Water Resources Division
Resource Management Directorate
Nunavut Regional Office
918 Nunavut Drive
Iqaluit, NU, X0A 3H0

Your file - Votre référence
3AM-IQA1626
Our file - Notre référence
GCDocs#139252495

July 28, 2025

Robert Hunter
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's review of the City of Iqaluit 2024 Annual Report for Type A Water Licence No. 3AM-IQA1626 in the Qikiqtani Region of Nunavut

Dear Mr. Hunter,

Thank you for the May 5, 2025 invitation to review the City of Iqaluit 2024 Annual Report and corresponding Appendixes A through G, for Type A Water Licence No. 3AM-IQA1626. As directed by the Nunavut Water Board on December 3, 2024, the 2024 Annual Report was to also address intervener outstanding comments from the City of Iqaluit 2021, 2022, and 2023 Annual Reports.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) reviewed the 2024 annual report pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. **CIRNAC has 1 unresolved recommendations from the 2021 Annual Report, 4 unresolved recommendations from the 2022 Annual Report, 9 unresolved recommendations from the 2023 Annual Report, and 18 recommendations for the 2024 Annual Report.** Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact Michelle Blade at michelle.blade@rcaanc-cirnac.gc.ca or Andrew Keim at andrew.keim@rcaanc-cirnac.gc.ca.

Sincerely,
Michelle Blade – Regulatory and Science Advisor

Submitted by
Joyce Demers B.Sc – A/ Manager of Water Resources

Technical Review Memorandum

Date: July 28, 2025

To: Robert Hunter, Licensing Administrator, Nunavut Water Board

From: Michelle Blade, Regulatory and Science Advisor, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's review of the City of Iqaluit 2024 Annual Report for Type A Water Licence No. 3AM-IQA1626 in the Qikiqtani Region of Nunavut

Region: ☐ Kitikmeot ☐Kivalliq ☒Qikiqtani

A. BACKGROUND

The City of Iqaluit (City) was issued Water Licence No. 3AM-IQA1626 on June 17, 2016, for a 10-year period that expires June 16, 2026. Water Licence No. 3AM-IQA1626 authorizes the following activities, works, and undertakings:

- Use, management, and protection of the Lake Geraldine drainage basin.
- Management and protection of waters surrounding the West 40 Landfill site.
- Management, collection, and monitoring of leachate from the West 40 Landfill site and adjacent Sludge Management Facility.
- Management of improved drainage works at the West 40 Landfill site.
- Management, operation, and eventual closure and reclamation of the current West 40 Landfill site and associated solid waste disposal facilities.
- Upgrades, operation, maintenance, monitoring, and eventual closure and reclamation of a Wastewater Treatment Plant (WWTP).
- Operation, maintenance, monitoring, and eventual closure and reclamation of a Sludge Management Facility.
- Operation, maintenance, monitoring and eventual closure and reclamation of a Sewage Lagoon Facility.
- Implementation of contingency measures for the Wastewater and Landfill management facilities.
- Implementation of changes to the monitoring requirements including frequency, parameters, and stations being monitored.

Since the Licence was issued in 2016, the City has applied for and received a series of amendments to the Licence. The following are relevant to the period covered by the City of Iqaluit's 2023 Annual Water License Report:

- Amendment No. 4
  - effective April 1, 2020

- allows seasonal replenishment of Lake Geraldine Reservoir from the Niaqunguk River (Apex River)

❖ Amendment No. 5
- effective March 15, 2021
- allows for construction and operation of new solid waste management facilities and water use from Imiqtarviviniq Lake (Dead Dog Lake)

❖ Amendment No. 6
- effective October 15, 2021
- allows for construction, operation, and removal of temporary facilities to truck water from the Sylvia Grinnell River
- expired upon resolution of the state of emergency

❖ Amendment No. 7
- effective August 22, 2022
- allows replenishment of the Lake Geraldine Reservoir through withdrawal of water from an unnamed lake to the Niaqunguk (Apex) River and an increase in withdrawal from the Apex River
- expired upon completion of the temporary withdrawals required to replenish the Lake Geraldine Reservoir in 2022

In the 2022 Annual Report, the City of Iqaluit reports that Amendment No. 7 was not implemented.

Through the amendments, the quantity of water withdrawal permitted has increased from 1,100,000 m3 extracted annually from the Lake Geraldine Reservoir, authorized under Water Licence No. 3AM-IQA1626 issued in 2016, to the current annual withdrawal limits:

- 2,000,000 m3 from the Lake Geraldine Reservoir (Amendment 4, 2020)
- 500,000 m3 from Niaqunguk River (Apex River) for transfer to Lake Geraldine Reservoir (Amendment 5, 2021)
- 2,500 m3 from Imiqtarviviniq Lake (Dead Dog Lake) (Amendment 5, 2021)

CIRNAC conducted an inspection on July 17, 2024.

CIRNAC reviewed the 2024 Annual Report pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. As directed by the Nunavut Water Board on December 3, 2024, the 2024 Annual Report was to also address intervener outstanding comments from the City of Iqaluit 2021, 2022, and 2023 Annual Reports. **CIRNAC has 1 unresolved recommendations from the 2021 Annual Report, 4 unresolved recommendations from the 2022 Annual Report, 9 unresolved recommendations from the 2023 Annual Report, and 18 recommendations for the 2024 Annual Report.**

A summary of the subjects of CIRNAC's comments and recommendations regarding the renewal application can be found in Table 1. Documents reviewed as part of this submission

can be found in Table 2 of Section B. Detailed technical review comments are in Section C (2021 Annual Report), Section D (2022 Annual Report), Section E (2023 Annual Report), and Section F (2024 Annual Report).

Table 1: Summary of CIRNAC Comments and Recommendations

Subject	Recommendation Number	Status
Water withdrawal reporting	R-01 on 2022 Annual Report R-13 on 2023 Annual Report	2022 – Unresolved 2023 – Resolved 2024 – Unresolved (R-01)
Wastewater discharge reporting	R-01 on 2023 Annual Report	2023 – Resolved 2024 – Unresolved (R-02)
Dam Safety Inspections/Dam Safety Reviews	R-09 on 2023 Annual Report R-10 on 2023 Annual Report	2023 – Unresolved 2023 – Resolved 2024 – Unresolved (R-03 & R-04)
Sludge removal reporting	R-01 on 2022 Annual Report	2022 – Resolved
Waste disposal reporting	R-02 on 2022 Annual Report	2022 – Resolved 2024 – Unresolved (R-05)
Monitoring Program reporting	R-02 on 2021 Annual Report R-03 on 2022 Annual Report R-02 & R-11& R-14 on 2023 Annual Report	2021 – Resolved 2022 – Unresolved 2023 – Unresolved 2024 – Unresolved (R-06 & R-16)
Construction activity reporting	R-04 on 2022 Annual Report R-03 on 2023 Annual Report	2022 – Resolved 2023 – Unresolved 2024 – Unresolved (R-07)
Water Treatment and Waste Treatment Facilities modification/maintenance reporting	R-04 on 2023 Annual Report R-12 on 2023 Annual Report	2023 – Resolved 2023 – Unresolved 2024 – Unresolved (R-08 and R-16)
Reporting on studies requested by the board	R-03 on 2021 Annual Report R-09 & R-10 on 2022 Annual Report R-06 & R-15 on 2023 Annual Report	2021 – Resolved 2022 – Resolved 2023 – Unresolved

		2024 – Unresolved (R-13)
Revisions to Plans, Manuals and Reports approved under the Licence	R-04 on 2022 Annual Report R-08 on 2023 Annual Report	2022 – Unresolved 2023 – Resolved 2024 – Unresolved (R-09)
Spill reporting and follow-up actions	R-01 on 2021 Annual Report R-06 on 2022 Annual Report R-07 on 2023 Annual Report	2021 – Unresolved 2022 – Unresolved 2023 – Unresolved 2024 – Unresolved (R-10 & R-17 & R-18)
Reporting on closure and reclamation work		2024 – Unresolved (R-11)
Reporting on actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports	R-07 on 2023 Annual Report	2023 – Resolved 2024 – Unresolved (R-18)
Updates on implementation plan, including changes and status of the Upgraded Wastewater Treatment Plant	R-05 on 2023 Annual Report	2023 – Resolved 2024 – Unresolved (R-12)
Review of procedures for packaging, storage, and shipment of harmful hazardous waste	R-07 on 2022 Annual Report	2024 – Unresolved (R-14)
Update on landfill capacity		2024 – Unresolved (R-15)

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

Document Title, Author, File No., Rev., Date
Nunavut Water Board. 3 December 2024. City of Iqaluit 2023 Annual Report for Water Licence 3AM-IQA1626.
CIRNAC; 221005 3AM-IQA1626 2021 Annual Report CIRNA Comments-IMLE; October 5, 2022. Crown-Indigenous Relations and Northern Affairs Canada's Review of City of Iqaluit's 2021 Annual Report for Water Licence 3AM-IQA1626.
CIRNAC; 230821 3AM-IQA1626 2022 Annual Report CIRNA Comments-ILAE; August 22, 2023. Crown-Indigenous Relations and Northern Affairs Canada's review of the City of Iqaluit 2022 Annual Report for Type A Water Licence No. 3AM-IQA1626 in the Qikiqtani Region of Nunavut.
Carsten Slama (DFO); 23-HCAA-02636; March 25, 2024. Apex River Water Withdrawal – Request for Water Withdrawal to Exceed 10% of Instantaneous Discharge – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat.
CIRNAC; 240806 3AM-IQA1626 2023 Annual Report CIRNAC comments-IMLE; August 6, 2024. Crown-Indigenous Relations and Northern Affairs Canada's review of the City of Iqaluit 2023 Annual Report for Type A Water Licence No. 3AM-IQA1626 in the Qikiqtani Region of Nunavut.
Meco; 10612_TMR_Lake Geraldine 2024 DSI_Draft_20141020; October 20, 2024. City of Iqaluit, Dam Safety Inspection (DSI), Lake Geraldine Dam.
City of Iqaluit; 241101 3AM-IQA1626 2023 Annual Report Response to Review-IMLE; November 1, 2024. City of Iqaluit Water Licence 3AM-IQA1626 2023 Annual Report Review Response.
CIRNAC; 241129 3AM-IQA1626 2023 Annual Report Response CIRNA Comments-IMLE; November 29, 2024. Crown-Indigenous Relations and Northern Affairs Canada's reply to the City of Iqaluit's response on the review comments of the City of Iqaluit 2023 Annual Report for Type A Water Licence No. 3AM-IQA1626.
Nunami Stantec Limited; Project Number: 144903520; November 29, 2024. Project Summary Report: Iqaluit 2024 Lake Geraldine Resupply (Apex River Supplementary Pumping Program): Report of Activities 3AM-IQA1626 (DRAFT).
Mitchelmore Consulting International Limited (Meco); 10612_REP_DSR_Lake Geraldine Dam_Final_20250217; February 17, 2025. Report on 2024 Dam Safety Review, Lake Geraldine Dam, Iqaluit, NU.
City of Iqaluit; 250502 3AM-1QA1626 - City of Iqaluit - 2024 Annual Report-ILAE; May 2, 2025. City of Iqaluit Water Licence 3AM-IQA1626 2024 Annual Water License [sic] Report.
City of Iqaluit; 250502 3AM-1QA1626 - City of Iqaluit - 2024 Annual Report-ILAE; May 2, 2025. City of Iqaluit Water Licence 3AM-IQA1626 2021 - 2023 Annual Report Review Responses.
City of Iqaluit; 250502 3AM-1QA1626 - City of Iqaluit - 2024 Annual Report-ILAE; May 2, 2025. City of Iqaluit Water Licence 3AM-IQA1626 2024 Annual Water License [sic] Report, Appendix E Spill Reports.

Document Title, Author, File No., Rev., Date
City of Iqaluit; 250502 3AM-1QA1626 - City of Iqaluit - 2024 Annual Report-ILAE; May 2, 2025. City of Iqaluit Water Licence 3AM-IQA1626 2024 Annual Water License [sic] Report, Appendix G West 40 Landfill Survey.
City of Iqaluit; 250502 3AM-1QA1626 - City of Iqaluit - 2024 Annual Report-ILAE; May 2, 2025. City of Iqaluit Water Licence 3AM-IQA1626 2024 Annual Water License [sic] Report, Appendix B Laboratory and Field Sampling Results.
City of Iqaluit; undated. City of Iqaluit General Spill Response Plan for Properties in the City of Iqaluit
Nunavut Water Board. 2016. Type “A” Water Licence No. 3AM-IQA1626. Issued to the City of Iqaluit. Dated June 17, 2016.
Nunavut Water Board. 2019. Licence No. 3AM-IQA1626 – City of Iqaluit; Amendment No. 4 – Seasonal Replenishment of Lake Geraldine Reservoir from the Niaqunguk River (Apex River). Dated September 14, 2019.
Nunavut Water Board. 2021. Licence No: 3AM-IQA1626 – City of Iqaluit; Amendment No. 5 – New Solid Waste Management Facility and Additional Water Source. Dated March 15, 2021.

C. LICENSEE RESPONSE TO CIRNAC UNRESOLVED RECOMMENDATIONS ON THE 2021 ANNUAL REPORT

1. Quantify and report the volume of spills or unauthorized discharges in the future

CIRNAC Recommendation on 2021 Annual Report:

CIRNAC recommends that the licensee make efforts in quantifying and reporting the volumes of spills or un-authorized discharges in the future.

CIRNAC Comment on the City of Iqaluit’s Response:

The City continues to not provide information on the volume of spills. The City’s response provided in the 2023 Annual Report that spill volumes typically do not exceed 100 litres raises concerns. If precise quantification is challenging, it is unclear how the city can guarantee that spill volumes are less than 100 litres. Additionally, while the Spill Line has a limit of 100 L as their reporting threshold, that is not the same for the water license where all uncontrolled releases of waste that may affect water are required to be reported. This is a requirement of the water license and failure to comply brings the proponent into non-compliance. The City is strongly encouraged to address this issue.

City of Iqaluit Response to CIRNAC’s Response:

The comment is acknowledged. Moving forward, the City will quantify the volume of spills to the best of our ability based on the information available.

Additionally, the City will report all spills, irrespective of their volume, as it has been doing since 2021.

CIRNAC Comment on the City of Iqaluit's Response:

A total of only four spills were reported in the 2024 Annual Report, and three of the four spill reports did not include a volume of spill. CIRNAC requests confirmation that the City is recording volume of spills in 2025 and will be reporting them in the 2025 Annual Report.

Status:

Unresolved. CIRNAC repeats recommendation.

D. LICENSEE RESPONSE TO CIRNAC UNRESOLVED RECOMMENDATIONS ON THE 2022 ANNUAL REPORT

3. Sampling for the monitoring and QA/QC program

CIRNAC Recommendation on 2022 Annual Report:

(R-03b) CIRNAC recommends the City of Iqaluit update the 2022 Annual Report with the sample results from S::CAN monitoring device located at the water treatment plant in the 2022 Annual Report.

(R-03e) CIRNAC recommends the City of Iqaluit review and update operating procedures for pH control in the treated water entering the treated water reservoir to meet CDWQG.

CIRNAC Comment on the City of Iqaluit's Response:

(R-03b) The requested information was not provided in the updated 2022 Annual Report or 2023 Annual Report. Comment makes reference that data from S::CAN is similar to grab samples collected by plant operators, but readings for hydrocarbons do not appear to be included in the daily log sheets for the WTP. The City of Iqaluit made comment about limited storage capacity for S::CAN system, but there is reference in the Water Treatment Plant Report (Appendix C of 2023 Annual Report) that the data is stored and they have capability to review present and historical data. A plot of the S::CAN data should be provided annually in the Annual Reports if there are issues with data storage.

(R-03e) In 2015 the Canadian Drinking Water Quality Guideline (CDWQG) for pH was updated to be 7-10.5 for treated water. Monthly third-party laboratory results included in the 2022 and 2023 Annual Reports along with the 2023 WTP log sheets included in appendix F of the 2023 Annual Report regularly have pH readings on finished water below the CDWQG guideline. Review of the WTP O&M manuals indicated that a caustic soda system is included at the WTP for treated water pH control, however an updated operating procedures for pH control in the treated water entering the treated water reservoir to meet CDWQG is not included.

City of Iqaluit Response to CIRNAC's Response:

(R-03b) Unfortunately, S::CAN data is only stored for a limited timeframe and as a result the City does not have the S::CAN data from previous years. We are working with an engineering consultant, WSP and the S::CAN provider to ensure we can provide for the S::CAN data required moving forward.

(R-03e) We have provided the updated operating procedures for the Water Treatment Plant in appendix A. The City is consistently working to ensure that our water quality meets CDWQG.

CIRNAC Comment on the City of Iqaluit's Response:

(R-03b) S::CAN data was not provided as in the revised 2023 Annual Report nor in the 2024 Annual Report. It is acknowledged that the 2023 data would not be available due to storage issues, however no data was provided in 2024 following CIRNAC 2023 recommendations. CIRNAC recommends the City submit updated S::CAN device downloading and data storage procedures with their response to the 2024 Annual Report comments.

(R-03e) The City of Iqaluit response indicates that operating procedures have been updated for the WTP. Review of 2024 WTP log sheets indicate that the pH recorded was regularly below the GCDWQ 7.0. CIRNAC recommends the City provide an update on steps taken to meet pH guideline.

Status:

R-03b – Unresolved. CIRNAC repeats recommendation.
R-03e – Unresolved. CIRNAC repeats recommendation.

5. Updated plans, manuals, and reports in 2022

CIRNAC Recommendation on 2022 Annual Report:

(R-05) CIRNAC recommends the City of Iqaluit update the 2022 Annual Report and corresponding documents to address Schedule B item j of the Water Licence. The plans, manuals, and reports to be addressed include, but are not limited to, the following:

- March, May, and June 2022 revisions to the General Site Information and Guide for the Iqaluit Water Treatment Plant,
- March 2022 Iqaluit Water Treatment Plant Operation and Maintenance Manual,
- City of Iqaluit Operations and Maintenance Manual Landfill and Waste Transfer Station (Aug 2022 Version 6.0),
- Updates to WWTP Operations and Maintenance Manual following substantial completion/commissioning, and
- Updates to the Iqaluit Water Treatment Plant Operation and Maintenance Manual to reflect the modifications of the filters to GAC media.

CIRNAC Comment on the City of Iqaluit's Response:

The updated 2022 Annual report, section J makes reference to updates that were completed to the respected O&M manuals. The text in the report does not include references to the wastewater treatment plant that had final completion in 2022 nor modifications to the process of the water treatment plant so it is unclear what was updated in these manuals.

The versions of the Iqaluit Water Treatment Plant Operation and Maintenance Manuals provided for review do not reflect the modifications of the filters to GAC media (it is listed as pending and has details on the old filter media throughout).

City of Iqaluit Response to CIRNAC's Response:

(R-05a) The May and June 2022 revisions to the General Site Information and Guide for the Iqaluit Water Treatment Plant are provided in the Appendix. However, there were no changes to the General Site Information and Guide in March. There were only updates to the Operation & Maintenance Manual in 2022.
(R-05b) The March 2022 Iqaluit Water Treatment Plant Process, Mechanical and Electrical Operation and Maintenance Manual are provided in the Appendix.
(R-05c) The Landfill and Waste Transfer Station are not yet commissioned. Once there are commissioned the City will provide the Operations and Maintenance Manuals for both facilities.
(R-05d) The City is awaiting a response from WSP and will provide this document once a response is received.
(R-05e) The latest version of the Operation and Maintenance Manual reflects the modifications to the GAC media at the time of the O&M publication. The January 2024 Operation and Maintenance Manual is provided the Appendix.

CIRNAC Comment on the City of Iqaluit's Response:

General Site information and Guide for the Iqaluit Water Treatment Plant was provided for review, along with the 2022 updated Iqaluit Water Treatment Plant Process, Mechanical and Electrical Operation and Maintenance Manual.

The updated WWTP Operations and Maintenance Manual following substantial completion was not provided (City is waiting on response from consultant WSP).

The latest version of the WTP O&M manual, updated in January 2024 was provided for review. Reference to the January 2024 update was not included in section J of the 2024 Annual Report (Any revisions required in the form of addenda, to Plans, Manuals and Reports approved under the License).

CIRNAC recommends that the remaining documents for the Landfill and Waste Transfer station, wastewater treatment plant and water treatment plant be submitted.

Status:
R-05a – Resolved.
R-05b – Resolved.
R-05c – Unresolved. CIRNAC repeats recommendation.
R-05d – Unresolved. CIRNAC repeats recommendation.
R-05e – Unresolved. CIRNAC repeats recommendation.

6. Un-authorized discharges and spills

CIRNAC Recommendation on 2022 Annual Report:
(R-06b) CIRNAC recommends the City of Iqaluit specify the most common causes of spills and unauthorized discharges in the 2022 Annual Report, and submit an updated Spill Contingency Plan that addresses these causes.

CIRNAC Comment on the City of Iqaluit's Response:
The city's response adequately specifies the most common causes of spills, as requested. However, it does not address the submission of an updated Spill Contingency Plan that incorporates these causes, leaving this aspect of the recommendation unmet. Additionally, the city's assurance that spill volumes typically do not exceed 100 litres raises concerns. If precise quantification is challenging, it is unclear how the city can guarantee that spill volumes are less than 100 litres. Therefore, the response is partially adequate but lacks comprehensive action and assurance regarding spill volumes.

City of Iqaluit Response to CIRNAC's Response:
The causes of spills have evolved over the years. Initially, the City experienced spills due to failing infrastructure. In 2021, the City recorded approximately 10 spills. Since then, the City has addressed these issues, leading to a reduction in spills recorded year-round. The City has recorded 4 spills since January 2024, primarily due to blockages in the sewer system caused by trash, clothing, or random waste.

The most common cause of spills experienced by the City of Iqaluit is caused by sewage back ups. These backups can be caused by pipe failure, foreign objects in the wastewater collection system and grease or sludge accumulation to name a few. City Public Works work to repair damaged lines as soon as the need for repair is identified. In addition, the City is planning to incorporate an annual sewer cleaning and CCTV inspection program to identify potential problem areas and address them prior to experiencing back ups. The City will also develop a public Information program to remind residents of what can and cannot go into the wastewater collection system.

The City has recently drafted a spill response plan that will be updated as required.

CIRNAC Comment on the City of Iqaluit's Response:
An updated Spill Contingency Plan that specifies the most common causes of spills and unauthorized discharges and incorporates these causes into the Plan has not been submitted to the Nunavut Water Board for review. CIRNAC recommends an updated Spill Contingency Plan is submitted.

Status:
R-06b – Unresolved. CIRNAC repeats recommendation.

8. Withdrawals from Niaqunguk (Apex) River

CIRNAC Recommendation on 2022 Annual Report:
(R-08a) CIRNAC recommends the City of Iqaluit update the 2022 Annual Report with the daily water levels and/or flow rates in the Niaqunguk River when withdrawals occurred at Monitoring Station IQA-10 for Period 1 (between June 12 and September 12, 2022).

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit requested a brief extension to provide the updated report that includes the daily water levels and flow rates from June 1 to September 12, 2022.

City of Iqaluit Response to CIRNAC's Response:
The daily flow rates from June 6 to September 12, 2022, are provided in the Appendix.

CIRNAC Comment on the City of Iqaluit's Response:
Flow rates recorded in 5-minute intervals were provided for the period from June 12 to September 12, 2022.

Status:
R-08a – Resolved.

9. Supplementary Lake Geraldine Water Balance Modelling for 2022

CIRNAC Recommendation on 2022 Annual Report:
(R-09b) CIRNAC recommends the City of Iqaluit conduct a bathymetric survey in 2023 and include a comparison of it to the bathymetry used for the Lake Geraldine Water Balance modelling in the 2023 Annual Report.

CIRNAC Comment on the City of Iqaluit's Response:

It is understood that weather delays prevented completion of this item before submission of the 2023 Annual Report. CIRNAC recommends an updated schedule and plan be provided to complete this work.

City of Iqaluit Response to CIRNAC's Response:

The City of Iqaluit contracted GeoVerra to complete a bathymetric Survey in 2024. The results have been sent to our engineering consultant WSP to update the water balance model.

CIRNAC Comment on the City of Iqaluit's Response:

CIRNAC understands that the Bathymetric Survey is now complete, and the Lake Geraldine Water Balance modelling is ongoing. CIRNAC recommends an updated schedule for completion of the Water Balance modelling be provided with the City's 2024 Annual Report responses and the Bathymetric Survey and Lake Geraldine Water Balance modelling report be submitted with the City's Water Licence Renewal Application.

Status:

R-09b – Unresolved. CIRNAC repeats recommendation.

E. LICENSEE RESPONSE TO CIRNAC UNRESOLVED RECOMMENDATIONS ON THE 2023 ANNUAL REPORT

2. Sampling for the monitoring and QA/QC program

CIRNAC Recommendation on 2023 Annual Report:

(R-02a) CIRNAC recommends the City of Iqaluit update the 2023 Annual Report with the monitoring and sampling analytical results in accordance with Schedule I of the Water Licence.

(R-02b) CIRNAC recommends the City of Iqaluit provide an update if they are on track for meeting the Schedule I of the Water Licence commitments for 2024. In particular, it is requested that the City follows the monitoring and sampling requirements in 2024 for the following monitoring stations:

- that had missing samples in 2023 (i.e IQA-01, IQA-02, IQA-04, IAQ-05, and IAQ-06), and
- related to the Waste Transfer Station and North 40 Landfill (i.e. IQA-15, IQA-16, SW-1 to SW-3, WS-100, WS-101, WS-102, 19MW-01 to 19MW-05, W-107 to W-111).

CIRNAC Comment on the City of Iqaluit's Response:

The City of Iqaluit did not respond.

City of Iqaluit Response to CIRNAC's Response:

(R-02a) Unfortunately, due to the extensive data the city has collected on monitoring and sampling analytical results over the year, it is not possible to change the format to match Schedule I of the Water Licence. However, moving forward, the city will strive to provide the data in a table similar to Schedule I of the Water Licence, if feasible.

(R-02b) Unfortunately, due to staff changes and other administrative issues the City faced in 2023, the missing samples were not taken. Additionally, the North 40 landfill and the Waste Transfer Station were still under construction in 2023, and the sample wells have yet to be installed to begin sample collection. The City aims to have the sample wells installed before the North 40 landfill and the Waste Transfer Station become operational so that samples can be taken.

CIRNAC Comment on the City of Iqaluit's Response:

(R-02a) To clarify, CIRNAC does not expect the City to provide the data in a table similar to Schedule I of the Water Licence. CIRNAC recommends the City provide the sampling locations, sampling frequency, and analyses in compliance with Schedule I of Water Licence No. 3AM-IQA1626 in the 2024 Annual Report.

(R-02b) CIRNAC acknowledges the missing samples were not taken in 2023. CIRNAC reiterates that the City conduct monitoring and sampling in accordance with Schedule I of the Water Licence. It should be noted that Amendment 5 added Item 1:l to the Water Licence, which is for the "Construction and operation of the new solid waste management facilities, including the Waste Transfer Station, the New North Landfill, and associated infrastructure." Monitoring requirements for the stations relating to the Waste Transfer Station and the North 40 landfill during both construction and operation of these sites are outlined in Schedule I. CIRNAC recommends the City confirm water sampling is taking place in accordance with the Water Licence in 2025.

Status:

R-02a – Unresolved. CIRNAC repeats recommendation.
R-02b – Unresolved. CIRNAC repeats recommendation.

3. ATCO Loop decommissioning and Federal Road Utilidor Extension

CIRNAC Recommendation on 2023 Annual Report:

(R-03) CIRNAC recommends the City of Iqaluit clarify whether construction activities on the ATCO Loop sanitary sewer and watermain decommissioning and Federal Road Utilidor/ Watermain Extension were undertaken under Water Licence 3AM-IQA1626 and, if not, whether approval from the Nunavut Water Board has been obtained for these construction activities.

CIRNAC Comment on the City of Iqaluit's Response:

The City has not clarified whether or not these works were carried out under Water Licence 3AM-IQA1626. The City's response indicates that they carried out the works with the understanding that no approval was required. It should be clarified with the City that, if undertaken under the existing Licence, reporting is still needed.

City of Iqaluit Response to CIRNAC's Response:

(R-03) The City of Iqaluit confirms that the construction activities on the ATCO Loop sanitary sewer and watermain decommissioning and Federal Road Utilidor/Watermain Extension were undertaken in direct relation to the existing water distribution system. These activities did not involve any new water usage outside of the existing scope defined under Water Licence 3AM-IQA1626. Therefore, no actions concerning the Water Licence were required. Additionally, the projects were conducted on land and did not conflict with the regulatory territorial process or require additional permitting. The scope of the Water Licence includes various activities related to the management and protection of water resources and waste treatment facilities but does not specifically reference water distribution or wastewater collection systems. Please clarify what approvals are required for these types of work.

CIRNAC Comment on the City of Iqaluit's Response:

(R-03) The City has clarified that the construction works were carried out under Water Licence 3AM-IQA1626. The City has not clarified whether the required notification was carried out prior to the construction. Part G, item 1 of the Water Licence 3AM-IQA1626 conditions requires the Licensee to notify the Board at least 60 days prior to commencing modifications of facilities authorized under this Licence. Further, Part G, item 3 of the Water Licence 3AM-IQA1626 conditions requires the Licensee to submit to the Board for review, within 90 days of completion of the modification, as-built plans and drawings stamped by an Engineer.

Status:

R-03 – Unresolved. CIRNAC repeats recommendation.

6. Future Wastewater Treatment Plant studies planned

CIRNAC Recommendation on 2023 Annual Report:

(R-06) CIRNAC recommends the City of Iqaluit provide an update on future Wastewater Treatment Plant studies planned as per Schedule B item o.

CIRNAC Comment on the City of Iqaluit's Response:

The City of Iqaluit did not respond.

City of Iqaluit Response to CIRNAC's Response:
(R-06) The City of Iqaluit has no future Wastewater Treatment Plant studies planned.

CIRNAC Comment on the City of Iqaluit's Response:
(R-06) The City of Iqaluit response to CIRNAC Comments/Recommendations for the 2022 Annual report (Recommendation R-04), indicated that "The City continues to address the operational challenges at the Wastewater Treatment Plant and implement remedial actions to ensure that the full treatment process is operational. The City has dedicated funds in 2024 to perform an holistic review of the plant and initiate updates and upgrades to parts of the system that are not operating as designed." The City has not indicated that this review has been completed in 2024. CIRNAC recommends the City provide a status update on the 2024 holistic review.

Status:
R-06 – Unresolved. CIRNAC repeats recommendation.

7. Un-authorized discharges and spills

CIRNAC Recommendation on 2023 Annual Report:
(R-07a) CIRNAC recommends the City of Iqaluit provide the estimates or ranges for spill volumes when precise measurements are not available. If estimating is not possible, explain why.

(R-07b) CIRNAC recommends the City of Iqaluit provide clarification on how it was determined that the average volume spilled was less than 100 litres.

(R-07c) CIRNAC recommends the City of Iqaluit provide more details on the follow-up actions, especially if they differ between incidents. Provide details on how spills were collected and disposed of and specify if additional monitoring or corrective actions were taken.

(R-07d) CIRNAC recommends the City of Iqaluit provide information on spills in addition to the reported wastewater spills.

CIRNAC Comment on the City of Iqaluit's Response:
It is recommended that the City of Iqaluit develop a clear spill reporting process to capture (estimate) volumes and a reporting mechanism.

City of Iqaluit Response to CIRNAC's Response:

The comment has been acknowledged. Moving forward, the City will quantify the volume of spills based on the available information.

CIRNAC Comment on the City of Iqaluit's Response:

A total of only four spills were reported in the 2024 Annual Report, and three of the four spill reports did not include a volume of spill following CIRNAC's 2023 Annual Report recommendations. The City continues to not provide information on the volume of spills. The City acknowledged that spill reports submitted as part of the 2024 Annual Report included entries where the discharge volume was not recorded and that they would appreciate CIRNAC's support by providing a sample reporting template or guidance document. CIRNAC requests confirmation that the City is recording volume of spills in 2025 and will be reporting them in the 2025 Annual Report.

Status:

R-07a-d – Unresolved. CIRNAC repeats recommendation.

9. Dam Safety Inspection Reports – Construction Works

CIRNAC Recommendation on 2023 Annual Report:

(R-09a) CIRNAC recommends the City of Iqaluit provide a table in the 2023 Annual Report that lists the outstanding recommendations from the DSI reports. The table should list the DSI recommendations, list the proposed actions to address the recommendations and/or updates on continuing actions to address the recommendations, provide a column showing the recommended timeline for completion of the recommendations (as stated in the DSI reports), and a column showing the date when the City intends to resolve the recommendations.

(R-09b) CIRNAC recommends the City of Iqaluit clarify the required timeline for completion of the following:

a) Removal of the contaminated soil around the base of the hydro pole adjacent to the south berm.

b) Removal and replacement of the contaminated soil atop the center and north berms.

c) Installation of new rip-rap material within the upstream face of the north and center berms before the reservoir is re-filled.

d) Minor work required to repair erosion damage within the north access road and new steel culverts.

e) Outstanding deficiencies remaining to be corrected by Nunavut Excavation.

f) Repair of the depressions at the base of the upstream face of the center and north berms.

g) Repair of cracks within the concrete dam.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit did not respond.

City of Iqaluit Response to CIRNAC's Response:
The City of Iqaluit has since performed a dam safety inspection in 2024. The dam inspection report for 2024 provides an update on the deficiencies from the 2023 DSI report and their status. This report will be provided in the 2024 annual report, along with approximate dates for when the City intends to resolve the recommendations.

CIRNAC Comment on the City of Iqaluit's Response:
In the 2024 Annual Report (Section C), there are two tables that list deficiencies identified in the 2024 DSR (and DSI), along with a column showing the status, recommended timeline for completion, and deadline for completion. Table 4 also includes recommended mitigation from the Dam Safety Review.

CIRNAC recommends that, for the high-priority items, the City provide more detail on how and when the mitigation measures will be completed. The tables include most of the incomplete items for which CIRNAC specifically requested timelines for completion. One—removal and replacement of the contaminated soil atop the center and north berm—was not addressed in the 2024 Annual Report, DSI, or DSR. CIRNAC recommends that Iqaluit provide comment of the status of the removal and replacement of the contaminated soil.

Status:
R-09a – Resolved.
R-09b – Unresolved. CIRNAC repeats recommendation.

10. Dam Safety Inspection Reports – Engineering Studies/Investigations and Design Works

CIRNAC Recommendation on 2023 Annual Report:
(R-10) CIRNAC recommends the City of Iqaluit provide a table in the Annual Reports that lists the outstanding recommendations from the DSI reports. In the table list the DSI recommendations, list the proposed actions to address the recommendations and/or updates on continuing actions to address the recommendations, provide a column showing the recommended timeline for completion of the recommendations (as stated in the DSI reports), and provide a column showing the date when the City intends to resolve the recommendations.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit did not respond.

City of Iqaluit Response to CIRNAC's Response:
The City of Iqaluit has since performed a dam safety inspection in 2024. The dam inspection report for 2024 provides an update on the deficiencies from the 2023 DSI report and their status. This report will be provided in the 2024 annual report, along with approximate dates for when the City intends to resolve the recommendations.

CIRNAC Comment on the City of Iqaluit's Response:
In the 2024 Annual Report, the City of Iqaluit has provided a table that lists all deficiencies identified in the 2024 DSR, along with timelines for completion.

The deficiencies, along with their timelines for completion are in alignment with the timelines listed in the 2024 DSR.

CIRNAC recommends that Iqaluit continue to provide updates to the status of deficiencies in future annual report submissions. It is noted that four of the deficiencies listed in the DSR and DSI should be completed within 1 year.

Status:
R-10 – Resolved.

11. 2023 Sample Results

CIRNAC Recommendation on 2023 Annual Report:
(R-11a) CIRNAC recommends the City of Iqaluit advise if consideration has been given for exhaustion of GAC media and its ability to continue to remove hydrocarbons.

(R-11b) CIRNAC recommends the City of Iqaluit compile the lab results in an Appendix table with comparison to the applicable guidelines.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit provided a response addressing R- 11a. The comment indicates that GAC media has been functioning as expected. However, third-party analytical results from the 2023 Annual Report show that the GAC media is not providing TOC reduction, which would be expected for GAC media of this age. This could indicate that the media is becoming exhausted for the adsorption of organics in the water. This could impact the capacity for hydrocarbon removal if hydrocarbons were detected in the raw water. The City of Iqaluit did not respond to R-11b.

City of Iqaluit Response to CIRNAC's Response:

The City is awaiting a response from WSP and will address the comment once a response is received.

CIRNAC Comment on the City of Iqaluit's Response:

(R-11a) – The City of Iqaluit responded that comment will be provided once response is provided from consultant WSP. CIRNAC requests the City to include the response with their 2024 Annual Report response.

(R-11b) The City of Iqaluit did not respond and recommendation was not included in 2024 Annual report. CIRNAC reiterates R-11b that the City of Iqaluit compile the lab results in an Appendix table with comparison to the applicable guidelines.

Status:

R-11a – Unresolved. CIRNAC repeats recommendation.
R-11b – Unresolved. CIRNAC repeats recommendation.

12. Water Treatment Plant Report

CIRNAC Recommendation on 2023 Annual Report:

(R-12) CIRNAC recommends the City of Iqaluit provide information on how GAC capacity is being tracked and steps that are in place in the event that the GAC media has reached capacity and requires replacement.

CIRNAC Comment on the City of Iqaluit's Response:

The GAC filter media can remove contaminants through two different mechanisms: filtration and adsorption. The response describes the process of monitoring filter performance for particle removal based on filtered water turbidity. This applies to both the current GAC media and the previously used anthracite media. While necessary for filter performance and particle removal, monitoring turbidity does not monitor the GAC media adsorption capacity, which is the mechanism that would be used for removing hydrocarbons.

The GAC media has a porous structure, allowing target contaminants to be adsorbed onto the media. The adsorbed contaminants are not removed from the media through backwashing, resulting in a finite number of adsorption sites. Over time, these sites will become exhausted, and the media will no longer be able to remove containments through adsorption (and will rely on filtration only). Other adsorbable contaminants in the water can further reduce the GAC capacity to remove a target contaminant. This results in the media having a site-specific expected useful life and timeline for replacement. Monitoring for additional parameters beyond turbidity should be considered for evaluating the GAC

adsorption capacity over time (UV254 could be used as a surrogate parameter for organics, for example).

City of Iqaluit Response to CIRNAC's Response:
The City is awaiting a response from WSP and will address the comment once a response is received.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit responded that comment will be provided once response is provided from consultant WSP. CIRNAC recommends the response be included with the 2024 Annual report.

Status:
R-12 – Unresolved. CIRNAC repeats recommendation.

14. Chlorine and Bacteria Results from the WTP (2023)

CIRNAC Recommendation on 2023 Annual Report:
(R-14) CIRNAC recommends the City of Iqaluit complete the following:

- review the UVT analyzer performance to confirm the system is working as intended and provide an update, and
- provide sample results from S::CAN monitoring device located at the water treatment plant.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit did not respond.

City of Iqaluit Response to CIRNAC's Response:
The City has reviewed the performance of the UVT analyzer and confirms that the system is working as intended. The UVT analyzer undergoes a regular maintenance schedule, which includes a yearly calibration and additional calibrations as needed. To ensure the accuracy of the UVT readings, the City also uses a handheld device for verification.

Unfortunately, the City is unable to provide sample results from the S::CAN monitoring device as it can only store 4 months of data on a rolling time window. The City is working to provide a better storage system for the S::CAN monitoring device.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit provided commentary on the calibration and maintenance of the UVT analyzer. This is considered resolved.

S::CAN data was not provided as part of the 2023 Annual report due to storage issues. The 2024 Annual report did not include any S::CAN data following the 2023 CIRNAC recommendation. It is recommended that the City download the S::CAN data on a regular basis throughout the year to include in the Annual Report. CIRNAC requests the City confirm S::CAN data will be included in the 2025 Annual Report.

Status:
R-14 – Unresolved. CIRNAC repeats recommendation.

15. 2024 Lake Geraldine Water Balance Assessment

CIRNAC Recommendation on 2023 Annual Report:
(R-15) CIRNAC recommends the City of Iqaluit provide the following:

- A full hydraulic lake balance model or more information on the watershed runoff approach,
- Update the bathymetric survey and development of new stage-storage curve, and
- Check the values in Table 2 for accuracy.

CIRNAC Comment on the City of Iqaluit's Response:
The City of Iqaluit did not respond.

City of Iqaluit Response to CIRNAC's Response:
The bathymetric survey was updated in Fall 2024. The survey data was submitted to WSP to update the site's water balance model. The City will provide the revised model to the Board upon its completion and will incorporate any necessary findings into future planning and reporting.

CIRNAC Comment on the City of Iqaluit's Response:
CIRNAC understands that the Bathymetric Survey is now complete, and the Lake Geraldine Water Balance modelling is ongoing. CIRNAC recommends an updated schedule for completion of the Water Balance modelling be provided with the City's 2024 Annual Report responses and the Bathymetric Survey and Lake Geraldine Water Balance modelling report be submitted with the City's Water Licence Renewal Application.

Status:
R-15 – Unresolved. CIRNAC repeats recommendation.

F. CIRNAC RECOMMENDATIONS ON THE 2024 ANNUAL REPORT

1. Water Withdrawal Reporting
Comment:

The Annual Water License Report, Table 1 ('raw water withdrawal data') indicate the data is for 2023. However, the preceding paragraph indicates that the data is for the 2024 data.

Recommendation:
(R-01) CIRNAC recommends the City clarify if Table 1 presents 2023 or 2024 raw water withdrawal data. If it presents 2023 data, it is recommended to provide the data for 2024.

2. Wastewater Discharge Reporting

Comment:
The 2024 Annual Water License Report states that "*Effluent was discharged from the Sewage Lagoon to Frobisher Bay (Station ID IQA-02) between July 30, 2024 and August 9, 2024*." The 2024 Annual Report does not include volumes discharged from the Sewage Lagoon as specified in Schedule B of the Water License.

The City received this comment in response to the 2023 Annual Report and did not provide a response or modify reporting in 2024 to address the identified issue.

Recommendation:
(R-02) CIRNAC requests that the City record and report the annual treated sewage volumes discharged from the Sewage Lagoon (IQA-02) between July 30, 2024, and August 9, 2024, in the 2024 Annual Report.

3. Dam Safety Inspections / Dam Safety Review

Comment:
Dam Safety Inspections (DSI), and/or Dam Safety Reviews (DSR) are required to be completed each year for the Lake Geraldine water supply facility and submitted with the Annual Report. In addition, the licensee is to provide their proposed actions to address any deficiencies identified in the inspection. The DSR and DSI were provided as appendices to the annual report, and detailed the following:

- *new* very high or high priority deficiencies: "very high priority" deficiencies, (which should be completed within the year):
    - Data collection from installed instrumentation (piezometers, thermistors)
    - Repair and cut all protrusions remaining from the grout injection repairs
- "high priority" deficiencies, (which should be completed within 3 years)
    - Riprap installation along upstream slope for erosion protection

In section C of the 2024 Annual Report, the City of Iqaluit provided a table showing the list of deficiencies, along with the proposed remediation measures and dates for completion for concrete joint sealant repair. No other details were provided on proposed actions to address other deficiencies identified in the DSR and DSI. The timelines and recommended

mitigations are directly from the DSR and DSI reports. For the high-priority items, more detail should be provided on how and when the mitigation measures will be completed.

Sixteen deficiencies from the 2023 DSI are noted in the 2024 DSI, along with a comment on their status. Five have been marked as complete, four have been removed by the consultant as they do not feel they are relevant and six items remain incomplete. There were six deficiencies that have not been addressed from prior inspections. The 2024 DSR includes an updated deficiency list of 12 items along with their recommended mitigations.

Recommendation:

(R-03) CIRNAC recommends the following:

a) The City of Iqaluit complete the four "very high priority" deficiencies (two newly identified, and two previously identified) within the year:
   - Data collection from installed instrumentation (piezometers, thermistors)
   - Repair and cut all protrusions remaining from the grout injection repairs
   - Repair or relocation of the intake valve
   - Installation of CCTV instrumentation at the spillway

b) The City of Iqaluit provide a detailed plan that describes how the identified deficiencies will be addressed within the timelines provided in the DSR and DSI.

c) The City of Iqaluit detail all proposed and ongoing actions to address the deficiencies in future reports.

d) The City of Iqaluit clarify whether contaminated soil atop the center and north berms has been removed and replaced.

4. Dam Safety Inspections / Dam Safety Review for Wastewater Treatment Facilities

Comment:

Dam Safety Inspections (DSIs), and/or Dam Safety Reviews (DSRs) are required to be completed each year for the Wastewater Treatment Facilities and submitted with the Annual Report. DSIs and DSRs do not appear to have been provided for the Wastewater Treatment Facilities. It is noted that the sewage lagoon contains two containment berms (east and west), which impound approximately 56,000 m^3 of material. The east berm is approx. 3.8 metres in height, and the west is up to 3.3 metres in height.

As per the Canadian Dam Association, a dam is any structure that is at least 2.5 metres high, and impounds at least 30,000 m^3 of material, or fewer if containing contaminated substances or poses a risk to the public. Additionally, the Sewage Lagoon Operation and Maintenance Manual details several tasks that should be completed as part of regular operations.

Several breaches have been reported in the past, including in 1981, 1991 and 1997. Regular inspection and maintenance of the berms is important to the proper functioning treatment facility and health and safety of citizens of Iqaluit. Following the Canadian Dam Association Guidelines, a low-risk dam structure must undergo a DSR every 10-years. The last DSR appears to have been completed in 2012.

Recommendation:

(R-04) CIRNAC recommends that the City of Iqaluit:

a) Conduct a DSR and/or DSI for the Wastewater Treatment Facilities and provide the results in future annual reports.
b) CIRNAC notes that if a DSR has not been completed within the last 10-years, CIRNAC recommends that one be completed in 2025.
c) CIRNAC recommends a DSI be completed annually and submitted with future Annual Reports.

5. Waste Disposal Reporting

Comment:

Water licence 3AM-IQA1626 requires reporting of the monthly and annual quantities of Wastes disposed of at the West 40 landfill. Table 6 in the 2024 Annual Water Licence Report provides monthly and annual quantities. The following statement was made with respect to Table 6: *"Table 6 summarizes the estimated monthly and annual quantities of waste deposited at the West 40 Landfill including the volume of waste transported by municipal garbage trucks."*

In comparison, the caption for Table 6 is "*IQA-04 – Effluent Discharge from the WWTP in 2024."* Based on this caption, it is unclear whether municipal waste is included in the quantities provided and whether liquid waste (excluding sludge) is diverted from the landfill. Part E, Item 26, of Amendment 5 to Water licence 3AM-IQA1626 states that *"the Licensee shall add additional ground cover at the landfill, if disturbance occurs due to nuisances' wildlife or other causes."* It is unclear whether the quantities provided are inclusive of cover material.

CIRNAC also notes that Table 6 summarizes the estimated monthly and annual quantities of waste deposited. The water license requires exact amounts of waste and not estimated amounts of waste.

Recommendation:

(R-05) CIRNAC recommends the City of Iqaluit:

a) Confirm whether Table 6 summarizes the estimated monthly and annual quantities of waste deposited at the West 40 Landfill including the volume of waste transported by municipal garbage trucks and cover material utilized.
b) Confirm if the City of Iqaluit is estimating the waste amount being stored in its landfill.

6. Monitoring Program Reporting

Comment:

Schedule I of Water licence 3AM-IQA1626 outlines the water quality monitoring criteria and water quality parameters for the facilities to meet. The following sample results or specific parameters are missing from the sampling that was reported for the Water Treatment Plant and Wastewater Treatment Plant:

a) IQA-01 Lake Geraldine Reservoir – Raw and Potable Water
   – Annual report noted that samples were not collected for January and February 2024.
   – Field ORP and conductivity were not provided for the monthly samples in 2024.
   – December 2024 monthly bacteria sample was noted past hold time by a third party lab.
   – It is not explicitly stated in the lab reports that the water samples were submitted for “dissolved” metals; however separate samples were collected for Total Metals from the raw WTP and treated WTP which insinuates that the metals from the originally collected samples are dissolved metals as requested in the Water License.
b) IQA-02 Sewage Lagoon – Effluent Discharge Point
   – Temperature, pH, ORP and conductivity field sample results were not provided.
   – Flow measurements during decant were not provided.
   – Bacteria samples for both the August 4th (i.e., during discharge) and August 9th (i.e., prior to completion of discharge) sample events were noted past hold time by a third party lab.
c) IQA-04 Wastewater Treatment Plant - Effluent
   – Annual report noted that samples were not collected for the months of March and September 2024. Sample results were reported as collected but were not provided in Appendix B for January and February 2024.
   – Field ORP and conductivity were not provided for the monthly samples in 2024. Field pH and temperature were provided for several months but was inconsistent.
   – Bacteria samples for August, November and December 2024 were noted past hold time by a third party lab.
   – Acute toxicity test results for IQA-04 were not provided for 2024.
d) IQA-05 Wastewater Treatment Plant - Influent

- Annual report noted that samples were not collected for the months of March and September 2024. Sample results were reported as collected but were not provided in Appendix B for January and February 2024.
- Field ORP and conductivity were not provided for the monthly samples in 2024. Field pH and temperature were provided for several months, but were inconsistent.
- Bacteria samples for August, November and December 2024 were noted past hold time by a third party lab.
- The frequency of sampling required for IQA-05 is listed as *"no testing requirements following commissioning of the WWTP*". However, it is acknowledged that the City continues to sample and report influent results as best practice.

e) IQA-06 Sludge – From WWTP
- Annual report indicated that quarterly sampling was conducted in accordance with Schedule I of the Water licence but sampling results for one sampling event (i.e., 2024-01-08) were not provided in Appendix B.
- Samples taken in May 2024, August 2024, and November 2024 were not analyzed for Biochemical Oxygen Demand (BOD), conductivity, pH, Nitrite-N and Nitrate-N. In addition, field readings of temperature, conductivity and pH were not reported on.
- Bacteria sample for November 2024 was noted past hold time by a third party lab.

With respect to the laboratory certificates provided in Appendix B of the 2024 Annual Report, the client ID did not match the Station ID in the Water Licence.

Schedule I outlines requirements for stations relating to the West 40 Landfill effluent; however, the City indicated that *"there are no monitoring results for IQA-08 because the West 40 Landfill was not discharged in 2024."* Meanwhile samples IQA-08A and IQA-08B were collected from up-gradient and down-gradient of the West 40 Landfill, respectively, in June 2024. Schedule I specifies to sample these two stations annually, therefore the City is compliant with the Water Licence for these two stations. However, it was noted that the following parameters were not reported for these two locations:

f) Effluent analysis—temperature (field), pH (field), conductivity (field and lab)
g) Nutrient analysis—orthophosphate, nitrite, and nitrate
h) Flow—volume (m^3)

Schedule I also outlines requirements for stations relating to the Waste Transfer Station and North 40 landfill. These include the following monitoring stations:

i) IQA-15
j) IQA-16
k) SW-1 to SW-3
l) WS-100, WS-101, WS-102
m) 19MW-01 to 19MW-05

n) W-107 to W-111

The City has stated that these sites have not yet been commissioned, and as such, samples have not been collected. Monitoring of the leachate discharge will commence when the facilities are in use for municipal waste collection. The following statement was made in the 2024 Annual Report: "*The City is acknowledging that the monitoring results are missing for the following station IDs, relating to the Waste Transfer Station and North 40 Landfill.*" This statement is followed by Table 7, containing a summary of the 2024 sampling conducted. A summary of the station IDs where no sampling was conducted was not confirmed.

Amendment 5 added Item 1:I to the Water Licence, which is for the "*Construction and operation of the new solid waste management facilities, including the Waste Transfer Station, the New North Landfill, and associated infrastructure.*" Monitoring requirements for the stations relating to the Waste Transfer Station and the North 40 landfill during both construction and operation of these sites are outlined in Schedule I.

Part E, Item 4 of the Water Licence states: "*The Licensee shall ensure that Surface Drainage or surface Water runoff associated with site activities or generated during the construction of any facility designed to withhold, divert, or retain Water or Waste, does not exceed the following Effluent criteria: TSS Maximum Average Concentration: 50 mg/L; TSS Maximum Concentration of Any Grab Sample: 100 mg/L; pH between 6 and 9.*" This water quality criteria would apply to sample stations IAQ-02 (sewage lagoon), IAQ-08A (up-gradient of West 40 Landfill) and IAQ-08B (down-gradient of West 40 Landfill), however, there was no comparison or discussion of whether the analytical results met the compliance criteria.

There was no mention of sampling methodology or if any field duplicates were collected and analyzed during the sampling events. The Water Licence did not mention QA/QC samples however industry standard is that one field blank be collected per cooler and 10% blind duplicates be collected per sampling event, and if the total number of samples collected is less than five, include at a minimum, one blind duplicate.

Recommendation:

(R-06) CIRNAC requests that the City:

a) Conduct monitoring and sampling in accordance with Schedule I of the Water Licence. In particular, it is requested that the City follows the monitoring and sampling requirements for the following monitoring stations that had missing samples in 2024:

- IQA-01
- IQA-02
- IQA-04
- IAQ-05
- IAQ-06

b) Follows the monitoring and sampling requirements for the following monitoring stations that had missing sample parameters/analytes in 2024:

- IQA-01

- IQA-02
- IQA-04
- IAQ-05
- IAQ-06
- IAQ-08A
- IAQ-08B

c) Confirm with the third-party laboratory that sample results reported under ICP/MS (Liquid) are dissolved metals meeting requirements of Potable Water (PW) in Schedule I Table 1.

d) Schedule I of the Water Licence notes that IQA-03, IQA-07, IAQ-09 and IAQ-11 are inactive sample stations. A statement should be made in the Annual Reports acknowledging this or stating why these stations are inactive and no longer sampled.

e) CIRNAC requests that the City confirm the station IDs pertaining to the Waste Transfer Station and North 40 Landfill where no sampling was conducted and provide an update on when sampling of these monitoring stations will be conducted in the 2024 Annual Report.

f) Provide a summary report of data and information generated under the Monitoring Program in 2024 including: tabulated analytical results and comparison to applicable criteria; utilization of the station IDs in Water Licence 3AM-IQA1626 when submitting samples to the laboratory for analysis; if samples were not collected meeting the frequency requirement, provide an explanation as to why it was not done (e.g., weather); and, provide QA/QC data or provide an explanation as to why it was not done.

7. Construction Activity Reporting

Comment:

The 2024 Annual Report provides a summary of construction activities carried out for the following facilities:

- North 40 Landfill
- Waste Transfer Facility
- LTWP – Supply and Storage
- Water Treatment Plant

Part F, Item 6 of the Water Licence states that *"the Licensee shall, submit to the Board for review, within ninety (90) days of completion of any structure authorized under this licence, to contain, withhold, divert or retain Water or Wastes; a construction summary report prepared by an Engineer that includes, among other relevant information, as-built drawings, documentation of field decisions that deviated from original plans, and any data used to support these decisions."* A construction summary report for each of these facilities was not included in the 2024 Annual Report.

CIRNAC comments on the 2023 Annual Report requested clarification on whether construction activities on the ATCO Loop sanitary sewer and watermain decommissioning and Federal Road Utilidor/ Watermain Extension were undertaken under Water Licence 3AM-IQA1626 and, if not, whether approval from the Nunavut Water Board has been obtained for these construction activities. The City has clarified that the construction works were carried out under Water Licence 3AM-IQA1626.

The City has not clarified whether the required notification was carried out prior to the construction. Part G, item 1 of the Water Licence 3AM-IQA1626 conditions requires the Licensee to notify the Board at least 60 days prior to commencing modifications of facilities authorized under this Licence. Further, Part G, item 3 of the Water Licence 3AM-IQA1626 conditions requires the Licensee to submit to the Board for review, within 90 days of completion of the modification, as-built plans and drawings stamped by an Engineer.

Recommendation:

(R-07) CIRNAC requests that the City provide the following:

a) A construction summary report for the North 40 landfill and waste transfer facility in the 2024 Annual Report or 2025 Annual Report, depending on the exact date that the facilities were complete.
b) Clarification on whether the City notified the board in advance of construction activities carried out in 2023 and whether as-built plans and drawings stamped by an Engineer were provided to the board within 90 days of completion of those activities.

8. Water Treatment Facility

Comment:

The updated City of Iqaluit 2022 Annual Report (January 10, 2024) reference the replacement of the UV disinfection system in 2023 as the current system had exceeded its expected design life. The 2023 Annual report did not make reference or provide an update on the UV replacement project. A recommendation was made to the City to provide an update in the 2023 Annual Report (R-04 2023 CIRNAC Comments). The 2024 Annual Report indicates that the UV reactors were replaced in 2024. It is unclear when the upgrade was completed as it is reported as part of 2022 and 2024 Annual reports.

It is noted by the City that the UV lamps are replaced after 500 hours of operation (approximately 20 days). Generally, UV lamps are recommended by a manufacturer to be replaced on a yearly basis, with regular maintenance/cleaning of the UV quartz sleeve and UV sensor. More frequent replacement, especially for a newly installed UV unit, could indicate that the UV unit is not suitable for the application or that there are operational issues. Reference was made to general and preventative maintenance at the WTP including regular filter changes. It is unclear if this is referring to the media filters or ancillary filters.

Recommendation:

(R-08) CIRNAC requests that the City confirm the following:

a) Timeline for UV system upgrades at the Water Treatment Plant
b) Frequency of UV lamp replacement and that UV units are in working as designed
c) Which filters are regularly changed during routine maintenance. If the referenced filters are the media filters, provide details on procedure for changing filters.

9. Revisions to Plans, Manuals and Reports approved under the Licence

Comment:

In response to the 2022 Annual Report comments regarding the WWTP O&M manual, the City responded that they are waiting on consultant to provide a response and the final O&M manual. The O&M manual was not provided as part of the 2024 Annual Report.

Section G and H of the 2024 Annual report describes upgrades to the WTP and WWTP which included significant replacement or addition of equipment (such as new day tank system, replacement of UV units and raw water recirculation pump, new raw water sump pump, etc.) however, it stated that no revisions were made to the existing O&M manuals.

Recommendation:

(R-09a) CIRNAC requests that the City submit to the Nunavut Water Board the updated O&M manual for the WWTP when it becomes available for review.

(R-09b) CIRNAC requests that the City confirm that upgrades completed at the WTP and WWTP were direct replacements (no change in make/model) that would not result in modifications required for the O&M manuals to reflect upgrades.

10. Spill Reporting and Follow-Up Actions

Comment:

Schedule B item k of Water Licence No. 3AM-IQA1626 requires that the annual report provide "*a list and description, including volumes and Spill Report Line Identification Numbers, of all un-authorized discharges, spills and summaries of follow-up action taken*."

Four spills were reported in the 2024 Annual Report, where three out of the four entries reported the spill volume as "Unknown," making it difficult to assess the impact of spills and adequacy of follow-up actions. The follow-up actions are repetitive and lack specificity.

Only wastewater spills were reported in Table 8 of the 2024 Annual Report; however, it is understood by CIRNAC that other spills have occurred, but are not being reported. All spills must be reported.

The 2024 Annual Report states: "*The City acknowledges that spill reports submitted included entries where the discharge volume was not recorded. We would appreciate the Board's support in this effort—if a sample reporting template or guidance document is available, it would be beneficial to inform our approach on recording discharge volume*." The 2024 Annual Report included a General Spill Response Plan which divides spills into small

(<10 :), medium (10-100 L) and large (>100 L) spill categories and outline how the spill response measures vary for each type of spill. Additionally, the General Spill Response Plan includes a NWT/NU Spill Report Form to record spill information and there is a field for quantity of product spilled.

Recommendation:

(R-10) CIRNAC requests that the City provide the following:

a) For entries with "unknown" spill volumes, provide estimates or ranges for spill volumes when precise measurements are not available. If estimating is not possible, explain why.
b) Clarification on whether it was considered a small (<10 L), medium (10-100 L) or large spill (>100 L) based on the spill types in the General Spill Response Plan. Recommend adding this information to the NWT/NU Spill Report Form to aid personnel to quantify spill when completing a spill report by estimating the size of the spill (i.e., small, medium or large) at a minimum.
c) More details on the follow-up actions, especially if they differ between incidents. Provide details on how spills were collected, disposed of and specify if additional monitoring or corrective actions were taken.
d) Information on spills in addition to the reported wastewater spills.

11. Reporting on Closure and Reclamation Work

Comment:

The 2024 Annual Report states that no closure and reclamation work were undertaken in 2024. With respect to the West 40 landfill, the 2024 Annual Report states that "*the landfill's remaining effective waste disposal capacity within Area A has been estimated at 60, 264 cubic meters, as of August 2024,*" and "Area B offers 29,786 more cubic meters of potential capacity, bringing the total available landfill airspace to approximately 90,050 cubic meters." There is no comment in the 2024 Annual Report on any closure and reclamation work planned for 2025 even though the North 40 Landfill and the Waste Transfer Station were substantially completed in 2024. It is noted that "*the City continues to accept and manage waste at the West 40 Landfill, these operations will continue until the City's decommissioning plan is submitted and then accepted by the Board one year to the planned closure."*

Recommendation:

(R-11) CIRNAC requests the City provide an update on when the Closure and Reclamation Plan for the for the West 40 Landfill will be submitted to the Nunavut Water Board.

12. Updates on Implementation Plan, including changes and status of the Upgraded Wastewater Treatment Plant

Comment:

In response to the 2022 Annual Report comments in regard to the WWTP, the City responded "*The City continues to address the operational challenges at the Wastewater Treatment Plant and implement remedial actions to ensure that the full treatment process is operational. The City has dedicated funds in 2024 to perform a holistic review of the plant and initiate updates and upgrades to parts of the system that are not operating as designed."* The City did not provide an update on the holistic review described to be completed in 2024. Comments in the 2024 Annual Report and effluent results provided indicate that the WWTP is still dealing with operational deficiencies and providing limited treatment.

Recommendation:

(R-12) CIRNAC requests the City submit the holistic review report with the 2024 Annual Report, along with a plan and timeline to address the remedial actions identified in the report.

13. Reporting on Studies Requested by the Nunavut Water Board

Comment:

In 2023, CIRNAC requested an updated bathymetric survey, development of a new stage storage curve, and an updated Lake Geraldine Water Balance Model. In 2024, the Nunavut Water Board also recommended calibration of the Water Balance Model to account for the rapidly changing climate in the Arctic by using the most recent meteorological data available, compared to the previously used 2008 to 2017 meteorological information. A detailed bathymetric survey was completed in fall 2024 to supplement the Lake Geraldine Water Balance Model update. In the 2024 Annual Water Licence Report, the City indicated the bathymetric data has been sent to their engineering consultant to update the water balance model. See CIRNAC comment R-09b on the 2021-2023 Annual Report Review Responses and the City's response "*The City of Iqaluit contracted GeoVerra to complete a bathymetric Survey in 2024. The results have been sent to our engineering consultant WSP to update the water balance model*". An updated Water Balance Model report has not been submitted to the Nunavut Water Board.

In 2023, CIRNAC recommended the City of Iqaluit submit an updated Spill Contingency Plan that addresses the most common causes of spills and unauthorized discharges. In their 2024 Annual Water Licence Report response, the City indicated it has recently drafted a spill response plan that will be updated as required. The updated Spill Contingency Plan is still outstanding. See CIRNAC comment R-06b on the 2022 Annual report and the City's responses in the 2024 Annual Report.

Recommendation:

(R-13) CIRNAC recommends the City of Iqaluit submit to the Nunavut Water Board:

a) An updated and recalibrated Lake Geraldine Water Balance Model to address the new bathymetric survey data collected in 2024 and the updated metrological information
b) An updated Spill Contingency Plan that addresses the most common causes of spills and unauthorized discharges
c) An updated schedule for completion of the Water Balance modelling and the report once complete.

14. Review of Procedures for Packaging, Storage, and Shipment of Hazardous Waste

Comment:

The 2024 Annual Report tabulates hazardous wastes and associated quantities in Table 9. The description column in Table 9 indicates "*removal, sealift, and final disposal*" for various hazardous wastes. For others, the description just includes the name of the hazardous waste (i.e., biomedical waste, contaminated soil, etc.) or a material used to manage hazardous wastes (i.e., supply and delivery of 20' seas containers, absorbent/rags/filters/totes, etc.). It is unclear whether these other materials are shipped for final disposal or remain on-site. It is also unclear whether the materials used to manage hazardous wastes (i.e., absorbent/rags/filters/totes, etc.) have been used and are now contaminated.

In addition, Part E, Item 19 of the Water Licence states that "*the Licensee shall maintain records of all Waste removed from site and records of confirmation of proper disposal of removed Waste.*" Records of confirmation of proper disposal of hazardous wastes shipped for final disposal were not included.

Recommendation:

(R-14) CIRNAC requests that the City:

a) Confirm which hazardous wastes have not been shipped for final disposal and how they will continue to be managed on-site.
b) Confirm whether the materials used to manage hazardous wastes (i.e., absorbent/rags/filters/totes, etc.) have been used and are now contaminated.
c) Append records of confirmation of proper disposal of hazardous wastes shipped for final disposal to the 2024 Annual Report.

15. Update on Landfill Capacity

Comment:

With respect to the West 40 landfill, the 2024 Annual Report states that "*the landfill's remaining effective waste disposal capacity within Area A has been estimated at 60, 264 cubic meters, as of August 2024,*" and "*Area B offers 29,786 more cubic meters of potential capacity, brining the total available landfill airspace to approximately 90,050 cubic meters*."

Given the above information and considering that the North 40 Landfill and the Waste Transfer Station were substantially completed in 2024, it is unclear whether the City plans to maximize the West 40 landfill, or alternatively decommission it and begin using the North 40 Landfill and Waste Transfer Station.

Recommendation:

(R-15) CIRNAC requests that the City confirm the plan with respect to future waste management at the West 40 landfill.

16. 2024 Sample Results

Comment:

2024 Potable Water Treatment Plant pH results (monthly laboratory samples) and Weekly WTP Log pH results consistently did not meet the Canadian Drinking Water Quality Guidelines of 7 to 10.5 for sample results provided at IQA-01 in 2024. It should be noted that there were no sample results were provided for the months of January and February 2024. It is unclear if the WTP is using the caustic soda system for pH adjustment.

Through the weekly Water Treatment Plant Logs, the WTP operators record the UV dose applied (MJ/cm^2). In the 2023 log sheets submitted in response to the 2022 Annual report comments, the UV dose was consistently above 45 MJ/cm^2. From the 2024 log sheets, it appears that there was an adjustment to the UV power set point in late February/March, and following the adjustment, the UV dose was consistently reported as 25-30 MJ/cm^2. Generally, a minimum UV dose of 40 MJ/cm^2 is targeted for primary disinfection, unless approval by a regulator is provided for alternative UV dosages. From the available documentation, it is unclear if the WTP is required to supply a minimum dose of 40 MJ/cm^2 for primary disinfection, or if it approved for an alternative dose as part of the UV upgrades.

Several sets of monthly potable water results for total organic carbon (TOC) show that treated water concentrations were equal to or greater than concentrations measured in the raw water, indicating that the GAC media may not be removing TOC. This could be an indication that the GAC media is becoming exhausted for TOC removal.

It is noted that S::CAN data for the WTP intake and treated water between the WTP and reservoir was not provided as part of the 2024 Annual Report, which was recommended to be included as part of the 2023 Annual report comments.

Under the current Water License, the WWTP does not have effluent discharge limits assigned to assess the facility's performance. Through review available of design criteria for the WWTP (3AM-IQA-1626 Process-Mechanical O&M, 2020), a reference was found that the WWTP upgrades were designed to meet effluent concentrations of less than or equal to 20 mg/L carboneous biological oxygen demand (cBOD) and total suspended solids (TSS) (to match the federal Wastewater System Effluent Regulations-WSER). This would align with the effluent quality generally expected from the primary and secondary treatment processes included in the WWTP upgrades. Monthly sample results provided in the 2024

Annual Report Appendix B for IQA-04 (Wastewater Treatment Plant Effluent) did not meet the effluent limits of 20 mg/L or less for cBOD and TSS during 2024. From the available effluent data and commentary provided in previous Annual reports, it appears the WWTP is still faced with operational challenges and deficiencies even with the improvements or modifications that have been completed by the City following substantial completion in 2022. Analytical results in Appendix B were compared by CIRNAC against the Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Aquatic Life, Marine, where available. The following findings were made:

- IQA-01: Lake Geraldine Reservoir – Raw Water, therefore sample results were not compared to CCME WQGs.
- IQA-02 (Sewage Lagoon – Effluent Discharge Point): The cadmium concentration for IQA-02 sampled on July 30, August 4 and August 9, 2024, were, 2024 were reported to be non-detect, however the detection limit was above the guideline (i.e., RDL was 5 mg/L and CCME WQG is 1.2 mg/L). Similarly, the mercury concentrations for IQA-02 sampled on July 30, August 4 and August 9, 2024, were reported to be non-detect, however the detection limit was above the guideline (i.e., RDL was 0.02 mg/L and CCME WQG is 0.016 mg/L).
- IQA-04 (Wastewater Treatment Plant – Effluent): The cadmium concentration for IQA-04 sampled on April 15, May 1, June 3, July 15, August 6, October 22, November 25 and December 3, 2024, was reported to be non-detect, however the detection limit was above the guideline (i.e., RDL was 5 mg/L and CCME WQG is 1.2 mg/L). Similarly, the mercury concentration for IQA-04 sampled on April 15, May 1, June 3, July 15, August 6, October 22, November 25 and December 3, 2024, was reported to be non-detect, however the detection limit was above the guideline (i.e., RDL was 0.02 mg/L and CCME WQG is 0.016 mg/L).
- IQA-05: Wastewater Treatment Plant – Influent sample, therefore sample results were not compared to CCME WQGs.
- IQA-08a and IQA-08b (Station situated up– and down-gradient of West 40 Landfill): The cadmium concentration for IQA-08 sampled on June 3, 2024, was reported to be non-detect, however the detection limit was above the guideline (i.e., RDL was 5 mg/L and CCME WQG is 1.2 mg/L). Similarly, the mercury concentration for IQA-08 sampled on June 3, 2024, was reported to be non-detect, however the detection limit was above the guideline (i.e., RDL was 0.02 mg/L and CCME WQG is 0.016 mg/L).

Recommendation:

(R-16) CIRNAC requests that the City provide the following:

a) Compile the lab results in an Appendix table with comparison to the applicable guidelines or instruct the lab to include the guidelines in the lab report for easy reference and comparison.

b) A status update on the WWTP, along with an implementation plan for next steps to address the operational challenges and/or facility deficiencies.
c) Clarification if the caustic soda system is being used for pH adjustment, or provide details on operating procedure for maintaining pH within the Health Canada guidelines.
d) S::CAN data results (either tabular or as a screenshot graph) for review.
e) Clarification of what the minimum UV dose required for primary disinfection is for the WTP. If the minimum dose is 40 MJ/cm², it is requested that the City provide rationale for decreasing the dose in 2024.

17. General Spill Response Plan - Reporting

Comment:

The 2024 Annual Report states that *"… as part of the City's ongoing commitment to regulatory compliance and environmental stewardship, the Spill Contingency Plan was reviewed to ensure continued alignment with current operational practices and regulatory expectations.*

The General Spill Response Plan, provided in Appendix D, outlines the procedures to be followed in an unplanned discharge. It includes guidance on spill classification by volume and substance type, response protocols, containment and clean-up procedures, and reporting requirements. This plan serves as a critical resource for City staff to ensure that spills are addressed promptly, effectively, and in accordance with territorial and federal f

Although no formal amendments were required or submitted in 2024, the City remains proactive in regularly reviewing all plans and manuals to ensure they remain up to date and reflective of best practices. Any future revisions will be submitted to the Board for review and approval, as required under the Water License."

The City has a General Spill Response Plan in place that outlines how to handle and report spills. The City reported only four wastewater spills reported in Table 8 of the 2024 Annual Report, three of which the volume of the spill was reported as unknown. No other types of spills (i.e. fuel, engine oils and lubricants, other chemicals) were reported.

Recommendation:

(R-17) Please refer to CIRNAC recommendations provided in 2024 Annual Report comment 10 for suggestions on how the City can improve spill reporting in accordance with the requirements of the General Spill Response Plan.

18. General Spill Response Plan

Comment:

The 2024 Annual Report summarizes actions that will be taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector. Specifically, on-site training for staff with respect to hazardous waste handling practices will

be conducted in June 2025; two 20-foot dangerous good containers equipped with integrated secondary containment systems are scheduled to arrive at the West 40 Landfill during the 2025 sealift season; and fencing will be installed along the eastern boundary of the West 40 landfill by August 2025. There is no comment on what mitigative actions have been taken until training is conducted, materials are received, and fencing is implemented.

Recommendation:

(R-18) CIRNAC requests that the City:

a) provide a summary of actions taken in the short-term to address the concerns raised in the 2024 inspection reports.
b) confirm whether the two 20-foot dangerous good containers equipped with integrated secondary containment systems are expected to arrive before training in June 2025.