City of Winnipeg

Administrative Report
Chief Construction Officer (CCO)

REPORT TYPE: Information Only
DATE:
REFERENCE NO.:
SUBMITTED BY: Chief Construction Officer
REVIEWED BY: Not applicable
APPROVED BY: Not applicable

Subject

NEWPCC Upgrade (Project 1): Power Supply and Headworks Facilities – CCO Assurance Update

Recommendation

That this report be received for information.

Standard Standing Language

This report is provided for information only. The Chief Construction Officer's role is to provide independent assurance to Council regarding project readiness, risk exposure, and delivery confidence. Predictive indicators are included for early warning and assurance purposes only and do not constitute recommendations or requests for direction. No approvals or direction are requested unless explicitly stated.

Background

Council previously approved the project's scope, budget, and schedule under **Report No. 9 – February 22, 2024 (Budget Amendment – NEWPCC Upgrade: Power Supply and Headworks Facilities)** and subsequent Mega Project governance approval on **December 18, 2025**.

This report provides a periodic, independent assurance update in accordance with the Chief Construction Officer mandate. The CCO identifies, assesses, and communicates material risks and delivery confidence but does not manage or direct project execution.

Discussion

1. Project Overview

Project Details	**Status**
Approved Budget	$565.36m

Forecast at Ready-for-Takeover	$565.36m

Project Details	**Status**
Approved Ready-for-Takeover Date	Q1 2026 (Substantial Completion – March 2026 target under approved extension)
Forecast Ready-for-Takeover Date	Q1 2026 (subject to schedule pressure; re-baseline under review)
Delivery / Procurement Model	Design Build (DB)
Current Phase	Late Construction / Early Commissioning

Project Classification:

■Mega Project (>$500.0M)

- Major Capital Project ($25.0M–$500.0M)

Current Phase:

- Project Definition ☐ Procurement ☐ Design ■ Construction ■ Commissioning ☐ Operations

CCO Assurance Commentary:

The NEWPCC Upgrade: Power Supply and Headworks Facilities Project is classified as a Mega Project under Council's December 2025 governance framework. The project is in late-stage construction with progressive transition into commissioning activities.

While cost performance remains stable within the Council-approved amended budget, schedule performance remains under pressure due to prior relief events, aggressive re-baselining, and ongoing coordination risks. Electrical distribution, tie-ins, and functional testing represent the dominant near-term delivery risk.

Overall, delivery confidence is assessed as moderate, with heightened monitoring required through substantial completion and operational readiness transition.

2. Scope, Schedule & Financial Assurance

Scope & Authority

- Alignment to Council-approved scope: ■ Confirmed ☐ At Risk
- Material changes since last report: ☐ No ■ Yes
    - Recent change orders include temporary power, soil relocation, and contaminated

soil removals. These remain within approved authority and contingency but represent scope adjustments requiring monitoring.

Schedule & Delivery Confidence

- Council-approved schedule in place: ■ Yes ☐ No
- Work plan stability: ☐ Stable ■ Under pressure
- Time buffer remaining: ☐ Adequate ■ Limited

Key Schedule Indicators:

- Chance of finishing on time - Schedule Confidence Index (SCI)
    - Moderate
        - schedule remains achievable but sensitive to tie-in sequencing, electrical testing, and commissioning integration risks
- How often the main work plan is changing - Critical Path Volatility Trend
    - Elevated
        - Re-baselined schedule under review
        - Critical path sequencing adjustments

Financial & Commercial Position

Indicator	**Status**
Cost certainty	☐ High ■ Moderate ☐ Low
Contingency sufficiency	☐ Adequate ■ Marginal
Claims exposure	☐ None ■ Potential

Cost Certainty – Moderate
Cost performance remains within the Council-approved amended budget; however, forward pressure exists from tariff exposure, contaminated soil removals, schedule-driven impacts, and potential commissioning inefficiencies.

Contingency – Marginal
While contingency remains available, it has materially reduced due to prior relief events and NW Interceptor-related impacts (see Appendix A). Remaining contingency must absorb any further soil, tariff, or schedule-related pressures.

Claims Exposure – Potential
Active commercial exposure remains associated with tariff discussions, contaminated soils, and potential performance-based claims during final construction and commissioning phases.

Forward-Looking Financial Indicators:

- Is there enough backup money left - Projected Contingency Sufficiency Index (PCSI)
    - Moderate–Constrained.
        - Remaining contingency is sufficient under current forecast assumptions.
        - Limited tolerance exists for additional material relief events or compounded schedule impacts.
- Expected total cost compared to the approved budget - Cost Exposure vs. Authorized Budget
    - Forecast remains within the Council-approved amended budget.
    - Variance risk is primarily linked to tariff exposure, contaminated soil quantities, commissioning inefficiencies, and final tie-in execution risks.
- Chance of future claims or disputes - Claim Probability Trend
    - Elevated but stabilizing.
    - Active commercial discussions remain open (tariffs, soil, performance sequencing).
    - No immediate claim crystallization beyond approved relief events.
    - Continued monitoring required through substantial completion.

CCO Assurance Commentary:

The project remains within the Council-approved financial envelope; however, forward-looking indicators signal increased sensitivity as the project approaches substantial completion.

The remaining contingency is adequate under base-case assumptions but vulnerable to compounded risk events. Commercial exposure remains present but is not currently assessed as destabilizing.

Overall financial delivery confidence is assessed as moderate, requiring disciplined cost control, structured commercial management, and proactive risk mitigation through commissioning and turnover.

3. Risk, Governance & Procurement Assurance

Risk Profile

Overall risk trajectory:

- Improving ■ Stable ☐ Deteriorating
  - Risk level remains elevated but not accelerating.
  - Primary pressures are known and actively managed.

Risk Indicators:

- Are risks growing or shrinking - Risk Momentum Score
    - Stable with localized pressure.
    - No systemic risk acceleration observed.
    - Electrical testing, tie-ins, and commissioning integration remain concentration points.
- How many risks keep showing up again and again - Persistent Risk Count
    - Moderate.
    - Tariffs, contaminated soils, schedule compression, and interface coordination remain recurring themes across reporting periods.
- How quickly problems are getting worse - Risk Escalation Velocity
    - Controlled.
    - Recent incidents (e.g., feeder main break, supply delays) were contained without structural destabilization of the program.

Governance & Controls

- Decision-making clarity: ■ Clear ☐ Requires monitoring
- Timeliness of approvals: ☐ Adequate ■ Under pressure
- Reporting reliability:■ Sufficient ☐ Emerging gaps
- How long decisions are taking - Decision Latency Trend
    - Improved following Council delegation of Mega Project authority.
    - Complex commercial matters continue to require structured escalation.

- How often approvals are slowing things down - Approval Bottleneck Frequency
    - Reduced compared to pre-Mega framework period.
    - Coordination across contracts (Headworks, UV, DCS, Primaries) requires sustained oversight.

CCO Assurance Commentary
The governance environment has strengthened materially under the Mega Project framework. Decision authority is clearer, escalation pathways are defined, and reporting cadence has improved.

Risk exposure remains concentrated in execution sequencing, interface coordination, and final system integration. These risks are operational rather than structural.

Overall governance confidence is assessed as **moderate to high**, contingent on disciplined monitoring through commissioning and substantial completion.

Procurement & Market Exposure

- Procurement plan aligned to schedule: ■ Yes ☐ Under review
- Contracting strategy appropriate to risk: ■ Yes ☐ Needs watching

Procurement Indicators:

- Is the project ready to buy what it needs - Procurement Readiness Score
    - High.
    - Major construction packages have been awarded, long-lead equipment has been secured, and remaining procurements are tactical rather than structural.
- Are prices and supply stable or changing - Market Volatility Indicator
    - Moderate but stabilizing.
    - Tariff exposure and select supply chain pressures (e.g., gates, actuators, electrical components) remain active risks but are being mitigated through alternate sourcing and commercial review.

CCO Assurance Commentary:

The procurement position for the Headworks project is mature and largely complete. The Design-Build structure transferred significant procurement risk to the contractor early in the project lifecycle, reducing owner-side exposure to late-stage market volatility.

Long-lead equipment has largely been procured, and no major unawarded construction scopes

remain that would materially affect the critical path. Recent supply disruptions (e.g., UV components) were identified early, and mitigation measures were implemented without systemic schedule destabilization.

Market exposure remains concentrated on tariff-sensitive materials and specialty equipment; however, this risk is now more contained and manageable compared to earlier reporting periods.

Overall procurement confidence is assessed as high, with continued monitoring of tariff exposure and final commissioning-related material supply.

4. Readiness, Forward Look & Confidence Statement

Safety, Quality & Readiness

- Safety systems: ■ Adequate ☐ At risk
- Quality systems: ■ Established ☐ Partial
- Commissioning / turnover readiness: ☐ On track ■ Early risk
- Readiness to operate: ☐ On track ■ Early risk

Rationale:

Safety performance remains controlled under established contractor COR-certified systems. No systemic safety breakdown has been identified.

Quality systems are structured and active; however, the project is transitioning into a phase where quality assurance shifts from construction verification to performance validation, which increases integration sensitivity.

Commissioning and operational readiness represent the most concentrated forward-looking risk areas due to:

- Live tie-ins to active wastewater infrastructure
- Electrical distribution and functional testing
- Automation (Distributed Control System - DCS) integration
- Coordination across multiple concurrent contracts

These risks are normal for projects entering system integration but require disciplined oversight.

Stakeholder & External Dependencies

- External approvals: ■On track ☐ Need watching
- Inter-agency / Third-party dependencies: ☐ Managed ■Under pressure

Rationale:

Regulatory oversight remains stable with no immediate compliance breach indicators.

However, interdependencies between:

- Headworks Design-Build
- UV Upgrade
- DCS Migration
- Primary Clarifier Upgrade

continue to place coordination pressure on sequencing, shutdown windows, and commissioning activities.

Interface management remains active but sensitive.

Forward Look (Next 90 Days)

The Chief Construction Officer will continue to monitor:

- Electrical distribution and functional performance testing sequencing
- Tie-in execution during low-flow operational windows
- Commissioning readiness metrics and defect resolution rates
- Tariff and contaminated soil commercial exposure
- Contingency drawdown velocity
- Schedule re-baseline stability and critical path volatility

Particular attention will be given to leading indicators that may signal:

- Compression risk - The increased likelihood of delay or error when remaining project activities are forced into a shortened timeframe, reducing schedule buffer and increasing execution pressure.
- Integration inefficiency - Reduced performance or delay caused by poor coordination between systems, contractors, or processes during testing and commissioning.
- Emerging claim crystallization - The point at which a developing commercial issue transitions into a formal contractual claim with defined cost or schedule impact.
- Operational readiness slippage - Delay in achieving the required systems, staffing, or performance conditions necessary for safe and reliable facility operation.

CCO Confidence Statement

Based on the information reviewed during this reporting period, the Chief Construction Officer's independent assessment of the project's ability to achieve Council-approved objectives is:

☐ High Confidence ■ Moderate Confidence ☐ Low Confidence

CCO Assurance Commentary:
The project remains financially within authorized limits and governance structures are functioning effectively under the Mega Project framework. However, schedule sensitivity, integration complexity, and reduced contingency tolerance constrain overall delivery confidence.

The project is execution-sensitive, not structurally unstable.

Confidence may increase upon successful completion of:

- Electrical distribution testing
- System integration validation
- Commissioning milestone achievement

Disciplined monitoring through substantial completion will be critical to maintaining delivery confidence.

Financial Impact

There is no immediate financial impact associated with receiving this report.

Legal Implications

There are no legal implications associated with receiving this report.

Consultation

This report was prepared independently by the Chief Construction Officer using departmental materials and briefings as required for assurance purposes.

Council Considerations

This report is submitted for information only. No approvals, decisions, or direction are requested.

Attachments

- Appendix A – Northwest Interceptor
- Appendix B – Risk, Governance & Procurement Assurance

Appendix A – Northwest Interceptor

In this project, "NWI-related impacts" refers to cost and schedule consequences arising from the **Northwest Interceptor failure and associated recovery works** that affected the Headworks Design-Build contract.

Here is what that specifically means in the NEWPCC context:

What Happened

The Northwest Interceptor (a major wastewater trunk sewer) experienced structural failure during construction activities associated with the Headworks project. This triggered:

- Emergency response and stabilization work
- Tunnel Boring Machine (TBM) recovery
- Cleanup and repair works
- Schedule delays to the Headworks contract
- Additional protection works to prevent recurrence

Financial Impacts

Based on approved over-expenditures and change history:

- Ex gratia payments for cleanup, repair, and TBM recovery
    - payment made voluntarily, without admitting legal liability, to resolve or mitigate a dispute or issue
- Additional approved costs beyond ex gratia
- Approved schedule delay compensation (~$23.25M)
- Budget amendment of $44.475M approved by Council (Feb 22, 2024)

These are captured in the over-expenditure history and Council reports.

In practical assurance terms, this means:

- Contingency was materially reduced
- Schedule buffers were consumed
- Insurance advances partially offset costs (but not fully)
- Commercial posture became more sensitive

Schedule Impacts

The NWI event resulted in:

- Extension of substantial completion
- Increased coordination complexity
- Re-baselining of the schedule
- Knock-on sequencing pressure in tie-ins and commissioning

Why It Still Matters (Assurance Perspective)

Even though the immediate failure event is resolved, NWI-related impacts continue to influence:

1. Remaining contingency sufficiency
2. Claims sensitivity
3. Schedule aggressiveness
4. Governance scrutiny
5. Council and public confidence

From the CCO perspective, NWI represents a **systemic shock event** that reduced resilience in cost and schedule buffers and therefore increases forward-looking exposure.

Appendix B – Risk, Governance & Procurement Assurance

1. Governance Environment Maturity Under the Mega Project Framework

Since Council's adoption of the Mega Project governance framework (December 2025), the project has transitioned from a traditional quarterly capital reporting model to a structured executive-level oversight environment. This has produced measurable improvements in:

a) Decision Authority Clarity

- Delegated authority thresholds are now clearly defined (CAO / CFO levels).
- Contract award and over-expenditure approvals are procedurally streamlined.
- Escalation triggers are better understood by both administrative and political leadership.
- The Project Steering Committee operates with defined mandate and cadence.

Previously observed ambiguity regarding "who decides and when" has materially reduced. This lowers governance friction and reduces approval latency risk during critical execution phases.

b) Escalation Pathways

Escalation pathways are now structured and predictable:

- Commercial disputes → escalated through Steering Committee before Council exposure.
- Schedule risk events → elevated through dashboard reporting prior to crisis.
- Contingency pressure → visible earlier through monthly Mega Project reporting.

This reduces surprise exposure and strengthens anticipatory governance.

c) Reporting Cadence and Transparency

The shift from quarterly SPC reporting to enhanced monthly EPC-level reporting has:

- Increased frequency of executive visibility.
- Enabled earlier identification of schedule volatility.
- Improved cross-project awareness (Headworks, UV, DCS, Primaries).
- Enhanced public transparency via dashboard publication.

The governance model now functions in a predictive rather than reactive mode.

2. Nature of Current Risk Exposure

Current risk exposure is characterized as **operational concentration risk**, not structural instability.

A. Execution Sequencing Risk

The project is in late-stage construction transitioning into commissioning. Risk now concentrates around:

- Electrical distribution and functional testing
- System tie-ins to live infrastructure
- Shutdown windows and low-flow periods
- Commissioning sequencing across multiple facilities

These are high-complexity tasks with limited schedule float.

However:

- Scope is stable.
- Budget authority remains intact.
- Funding structure is secure.
- Procurement pathways are defined.

Therefore, risk relates to execution precision, not governance breakdown.

B. Interface Coordination Risk

The project is managing multiple concurrent contracts:

- Headworks Design-Build
- UV Upgrade
- DCS Migration
- Primary Clarifier Upgrade

Interface complexity increases risk in:

- Physical tie-in sequencing
- Commissioning overlap
- Contractor coordination
- Schedule compression effects

This risk is operational in nature and mitigated through:

- Appointment of an Interface Manager
- Structured cross-contract coordination meetings
- Dashboard tracking of interdependencies

There is no evidence of structural coordination failure, but vigilance is required.

C. Final System Integration Risk

As the project approaches substantial completion, integration risk becomes dominant:

- Functional performance testing
- Automation and controls synchronization
- Live wastewater operations during commissioning
- Environmental compliance continuity

Integration risk is inherently nonlinear — minor defects can produce outsized schedule effects.

This phase historically represents the highest delivery risk zone for complex infrastructure.

3. Why These Risks Are Operational, Not Structural

Structural risks would include:

- Funding instability
- Governance ambiguity
- Systemic procurement failure
- Institutional breakdown in decision-making
- Loss of legal authority or regulatory compliance

None of these conditions are present.

Instead:

- Budget remains Council-authorized.
- Contingency remains available (though constrained).
- Governance delegation is functioning.
- Insurance and commercial processes are active.

- Reporting systems are stable.

The system is intact; the challenge is disciplined execution.

4. Governance Confidence Assessment

The assessment of **"moderate to high governance confidence"** reflects the following:

Moderate Confidence Because:

- Schedule remains under pressure.
- Contingency tolerance is reduced.
- Commercial exposure (tariffs, soils, sequencing claims) remains active.
- Commissioning risk is inherently elevated.

High Confidence Because:

- Governance framework is operational and clear.
- Delegated authority reduces approval bottlenecks.
- Escalation pathways are defined.
- Reporting cadence enables early intervention.
- No structural funding or legislative risk is present.

5. Conditionality Statement

Governance confidence is contingent upon:

1. Maintaining strict monthly oversight cadence.
2. Rapid escalation of integration issues.
3. Proactive commercial management during commissioning.
4. Preserving remaining contingency for genuine risk events.
5. Avoiding scope creep during turnover phase.

If these disciplines are maintained through substantial completion and operational readiness, governance confidence can transition from "moderate to high" toward "high."

6. Assurance Position

The NEWPCC Headworks project is not governance-fragile.

It is execution-sensitive.

That distinction is critical.

The governance system is functioning as intended under the Mega Project framework. Delivery confidence will now be determined by sequencing precision, interface control, and disciplined commissioning management rather than by structural governance weakness.