10-YEAR CAPITAL PLAN (2020 – 2029)

The 10-Year Capital Plan ("Plan") reflects the capital expenditures that the City is forecasting for that period. The plan identifies the investments that will be required to maintain infrastructure, address environmental issues and deal with growth.

Crucial to the success of any forecasting exercise are the key assumptions used in preparing the Plan.

KEY ASSUMPTIONS

To develop the Plan, information was compiled utilizing the following assumptions:

- The 2020, 2021 and 2022 capital expenditures are based on the draft budgeted expenditures as outlined in this budget document. 2023 – 2029 numbers are based on the best estimates of required future investments and anticipated funding levels.
- Formula funding and infrastructure funding from the GNWT are expected to remain stable over the ten-year period. Inflationary increases are expected in the formula funding.
- Gas Tax Funding will continue as promised by the federal government and as outlined in the renewed Gas Tax Agreement.
- Any additional infrastructure or stimulus grant funding from other orders of government will be used to supplement the annual core funding levels.
- Development costs for residential and industrial subdivisions are not included in this Plan, as it is assumed that all future development costs will be recovered from land sales.

There are three primary grant sources used for capital funding:

Funding	Source	Description					
Formula Funding	GNWT	The City's population, property assessment values and inflation rate are used to calculate the City's community points relative to the total of all communities' points in the Northwest Territories (NWT). The community points are then used to determine the annual allocation amount to each community. It is estimated that the City will receive \$7.8 million annually over the course of this Plan.					
Gas Tax Rebate	Federal Government	This long-term indexed funding is determined on a per capita basis. It is assumed that the City will receive \$5.5 million plus inflation annually for the next ten years.					
Community Public Infrastructure Funding (CPI)		This territorial funding is calculated using a base-plus approach. The C is allocated 2% of the total funding available – the base. The City's population and current replacement value of its public infrastructure are used to calculate its community points relative to the total of all communities' points in the NWT. The community points are then used to determine the balance of the CPI allocated to each community. It is estimated that the City will receive \$2.86 million annually for the next te years.					

2020 40 2020

INFRASTRUCTURE INVESTMENT

Currently, the planned capital expenditures over the next 10 years total \$246.7 million. The City is striving to maintain a sustainable investment in infrastructure. Over the next five years, the planned capital expenditures are about \$170 million. It is projected that a capital reserve of approximately \$19 million will be in place by

2029 for unexpected/unbudgeted emergencies such as major breakdown, early wear and tear and accidents. These estimations are based on current assets data which may be changed once the Asset Management Plan is adopted by Council and capital asset data are updated.

											2	2020 to 2029
	-	2020 TC	2022 Bu									10 Year
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
1,077	848	1,021	716	630	1,075	1,030	970	690	690	690	690	8,202
505	320	409	255	280	475	430	370	90	90	90	90	2,579
572	528	612			600	600	600	600	600	600	600	5,623
581	405	410	208	80	400	400	400	400	400	400	400	3,498
125	355	290	185	80								555
	50											143
	2,954	6,940	34,896	10,177	4,193	2,500	2,504	2,504	800	800	800	66,113
												0
												0
75	1,750	4,805	33,635	9,610								48,050
					3,393	1,700	1,704	1,704				8,500
		287										497
							800			800	800	9,066
						,			, -	, -		163,109
13,691												36,390
	3,045							700	700	700	700	18,545
		1,000	1,000	1,000								34,483
					300	300	300	300	300	300	300	2,100
												0
		3,770	3,640	2,850								41,760
850	100					440	440	440	440	440	440	3,080
												4,350
												6,360
			1,335	1,300			,					16,041
												5,325
23,946	16,199	19,012	55,040	27,067	31,988	37,193	16,704	15,994	14,380	14,410	14,460	246,247
23,268	19,404	21,774	51,958	22,419	25,572	40,747	17,698	18,044	17,215	18,321	19,667	253,416
(678)	3,205	2,762	(3,084)	(4,648)	(6,416)	3,554	994	2,051	2,835	3,911	5,207	
8,700	11,905	14,667	11,584	6,935	520	4,074	5,068	7,119	9,955	13,865	19,072	
	1,077 505 572 581 125 456 1,115 160 120 75 420 340 21,073 13,691 5,005 850 400 1,127 100 23,946 23,268 (678)	1,077 848 505 320 572 528 581 405 125 355 456 50 1,115 2,954 160 120 75 1,750 420 245 340 959 21,073 11,967 13,691 3,840 3,045 50 5,005 3,255 850 100 400 470 1,127 1,207 100 25 23,946 16,199 23,268 19,404 (678) 3,205	2018 2019 2020 1,077 848 1,021 505 320 409 572 528 612 581 405 410 125 355 290 456 50 120 1,115 2,954 6,940 160 120 75 75 1,750 4,805 420 245 287 340 959 1,848 21,073 11,967 10,566 13,691 3,840 3,655 5,005 3,255 3,770 550 100 25 400 470 120 1,127 1,207 1,326 100 25 75 23,946 16,199 19,012 23,268 19,404 21,774 (678) 3,205 2,762	2018 2019 2020 2021 1,077 848 1,021 716 505 320 409 255 572 528 612 461 581 405 410 208 125 355 290 185 456 50 120 23 1,115 2,954 6,940 34,896 160 120 23 1,115 2,954 6,940 34,896 160 120 23 75 1,750 4,805 33,635 420 245 287 210 340 959 1,848 1,051 21,073 11,967 10,666 19,220 13,691 3,840 3,650 3,650 3,045 700 6,625 1,000 1,000 50 3,255 3,770 3,640 350 400 470 120 2,620 1,127	1,077 848 1,021 716 630 505 320 409 255 280 572 528 612 461 350 581 405 410 208 80 125 355 290 185 80 456 50 120 23 10,177 160 120 23 10,177 160 120 23 10,177 160 120 23 10,177 160 120 23 10,177 160 120 23 10,177 160 10,01 10,01 10,177 160 120 23 10,177 160 120 10,177 14,805 33,635 9,610 420 245 287 210 16,180 13,691 3,840 3,650 3,650 4,590 13,691 3,840 3,650 3,650 4,590	2018 2019 2020 2021 2022 2023 1,077 848 1,021 716 630 1,075 505 320 409 255 280 475 572 528 612 461 350 600 581 405 410 208 80 400 125 355 290 185 80 400 125 355 290 185 80 400 125 355 290 185 80 400 126 75 1,750 4,805 33,635 9,610 3,393 420 245 287 210 3,393 3,393 420 245 287 210 3,393 3,303 13,691 3,840 3,650 3,650 4,590 3,500 13,691 3,840 3,650 3,640 2,850 4,500 50 3,255 3,770 <td< td=""><td>2018 2019 2020 2021 2022 2023 2024 1,077 848 1,021 716 630 1,075 1,030 505 320 409 255 280 475 430 572 528 612 461 350 600 600 581 405 410 208 80 400 400 125 355 290 185 80 400 400 456 50 120 23 - - - 1,115 2,954 6,940 34,896 10,177 4,193 2,500 160 </td><td>2018 2019 2020 2021 2022 2023 2024 2025 1,077 848 1,021 716 630 1,075 1,030 970 505 320 409 255 280 475 430 370 572 528 612 461 350 600 600 600 581 405 410 208 80 400 400 400 125 355 290 185 80 400 400 400 456 50 120 23 202 2,500 2,504 160 120 75 1,750 4,805 33,635 9,610 3,393 1,700 1,704 420 245 287 210 3,393 1,700 1,704 420 245 287 210 3,393 3,500 3,500 3,500 3,500 3,500 3,500 3,500 3,500 3,500</td><td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td><td>2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 1.077 848 1,021 716 630 1,075 1,030 970 690 400</td></td<>	2018 2019 2020 2021 2022 2023 2024 1,077 848 1,021 716 630 1,075 1,030 505 320 409 255 280 475 430 572 528 612 461 350 600 600 581 405 410 208 80 400 400 125 355 290 185 80 400 400 456 50 120 23 - - - 1,115 2,954 6,940 34,896 10,177 4,193 2,500 160	2018 2019 2020 2021 2022 2023 2024 2025 1,077 848 1,021 716 630 1,075 1,030 970 505 320 409 255 280 475 430 370 572 528 612 461 350 600 600 600 581 405 410 208 80 400 400 400 125 355 290 185 80 400 400 400 456 50 120 23 202 2,500 2,504 160 120 75 1,750 4,805 33,635 9,610 3,393 1,700 1,704 420 245 287 210 3,393 1,700 1,704 420 245 287 210 3,393 3,500 3,500 3,500 3,500 3,500 3,500 3,500 3,500 3,500	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 1.077 848 1,021 716 630 1,075 1,030 970 690 400

Assumptions:

(1) Annual transfers of \$1.7 million from the General Fund, effective 2022.

(2) Aquatic Centre costs of \$49.875 million, partially funded by borrowing \$14 million for 20 years at 3% in 2021. Its estimated annual net operating cost of \$3.2 million has not been reflected in the budget.

(3) Submarine Intake Line costs of \$34.5 million, partially funded by borrowing \$7 million for 15 years at 3% in 2024. If alterative funding is secured, this amount will be reduced.

MAJOR CAPITAL PROJECTS

General Government

Currently the planned investment in Information Technology infrastructure totals \$5.6 million over the next ten years. This reflects regular, incremental expenditures to ensure the infrastructure continues to meet the increasing demands being placed on it.

Public Safety

In addition to regular safety equipment upgrades over the next 10 years, the City is also continuing its investment in modernizing the Fire Hall to meet growing needs. In 2019, the City conducted a Fire Hall Study to assess the building's capacity relative to current requirements. Once the study is finalized, the City will be able to plan for its future needs and allocate capital resources accordingly.

The planned expenditures over the next ten years on safety equipment and the Fire Hall total about \$3.5 million.

Community Services

The Ruth Inch Memorial Pool is reaching the end of its lifespan and the City is considering the development of an Aquatic Centre. In February 2018, Council established the Aquatic Centre Advisory Committee (ACAC) to assist the City in an advisory capacity regarding the development of an Aquatic Centre. Its role was to provide direct input through the community consultation process and to build consensus within the community on the current and future needs of the community relating to the development of an Aquatic Centre. These efforts contributed to the Pre-Design report that reflects what this facility could look like and the features and services it could provide. This report was presented to Council in

October of 2018, and identified an expected price tag of \$49.8 million for the facility. Funding was allocated in 2019 to secure the services of an architectural and engineering firm to complete the detailed facility design and develop more specific cost estimates, with a view to allocating additional resources from 2020 through 2022 for construction.

During the development of the Aquatic Centre, the Ruth Inch Memorial Pool (RIMP) will remain in full operation. At the conclusion of the construction, aquatic operations at RIMP will cease. This will present a potential opportunity to repurpose the facility into a use other than a pool but one that still serves the needs of the community. The cost for this has yet to be determined and will be based on the final end use of the facility. The City will allocate resources to conduct an assessment of the building structure in 2020.

The recent Accessibility Audit identified a number of barriers in City facilities, and established a ten-year plan to address them with a total cost of approximately \$5 million. The Implementation Plan accepted by Council recommends a phased approach that resolves the most significant issues first.

In total the planned expenditures for municipal facilities, including parks and trails, total \$66 million over the next ten years.

As well, a new library to address the growing need for additional capacity is also projected but not yet funded. The anticipated cost for a new library is still being worked out; however it could potentially be offset by between \$2 million and \$3 million by selling the existing library space.



Public Works

The replacement of deteriorated corrugated metal sewer pipes (CMP) first began in 1984. Under the current Ten-Year Capital Plan, this project was completed in 2018. While this will specifically address the CMP; the City is also planning further work to replace other aging underground water and sewer infrastructure. Over the next ten years the City will invest \$36.4 million in this area.

Just as important as the underground infrastructure are the buildings and equipment that form part of the water delivery system that provides residents with excellent quality water. Expansion of the water reservoir was completed in 2008 and the Water Treatment Plant was completed in 2015. This project was partly financed by the borrowing of \$23.8 million, which will be repaid by 2028.

The City draws its water from the Yellowknife River via an underwater pipeline, which runs about eight kilometers between Pumphouse #2 at the Yellowknife River and Pumphouse #1 on 48th Street. The pipeline has reached the end of its useful life, and work has begun to replace it at an anticipated cost of \$34.5 million. The City has secured \$25.8 million from the Disaster Mitigation and Adaptation Fund towards the project, and is continuing to seek additional funding for the balance of the cost.

Historically, a majority of the road rehabilitation program was financed by long-term borrowing (debentures). In 2005, however, the City decided to reduce its reliance on long-term borrowing. As a result, the timely rehabilitation of existing roads and sidewalks was deferred. The City will use Gas Tax and Formula Funding (GNWT) to finance the costs of road rehabilitation and over the next ten years the City plans to invest more than \$41.8 million in this effort. Some road rehabilitation is also accomplished at the same time as the Water and Sewer Infrastructure Replacement Program, using funds from that program.

The mobile equipment fleet has a replacement value of \$16.4 million and must be properly maintained to meet the service levels expected by residents. Over the next ten years, the City has budgeted \$16 million for fleet management.

Solid Waste Management

Landfill Expansion – The current cell of the landfill will be at capacity in the near future. In 2017 the City moved the majority of its operations to a new cell which cost \$3.7 million to construct. Reclamation of the existing landfill will be ongoing until 2025 with a portion of the area designated for the City's centralized composting site. Another new cell is planned for 2023, at an estimated cost of \$4 million.

Over the next ten years the City will continue implementation of the Strategic Waste Management Plan developed in 2018. This plan will help the City work towards the recommended goal of reducing waste generation from the current estimate of between 1,200 and 2,000 kilograms per capita to 500 kilograms per capita by 2030.

The planned expenditures over the next ten years are \$3 million for maintaining the Solid Waste Facility and replacement of equipment.

Council has adopted a Community Energy Plan (CEP) to support the community in its efforts to reduce emissions and to ensure that the City leads by example. It provides a framework for reducing the cost of energy use within both City operations and the community. The City completed the five milestones of original Plan and in 2017 updated the Plan for an additional 10-year period. The updated plan

10-YEAR CAPITAL PLAN

sets out ambitious targets on both the Corporate and Community side with respect to GHG emission reductions and renewable energy use. The City is planning to spend \$6.4 million over the next ten years on CEP initiatives.

Planning and Development

The Community Plan renewal is anticipated to be completed in 2019. The Plan sets out the City's community planning goals, polices, regulations, growth assumptions and ways to accommodate and spur the type growth stakeholders desire. It will establish long- term land use goals for the community and form the basis for future land acquisition from the Territorial Government. The focus on downtown revitalization will impact changes to the Development Incentive By-law, with proposed amendments in 2020.

The planned expenditures in this area over the next ten years total \$5.3 million. Any additional resources obtained from other orders of government for related projects will be used to augment this spending.

FINANCING CAPITAL PROJECTS

The City uses GNWT formula funding, government grants, property taxes, water and sewer fees and levies to fund capital projects and reserve funds. Currently, part of the property tax revenue is used for debt servicing costs. The City's Ten-Year Capital Plan has identified that a transfer of \$1.7 million per year is required to support a sustainable capital investment strategy, in addition to the funding received from other orders of government.

Presently the City has several reserve funds. One of them is the Major Community Facility Reserve (MCFR). The MCFR is used to fund major capital projects such as City Hall, Library renovations and potentially the Aquatic Centre. In 2020 and 2021, the City is planning to use \$3.12 million from MCFR to fund the Aquatic Centre. Any replacement or addition of such facilities will require additional funding from other orders of government and will be subject to detailed public consultation prior to committing funds. In addition, there should be a Capital Reserve in place to meet demand arising from emergency and/or unbudgeted events. The reserve will be about \$19 million to be accumulated over the next ten years.

LONG-TERM DEBT

In 2013 the City borrowed \$23.9 million, repayable over 15 years, to finance the Water Treatment Plant. This enabled it to dedicate the Gas Tax funding to accelerate other capital projects and to complete the CMP program by 2018.

The City is planning to borrow \$7 million to finance the replacement of the submarine intake line and another \$14 million will be required if Council and the public decide to build the aquatic centre.

It is anticipated that the City's long-term debt will decrease from \$16.9 million in 2018 to \$15.3 million by the end of 2019. However, if the City borrows \$14 million in 2021 for the proposed Aquatic Centre and \$7 million in 2024 for the submarine intake line, its annual debt servicing cost will climb from \$2.1 million in 2019 and 2020, to \$2.5 million in 2021, and \$3.2 million in 2024. Both debt and debt servicing are within the legal limits and have been included in the Ten-Year Capital Plan.

The City has been trying to secure other sources of funding to reduce our debt burden and will continue to do so. In 2019, the City has successfully secured \$25.9 million of Disaster Mitigation and Adaptation Fund to finance the submarine intake line.

SUMMARY

Over the next ten years, the City's planned annual capital expenditures will average \$24.6 million.

10-YEAR CAPITAL PLAN

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