Yellowknife Population Projections

Population, Employment, and Land Need Projections to 2050

Prepared for:
City of Yellowknife

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1 Introduction

1.1 Project overview

The City of Yellowknife is undertaking a comprehensive update of their Community Plan to guide development in the community for the next 25 years. This update is intended to be completed by early 2026. In order to accurately and proactively plan for growth, it is important to have realistic projections for both population and employment change. Using thoughtful projections, growth scenarios can be identified and assessed to better understand how the anticipated growth will impact housing, demographics; thereby allow the City to plan land, services, and amenities considering not only the short-term but also long-term community characteristics. In spring of 2025, Stantec was hired to help to prepare these projections.

This report consists of:

- An assessment of the economic and demographic drivers that will affect population change in Yellowknife;
- Population projections to 2051, using low growth, medium growth and high growth scenarios;
- Employment projections; and
- An assessment of land needed to accommodate the residential, commercial, and industrial growth projections to 2051.

1.2 Population data sources

Producing accurate population projections depends on having accurate current and historic demographic information to use as a starting point. Projection methods are based on how the population, by age and sex, has changed over time, and the specific numbers used in developing the projections will have a significant impact on the final projection outcomes.

A census is carried out by Statistics Canada every five years, most recently completed in 2021, and provides population numbers, by age and sex, for various geographies, including the Yellowknife census agglomeration, which is equivalent to the City's municipal boundary. It is understood that a census is not perfectly accurate. Some people will be missed because they did not receive the form, did not submit the form, or had no usual residence at the time of the census. A small number of people, for example students living away from home, may be counted twice. Statistics Canada studies how many people were missed or counted more than once and uses these studies to produce annual population estimates which account for this undercounting and are considered to be more accurate.

In the Northwest Territories (NWT), the Bureau of Statistics works with Statistics Canada census data to provide more accurate annual interim estimates. To do this, they adjust and update census counts using health care registrations, records of births and deaths, and other administrative data. They use this information to check census numbers, which are subject to errors from over and under counting, and make adjustments for changes between censuses, which are only conducted once every five years.

Interim estimates are nearly always higher than census counts, because the major source of error in the census is undercounting. While there are reasons for over counting such as double counting and administrative errors, undercount is usually much larger. Undercount tends to be high in areas where residents are more mobile, where there are more migrants and individuals who are not proficient in either official language, or in remote areas. Undercount across Canada for the 2021 Census was 3.1% up from 2.4% in 2016. In 2021, undercount in the NWT was 8.0% up from 6.6% in 2016. In both years the NWT had the highest level of undercount among the provinces and territories.

Table 1 below shows counts from censuses conducted from 2001 to 2021 compared to the annual interim estimates for the City of Yellowknife for years since 2001.

Table 1 - Yellowknife Historic Population

Year	Annual Interim Estimates for the City of Yellowknife	Statistics Canada Census Population Data	Difference	
			Number	Percent
2001	17,779	16,055	1,724	10.7%
2002	18,414			
2003	19,202			
2004	19,622			
2005	19,642			
2006	19,528	18,700	828	4.4%
2007	19,684			
2008	19,860			
2009	19,733			
2010	19,795			
2011	20,054	19,234	820	4.3%
2012	20,121			
2013	20,245			
2014	20,302			
2015	20,572			
2016	20,829	19,569	1,260	6.4%
2017	20,946			
2018	20,939			
2019	21,016			
2020	21,190			
2021	21,455	20,340	1,109	5.5%
2022	21,616			
2023	21,694			
2024	21,788			

For the projections in this report, we have used the annual interim estimates for the City of Yellowknife produced by Statistics Canada, with input from the NWT Bureau of Statistics.

1.3 Review of economic forecasts

To inform alternate population growth scenarios, Stantec reviewed several economic forecasting sources that reflect key economic assumptions, policy directions, and development funding that could influence Yellowknife's population trends. These sources (summarized in the table below) provide contextual understanding of regional economic strengths, vulnerabilities, and opportunities.

Table 2 - Summary of economic forecast sources

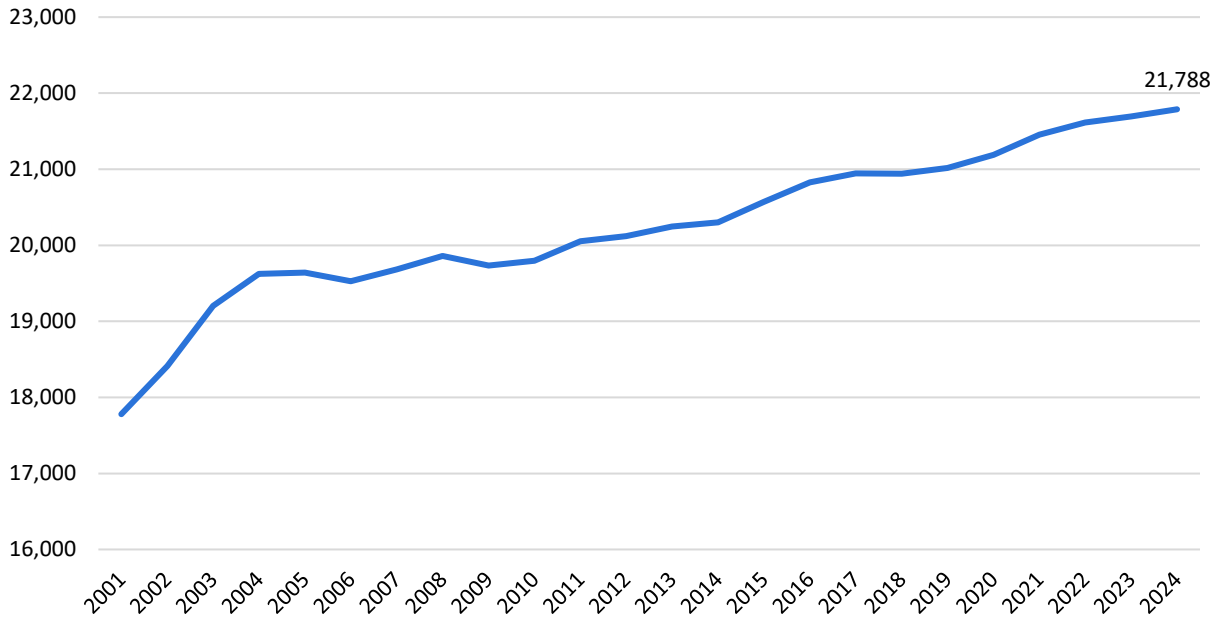
Publication	Purpose	Relevance to Population Trends
NWT Bureau of Statistics – Economic Review & Labour Market Publications *Published by: Government of Northwest Territories (GNWT)*	Tracks economic performance including GDP, employment rates, sectoral performance, and labour force dynamics.	• Labour demand may attract in-migration or influence retention. • Public and private sector job growth trends can inform baseline vs. scenario divergence. • Housing and construction data in relation to urban growth pressure.
GNWT Budget Documents *Published by: GNWT Department of Finance*	Presents fiscal forecasts, revenues, expenditures, and economic assumptions for short and medium-term planning.	• Capital investment signals infrastructure expansion (e.g., schools, housing, roads). • Program funding (e.g., housing, childcare) affects family retention and attraction. • Public sector growth or austerity influences job-related migration.
Conference Board of Canada – Territorial Outlooks *Published by: Conference Board of Canada*	Independent long-range economic projections include GDP, population, labour, and investment trends.	• Identifies economic inflection points, growth/decline sectors. • Provides alternate assumptions compared to government scenarios. • Lists national/global macroeconomic risks to local growth.
CIRNAC / CanNor Development Programs *Published by: Government of Canada (CIRNAC and Canadian Northern Economic Development Agency)*	Funds and promotes infrastructure, economic development, and Indigenous entrepreneurship across the North.	• Federal investments may drive growth in energy, transport, and community infrastructure. • Indigenous-led business growth may increase regional economic activity and migration to Yellowknife. • Funding priorities influence Yellowknife's role as a service hub.

2 Trends

2.1 Historic and current population

The graph below shows the population growth in Yellowknife since 2001. The population has been slowly increasing over time, with the rates of growth changing through different periods. A period of fast growth was seen in 2001 to 2004 and slower growth was seen between 2004 and 2006 as well as from 2011 to 2014.

Figure 1 - Historic population of Yellowknife, 2001 - 2024



2.2 Economic trends, by sector

The table below outlines key demographic, economic, and social change drivers that may influence Yellowknife's future population trajectory. These trends represent potential "game changers" beyond the business-as-usual scenario and will inform the development of alternate growth scenarios.

Several of these trends are driven by broader national or global factors (e.g., climate change, remote work, geopolitical security), while others are local or territorial in scope (e.g., mining cycles, federal infrastructure investments, tourism dynamics). Each has the potential to influence in-migration, out-migration, and long-term residency decisions in Yellowknife.

Table 3 - Key economic trends and potential population impacts for Yellowknife from 2025 to 2051

Driver	Relative Impact on Population	Notes
Military Expansion	↑ Moderate to High	• A new Yellowknife Multipurpose Facility is being built and will be a headquarters for the Canadian Rangers and will be home to elements of the Joint Task Force North. • In early 2025, the Federal government announced that Yellowknife, as a northern military hub, will receive increased invests to support various projects. • Increased federal Arctic security investments could lead to a significant increase in personnel stationed in Yellowknife which would have spin-off implications for housing, infrastructure, and services.
Economy and Tariffs	↓ Moderate	• Economic volatility and high construction/input costs may reduce affordability and increase out-migration, especially for lower-income households.
Large Infrastructure Projects	↑ Short-term; Possible Long-term	• Clean energy projects like Taltson could drive temporary labour in-migration and support long-term industrial growth. Impacts depend on timing and scale. • Mackenzie Valley Highway construction could also lead to temporary labour in-migration during construction. • The Arctic Security Corridor, including the road to the Arctic Ocean.
Remote Work	↑ Low	• Could attract cost-of-living and lifestyle migrants seeking smaller communities.
Mining	↑ or ↓ Moderate	• Mine closures may reduce jobs and drive out-migration. New critical mineral mines could attract workers and spur related economic activity. • At this point, Diavik is slated to close by 2026, and Ekati and Gahcho Kué will close by 2030. • Grays Bay Road and Port project would open up access to the Slave Geological Province and provide a road connection to the Coronation Gulf in the Arctic Ocean. Coud lead to increased critical mineral development and has impacts on Arctic sovereignty.
Tourism	↑ Low to Moderate	• Growth largely factored into baseline projections, but major eco-tourism or adventure tourism expansions could drive marginal increases in services and temporary population. • Tourism levels have rebounded to near pre-pandemic levels. Hotel room availability may begin to limit future growth, especially in fall and winter.

Sources: Government of Canada (2023); GNWT Department of Finance (2024); NTPC (2023); Statistics Canada (2023); CIRNAC & CanNor (2023); Canadian Institute for Climate Choices (2021); Conference Board of Canada (2022); Natural Resources Canada (2023).

2.3 Other trends that influence demographics

In addition to the trends identified above, broader demographic dynamics will continue to influence Yellowknife's population trajectory. Migration patterns—both from within the NWT and from elsewhere in Canada and internationally—are shaped by a combination of social, economic, political, and environmental factors. Yellowknife's role as a regional hub means it will likely attract young people from smaller NWT communities seeking access to post-secondary education, employment, and public services; however, the city's ability to retain and attract residents also depends on the availability and quality of essential services such as healthcare, education, and childcare. These factors are especially important for families and working-age populations. As the city grows or experiences shifts due to large-scale projects or policy changes, pressures on housing and infrastructure may also intensify, reinforcing the importance of strategic long-term planning.

Understanding the range of external forces that could shape Yellowknife's population over the coming decades is key for developing alternate growth scenarios. These drivers span social, technological, economic, environmental, and political domains and may act independently or in combination to influence migration trends, service demand, and labour force dynamics.

Some drivers represent gradual trends (e.g., access to healthcare or evolving employment structures), while others may involve sudden disruptions (e.g., climate events or major infrastructure announcements). The table below summarizes these impact categories, provides examples, highlights the mechanisms by which each could influence population levels, and notes whether model adjustments are warranted under alternate growth scenarios.

Table 4 - Key social and political drivers and potential population impacts for Yellowknife from 2025 to 2051

Driver	Trend	Relative impact on population	Notes
Social	Service provision (healthcare, education, childcare, elder care)	↑ gradual	• Higher quality services improve retention and attraction, particularly of families and seniors. • Could lead to increased migration of key groups. *Reference: GNWT Budget Reports; StatCan Demographics*
	Tourism	↔ / ↑ mild	• Growth in eco/adventure tourism increases seasonal and service-related population. • Seasonal workforce fluctuations noted but not structural population shifts. *Reference: Conference Board of Canada (2022)*
Technological	Remote work	↑	• May attract new residents seeking northern lifestyle with remote flexibility. • Could lead to changes in migrations trends. *Reference: Rural Migration Studies; Survey Data*
	Access to quality internet	↓ if unaddressed	• Poor service limits growth in tech-driven or remote sectors (e.g., digital economy).

Driver	Trend	Relative impact on population	Notes
			Reference: CanNor; NTPC Infrastructure Reviews
	Technology incentives (e.g., low-cost electricity for cooling)	↑ (conditional)	• Could attract data centers or crypto operations, driving new employment. *Reference: NTPC; CanNor*
Economic	Economic growth	↑	• Sustained investment and employment attract n-migration. *Reference: GNWT Budget; Conference Board Outlook*
	New/Renewed Industries (e.g., mining)	↑ / ↓ cyclical	• Boom periods increase labour demand; closure/remediation reduces it. *Reference: NRCan; Mining Watch; CanNor*
	Large development projects	↑ short-term	• May create short-term population spikes (construction labour). *Reference: Taltson Hydro; GNWT Infrastructure Plans*
Environmental	Climate change (cool summers)	↑	• Attracts migrants from areas with excessive heat. • Could change. *Reference: Taltson Hydro; GNWT Infrastructure Plans, Canadian Institute for Climate Choices (2021)*
	Extreme weather events (e.g., wildfire)	↓	• Smoke and safety risks discourage new and existing residents. *Reference: GNWT Environment; DND Arctic Reports*
	Pandemic risk	↔	• Can disrupt migration and increase remote work adoption. • It is a low-probability, high-impact variable. *Reference: Public Health Agency of Canada; StatCan*
Political	Immigration policies	↑ (if supportive)	• Federal quotas and programs shape newcomer flow. • It would lead to a change in foreign-born migration. *Reference: IRCC; GNWT Strategic Immigration Plan*
	Employment/ labour laws	↔	• May affect job availability or business climate. • Increasing minimum wage could draw more workers to the area. • Will have an indirect influence on economic assumptions. *Reference: GNWT Policy Documents*
	Environmental regulations	↓ or Delay	• It can affect project approvals and timelines (e.g., mining, hydro). *Refernence: CIRNAC; Review Boards*
	Trade restrictions/ tariffs	↓	• Can raise cost of living and reduce affordability. • Could lead to increased pressure on housing. *Reference: Federal Budget; C.D. Howe Institute*

Driver	Trend	Relative impact on population	Notes
	Political stability	↔	• Territorial and national stability remain a key factor in long-term residency confidence. *Reference: Northern Governance Studies*

3 Population projections

3.1 Methodology

There are several different methods that can be used to develop population projections; the community's size, immigration trends, data available, and remoteness are factors that will help to determine which method will be the most appropriate. For this project, the Cohort-Conversion method was used.

The Cohort-Conversion method's name describes the core concept, which is that each age cohort for each sex converts to the next older cohort at a percentage rate.

For example, if there were 100 males aged 20 to 24 in a community in 2016 and 120 between 25 and 29 five years later, we can say the five-year conversion rate for males 20 to 24 was 120%. The conversion rate of 120% can then be used to predict the next wave of young men advancing from the 20 to 24 group to the 25 to 29 group. If then, for example, there are 75 men between 20 and 24 in 2026 we can multiple their number (75) by the past rate of conversion (125%) to get the expected number between 24 and 29 in 2031, which would be 75 x 125% = 90.

The existing population age-sex profile can then be multiplied by conversion factors to obtain future numbers for each age-sex cohort. Each application of the conversion factors advances the estimates by five years as 20- to 24-year-olds become 25- to 29-year-olds and 25- to 29-year-olds become 30- to 34-year-olds. The oldest two cohorts, 90 to 95 years and 100 years or more must be combined and the conversion factor is calculated by dividing the total number over 100 in each sex in 2021 by the total number over 95 years in 2016.

When using the Cohort-Conversion method, a missing factor is the replenishment of the 0 to 4 age cohort, which arrives by birth rather than aging from a younger cohort. To determine this number, the ratio between current child-bearing women (i.e., women in the community between 15 and 44 years of age) and infants (i.e., males and females between 0 and 4 years of age) is calculated. If for example, 500 women in the community are associated with 75 male children and 75 female children in the community in 2016, the ratio is 15% for each sex. If the number of women increases to 600 in 2021, it can be expected that 90 male children and 90 female children may be produced.

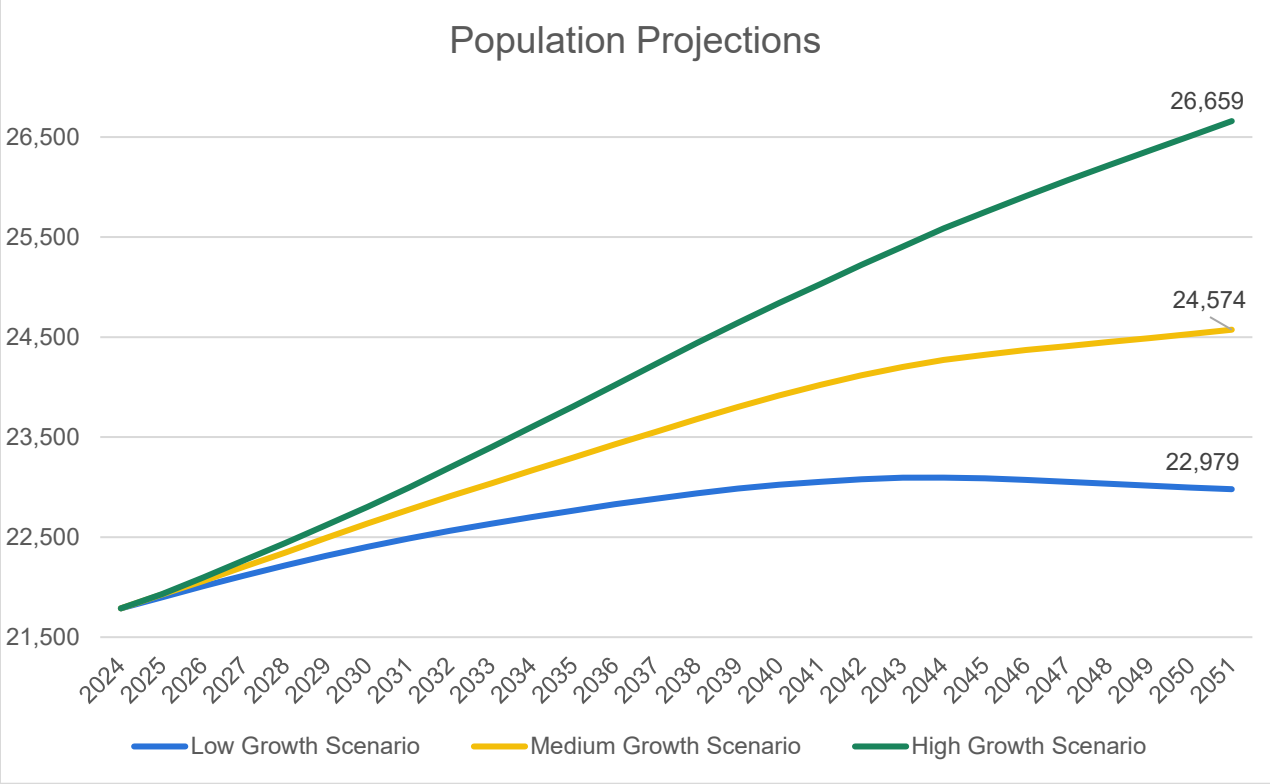
3.2 Population projections for Yellowknife

To generate the population projections for Yellowknife, the Cohort-Conversion method was applied, using the population estimates shown in Table 1, with three different future scenarios applied based on our understanding of Yellowknife's growth in recent years.

The Low Growth Scenario reflects growth rates seen over the last 15 years, from 2011 to 2024. This period saw a range of different growth trends, including a population decline from 2017 to 2018 as well as some more recent years of higher growth. The Low Growth Scenario shows a limited population growth, to 22,979

by 2051. The Medium Growth Scenario reflects the growth seen over the last ten years and results in a population of 24,574 in 2051. Lastly, the High Growth Scenario reflects the growth seen from 2001 to 2006, which had the strongest population growth of any five-year period since 2001. The High Growth Scenario would result in a population of 26,659 in 2051. These three scenarios are shown in the figure below.

Figure 2 - Population projections for Yellowknife, 2024-2051, at low, medium and high growth scenarios



The three population growth scenarios shown above are informed by a consideration of the drivers outlined in Section 2, but do not reflect specific assumptions made about how these drivers might play out over time to influence population growth. The circumstances under which we may expect to see these scenarios unfold are described in the table below. The future is unknown, but we can consider some of the things the low, medium and high growth scenarios provide three different ways to think about the future population.

The table below shows a more detailed description of each scenario and the conditions under which we might expect to see these scenarios play out.

Table 5 - Explanation of low, medium, and high growth scenarios for Yellowknife population projections to 2051

	Description	Assumptions	Expected Impact
Low Growth Scenario	• Reflects conservative assumptions and prolonged economic uncertainty.	• Minimal infrastructure investment. • Continued high construction costs • Declining mining sector. • Out-migration due to increased cost of living, especially housing. • Projection reflects the population trends seen from 2011 to 2024, with mixed rates of growth.	• Projected population of 22,979 by 2051. • Slower population growth and gradual decline, increased aging population, low new housing demand
Medium Growth Scenario	• Captures a medium growth scenario.	• Moderate growth in tourism, mining, miliary and infrastructure development. • Stable public sector employment. • Ongoing in-migration from within NWT. • Housing development continues at steady pace. • Reflects the most recent population trends seen from 2016 to 2024.	• Projected population of 24,574 by 2051. • Population increases gradually with modest shifts in age distribution. • Land demand remains predictable.
High Growth Scenario	• Captures optimistic conditions or transformative events.	• Increase in military presence in Yellowknife. • Large infrastructure projects go ahead (e.g. Mackenzie Valley Highway, Grey's Bay Road and port, Taltson powerline). • Continued high interprovincial and international migration. • Infrastructure, especially housing, is able to expand to meet needs. • Reflects the highest growth trends seen from 2001 to 2006.	• Projected population of 26,659 by 2051. • Significant population growth, more diverse age mix • Increased demand for housing and services, need for accelerated land development planning.

3.3 Yellowknife demographics

Yellowknife's demographics are unique; compared to Canada as a whole and other northern cities, there are some key differences. The points below provide a summary as shown in the 2021 Census data. For this summary, Yellowknife was compared with Whitehorse, Iqaluit, and Thunder Bay. It is however important to note that comparisons are of limited use as each community is unique in terms of characteristics, history, geography, regional context, and potential for growth.

- Yellowknife has seen reasonable growth in recent years. Growth rates are less than Canada overall, considerably less than Whitehorse, but more than other comparable Northern cities, some of which have been losing population.

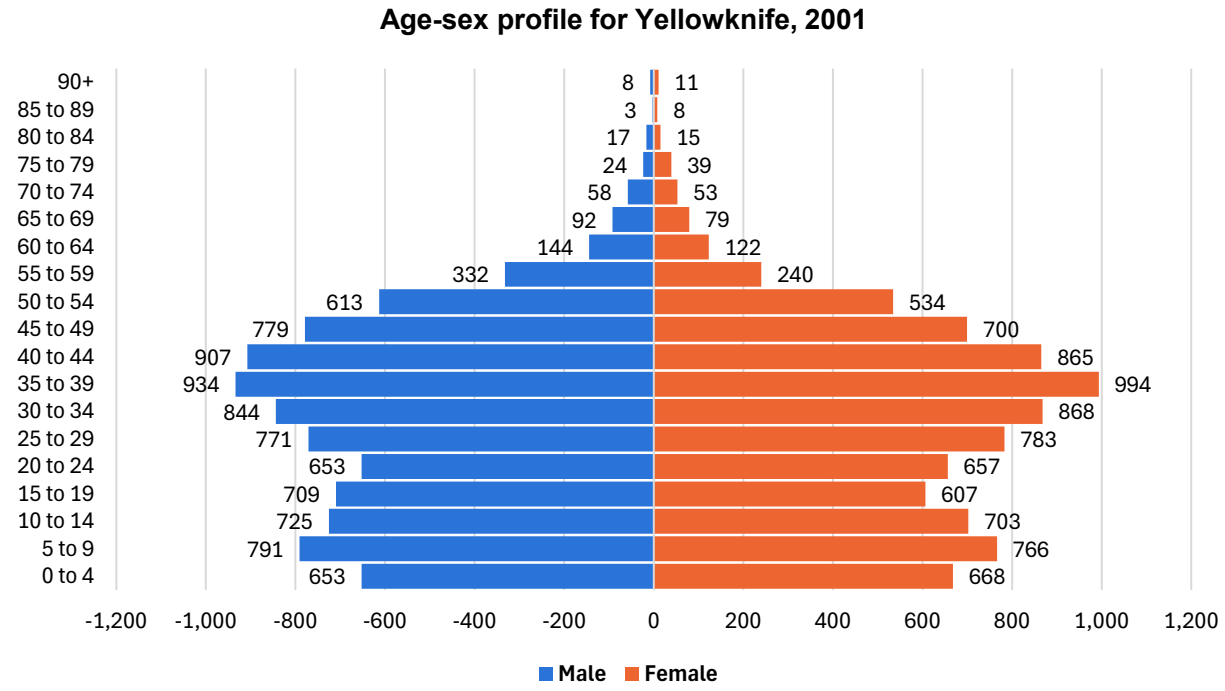
- Yellowknife's youth population is high compared to Canada, but typical of the NWT. The average age of Yellowknife residents is young, with Iqaluit being the only comparable community with a younger population.
- The working age population in Yellowknife is high, and the population of seniors is low. Looking at comparable communities, only Iqaluit has more working age people and fewer seniors.
- Yellowknife has a high level of housing occupancy compared to Canada overall, and other northern communities.
- Relative to other comparable communities, Yellowknife has fewer single-family dwellings and more apartments than comparable communities.

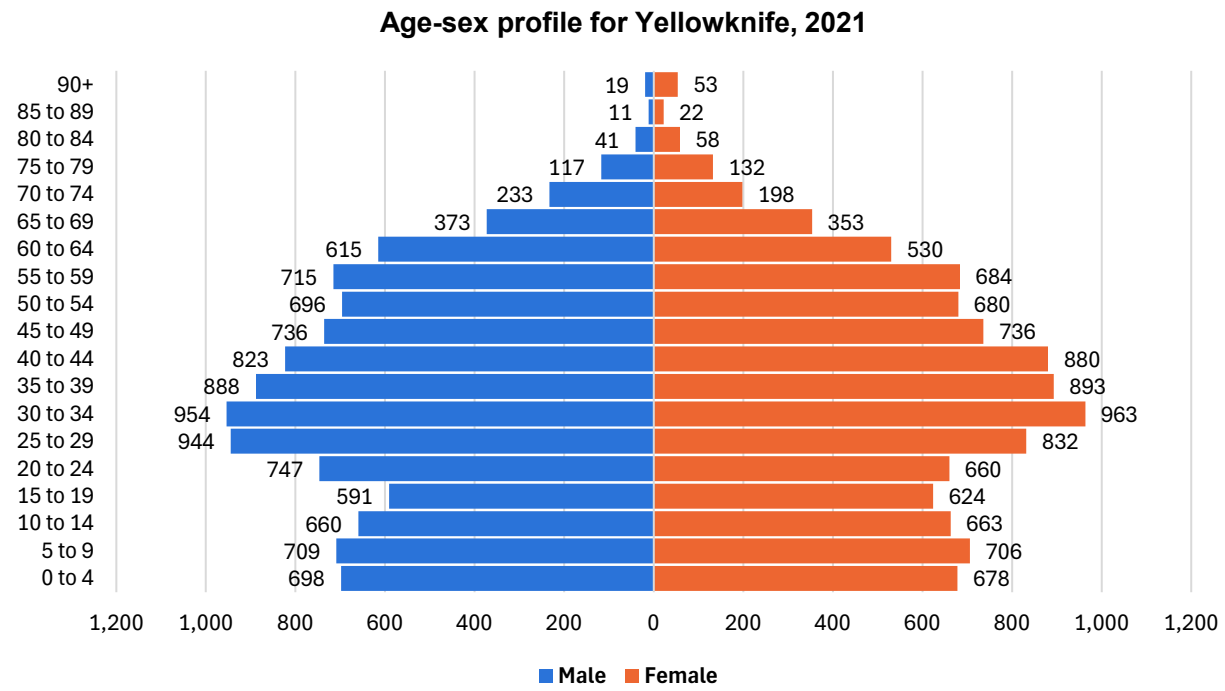
The age and sex profile of the Yellowknife population in 2021 is shown in Figure 3 along with the projected profile in 2051, using the Medium Growth Scenario. The projections to 2051 show this age-sex profile changes only marginally. One reason for this is that it is expected that Yellowknife will continue to see the in-migration of working age people, especially those aged between 20 and 29. This cohort will continue to have children, keeping the population of youth high and the average age low.

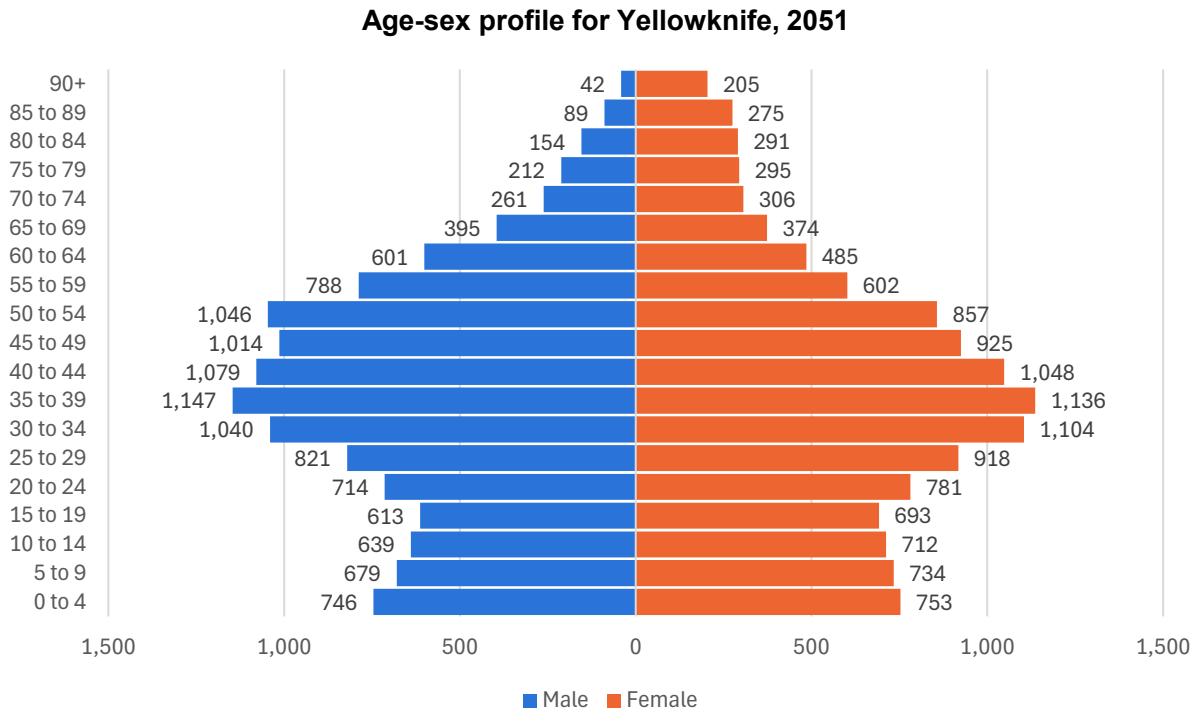
The population share of seniors is low now, although it has been rising slowly over time. Only 2.3% of the population was over 65 in 2001, and that number was up to 7.7% in 2021. The projections do not show the percentage of people over 65 growing in the future. This may also be related to the fact that the life expectancy in the NWT is about 5 years below the Canadian average. As health care and other amenities improve over time, more people may age in place in Yellowknife and the number of seniors may grow.

The age dependency ratio is the sum of the young population (under age 15) and elderly population (age 65 and over) relative to the working-age population (ages 15 to 64). Data are shown as the number of dependents per 100 working-age population and is used to measure pressure on the productive population. In 2021 the dependency ratio in Canada was 54%, whereas it was only 38% in Yellowknife. Yellowknife's dependency ratio is lower than any province or territory and is expected to remain below 38% through 2051.

Figure 3 - Age-sex profile (population pyramids) for Yellowknife, 2001, 2021, and 2051 projection.






Age-sex profile for Yellowknife, 2051
90+
85 to 89
80 to 84
75 to 79
70 to 74
65 to 69
60 to 64
55 to 59
50 to 54
45 to 49
40 to 44
35 to 39
30 to 34
25 to 29
20 to 24
15 to 19
10 to 14
5 to 9
0 to 4
42
89
154
212
261
395
601
788
1,046
1,014
1,079
1,147
1,040
821
714
613
639
679
746
205
275
291
295
306
374
485
602
857
925
1,048
1,136
1,104
918
781
693
712
734
753
1,500
1,000
500
0
500
1,000
1,500
Male
Female

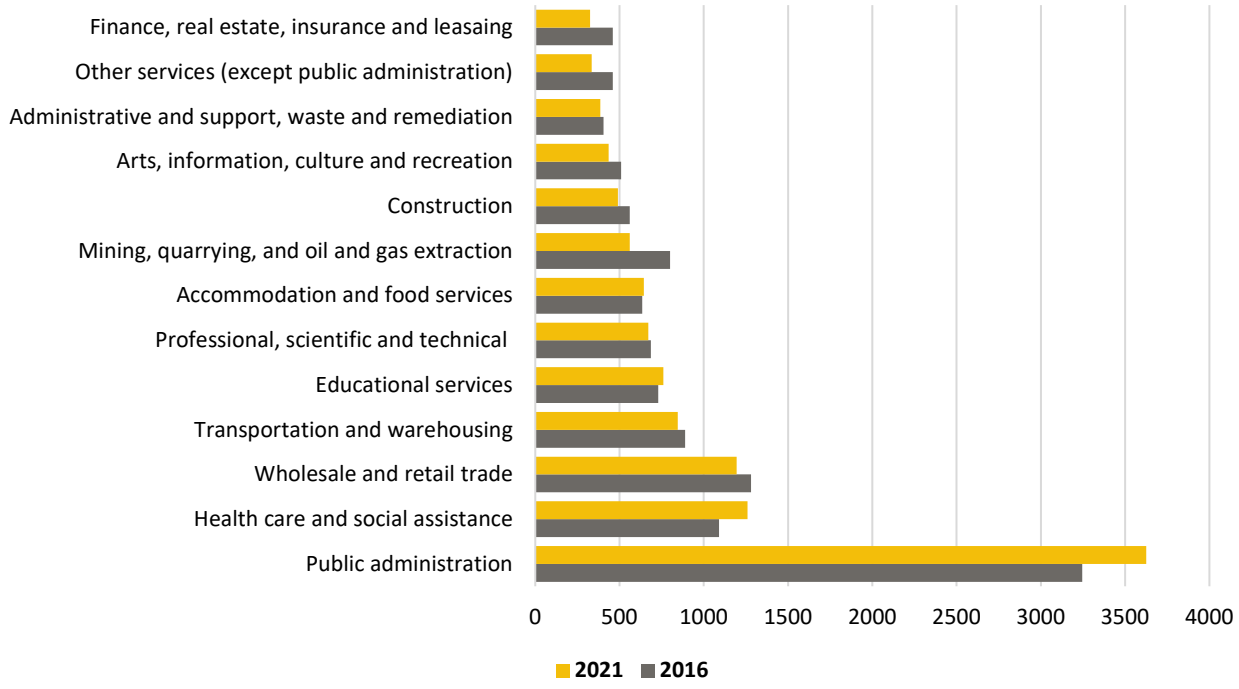
4 Employment projections

4.1 Employment sectors

Governments are the largest employers in Yellowknife; 30% of workers are employed in public administration and are working for federal, Indigenous government organizations, territorial and local governments. The Government of the Northwest Territories is the single largest employer in the community, with over 3,400 employees located in Yellowknife, according to the Public Service Annual Report for 2023/2024. Other sectors important sectors are health care and social assistance with 11% of jobs, wholesale and retail sales, with 10%, transportation and warehousing with 7% and education with 6%.

As shown in the chart below, between 2016 and 2021, jobs in public administration, education and have been increasing, whereas the jobs in mining sector have been decreasing.

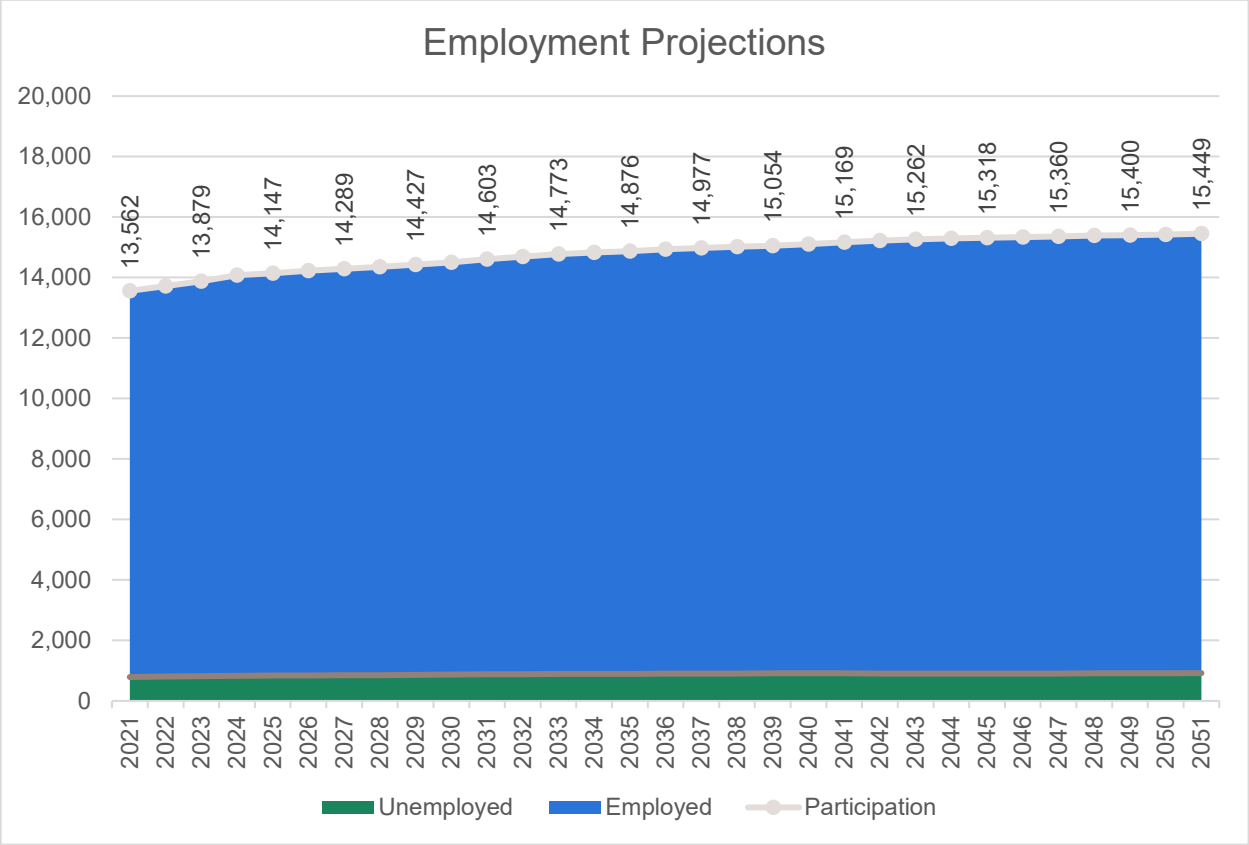
Figure 4 - Yellowknife employment by sector, 2016 and 2021 (Source: Census Canada)



4.2 Projected employment growth

As Yellowknife's population grows over time, it is expected that jobs will also grow over time. The chart below shows projected growth of jobs that would be associated with the city's Medium Growth Scenario.

Figure 5 - Employment projections for Yellowknife, 2021 to 2051, based on the Medium Growth Scenario



To better understand job growth, the NWT Bureau of Statistics prepares an occupational demand projection report. According to the 2023 report, the top ten types of job opening in the NWT in the next ten years are:

- Policy, program researchers and officers
- Teachers
- Admin, property and payroll officers
- Assistant professionals in legal, social, and educational fields
- Cashiers and sales support
- Cleaners
- Transport and transit drivers
- Nursing and allied health professionals
- Office support and court services

- Legislative and senior managers

Expected number of jobs in specific fields would be related to the economic and socio-economic drivers outlined Section 2. The types of jobs presented in the list above are in line with the 2016 to 2021 trends shown in Figure 3. Yellowknife will likely continue to see growth in the number of jobs in public sector, specifically in policy, education and health related fields.

5 Land needs assessment

In this section, the Low Growth, Medium Growth, and High Growth Scenarios have been used to identify the amount of land required to support the anticipated community growth. Land needs have been assessed for residential, commercial and industrial uses.

5.1 Residential lands

Currently, Yellowknife residents live in higher density housing in the downtown core and the surrounding central residential areas, or in lower density neighbourhoods in Old Town, Niven Lake and the areas around Frame Lake South and Range Lake. The current Community Plan states that the priority for new development will be to infill the existing residential lots in Niven, Grace Lake South, and Downtown and the surrounding core. The City will continue to support infill while considering the appropriate type of development for the Con Mine Redevelopment Area.

Estimating the amount of land required for the new residential development needed to support Yellowknife's growing population requires assumptions about the number, size and type of homes needed. The assumptions used have been listed below.

Table 6 - Explanation of residential land needs assumptions for Yellowknife to 2051

Category	Assumption
Gross area versus net area in residential neighborhoods	• In residential neighbourhoods, approximately 40% of the land is taken up by community needs including roads, parks and utilities, meaning that 60% of the land is available for housing. Assumption: For residential areas, 60% of the land is available for housing.
Mix of housing types	• The current housing stock is 52% single family, 14% duplexes or row housing and 34% higher density housing. • It was assumed that housing development in Yellowknife will continue to shift to higher density options. Assumption: For future growth, the housing mix will be 30% single family housing, 30% duplexes or row housing and 40% higher density housing.
Single family dwelling	• For single family dwellings, the average lot size is estimated at 450 m2. Assumption: Net density assumed to be 22.2 u/ha (9 u/ac).
Row or town housing	• For row housing, the estimated lot size is 240 m2. Assumption: Net density assumed at 39.5 u/ha (16 u/ac).
Higher density dwellings (apartments)	• Assumption: Net density assumed to be 69.2 u/ha (28 u/ac). • Assumption: Typical development may include 60-70 units, 4 storey, surface parking, 2.5-3 ac site. • Multi-family densities vary significantly due to buildings, heights, parking, unit size, etc.
People per dwelling	• Assumption: 2.7 people per unit.

Using the assumptions above, the table below outlines the amount of total land needed to accommodate residential uses required for the low, medium and high growth scenarios.

Table 7 - Residential land needs for Yellowknife, 2025 to 2051, using three scenarios

	Low Growth Scenario	Medium Growth Scenario	High Growth Scenario
Projected population	22,979	24,574	26,659
Projected population increase (from 2024 to 2051)	1,191	2,786	4,871
Units needed for additional population	441	1,032	1,804
Total residential land needed (74.8 ppl/ha)	**307 ha**	**329 ha**	**356 ha**
Residential land needed to support the anticipated additional population (74.8 ppl/ha)	16 ha	37 ha	65 ha

5.2 Commercial lands

In Yellowknife, most of the commercially zoned land is privately owned. The main commercial areas are the Downtown Core and adjacent areas to the north and south and along Old Airport Road. Downtown is home to grocery stores, tourist-oriented retail, specialty shops, and restaurants. Along Old Airport Road there are larger retail operations, big box stores, strip malls, car dealerships, and hardware and building supply stores.

The 2020 Community Plan identifies a City-owned lot west of Frame Lake and east of Old Airport Road for future commercial development. This lot is roughly 37 ha, with approximately 30 ha of developable land. Currently, the City has approximately 4.36 ha of commercial land per 1,000 people. This number is higher than other similar communities because Yellowknife is remote and is a commercial base for the whole territory. This recently approved plan to develop lots in the Kam Lake 2.0 area will add even more commercial lands.

How much area a community's commercial operations will require depends on the local employment mix, current industrial and commercial operations, catchment area for shoppers, and the geographic and historic context. Given these variables, it is difficult to determine the amount of new commercial land that will be needed as the population grows.

While more commercial land is required for the increased population, the current commercial land mass of 4.36 ha per 1,000 people may not be required. Some commercial sectors may grow with the increased population, whereas other existing businesses have capacity to expand within their existing footprint. Large-format stores, such as grocery stores, Canadian Tire, and Walmart can support a much larger community, thus decreasing the commercial hectare per person needs over time. A reduced hectare per population, of 3.5ha/1000 people, has been presented.

Future commercial lands development will involve greenfield development, infill and maximizing the use of existing lands. The table below provides an estimate of the amount of land that will be needed to accommodate population growth using the estimate from the 2020 Community Plan and shows the amount of commercial land needed for Yellowknife under the low, medium, and high growth scenarios. Much of this additional space can be provided in the Frame Lake West expansion, on exiting lots on Old Airport Road, or by densifying existing commercial uses.

The Community Plan includes a policy that provides incentives for heavy industrial business owners to move their operations from the Old Airport Road area to the Engle Business District.

Table 8 - Commercial land needs for Yellowknife, 2025 to 2051, using three scenarios

	Low Growth Scenario	Medium Growth Scenario	High Growth Scenario
Projected population	22,979	24,574	26,659
Total commercial land based on **current usage** (4.36 ha / 1,000 people)	100 ha	107 ha	116 ha
Commercial lands to support additional population (4.36 ha / 1,000 people)	5 ha	12 ha	21 ha
Total commercial land demand based on **reduced assumption** (3.50 ha / 1,000 people)	80 ha	86 ha	93 ha
Commercial lands to support additional population (3.50 ha / 1,000 people)	4 ha	10 ha	17 ha

5.3 Industrial lands

The Kam Lake area was the community's original industrial area, and it is currently home to light industrial and commercial activities. Engle Business District was developed for a variety of general / heavy industrial uses and is currently occupied by drilling operations, fuel companies, recycling operations, and uses that require large outdoor laydown yards. Kam Lake South supports a range of uses, including quarries and dog sledding operations. The Community Plan states that Kam Lake will be the focus for light industrial use, and future heavy industrial uses will be directed to the Engle Business District.

For industrial land needs, the 2020 Community Plan identifies an industrial use of 18.2 ha of industrial land per 1,000 people. This number is higher than other similar communities because of Yellowknife's remote and is the major employment base in the region. While more industrial land will be required to support the growing population, the current industrial land mass of 18.2 ha per 1,000 people may not be needed as the community grows. While some industrial sectors may grow with the increased population and emerging industries, other existing businesses have capacity.

In 2025, the City commissioned the Kam Lake Market Study to understand industrial demand to inform plans for developing lots in the Kam Lake expansion area. The study uses several methods to estimate future industrial land demand and has determined that over the next 20 years, 43.6 ha of additional gross land area will be needed to accommodate a population of 26,336, which would translate to an industrial land ratio of approximately 8 ha per 1000 people. The 2020 Community Plan industrial land ratio differs greatly from the Kam Lake Market Study.

Table 9 - Industrial land needs for Yellowknife, 2025 to 2051, using three scenarios

	Low Growth Scenario	**Medium Growth Scenario**	**High Growth Scenario**
Projected population	22,979	24,574	26,659
Total industrial land based on **current usage** (18.2 ha /1,000 people)	418 ha	447 ha	485 ha
Industrial lands to support additional population (18.2 ha /1,000 people)	22 ha	51 ha	89 ha
Total industrial land demand based on **reduced assumption** (Kam Lake 8 ha / 1,000 people)	184 ha	197 ha	213 ha
Industrial lands to support additional population (8 ha / 1,000 people)	10 ha	22 ha	39 ha

6 Conclusions

According to best estimates, the current population of Yellowknife in 2024 was 21,788. This report presents a population projects for Yellowknife to 2051, with a low growth (population of 22,979), medium growth (population 24,574) and high growth scenario (population of 26,659). The growth scenario that becomes a reality in the community will depend on the interaction of economic, social, political and environmental trends in Yellowknife, the NWT, Canada and across the world. For planning purposes, the medium growth scenario will provide a reasonable population number.

In terms of the age-sex profile of the community, it is anticipated that the population of working age people will remain relatively high, and that the population will remain young compared to similar communities. it is anticipated that the number of seniors will grow, but that otherwise the composition of the population will remain fairly consistent.

To support the anticipated growth, new lands for residential, commercial and industrial uses will be required. The table below provides a summary of lands that will be needed for the medium growth scenario.

Table 10 - Land needs assessment summary based on medium growth scenario

	Additional Land Requirements For Medium Growth Scenario
Residential lands	37 ha
Commercial Lands	10-12 ha
Industrial Lands	22-51 ha

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