

#### **GNWT INFRASTRUCTURE PLAN**

#### INDUSTRY DAY

January 2023

#### **Presentation Overview**

- GNWT 2023/24 Infrastructure Acquisition Plan
  - Overview of Capital Estimates
  - Projects in Planning/Design
  - Fuel Services Projects
  - Airport Projects
  - Transportation Projects
  - Energy Projects
  - Strategic Corridor Projects
  - Municipal and Community Affairs/Communities
  - Housing NWT

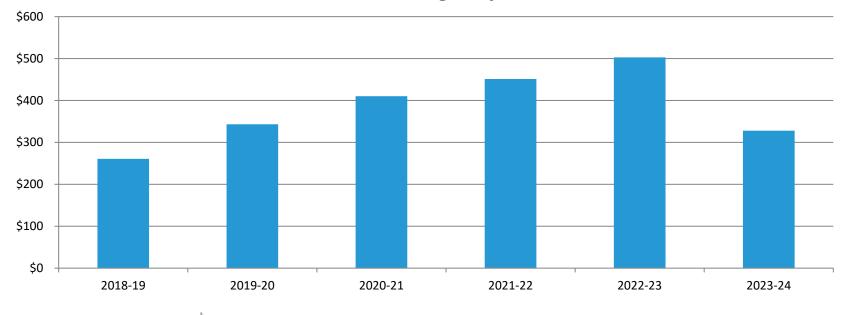
\*Project budgets in this presentation include all costs to deliver the projects such as planning, design, construction and close-out costs.

# GNWT Infrastructure Planning and Acquisition

- The GNWT's 2023-24 Infrastructure Acquisition Plan totals \$328 million (M).
- The plan continues to leverage significant federal infrastructure dollars.
  - For copies of the 2023-24 Capital Estimates:
    - <u>https://www.fin.gov.nt.ca/sites/fin/files/resources/2023-</u>
       <u>24 capital estimates.pdf</u>
  - For GNWT Tendering and Contracting information:
    - <u>https://www.fin.gov.nt.ca/en/services/contracting</u>

# GNWT Capital Estimates Budget Trends \$M

**Total Infrastructure Budget by Fiscal Year** 



Government of Northwest Territories

#### **2023-24 Capital Estimates**

SUMMARY							
LARGE CAPITAL	\$301.0M						
SMALL CAPITAL	\$20.5M						
IM/IT	\$6.5M						
TOTAL	\$328.0M						

Large Capital Projects – budget of \$600,000 and above. Small Capital Projects – budget from \$50,000 to \$600,000. IM/IT – Information Management and Information Technology Projects.

#### **2023-24 Capital Estimates**

SUM	MARY	BY	DFPA	RTM	IFNT
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	<u> </u>
Legislative Assembly	\$0.20M
Education, Culture and Employment	\$9.12M
Environment and Natural Resources	\$2.07M
Finance	\$16.12M
Health and Social Services	\$35.90M
Industry, Tourism and Investment	\$3.08M
Infrastructure	\$195.06M
Justice	\$1.48M
Lands	\$0.25M
Municipal and Community Affairs	\$29.16M
Housing NWT	\$35.56M
TOTAL	\$328.00M

#### **Projects in Planning/Design**

# **Projects in Planning/Design**

- Hay River Long Term Care Planning ongoing, planning stage completion target 2024/25
- Inuvik Long Term Care Planning ongoing, planning stage completion target 2024/25
- **Colville Lake School** Planning ongoing, planning stage completion target 2023/2024
- Chief Jimmy Bruneau School, Behchokò Planning ongoing, preliminary planning completion target 2023/2024
- Fort Simpson Health Center Planning ongoing, planning stage completion target 2024/25
- Fort Simpson Long Term Care Planning ongoing, planning stage completion target 2025/26
- Fort Smith Long Term Care Planning ongoing, planning stage completion target 2025/26



### **Fuel Services Projects**

# **Bulk Fuel Storage Facilities**

- Increase Capacity for Facilities Disaster Mitigation Adaptation Funding
  - Location: Paulatuk, Ulukhaktok, Sachs Harbour and Tuktoyaktuk
  - Project Budget: \$29M (budgets include design, pre-engineering and construction)
  - Scope:
    - Increase fuel storage capacity in coastal communities, to 2 years supply
    - Modernize and improve fuel storage facilities.
  - Current Status: Paulatuk, Ulukhaktok, Sachs Harbour sections designs 90% complete with construction tender target of winter 2022. Tuktoyaktuk section in planning stage.
  - Construction: Completion by March 31, 2027 (anticipated)



# **Airport Projects**

#### **Mike Zubko Air Terminal Building**

- Replace Air Terminal Building (ATB) Investing in Canada Infrastructure Program
- Location: Inuvik Airport
- Project Budget: up to \$45M (budgets include design, pre-engineering and construction)
- Scope:
  - Replacing the existing ATB with a new modern building with improved accessibility.
  - Includes service building, utilidor, and new tower (shell construction only).
  - Realignment of the access road to improve passenger drop off.
  - Thermosyphon foundation design to preserve permafrost.
- Current Status: Design finalized. Contract and drawing & specifications package issued for pricing (negotiated contract).
- Construction: Will begin upon the completion of successful negotiations and the issuance of a signed contract. Estimating a 3-year construction schedule.

#### Inuvik Airport Resurface Structures Adaptation for Climate Change

- Resurface Structures Disaster Mitigation Adaptation Funding
- Location: Inuvik Mike Zubko Airport
- Project Budget: \$22M (budgets include design, pre-engineering and construction)
- Scope:
  - Widen Runway Safety Areas and Taxiway Embankments
  - Site Drainage
  - Select Paving and Repairs
  - Delivered in conjunction with Inuvik Runway Extension
- Current Status: Embankment works in construction (negotiated)

- Future contracts to be procured.

• Construction: Complete 2027-28 (anticipated)

#### **Runway Extension Inuvik Airport**

- Extension of Runway by 3,000 feet Department of National Defence
- Location: Mike Zubko Airport
- Project Budget: up to \$150M (budgets include design, pre-engineering and construction)
- Scope:
  - Extending and modernizing the runway to meet changing operational demands and continue to provide for safe air operations.
  - 3000' Runway Extension with LED Lighting full length.
  - Relocation/Replacement of Navigational Aids.
  - New Field Electric Centre to energize and support new lighting.
- Current Status: Embankment works in construction (negotiated)
  - Future contracts to be procured.
- Construction: Complete 2027-28 (anticipated)



### **Transportation Projects**

HIGHWAY	WORK
Highway 1 (Mackenzie)	Rehabilitation work including embankment widening and drainage improvements and chipseal – km 222-234 (Multi-year contract-work in progress)
Highway 2 ( Hay River)	Chipseal Overlay – km 0-48
Highway 3 (Yellowknife)	Highway Surface Repairs at selected sections between km 240 and km 332
Highway 4 (Ingraham)	Chipseal Overlay – km 0-59 and Dettah Access Road km 0-6
Highway 5 (Fort Smith)	Chipseal Overlay – 45km between km 211-266
Highway 7 (Liard)	Rehabilitation work including embankment widening, aggregate production, right of way clearing, culvert replacement, base & sub-base construction and erosion protection – km 20-34 (multi-year contract-work in progress)
Highway 8 (Dempster)	Highway widening and culvert replacement between km 237 and 245. Gravel resurfacing at selected locations between Km 0.0 to Km 235. Calcium Chloride application at selected sections between Km 70 to Km 259. Chip seal from Km 269.1 to km 272.5
Highway 10 (Inuvik-Tuktoyaktuk)	Rehabilitation of selected sections between Km 27 to Km 71.5 including raising of low-profile sections and culvert rehabilitation. Gravel resurfacing of selected sections between Km 104.0 to Km 138.9, calcium chloride application in selected sections between Km 70 to Km 138.9 and culvert replacement. Material production.

HIGHWAY	WORK
Community Access Roads Improvement - ICIP	Rehabilitation of the existing Liard Access Road km 0-5 subject to availability of funds.
Whatì Access Road	Rehabilitation of the existing Whatì Access Road km 0-12 connecting to the Tłıcho Highway.
Prohibition Creek Access Road - Phase 1	This is a construction of a new 6.7-kilometer access road from the Canyon Creek Bridge to Cristina Creek bridge (phase 1 awarded) that will be added to the Northwest Territories highway system, eventually serving as a part of the Mackenzie Valley Highway.
Various Gravel Roads	Calcium chloride application (a single multi-year, multi region contract will be set up in 2023).
Enhanced Safety Improvements (BCP) - Various Highways	Line painting multi-year contract will be set up in 2023; guardrail/bridge rail installations, INF to update Installation of lighting at the key intersections, Continued implementation of an Intelligent Transportation System components to included the Road Weather Information System, highway cameras and traffic control system all tied into a public webbased information network.
Various Highways	Crushing for 2024 chipseal program - Public tender in summer 2023

BRIDGES	WORK
Bridge Rehabilitation and Replacement (BCP)	Design and construction of Oscar Creek, rehabilitation of Bouvier Creek culvert, design of Jean Marie River Bridge, design of Axe Handle Creek culvert
Highway 1 (Mackenzie)	Preliminary engineering for the replacement of the Smith Creek Bridge km 687.2 Mackenzie Highway (No. 1)
Various Bridges	Bearing and expansion joint remediation works, concrete repairs on bridge decks, abutments and piers, embankment settlement erosion and sediment control
Dehk'è Frank Channel Bridge - NTCF	Design-build procurement and RFP for owner's engineer; Complete design, obtain permits, procurement of fabricated components, granular production.
Redknife River Bridge - DeBeers	Replacement of the bridge-culverts at the Redknife River km 295.2 Mackenzie Highway (No. 1) with a bridge
Great Bear River Bridge Planning - NTCF	Obtain regulatory permits, tender and award construction contract (public procurement), camp mobilization, site access construction, granular material production, bridge foundation and pile procurement, fabrication of steel superstructure, engineering services
Whatì Access Road bridge	Replacement of the bridge-culverts at the Whati Access Road with a bridge

BRIDGE-CULVERTS	PROJECT DESCRIPTION
All Highways	<ul> <li>Pre-engineering works to support the Bridge-culvert Program include geotechnical investigations, hydrological studies, surveys, fish studies &amp; archaeological assessments.</li> <li>Planning and Design for priority crossings.</li> <li>Regulatory permitting and rehabilitation or replacement of the highest priority bridge-culverts each year.</li> <li>The top 50 priority bridge-culverts will be included in this effort</li> </ul>
Highway 1 (Mackenzie)	Bridge-culvert replacement at km 680.9
Highway 3 (Yellowknife)	Preliminary engineering for the replacement of Miller Creek culvert at km 292.8
Highway 7 (Liard)	Bridge-culvert replacement at km 176.6
Highway 8 (Dempster)	Bridge-culvert replacement - horizontal boring at km 40.2, 147, 266.1
Mackenzie Valley Highway Winter Road	Preliminary engineering for the replacement of Strawberry Creek Culvert at km 747.6



# **Energy Projects**

PROJECT	WORK
Fort Simpson Liquefied Natural Gas (LNG)	Work towards design and construction of a new LNG facility to generate electricity in Fort Simpson.
Fort Simpson Diesel Plant Relocation	Work towards relocation of the existing diesel plant to a new site away from the Mackenzie River on higher ground.
Taltson Expansion Pre- construction	Engineering activities, environmental and regulatory activities, engagement, commercial and partnership discussions.
Diesel Power Plant Infrastructure (NTPC)	Completion of diesel plant replacement in Sach Harbour and Łutselk'e.
Tuktoyaktuk Liquefied Natural Gas	Work towards design and construction of a new LNG facility to generate electricity in Tuktoyaktuk.
Community Hydro	Work towards identifying and advancing small scale community hydropower projects.
Fort Providence / Kakisa Transmission Line	Work towards detailed engineering and design leading to project sanction.
Hydro Infrastructure -upgrades (NTPC)	Taltson major overhaul – project to be initiated in 2023/24 Snare Forks Generator 1 and Generator 2 major overhaul – Generator 1 completed, Generator 2 in planning
Whatì Transmission (ICIP)	Work towards technical and environmental work, engagement and consultation with affected parties, securing federal funding and obtaining regulatory permits and authorizations.



# **Strategic Corridor Projects**

# **Taltson Hydro Expansion**

#### **Taltson Hydro Expansion**

- \$18M funded by Crown-Indigenous Relations and Northern Affairs Canada (2019/20 – 2023/24).
- Phase 1 Add 60MW of generation capacity, connect two NWT hydro systems.
- Phase 2 Provide clean energy to the Slave Geological Province and resource sector.
- Phase 3 Connect the NWT electrical grid to the rest of Canada.



# **Taltson—Anticipated Timelines**

Element	Indicative Timeline										
Element	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Business Case											
Commercial Structure and Procurement Strategy											
Project Design Basis											
Environmental Studies & Regulatory Approvals											
Community Engagement & Indigenous Knowledge											
Tender											
Construction											
Plant Commissioned											

# Mackenzie Valley Highway (MVH)

- Proposed two lane, 321 km all-season road between Wrigley and Norman Wells.
- \$140 million funded under National Trade Corridors Fund for:
  - MVH Environmental Assessment and Engineering Studies.
  - Construction of the Great Bear River Bridge.
  - Construction of the Mount Gaudet Access Road.
- \$28M funded under Investing in Canada Infrastructure Plan for the Prohibition Creek Access Road including \$2.5M for planning and \$25.5M for construction of Prohibition Creek Access Road Phase 1.

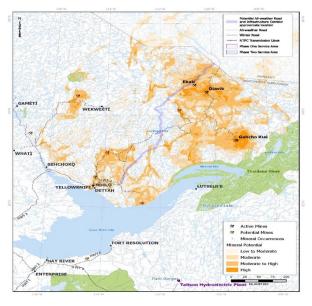


#### MVH – Anticipated Timelines and Next Steps

- Regulatory approvals Great Bear River Bridge (2023-2024)
- Construction of Great Bear River Bridge (2024 2028)
- Construction of Prohibition Creek Access Road Phase 1 (2022-2023)
- Completion of Developers Assessment Report for MVH Environmental Assessment (2023)
- Regulatory approvals Mount Gaudet Access Road (2023-2024)
- Construction of Mount Gaudet Access Road (2024-2026)

# Slave Geological Province Corridor (SGPC)

- 413 km all-season road from Tibbitt Lake to Nunavut Boarder
- \$40M funded under Transport Canada's National Trade Corridors Fund
  - Environmental Assessment of Lockhart All-Season Road.
  - Planning Studies to Nunavut Border



#### SGPC – Anticipated Timelines and Next Steps

- Lockhart All-Season Road Baseline environmental and engineering studies (2021-2024)
- Lockhart All-Season Road Environmental Assessment initiation (2024-2025)
- Lockhart All-Season Road Developers Assessment Report (2026)
- Responsible Ministers Decision (2026-2027)
- Regulatory approvals Lockhart All-Season Road (2027-2028)



# Municipal and Community Affairs/Communities

#### **Community Infrastructure Funding**

- Annual Funding:
  - Community Public Infrastructure (CPI) Funding -\$31.5M – Proposed for 2023-2024.

– Gas Tax Funding (Federal) - \$16.7M.

 Funds are distributed to communities via a formula and communities manage their own priorities.

# Application Based Infrastructure Funding

- Federal Funding:
  - Small Communities Fund (SCF) \$38.4M Total/\$21M spent to date.
    - Community Projects have already been approved.
    - The majority of projects have been awarded and are underway.
  - Investing in Canada Infrastructure Program (ICIP MACA Allocation)- \$117M Total/\$16M spent and claimed to date.
    - Targeted categories are roads, solid waste and cultural spaces.
    - Community Projects have already been approved.
    - The construction completion deadline for ICIP projects is being extended to October 2033.
- Approved projects are listed on Infrastructure Canada's website at: <u>https://www.infrastructure.gc.ca/gmap-gcarte/index-eng.html</u>



# **Housing NWT**

# **Housing NWT Investments**

#### Proposed 2023/24 Major Capital Plan \$35.56 million (M):

- New construction \$27.927 million Includes the delivery of the six (6) remaining new public housing units towards the targeted addition of 100 new public housing units over the term of the 19th Legislative Assembly and 21 public housing unit replacements.
- Major retrofits (renovations) and alternative energy investment \$7.136M The renovation of 99 housing units across various communities. Medium size biomass district heating system for a 13-unit seniors independent living multiplex in Fort Providence.
- Vehicle replacements \$0.5M The replacement of aged vehicles at Local Housing Organizations.

### **Housing NWT Investments**

#### **Other Planned Investments:**

- \$7 M to support NWT housing partnership projects (Community Housing Support Initiative and National Co-Investment Fund).
- \$9 M homeownership repair programs.
- \$10 M for various housing unit repairs and upgrades, including fuel tank replacements, demolitions, and hazardous assessments.

#### **Other INF Programs**

#### Capital Asset Retrofit Program (\$3.7M) – All Regions

- 23/24 Design services/Auditing,
- O&M Delivered LED Projects,
- Yellowknife (YK) Air Terminal Building (ATB) Control Upgrade,
- YK Tatsaotine/Stewart Hodgson Building/Laing District Heat System Optimization,
- Sachs Harbour Health Centre LED Lighting and Controls Upgrade,
- Norman Wells Mackenzie Mountain School LED Lighting Upgrade,
- Fort Smith Airport Maintenance, Garage Electric Boiler and Hydronic Heating,
- Fort Liard Health Centre LED Lighting Upgrade,
- Fort Simpson District Heat Plant / Education Complex Optimization of heating plant and tie-in of Education Complex,
- Wrigley School/Community/ATB LED Lighting Upgrade

# **Other INF Programs**

#### **Deferred Maintenance (\$4.9M) – All Regions**

20-30 projects – used to address maintenance issues, primarily consisting of:

- Structural repairs
- Building code upgrades
- Roof and exterior envelope upgrades
- Fire alarm upgrades
- Accessibility upgrades
- Mechanical and electrical system component upgrades

#### **GNWT Contract Event Opportunities**

- The GNWT <u>Contract Event Opportunities</u> website is an interactive system that allows vendors to download and bid on contracting opportunities online. Vendors can also sign up for notifications of new contracting event opportunities as they arise in specific areas of interest.
- Assistance and advice for using the Contract Event Opportunities website is available through the <u>GNWT Contract Event Opportunities Help</u> site.
- For assistance with the website, contact: <a href="mailto:samhelpdesk@gov.nt.ca">samhelpdesk@gov.nt.ca</a>
- For procurement questions about a specific event, contact: <u>psstenders@gov.nt.ca</u>

#### **Questions or Suggestions?**

#### **Department of Infrastructure (INF)**

#### Keith Wong, Capital Planner

Keith Wong@gov.nt.ca

#### **Department of Municipal & Community Affairs (MACA)**

Olivia Lee, Manager, Asset Management olivia lee@gov.nt.ca

#### Northwest Territories Housing Corporation (NWTHC) Scott Reid, Director, Infrastructure Services <u>scott\_reid@gov.nt.ca</u>