate for the CBCL on-site inspection services for the NEF. The Utility also provided additional detail on costs related to its own proposed full-time inspector for the WSE local water, wastewater, and stormwater infrastructure improvement portions (Board IR-48d), f), g)).

[60] In response to the Board's inquiry about the dollar amount of the design and construction contingencies included in the project cost estimate, and where those contingencies appear in the cost breakdowns, Halifax Water clarified that the spreadsheet

provided by Halifax Water is based on 30% CBCL estimate rather than updated for 60% design of work packages 1 and 2 (Board IR-49d)).

In response to Board IR-49 and Board IR-52, Halifax Water revised the requested amount for Board approval resulting from a reduction in design contingencies and a revised HST amount, due to the recent lowering of provincial HST from 15% to 14%. The revised total project amount for which Halifax Water is seeking Board approval is \$66,836,000 (\$62,331,000 (Construction) and \$4,505,000 (Design) – approved in M11999).

In response to the Board's question about the "PDB Consultant Cost Allowance (Construction Phase)" in its original application, Halifax Water indicated this allowance was removed from the updated cost estimates provided in the response to Board IR-49, as the risk of concealed or unknown conditions will be managed through the project construction contingency allowance (Board IR-51a)ii.b.2.).

[63] Additional information was provided on CBCL's financial proposal regarding the NEF Inside Windsor Street Exchange Budget "Consultant Cost Allowance (Tender and Construction Phase line item) (Board IR-51b)i.). Halifax Water confirmed that construction of the NEF is not expected to involve trenchless construction. The Utility also confirmed that CBCL's trenchless technology sub-consultants will not be required for construction phase services during construction of the NEF within the WSE limits (Board IR-51b)iii., and Board IR-51b)iii.b.).

[64] On page 6 of Halifax Water's current application, Halifax Water stated that its proposed full-time site inspector role for the project would perform audit inspections on all Halifax Water's WSE infrastructure work, including local infrastructure improvements,

the NEF and the Kempt Road Stormwater upgrades. As such, Board staff questioned why Halifax Water included an additional cost of \$56,299 for NEF "Site Inspection Cost (Halifax Water Audit)", and \$86,614 for Kempt Road Stormwater Upgrades Feeder "Site Inspection Cost (Halifax Water Audit)" in its application. In response, Halifax Water noted that it inadvertently omitted the cost of audit inspections for the NEF and Kempt Road Stormwater projects in its application (Board IR-51c)ii. and Board R-51d)i.).

4.0 SUBMISSIONS

In its July 2, 2025, letter supporting the project, HRM noted that Board approval of Halifax Water's current application will allow the WSE Redevelopment Project to proceed in a timely manner to provide both a critical roadway connection within areas of HRM and provide for replacement of Halifax Water infrastructure that has reached the end of its useful life. It added that if the HRM-Halifax Water integrated project does not proceed at this time, costs to complete the project will be significantly higher in the future, with these increases borne by both HRM taxpayers and Halifax Water ratepayers. The letter concluded by stating:

HRM agrees with Halifax Water that the proposal by HRM represents fair value to Halifax Water rate payers, is consistent with Halifax Water's responsibility as a public utility and is as true an estimate as can reasonably be obtained at this stage of the project design process. HRM supports Halifax Water's request that the proposal be accepted as the basis for Halifax Water's responsibility for its water, wastewater and stormwater infrastructure under the Windsor Street Exchange Redevelopment Project.

[Exhibit H-6, p. 3]

The CA is not opposed to the project. However, the CA's submissions raise concerns about the potential for inaccuracies in the project's budget, which could impact water rates. The CA is particularly concerned about uncertainty in the ultimate project cost, noting risks associated with the current estimates only being based on a 30%

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design, the availability of external project funding, and cost implications related to future decisions on whether to replace or rehabilitate certain assets. As such, the CA recommended that the Board require Halifax Water to file a revised budget cost estimate upon completion of the project's final design and provide an update on the external funding application. The CA said that the revised budget should:

- include the revised total project cost estimate;
- indicate when asset refurbishment was selected rather than asset replacement with an explanation of the related cost implications; and
- explain any major drivers of cost changes from the current application to the final design budget.

Halifax Water's reply submissions referred to the CA's concerns, noting that the project cost estimates, currently based on a 30% design level, will continue to be developed as the design process advances. The Utility added that it recognizes the importance of clarity regarding its decisions on asset replacement versus rehabilitation, and the project's CHIF funding application. Halifax Water supports the CA's recommendation that an update on the project's federal funding and a revised budget, based on the final design, be provided to the Board and stakeholders when available.

5.0 FINDINGS

5.1 Confidentiality Request

[68] Halifax Water asked for confidential treatment of several of its IR responses. On September 15, 2025, the Board asked Halifax Water to provide written justification for its requests. Halifax Water filed its response on September 22, 2025, withdrawing its request for the confidential treatment of one IR response (Board RIR-26a)iii). Halifax Water explained that release of the remaining redacted information would disclose sensitive financial, commercial, or personal information.

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The Board reviewed Halifax Water's request for ongoing confidential treatment of the information contained in several of its responses to Board staff's IRs. No objections or requests to view confidential responses were received from any party. Halifax Water provided reasonable justification for maintaining confidentiality of the remaining information, on the basis that its release would disclose sensitive financial, commercial or personal matters to the detriment of Halifax Water or third parties. In accordance with *Board Regulatory Rule* 12(10)(b), the Board granted Halifax Water's request to keep the requested information confidential.

5.2 Project Costs

The Board has reviewed the information filed, including Halifax Water's responses to IRs and the parties' written submissions. The Board agrees with the CA that there are currently significant cost uncertainties with the application. This uncertainty results from the on-going evolution of the project design, continuing evaluation of whether to replace or rehabilitate infrastructure, and open questions of whether and when the Utility may receive external funding for the project. Given these project cost uncertainties and the project cost revisions submitted in IR responses, the Board has concerns about the accuracy of the current WSE Redevelopment Project cost estimate, particularly since the design is still evolving.

[71] Further, Halifax Water's letter to the Board dated June 19, 2025, to which it attached its responses to the second set of Board IRs, requested that the total project cost for Board approval be revised to \$66,837,000 (including net HST), due to a reduction of design contingencies and the revised net HST amount. This revision was included in the responses to Board IR-49 and Board IR-52. The Board notes that this revision does not reflect the updated construction costs from the response to Board IR-30. However, in

that response Halifax Water explained that cost information is still subject to change while the work packages identified are still under design. The Board directs Halifax Water to submit a compliance filing including the revised amount requested for Board approval. The updated cost estimates must be broken down by the five project components as per Attachment 4 of the application. The compliance filing is to be filed with the Board by November 14, 2025. The compliance filing is also to address other issues identified below.

The Board has reviewed the updated design schedules and scope descriptions for the 60% and 90% deliverables for the five work package areas. Halifax Water is directed to inform the Board of any future changes to the schedules and scope descriptions.

[73] The Board directs Halifax Water to inform the Board if HRM exercises its "off-ramp" provision that requires payment to the PDB team for design services up to the date the "off-ramp" is executed.

The Board has considered Halifax Water's rationale for replacement of water infrastructure included in the project scope and finds the proposed work to be reasonable and timely. The Board also notes that the current project cost estimate includes the cost of full replacement of the local stormwater and wastewater infrastructure within the WSE Redevelopment Project area. However, until confirmed by the final project design, full replacement of this infrastructure may not be required. The Board's expectation is that stormwater and wastewater infrastructure will be rehabilitated where it is cost-effective to do so. The Board, therefore, directs Halifax Water to advise the Board of changes to the proposed scope of work related to the local stormwater and wastewater

infrastructure. This should note where replacement is required and provide sufficient documentation to justify such replacement. Likewise, where rehabilitation of existing infrastructure is possible, the Utility shall detail the change in scope and resulting cost savings. Review of these issues will be a component of the Board's prudency review, as discussed below.

The Board understands that during construction, the condition of underground infrastructure assets may be found to differ from that assumed during the design phase. If this occurs, it could result in extra costs to address the "in situ" asset condition. Nonetheless, the Board expects Halifax Water to minimize project costs as much as possible, and to fully scrutinize any extra cost requests from the PDB team, particularly given this is a PDB project that generally lacks the competitive pricing procurement framework of a typical design-bid-build project. As such, at the end of the project, the Board intends to conduct a prudency review of all PDB team extra claims approved by Halifax Water as well as replacement versus rehabilitation decisions and related costs for infrastructure. The Board expects that Halifax Water will provide updates to the Board in semi-annual reports as the costs become more refined.

The information filed in this matter discussed the possible impact that this project may have on rates, with assumptions on the level of external funding and phasing-in depreciation levels on contributed assets. The Board notes that any rate implications will be dependent upon the outcome of Halifax Water's current general rate application, which is the subject of a separate matter before the Board (Matter M12257), as well as any future rate applications.

[77] Regarding Halifax Water's estimates of its share of the PCM costs as referenced in its response to Board IR-48a)ii.a., it appears that the estimates refer to CBCL's cost estimates that are based on the 30% design rather than the 60% design that has been completed for work packages 1 and 2 prior to the Board's review. Given that the more recent cost estimates are higher, the Board would expect that Halifax Water's share of the PCM cost will be higher than the \$7,330,882 referred to in the IR response. This reinforces the Board's concerns with rising costs.

[78] The Board also has concerns with Halifax Water's reasoning for using a consultant on-site inspector for the NEF portion of the WSE project rather than its own staff resources to provide this service. In its response to Board IR-15b)i., Halifax Water argued that use of its own inspector would create more project risk, as well as unnecessary confusion and delay in resolving design conflicts due to logistics and reporting relationships. In response to Board IR-48b), the Utility also stated that use of its own inspector could create accountability gaps, dual reporting lines, unclear communication channels, slower decision making, and an increased communication burden. The Board notes, however, that Halifax Water often provides inspection services on projects that have been designed by consultants. As such, the Board would expect that Halifax Water would know how to address these concerns and risks.

[79] In response to Board IR-48b), Halifax Water also stated that using its own on-site inspector on the NEF component rather than a consultant on-site inspector would result in fragmented oversight and potential for misaligned priorities between Halifax Water and the consultant's Engineer of Record. However, the Board finds that the Utility provided no explanation why a Halifax Water inspector would have "misaligned priorities"

with the Engineer of Record. Nor does it appear reasonable to the Board that the priorities of Halifax Water and the Engineer of Record would be misaligned, as both entities have been collaborating throughout the design process to ensure the project meets the Utility's goals. Further, it is the Board's understanding that the Halifax Water inspector can contact the Engineer of Record to clarify design intent if issues arise during construction, which is typically what happens when a consultant inspector is on site. In the same IR response, Halifax Water also suggested that its own inspector might apply different standards or expectations than those of the consultant, which could potentially lead to inconsistent enforcement of design details. The Board notes, though, that many of the project's design and construction standards and details will be required to meet Halifax Water's own requirements, with which a Halifax Water inspector should be very familiar. Further, the Board sees no reason why expectations for design and construction standards could not be confirmed between the Halifax Water inspector and the Engineer of Record in advance of construction.

[80] The Board also notes that there appears to be errors and/or inconsistencies in the spreadsheets and information filed in Halifax Water's IR responses related to the NEF on-site inspection cost estimates. In response to Board IR-48c)i., Halifax Water stated that the estimated duration for construction of the NEF within the WSE Redevelopment project area is 87 weeks. However, per the Utility's response to Board IR-15b), the application's project cost estimate assumes a 52-week period of NEF construction. Perhaps full-time inspection is not required over the currently envisioned 87-week period, but the Board notes that if full-time inspection extends longer than 52 weeks, the cost of the project will increase. In addition, in response to Board IR-48d)i.,

Halifax Water confirmed that the consultant's cost for its on-site NEF inspector is based on fewer than 50 hours per week of inspection services. However, the RFP for these services stipulated the provision of 50 hours per week of on-site inspection. If, in fact, 50 hours per week are provided, the consultant's NEF on-site inspection cost will increase.

The Board also notes an error in Halifax Water's attachment to its response to Board IR-48f)i. The IR asked Halifax Water to provide documentation to support the calculation of the hourly rate for a Halifax Water on-site inspector for the NEF component of the project. In the spreadsheet supporting the Utility's calculation of the hourly rate, Halifax Water assumed the inspector would provide 60 hours per week on on-site inspection services, inclusive of overtime hours. However, the Utility only used 50 hours per week when calculating the average hourly rate for the inspector. This error results in Halifax Water's calculated average hourly rate for its inspector being overstated by 20%. Further, in allowing for 60 hours per week for a Halifax Water inspector for the NEF component, the Utility has not presented an "apples to apples" cost comparison with the consultant's inspector cost, which is based on fewer than 50 hours per week of on-site inspection services (per the response to Board IR-48d)i).

The Board, therefore, used the attachment to Board IR-48f)i. to calculate the Halifax Water's NEF inspector cost using the number of NEF inspection hours noted in response to Board IR-48d)i. The Board's calculation shows a cost savings of approximately \$90,000 if a Halifax Water inspector is used on the NEF component instead of a consultant inspector. However, per Halifax Water's response to Board IR-15b)iv., this would be offset by \$40,000 in additional consultant costs for additional inspections by the Engineer of Record. In addition, based on Halifax Water's response to Board IR-51c), it

appears that if the consultant provides on-site inspection for the NEF component, Halifax Water will spend an additional \$56,299 to complete its own audit inspections of this infrastructure. However, if Halifax Water provides its own inspector to provide on-site inspection services for the NEF, the Board has assumed that the audit inspections and related cost would not be required.

This notwithstanding, the actual cost saving associated with using a Halifax Water inspection on the NEF component is \$239,750, as the cost of Halifax Water's inspector is sunk. It is included in the project capital cost but, in turn, is excluded from the Utility's operating and maintenance costs (otherwise the cost would be double counted in the Utility's revenue requirements). On the other hand, the consultant cost for on-site inspection is incremental (Board IR-48g)iii.a.), to Halifax Water. Halifax Water's response to Board IR-48g)iii., stated that Halifax Water staff costs that are capitalized are charged back to services through depreciation and that, in effect, capitalized staff costs are treated the same way as if a consultant provided the service. While this is true, the Board's understanding is that Halifax Water's staff costs that are capitalized are also removed from operating and maintenance costs for revenue requirement purposes, producing savings outside of the project budget.

In prior matters, the Board has been encouraging Halifax Water to use its own staff for provision of on-site construction inspection services to lower the overall costs of its capital projects. The Board sees no reason this cannot be done for the NEF component of the WSE Redevelopment Project, offering cost savings for ratepayers. The Board, therefore, does not approve of the costs of a consultant on-site inspector for the NEF. If Halifax Water uses a consultant on-site inspector for the NEF, the extra costs will

not be recoverable from ratepayers and will not be included in the final approved project cost. Halifax Water is directed to update the requested project approval amount accordingly, and detail any variances, via its compliance filing.

[85] Based on Halifax Water's responses to Board IR-51c) and d) and Board IR-18e) and f), the Utility has included audit inspection costs for the NEF and Kempt Road stormwater infrastructure in its requested project approval amount. If CBCL were to provide on-site inspection services for the NEF, a sum of \$56,299 would be required for Halifax Water's audit inspection. Since the Board has directed Halifax Water to provide its own on-site inspector for the NEF, this audit inspection cost will not be required. As such, in its compliance filing, Halifax Water is directed to remove this cost from its "Future Halifax Water Costs" line item for the NEF component of the project.

[86] In its response to Board IR-51b)iii., Halifax Water confirmed that construction of the NEF is not expected to involve trenchless construction, and that CBCL's sub-consultants for trenchless construction will not be required during construction. As such, the cost of the trenchless sub-consultants should be removed from CBCL's cost for construction phase services. Further, the Board would expect that the services of these sub-consultants would not be required during detailed design of the NEF. These costs should, therefore, be removed from the amount previously approved by the Board under Matter M11999. Halifax Water is directed to include in its compliance filing its calculations showing the removal of all amounts related to trenchless subconsultant construction phase services from the amount requested for Board approval.

- [87] In addition to the Board's directives on the compliance filing described above, the Board directs Halifax Water to file the following:
 - An updated detailed project cost estimate upon completion of the project's final design and submission of the final Phase 2 PDB cost proposal. The updated estimate must include:
 - an indication of where asset refurbishment has been identified as the preferred option rather than asset replacement, including the cost implications; and
 - a brief explanation of any major drivers of changes in cost (decreases and increases) from the current application to the final design budget.
 - 2. An update on Halifax Water's external funding application on or before the completion of the project's final design.
 - 3. As previously directed in the Board decision for the project's design phase (Matter M11999), the proposal from WSP for the detailed design of the Young Street/Kempt Road Sewer Separation project with the Board prior to proceeding with the related design activities.
 - 4. A copy of the project's construction cost sharing agreement between HRM and Halifax Water when the design-build team's cost information is received.
 - 5. A list of all storm sewers, wastewater sewers, and watermains intended to be replaced, rehabilitated, or left in the current condition at the time of filing the final Phase 2 design-build team cost with the Board.
 - 6. Confirmation of the final cost for the early works portion of the Phase 1 agreement between HRM and the design-builder, and whether HRM accepted the early works pricing of the Phase 1 agreement.
 - 7. The results of the analyses described in relation to the response to Board IR-32e)i.a., which states:
 - CBCL will review the cost of the work as their role as the owner's engineer to validate construction costs by independently reviewing construction estimates to ensure alignment with the scope of work and industry standards. HRM also intend to procure an independent third-party cost consultant to review the final Phase 2 cost proposals submitted by the Design-Build team.
 - 8. An amended response to Board IR-34a) to provide the updated project cost estimate from CBCL, broken down by project WSE wastewater, WSE stormwater, NEF and Young/Kempt Road projects to match the breakdown of capital budget expenditures in the application. This breakdown is to be filed with all subsequent cost estimate updates filed with the Board.

- 9. Preliminary and detailed design reports related to the NEF when they are complete.
- 10. Updated filings of the construction schedule and include identification of the line items that are included in each of Work Package numbers 1, 2, 3, 4 and 5.
- 11. Semi-annual (every six months) project costs updates commencing April 30, 2026, until project completion.

6.0 CONCLUSION

- [88] The Board approves the proposed project in principle, subject to the compliance filing to be filed by November 14, 2025.
- [89] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 23rd day of October 2025.

Julia E. Clark

Steven M. Murphy

Bruce H. Fisher