EXPENDITURE
BUDGET
2023|2024

ANNUAL MANAGEMENT PLANS FOR **PUBLIC INFRASTRUCTURE INVESTMENTS**

2023 - 2024

Votre gouvernement

Québec

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2023-2024 Annual Management Plans for Public Infrastructure Investments

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TERMS

ADDITION

Acquisition or construction of new infrastructure.

IMPROVEMENT

Increase in the service potential of existing infrastructure.

ENHANCEMENT

Increase in the government service offer through the addition of a new infrastructure or the improvement of an existing infrastructure.

ASSET MAINTENANCE DEFICIT (AMD)

Value of the work required to restore the physical condition of a specific structure to a satisfactory or better condition with the aim of protecting the health and safety of individuals, ensuring its continued use for its intended purposes, and reducing the likelihood of breakdown or counteracting physical wear and tear.

DISPOSITION

Alienation of a building, civil engineering structure or equipment by sale, transfer or disposal.

MAINTENANCE

Work of limited scope normally performed as part of an infrastructure's daily use. Asset maintenance does not include maintenance work.

SURPLUS BUILDING

Building owned by a public body for which no use, for the purpose of providing a government service, is planned.

INFRASTRUCTURE

Building, equipment or civil engineering structure that is part of the Government's service supply.

PLANNED INVESTMENT

Value of the financial contribution from the Gouvernement du Québec for a public infrastructure investment listed in the Québec Infrastructure Plan.

PROBABLE INVESTMENT

Probable cost of an investment from the Gouvernement du Québec for the government financial year that is ending.

ACTUAL INVESTMENT

Real cost of an investment from the Gouvernement du Québec for a government financial year that is closed.

ASSET MAINTENANCE

Value of the work required to keep an infrastructure in satisfactory or better condition with the aim of protecting the health and safety of individuals, ensuring its continued use for its intended purposes, and reducing the likelihood of breakdown or counteracting physical wear and tear.

INVENTORY MAINTENANCE

Ensure the sustainability of infrastructure by maintaining assets and addressing the asset maintenance deficit, as well as by replacing equipment and reconstruction of buildings or civil engineering works.

ADDRESSING THE ASSET MAINTENANCE DEFICIT

Investments (maintenance projects and envelopes) planned in QIP and specifically dedicated to reduce the AMD accounted for infrastructures included in the AMPI.

MAJOR PROJECT

Infrastructure project subjected to the Directive as its estimated cost is equals or exceeds $50.0 million dollars, or $100.0 million dollars in the case of roadway infrastructure project or public transit project. Furthermore, the Conseil du trésor may decide to consider as major any infrastructure project that it deems appropriate.

REPLACEMENT

Acquisition, construction or reconstruction of an infrastructure to replace an existing infrastructure that is usually at the end of its useful life, so as to ensure continuity in service delivery.

REPLACEMENT VALUE

Total investment required to build or acquire an infrastructure of the same dimensions and utility, with equivalent technical features, based on the construction techniques, building codes and materials or technical specifications in effect at the time of the estimate.

USEFUL LIFE

Time period during which an infrastructure or component should serve its intended purposes.

ACRONYMS

ACV	Air cushion vehicle
AMD	Asset maintenance deficit
AMPI	Annual Management Plans for Public Infrastructure Investments
ARTM	Autorité régionale de transport métropolitain
BAnQ	Bibliothèque et Archives nationales du Québec
CCI	Culvert condition indicator
CERIU	Centre d'expertise et de recherche en infrastructures urbaines
CHA	Cultural Heritage Act
CHSLD	Residential and Long-Term Care Centres
CHU	Centre hospitalier universitaire
CHUM	Centre hospitalier de l'Université de Montréal
CISSS	Integrated Health and Social Services Centres
CIUSSS	Integrated University Health and Social Services Centres
CLSC	Local Community Services Centres
CRSSS	Regional Health and Social Services Centres
CTI	Centre de traitement informatique
CTQ	Centre des transports du Québec
FAAC	Fonds d'atténuation et d'adaptation en matière de catastrophes
FCI	Facility condition index
FCCQ	Building Canada Fund – Québec
FEPTEU	Clean Water and Wastewater Fund
FIMEAU	Fonds pour l'infrastructure municipale d'eau
GHG	Greenhouse gas
GIEES	Gestion des infrastructures de l'Éducation et de l'Enseignement supérieur
HLM	Habitation à loyer modique
HSSN	Health and Social Services Network
HVAC	Heating, ventilation and air conditioning
GCI	Government condition indicator
IBA	Integrated Bilateral Agreement
IRI	International Roughness Index
IUCPQ	Institut universitaire de cardiologie et de pneumologie de Québec
MACM	Musée d'Art contemporain de Montréal
MADA	Municipalité amie des aînés
MAMH	Ministère des Affaires municipales et de l'Habitation
MAOB	Mobilier, appareillage, outillage et bibliothèque
MCC	Ministère de la Culture et des Communications
MDA MA	Maison des aînés et maisons alternatives
MELCCFP	Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs
MEQ	Ministère de l'Éducation du Québec
MES	Ministère de l'Enseignement supérieur
MFFP	Ministère des Forêts, de la Faune et des Parcs
MNBAQ	Musée national des beaux-arts du Québec

MSSS	Ministère de la Santé et des Services sociaux
MV	Motor Vessel
MTMD	Ministère des Transports et de la Mobilité durable
MUHC	McGill University Health Centre
NFCCQ	New Building Canada Fund – Québec
NPO	Non-profit organization
PAFFITC	Programme d'aide financière du Fonds pour l'infrastructure de transport en commun
PAGTCP	Programme d'aide gouvernementale au transport collectif des personnes
PAGITC	Programme d'aide gouvernementale d'infrastructures en transport collectif
PCEM	Equipment and furniture conservation plan
PCFI	Real estate conservation and functionality plan
PGA	Plan de gestion des actifs
PHAQ	Programme d'habitation abordable Québec
PIEMQ	Portrait des infrastructures en eau des municipalités du Québec
PIQM	Programme d'infrastructures Québec-Municipalités
QIP	Quebec Infrastructure Plan
PRABAM	Programme d'aide financière pour les bâtiments municipaux
PRACIM	Programme d'amélioration et de construction d'infrastructures municipales
PRAFI	Programme de résilience et d'adaptation face aux inondations
PRIMA	Programme d'infrastructures pour les aînés
PRIMADA	Programme d'infrastructures Municipalité amie des aînés
PRIMEAU	Programme d'infrastructures municipales d'eau
NPHP	Non-Profit Housing Program
RBQ	Régie du bâtiment du Québec
RÉCIM	Réfection et construction des infrastructures municipales
RRSSS	Regional board of health and social services network
RSSCE	Réseau stratégique en soutien au commerce extérieur
RTC	Réseau de transport de la Capitale
RTL	Réseau de transport de Longueuil
SÉPAQ	Société des établissements de plein air du Québec
SHQ	Société d'habitation du Québec
SODEC	Société de développement des entreprises culturelles
SOFIL	Société de financement des infrastructures locales du Québec
SPDAM	Société de la Place des Arts de Montréal
SQ	Sûreté du Québec
SQI	Société québécoise des infrastructures
STL	Société de transport de Laval
STLévis	Société de transport de Lévis
STM	Société de transport de Montréal
STO	Société de transport de l'Outaouais
STQ	Société des traversiers du Québec

STTR	Société de transport de Trois-Rivières
STS (Saguenay)	Société de transport du Saguenay
STS (Sherbrooke)	Société de transport de Sherbrooke
TAT	Tribunal administratif du travail
TECQ	Programme de la taxe sur l’essence et la contribution du Québec
TIM	Techniques d’intégration multimédia
UAB	Utilisation de l'accotement par les autobus

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INFRASTRUCTURE MANAGEMENT

THE MINISTÈRE DES AFFAIRES MUNICIPALES ET DE L'HABITATION

VISION

The MAMH vision is to ensure consistent and innovative public actions that favour dynamic and resilient communities.

ORIENTATIONS

The MAMH mission is to support municipal administration, housing and sustainable planning, development and occupancy of the territory in the public's best interests.

By making a significant contribution to funding the maintenance, restoration and construction of municipal infrastructure in Québec, the MAMH is helping to ensure the sustainability of this infrastructure, address important environmental and health and safety issues for communities, improve the quality of life of these communities and thereby increase their resilience, particularly in the face of climate change.

RESPONSIBILITIES

THE MAMH

The MAMH administers financial assistance programs and initiatives[1] to meet the priority needs of municipalities in terms of municipal infrastructure. These focus mainly on water infrastructure (linear and non-linear), certain municipal buildings and resilient infrastructure. The MAMH is responsible for, among other things, analyzing financial assistance applications from municipalities, applying the normative framework to projects selected for financial assistance, provide financial assistance to municipalities, and prepare the accountability report on expenditures for government investments.

As part of the water infrastructure programs, the MAMH also supports smaller municipalities in developing more complex projects in order to steer them towards plausible and cost-effective solutions.

THE MUNICIPALITIES

As infrastructure owners, the near 1,100 municipalities of Québec are responsible for building, servicing, maintaining, operating and funding their infrastructure projects, including complying with the applicable laws, standards and regulations.

As a result, municipalities are responsible for evaluating and documenting the condition of their infrastructure, defining their needs and planning interventions and investments to ensure optimal maintenance of their infrastructure. They must therefore manage their assets appropriately based on the level of service sought, including periodically updating data on their infrastructure portfolio and implementing an investment strategy.

[1] The main infrastructure-related financial assistance programs and initiatives are listed in Appendix 1.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

Municipalities have a diverse infrastructure portfolio. While the 2023-2024 AMPI only presents the condition of the water infrastructure network and the roadways over pipes, the portfolio also includes administration buildings, fire stations, garages and warehouses including abrasive shelters, community centres and halls as well as local road networks and resilient infrastructure.

WATER INFRASTRUCTURE AND ROADWAYS OVER PIPES

The municipal water infrastructure portfolio consists of collection facilities, drinking water and wastewater pipes, drinking water treatment plants, reservoirs, pressure control stations, retention ponds, wastewater treatment plants, pumping stations, overflow facilities and roadways above the pipes.

The information available to the MAMH regarding the condition of this infrastructure comes from the results of work carried out by the Centre d'expertise et de recherche en infrastructures urbaines (CERIU) in preparing the *Portrait des infrastructures en eau des municipalités du Québec*[2] (PIEMQ). Details regarding the methods for collecting data and assessing the condition are presented in Appendix 2.

In addition, the MAMH and its municipal partners are currently working together to develop and implement asset management plans (AMPs) for municipalities regarding their water infrastructure. The AMPs will be used as an integrated investment planning tool based on priorities over a 10-year horizon. The first version of these AMPs will be available in 2026.

OTHER MUNICIPAL BUILDINGS

Other municipal buildings for which the MAMH also grants financial assistance to municipalities include:

- Administrative offices;
- Fire stations;
- Garages and warehouses, including abrasive shelters;
- Community centres and halls.

The MAMH does not currently have information regarding the condition of these other municipal buildings. However, the MAMH has already taken steps to determine the condition of these municipal infrastructures. An overview should be available in 2027.

RESILIENT INFRASTRUCTURE

Resilient infrastructure allows municipalities to mitigate some of the risks associated with climate change impacts. For example, flood protection structures such as retention ponds and dikes can limit the probability of flooding in a sector located in a flood zone.

In particular, the MAMH *Plan de protection du territoire face aux inondations* is intended to provide a better framework for municipal practices in land use planning, risk management and maintenance of resilient infrastructure.

[2] This report is available at the following address: Rapport annuel 2022 du Portrait des infrastructures en eau des municipalités du Québec | CERIU.

The MAMH currently does not have information regarding the condition of this infrastructure. However, as part of the *Plan de protection du territoire face aux inondations* deployment, a budget has been earmarked to inventory and locate flood protection structures in Québec municipalities. Ultimately, this inventory will allow for an overview of the infrastructure's condition and the application of standards with respect to monitoring and maintaining these structures. In addition, knowledge of their condition will help guide stakeholders in planning investments in terms of resilient infrastructure as well as direct interventions in the territory. This overview should be available in 2023.

Infrastructure Inventory[1]
By infrastructure type and category

	Average Age[2] (years)	Quantity			Measurement (km)[3]		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Real Estates							
Non-linear Infrastructures							
Drinking water supply and production facilities	46	4,213	4,244	31	N/A	N/A	N/A
Water treatment facilities	31	5,689	5,798	109	N/A	N/A	N/A
Total – Real Estates		**9,902**	**10,042**	**140**	**N/A**	**N/A**	**N/A**
Civil Engineering Works							
Linear infrastructures							
Drinking water pipes	40	N/A	N/A	N/A	44,078	44,361	283
Wastewater pipes	41	N/A	N/A	N/A	35,406	35,837	431
Storm water pipes	35	N/A	N/A	N/A	18,862	19,156	294
Roadways above pipes	N/A	N/A	N/A	N/A	40,328	40,748	420
Total – Civil Engineering Works		**N/A**	**N/A**	**N/A**	**138,674**	**140,102**	**1,428**

1 Data as at November 30, 2022. Figures are rounded and the sum of the amounts may not correspond to the total indicated.
2 The average age is that of the infrastructure of consulted municipalities, which is 880 municipalities for linear infrastructure and 891 municipalities for non-linear infrastructure.
3 The sizes provided are estimates for all Québec based on a partial report.

Variation in inventory

The variations in inventory compared to the 2022-2023 AMPI are due mainly to the larger sample of municipalities consulted by the CERIU in preparing the PIEMQ, presenting a more accurate overview for all of Québec. The sample was increased by 15 municipalities for linear infrastructure and 7 municipalities for non-linear infrastructure for a total of 880 and 891 municipalities consulted respectively.

INFRASTRUCTURE SUSTAINABILITY

THE MUNICIPALITIES

Water Infrastructure Conditions
By infrastructure type and category

	Government Condition Indicator[1] (GCI) (%)					
	A	B	C	ABC	D	E
Real Estates						
Non-linear Infrastructures						
Drinking water supply and production facilities[2]	22	56	16	94	5	1
Water treatment facilities[3]	25	40	27	92	7	1
Total – Real Estates	**23**	**48**	**22**	**93**	**6**	**1**
Civil Engineering Works						
Linear infrastructures						
Drinking water pipes	18	31	40	89	8	3
Wastewater pipes	55	25	8	88	4	8
Storm water pipes	65	26	4	95	2	3
Roadways above pipes	23	19	17	59	15	26
Total – Civil Engineering Works	**38**	**25**	**18**	**81**	**8**	**11**
Total – Infrastructures	**36**	**28**	**19**	**83**	**8**	**9**

1 These percentages are weighted by infrastructure replacement value.
2 Ninety-three percent of the 4,244 drinking water supply and production facilities are estimated to be in satisfactory or better condition (GCI of ABC), which represents 94 percent of the replacement value.
3 Ninety-one percent of the 5,798 wastewater treatment facilities are estimated to be in satisfactory or better condition (GCI of ABC), which represents 92 percent of the replacement value.

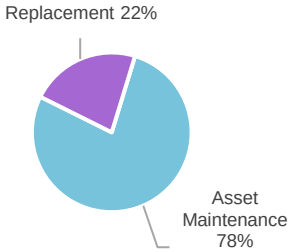
Objectives

The MAMH financial assistance programs for municipalities are essentially intended to help carry out work to maintain, renew and build municipal infrastructure that provides communities with quality basic services. As part of these programs, the MAMH has therefore set the following objectives:

- Replace or improve municipal infrastructure that is in vulnerable condition or has significant issues;
- Keep municipal infrastructure safe and functional as it provides for the public's quality of life and services;
- Ensure that municipal infrastructure is brought up to standard so that it complies with applicable regulations, including those related to the environment;
- Provide municipalities with infrastructure that allows them to offer basic services to their residents and supports pooling;
- In built environments, increase the safety of people and protect their property from the hazards of climate change, for instance, flood risks.

Infrastructure Maintenance Investments[1] in 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Municipalities	%
Infrastructure maintenance		
Asset maintenance	5,069.4	**78**
Replacement	1,460.9	**22**
Total	**6,530.3**	**100**



[1] Investments presented are for all MAMH-funded municipal infrastructure (water infrastructure and other municipal infrastructure).

Investment strategy

The MAMH investment strategy is achieved through the development and implementation of financial assistance programs to:

- Meet municipalities' priority needs so they can maintain the basic services provided by their water infrastructure, thereby contributing to the quality of life of their citizens;
- Support the municipal community in the implementation of flood-resilient developments;
- Allow municipalities to take charge of the cumulative AMD for their infrastructure;
- Prioritize projects that ensure regulatory compliance and address important public health and safety issues;
- Ensure transparent and fair treatment of financial assistance applications from municipalities;
- Require municipalities to carry out, by their own financial means, a minimum number of interventions on their own infrastructure, without resorting to government subsidies.

The MAMH will review the terms and conditions and envelopes of the programs, subject to the necessary approvals, to adapt them to changing infrastructure conditions, investment needs and applicable regulations. New funding initiatives can also be developed to address certain realities, such as climate change adaptation.

The MAMH financial assistance programs also provide additional financial support to smaller municipalities to help them carry out their investment projects, since they have major needs but often limited financial resources.

WATER INFRASTRUCTURE AND ROADWAYS OVER PIPES

In the process that led to the PIEMQ, the CERIU collected data from municipalities regarding the condition of their municipal water infrastructure and roadways over the pipes. Once completed, this overview pinpoints the priority needs of municipalities that will require investment in the coming years. The MAMH takes these priority needs into account in its financial assistance programs and investment priorities.

The overview also indicates that 17% (8% at GCI of D and 9% at GCI of E) of the water infrastructure (linear and non-linear) and roadways over the pipes in Québec municipalities are in poor or very poor condition (GCI of D or E) and will require significant investments to be restored to good condition (GCI of A, B or C). Furthermore, special attention must be paid to ageing infrastructure with a moderate risk of breakdown (GCI of C).

In addition to the requirements for restoring the municipal infrastructure portfolio to good condition, municipalities are required to upgrade their non-linear infrastructure to comply with the regulation (Regulation respecting the quality of drinking water and Regulation respecting municipal wastewater treatment works).

OTHER MUNICIPAL BUILDINGS

The overview of the other municipal buildings to come will support the planning of investments in this infrastructure and monitor how the investments affect their condition. Once completed, such an overview will also better equip municipalities in order to develop, maintain or enhance their investment strategy for this infrastructure.

RESILIENT INFRASTRUCTURE

Regarding flood risk preventive measures, the MAMH established, in 2021, 10 project offices over most of the territory at risk of flooding. These will make it possible to target the most promising interventions at the watershed level. Starting in 2023, the project offices will elaborate intervention plans, together with local stakeholders, departments and bodies concerned. These plans will allow project offices to prioritize and coordinate investments by watershed.

The plan aims to consolidate and disseminate official information concerning the existence of a flood-risk area on the territory and connect it with the Québec Cadaster. Ultimately, this involves, for example, identifying and locating flood protection works. This information will be updated as flood risk maps are released and this will allow financial guidance of assistance programs and set investment priorities in accordance with the intervention plans of project offices.

SITUATION

Investments[1] listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Municipalities						
2021-2022						
Actual	174.3	–	205.8	380.1	128.1	508.2
Forecast[2]	286.3	–	200.0	486.3	180.3	666.6
Difference	(112.0)	–	5.8	(106.2)	(52.2)	(158.4)
2022-2023						
Probable	447.5	–	288.9	736.4	106.0	842.4
2023-2024						
Forecast	368.9	–	185.5	554.4	51.8	606.2

1 Investments presented are for all MAMH-funded municipal infrastructure (water infrastructure and other municipal buildings).
2 Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Differences between planned and actual investments

MAMH funding to support municipal infrastructure investments made in 2021-2022 amounted to $508.2 million, less than the planned investments for the corresponding period, which was $666.6 million. This difference is largely explained by the postponement of the completion of certain major asset maintenance projects, mainly due to their complexity and the multiple constraints caused by the pandemic. Municipalities prioritized less complex projects, such as pipe replacement.

Planned and probable investments

The investments provided for in the QIP by the MAMH are made according to the municipalities work planning and capacity to carry out the work. Since the MAMH does not own or manage the infrastructure projects it subsidizes, it has no control over the pace at which municipalities make investments. Nevertheless, MAMH's investment forecasts take these factors into account and aim to be as probable as possible.

For the current year, probable investments are expected to total $842.4 million, and those planned for 2023-2024 are estimated at $606.2 million. The downward variation in investments between 2022-2023 and 2023-2024 is due mainly to the fact that some subsidy programs such as the 2019-2023 TECQ and PRIMEAU programs ended in 2023-2024. New programs are currently being developed. Investment terms and levels will be determined at a later date.

MAMH investments for the current year and those planned for 2023-2024 will contribute to the completion of many major projects, including the following:

- Jean-R.-Marcotte wastewater treatment plant, disinfection unit – Montréal – Construction;
- Rockfield, Lavigne, Leduc et William wastewater retention ponds – Montréal – Construction;

- Wastewater treatment plant – Saint-Hyacinthe – Repairs;
- Wastewater treatment – Saint-Pierre-les-Becquets;
- Wastewater treatment – L'Anse-Saint-Jean.

Change in infrastructure condition
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)		
	AMPI		Variation	AMPI		Variation
	2022-2023	2023-2024		2022-2023	2023-2024	
Real Estates						
Non-linear Infrastructures						
Drinking water supply and production facilities	6	5	(1)	7	1	(6)
Water treatment facilities	3	7	4	1	1	0
Total – Real Estates	**4**	**6**	**2**	**4**	**1**	**(3)**
Civil Engineering Works						
Linear infrastructures						
Drinking water pipes	8	8	0	3	3	0
Wastewater pipes	4	4	0	8	8	0
Storm water pipes	2	2	0	3	3	0
Roadways above pipes	15	15	0	28	26	(2)
Total – Civil Engineering Works	**8**	**8**	**0**	**11**	**11**	**0**
Total – Infrastructures	**8**	**8**	**0**	**10**	**9**	**(1)**

[1] These percentages are weighted by infrastructure replacement value.

ADDITIONAL INFORMATION

Variation

The evolution of water infrastructure in poor (GCI of D) and very poor (GCI of E) condition is based on the work and data compiled by the CERIU as part of the annual update of the PIEMQ. The proportion of infrastructure in poor and very poor condition for the period covered by this AMPI includes a greater number of observations than the 2022-2023 AMPI (addition of pipe and roadway condition data from 15 additional municipalities), and takes into account the natural deterioration of water infrastructure, as well as data updates from several municipalities as at November 30, 2022.

The condition indicators remained stable overall for all municipal infrastructure assets. There has been a decrease in the proportion of drinking water supply and production facilities in poor (GCI of D) and very poor (GCI of E) condition, as well as a decrease in the proportion of roadways over pipes in very poor condition (GCI of E), which is due mainly to the work carried out to restore these infrastructures to good condition.

APPENDIX 1

MAMH FINANCIAL ASSISTANCE PROGRAMS

MAMH programs offer financial support to Québec municipalities to enable them to offer and maintain basic services for their residents. The investments can also help improve communities quality of life and their environment. The MAMH uses various formal and informal mechanisms to consult municipalities, which helps to evaluate whether the programs meet their needs. Several programs are adjusted to take into account the fact that, because of the complexity of their projects, limited financial capacity, resource issues and sparse, dispersed population, small municipalities often have trouble making the investments necessary to upgrade their basic infrastructure and bring it up to standard.

Rules and standards that the Conseil du trésor approves regulate the terms and conditions of the programs. These standards and other existing administrative procedures guide how the MAMH provides financial assistance. The MAMH prioritizes projects focusing on regulatory compliance (Regulation Respecting the Quality of Drinking Water and Regulation Respecting Municipal Wastewater Treatment Works), and problems related to sanitation and public health. Financial assistance to keep municipal buildings operational improves the quality of life and safety of residents as well as the protection of property in built environments.

The following MAMH-administered programs support municipal infrastructure projects:

MAMH programs that offer funding solely from Québec

Such programs change according to the needs of the municipalities and the investments authorized under the QIP:

- PRIMEAU: the purpose of this program is to help municipalities carry out projects to build, repair or expand drinking water and wastewater treatment infrastructure, as well as other projects to renew water and sewer pipes;
- RÉCIM: this program offers assistance to municipalities, enabling them to carry out work to resolve infrastructure-related problems. This program covers administrative offices (city halls, borough offices), fire stations, municipal garages and warehouses, and community centres;
- PRACIM: this program offers assistance to municipalities, enabling them to maintain their infrastructure. This program covers administrative offices (city halls, borough offices), fire stations, municipal garages, warehouses and community centres. Financial assistance is modulated depending on the municipalities' size and capacity to assume new costs;
- PRIMA and PRIMADA: these programs provide financial support for municipalities that have adopted policies for seniors and the MADA action plan to carry out small construction, repair or expansion projects on infrastructure used by seniors;
- PRABAM: this program provides municipalities with a population of 5,000 or less with financial support to enable them to quickly carry out work on their municipal buildings in the context of economic recovery. It applies to infrastructure like city halls, fire stations, municipal garages, warehouses and community centres;
- PRAFI: this program supports municipalities in implementing resilient developments to protect the public from flooding and reduce flood-related damage to buildings.

In 2022, the MAMH launched PRIMA and PRACIM with envelopes of $24.0 million and $621.3 million respectively. These came to replace the PRIMADA and the RÉCIM.

Moreover, projects financed by these programs listed above are subject to audits by the MAMH. The purpose of these audits is to give the MAMH the assurance that the terms and conditions of the programs have been met by the municipalities and allow for the disbursement of the financial assistance.

MAMH programs that offer funding from Québec and Canada

The following programs stem from specific agreements between the Québec and federal governments.

- TECQ: the program allows for the transfer to Québec municipalities of part of the revenue from the federal excise tax on gasoline and the Gouvernement du Québec contribution to the realization of work related to drinking water, wastewater, local road networks and other types of infrastructure. Under the TECQ, all eligible project expenditures are fully refundable. The current funding phase is for the 2019-2023 period.
- NFCCQ, Small Communities Fund component: this program offers municipalities with fewer than 100,000 residents financial support to maintain and upgrade water infrastructure, cultural, tourism, recreational and sports infrastructure, and local and regional airports.
- FEPTEU: This program supports projects involving drinking water and wastewater treatment infrastructure in an economic recovery effort.
- FIMEAU: this program stems from the implementation of the Integrated Bilateral Agreement's Green Infrastructure component for the Investing in Canada Infrastructure Program. It funds work to build, repair, expand or add municipal drinking water and wastewater treatment infrastructure.

For Canada-Québec programs, the MAMH manages agreements with the Government of Canada.

Moreover, projects financed by these programs are subject to audits by the MAMH or an external auditor. The purpose of these audits is to give the MAMH the assurance that the terms and conditions of the programs have been met by the municipalities and allow for the disbursement of the financial assistance.

Other Initiatives Offering Financial Assistance from Québec and Canada

FAAC: federal program that has been delegated to MAMH to manage selected municipal projects. The Gouvernement du Québec has set aside funds in the QIP to financially contribute to projects resulting from the 2017 and 2019 floods. It targets projects that enable municipalities to mitigate the effects of natural disasters with adaptation measures. The funding from the governments is subject to an authorization granted by a decree.

Closed Programs

The RÉCIM, PRIMADA, NFCCQ, FEPTEU and FIMEAU programs are closed to new applications for subsidies but projects that have already received a confirmation of financial assistance are being maintained.

APPENDIX 2

ADDITIONAL INFORMATION – WATER INFRASTRUCTURE

The CERIU has collected data from Québec municipalities, which enabled it to structure and consolidate its knowledge of municipal water infrastructure since 2014. The CERIU's project is being carried out in collaboration with key partners in the municipal sector.

Almost 930 Québec municipalities are served by a water system. The inventory of the linear infrastructure portfolio is based on data from 880 municipalities, which represents 99% of the total population served and 94% of the municipalities in Québec that have a linear water infrastructure. The inventory of water facilities is based on data from 891 participating municipalities, since they are representative of the water infrastructure network.

Appendix 1 of the 2022 CERIU report on the PIEMQ lists the participating municipalities[3].

The collection and processing of data will carry on over the next few years in order to update to a more complete and representative overview of the condition of Québec's municipal water infrastructure, in line with government guidelines.

Methodology

Since the MAMH does not own the water infrastructure , the inventory and evaluation report is based on data available from and provided by the municipalities. In this respect, due to the lack of inspections or specific diagnoses, missing data have been estimated according to the most conclusive information accessible, including the number of breakdowns and the infrastructure's remaining useful life. This methodology makes it possible to determine a realistic condition indicator for the purposes of the AMPI, which can be used to plan investments and monitor the effects of investments on changes in infrastructure condition.

Data collection

The CERIU has compiled most of the data on civil engineering structures from the *Plan d'intervention pour le renouvellement des conduites d'eau potable, d'égouts et des chaussées*, whose purpose is to identify priority work to be carried out by the municipalities. To obtain information about the water facilities (non-linear infrastructure), the CERIU created a special form, which the participating municipalities were asked to complete. It should be noted that all of the data (condition, replacement value, etc.) has been provided by the municipalities to the best of their knowledge and the quality of this data will improve in the years to come. The CERIU then confirmed the information it obtained, standardized the nomenclature and drew up estimates for any missing data.

Evaluation of the condition of water infrastructure

The CERIU evaluation of the physical condition of civil engineering structures was conducted by modelling the network based on data from inspections and detailed analyses. Segments that were not inspected or that did not have breakdown or inspection logs were assessed based on their remaining theoretical useful life. In that specific instance, the evaluation reflects a theoretical condition based on a risk of age-related breakdown.

[3] This report is available at the following address: Rapport annuel 2022 du Portrait des infrastructures en eau des municipalités du Québec | CERIU.

For non-linear infrastructure, such as treatment plants and pumping stations, the assessment is based on a new detailed form completed by municipalities. On this form, municipal respondents are asked to rate the condition of key components of their water facilities on a scale of 1 (very good) to 5 (very poor). This evaluation therefore represents the opinion of the municipal respondents on the overall condition of the components of these facilities, rather than a physical condition based on a list of work arising from an inspection.

The condition indicator percentages (A / B / C / D / E) are weighted according to the replacement value.

It is important to note that the condition indicators presented reflect only the current functional condition and do not take into account any modifications or upgrades required to meet new requirements under the Regulation respecting the quality of drinking water or the Regulation respecting municipal wastewater treatment works.

Inspection and data update

Creating a comprehensive overview of Québec municipalities' water infrastructure is a major project that will span several years and be continually updated. The project requires municipality cooperation, particularly with respect to data collection to ensure an accurate overview of their infrastructure over time.

Continuation of this project requires a data update. Therefore, municipalities have been invited, each year, to forward updated versions of their intervention plans to rehabilitate drinking water and sewer pipes and roadways, together with a new version of the form pertaining to their non-linear assets. The updates are sent after inspecting their infrastructure or completing work.

The CERIU also plans to include some projects subsidized by the MAMH in its report each year, as the municipalities send in their related reports. In its 2022 report, the CERIU included work to rehabilitate water pipes carried out by 592 municipalities between 2015 and 2021 under the FIMEAU components 1 and 2, 2014-2018 TECQ, FEPTEU, PRIMEAU component 2, PIQM sub-component 1.5, and NBCF-FPC subsidy programs, as well as updated data from 61 municipalities, including 7 cities with more than 100,000 residents.

The condition of linear infrastructure for all of the municipalities listed in the 2022 CERIU report entitled PIEMQ was evaluated between 2015 and 2022. A more accurate picture will be established every five years once all municipalities have submitted updated action plans. Until then, the data update for large urban centres, which make up over 50% of the asset value, will continue. Non-linear infrastructure will continue to be re-evaluated on an annual basis using the various, more precise forms developed for this purpose.

The AMPI for subsequent years should provide a more accurate description of the change in condition of each infrastructure category as the data bank will be updated and knowledge of infrastructure condition will be enhanced.

INFRASTRUCTURE MANAGEMENT

THE SOCIÉTÉ D'HABITATION DU QUÉBEC

VISION

The SHQ vision is to be recognized as a reference on housing in Québec and for its expertise and its public services. The values that guide the SHQ in all its activities and support its delivery of services to the public are:

- The quality of the service;
- Innovation;
- Consistency;
- Collaboration.

ORIENTATION

To fulfil its mission of meeting the housing needs of Quebecers through an integrated and sustainable approach, the SHQ has adopted the following orientation in its Plan stratégique 2021-2026 for the infrastructures under its responsibility:

- Innovate in the business approach to ensure better service delivery to the public.

RESPONSIBILITIES

The SHQ, which reports to the Minister responsible for Housing, is the main government body responsible for housing in Québec. Under its constituting Act, the SHQ is responsible for:

- Make low-rent housing available to Quebecers;
- Facilitate home ownership for Quebecers;
- Promote home improvement;
- Inform the Minister on the requirements, priorities and objectives of all housing sectors.

The SHQ develops and implements various programs to support bodies such as housing bureaus, cooperatives or housing non-profit organizations (NPOs). The SHQ favours an approach that grants significant autonomy to bodies within a result and risk-based management framework. This approach principally confers the SHQ a supervisory, support and quality control role.

More specifically, the SHQ administers the NPHP, which aims to support low-income households selected according to their socio-economic status. As part of implementing the NPHP, the SHQ maintains Québec's social housing network in good condition. To ensure the quality and sustainability of the entire HLM housing network, the SHQ makes no distinction between the housing complexes it owns directly and those owned by other bodies subsidized under the NPHP.

The NPHP has four components:

- **HLM public – regular**: buildings that are either owned by the SHQ or SHQ-subsidized bodies (housing bureau);
- **HLM public – Inuit**: buildings owned by the SHQ or the Kativik Municipal Housing Bureau and managed by the latter. Added to this are two health care centres (Inuulitsivik and Tulattavik).
- **HLM private – off-reserve Indigenous people:** buildings owned by Habitation Métis du Nord, except three that belong to the SHQ and are managed by Corporation Waskahegen.
- **HLM private regular:** privately owned buildings managed by co-operatives or housing NPOs.

Furthermore, investments made under the AccèsLogis Québec and the Programme d'habitation abordable Québec (PHAQ), and the construction of some other private dwellings are not considered in the AMPI because, in these cases, the SHQ is not responsible for the maintenance of these infrastructure assets.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The building portfolio belonging to the SHQ is made up of 3,754 buildings for a total of 45,258 low-rent housing units:

- 2,445 for the HLM public – regular component;
- 1,306 for the HLM public – Inuit component;
- 3 for the HLM private – off-reserve Indigenous people component.

BODIES SUBSIDIZED BY THE SHQ

RESPONSIBILITIES

Since they own their buildings, the bodies subsidized by the SHQ are responsible for construction, maintenance, asset maintenance, operation and financing, including ensuring they comply with applicable regulations.

Bodies subsidized by the SHQ are charged with evaluating and documenting the condition of their infrastructure in the “building health” report, for defining needs and for managing their assets appropriately to ensure the quality and sustainability of the HLM under their responsibility.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The building portfolio belonging to bodies subsidized by the SHQ is made up of 3,852 buildings for a total of 27,737 low-rent housing units:

- 1,989 owned by housing bureaus for the HLM public regular component;
- 816 owned by the Kativik Municipal Housing Bureau under the HLMpublic – component;
- 1,047 owned by co-operatives, housing NPOs and housing bureaus, including:
  - 397 for the HLM private regular component;
  - 650 for the HLM private – Off-reserve Indigenous people component.

Infrastructure inventory[1]
By infrastructure type and category

	Average Age[2] (years)	Number of Buildings			Number of Dwellings		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings Belonging to the SHQ							
HLM Regular Public Component	39	2,445	2,445	0	43,479	43,479	0
HLM Inuit Public Component	34	1,306	1,306	0	1,776	1,776	0
HLM Regular Private Component Outside Reserve	33	3	3	0	3	3	0
Total – Buildings	**39**	**3,754**	**3,754**	**0**	**45,258**	**45,258**	**0**
Buildings Belonging to Bodies Subsidized by SHQ							
HLM Regular Public Component	49	1,989	1,989	0	19,115	19,115	0
HLM Inuit Public Component	10	794	816	22	1,690	1,770	80
HLM Regular Private Component	32	398	397	(1)	4,984	4,977	(7)
HLM Regular Private Component Outside Reserve	32	650	650	0	1,875	1,875	0
Total – Buildings	42	**3,831**	**3,852**	**21**	**27,664**	**27,737**	**73**

1 Data as at September 1st, 2022 (2023-2024 AMPI) and September 1st, 2021 (2022-2023 AMPI).
2 The average age is weighted in proportion to the number of dwelling units.

Variation in inventory

Compared to the previous period, the building portfolio owned by bodies subsidized by the SHQ increased by 21 buildings, for a new total of 3,852. This variation is due to:

- The construction, under the HLM public – Inuit component, of 22 buildings, representing a total of 80 dwelling units, in the villages of Umiujaq, Salluit, Kuujjuarapik, Puvirnituq, Inukjuak and Kuujjuaq;
- The signing of an agreement to terminate the operating agreement between the SHQ and the Les Résidences des Pins du Lac-Etchemin body regarding the Victor-Cloutier Residences resulting in the withdrawal of a seven-unit building in St-Prosper.

INFRASTRUCTURE SUSTAINABILITY

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit[3] ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings belonging to the SHQ									
HLM Regular Public Component	22	21	17	60	27	13	129.2	408.2	537.4
HLM Inuit Public Component	33	7	35	75	19	6	31.8	23.0	54.8
HLM Regular Private Component Outside Reserve	58	42	0	100	0	0	–	–	–
Total – Buildings	**25**	**17**	**21**	**63**	**25**	**12**	**161.0**	**431.2**	**592.2**
Buildings Belonging to Bodies Subsidized by SHQ									
HLM Regular Public Component	28	17	12	57	18	25			
HLM Inuit Public Component	78	5	5	88	10	2			
HLM Regular Private Component	36	33	8	77	16	7		n.a.	
HLM Regular Private Component Outside Reserve	49	34	14	97	3	0			
Total – Buildings	**40**	**18**	**10**	**68**	**15**	**17**			
Buildings in the Public HLM portfolio									
HLM Regular Public Component	24	19	15	58	24	18		n.a.	
HLM Inuit Public Component	48	6	25	79	16	5			
Total – Buildings	**30**	**16**	**17**	**63**	**22**	**15**			

1 Data as at September 1st, 2022.
2 Percentages are weighted according to replacement values.
3 The asset maintenance deficit of the inspected infrastructure (an inspection rate of 97.9%) was extrapolated to the entire building inventory in proportion to the total number in that inventory.

ADDITIONAL INFORMATION

The SHQ's interventions aim to ensure the performance of bodies in the implementation of SHQ programs and conditions that ensure the quality and sustainability of the building inventory. The SHQ's investments and initiatives aim to achieve the following objectives:

Objectives

Objectives	Reference value	Results		Target
	Reference AMPI	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Reach a 74% proportion of the HLM public building inventory in good condition (GCI of A, B, or C)[1]	67% / AMPI 2022-2023	67%	63%	74% / AMPI 2026-2027
Carry out at least $59.8M of work to reduce the AMD[2]	$0M / AMPI 2021-2022	$26.6M	$72.7M	$59.8M / AMPI 2024-2025

1 The target for this objective was corrected in the 2023-2024 AMPI to 74% compared to the 2022-2023 AMPI where it was 81%. The latter was weighted according to the number of buildings, whereas it is now weighted according to the replacement value.
2 The results presented are the cumulative cost of work carried out since the filing of the AMPI of the reference year.

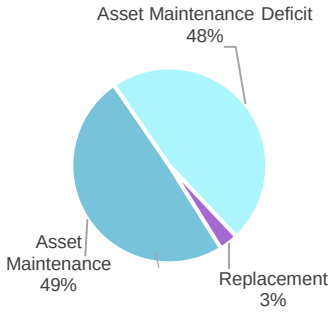
Situation

The results observed over the period show a decrease of 4%, from 67% to 63%, in the proportion of the HLM public building inventory in good condition compared to the AMPI of the reference year. This result is primarily due to market conditions resulting from the pandemic. Faced with these constraints, some of the asset maintenance work had to be postponed. However, work to reduce the AMD has been carried out in the last two years for a total amount of $72.7 million, which is $12.9 million above the target of $59.8 million.

Nevertheless, the overall condition of the buildings has deteriorated and the AMD has increased this year by $198.9 million, from $393.3 million to $592.2 million, due to the natural deterioration of the main components of the buildings and the identification of new needs during inspections.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Social and community housing	%
Infrastructure Maintenance		
Asset Maintenance	613.9	49
Asset Maintenance Deficit	592.2	48
Replacement	38.9	3
Total	**1,245.0**	**100**



Addressing the asset maintenance deficit

Investment strategy

The investment strategy for the building infrastructure maintenance relies on knowledge of the state of its infrastructures and investment needs to ensure the health and safety of occupants and the sustainability of buildings. Consequently, the SHQ favours the priority interventions identified in building health reports, especially those that correct problems that could affect the health or safety of occupants and those associated with building structural integrity issues. At the same time, the SHQ emphasizes the completion of preventive work to extend the service life of infrastructure in good condition.

To adequately meet the needs of the HLM housing inventory, the SHQ is allocating the total planned budget of $383.2 million, including a contribution from the Gouvernement du Québec of $171.2 million, among the different NPHP components, taking into account the priorities identified in the building health reports. Thus, the SHQ allocates a minimum envelope to bodies to ensure the maintenance their building assets. Based on the condition of buildings, additional investments are allocated to this envelope considering the asset maintenance needs identified during inspections and listed in the building health reports.

Furthermore, the SHQ reserves a portion of the available envelope for special projects. The budget devoted to special projects is the primary means of assuming the most significant asset maintenance deficits of the HLM housing portfolio. Special project requests presented are analyzed, prioritized and authorized by the SHQ. The budget for special projects in 2023 is more than $81.4 million.

Special projects

A special project is a renovation project of $35,000 or more per dwelling unit affected, or that would require taking too much of the body's annual budget envelope allocated to asset maintenance. Work completed as a special project must meet at least one of the following conditions:

- Be urgent considering the health and safety consequences for occupants and impossible to postpone in whole or in part;
- Be urgent considering the integrity of the building and impossible to postpone in whole or in part;

- Relate to the restoration of housing complexes with a GCI of D or E;
- Group interventions that must be completed at the same time and involve several building components;
- Arise from specific needs that involve work required for modernization, improvement or a mandatory upgrade.

SITUATION STATUS

Investments listed in the QIP
By body and investment type
(contribution from the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement[1]	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Société d'habitation du Québec						
2021-2022						
Actual	39.5	37.7	2.6	**79.8**	–	**79.8**
Forecast[2]	68.0	21.0	2.9	**91.9**	–	**91.9**
Difference	(28.5)	16.7	(0.3)	**(12.1)**	–	**(12.1)**
2022-2023						
Probable	58.5	37.8	6.9	**103.2**	–	**103.2**
2023-2024						
Forecast	155.0	59.1	11.0	**225.1**	**16.3**	**241.4**
Bodies Subsidized by the SHQ						
2021-2022						
Actual	51.5	–	–	**51.5**	–	**51.5**
Forecast[2]	52.3	–	–	**52.3**	–	**52.3**
Difference	(0.8)	–	–	**(0.8)**	–	**(0.8)**
2022-2023						
Probable	111.3	–	–	**111.3**	–	**111.3**
2023-2024						
Forecast	65.2	–	–	**65.2**	–	**65.2**

1 Investments made under the AccèsLogis Québec and PHAQ programs and for construction of some other private dwellings are not considered in the AMPI because in these cases, the SHQ is not responsible for the maintenance of these infrastructure assets.
2 Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

The completion and follow-up of investment projects fall under the responsibility of housing bodies (housing bureaus, co-operatives or housing NPOs). Nonetheless, the SHQ imposes the inspection methodology, follows up on building health reports and performs quality control on these reports to ensure they are complete and representative of building states and needs. The SHQ can also accompany bodies to support them in completing their intervention projects.

The Société d'habitation du Québec

Investments made in 2021-2022 by the SHQ for the buildings it owns total $79.8 million, or $12.1 million less than initially planned. Investments in asset maintenance were lower than expected, at $39.5 million instead of $68.0 million. However, investments in asset maintenance reductions were higher than expected, at $37.7 million instead of $21.0 million. The significant increase in the cost of work over the last two years, as well as the shortage of labour, has forced the postponement of less urgent asset maintenance projects. On the other hand, despite this context, urgent projects aimed at AMD management have been carried out.

Probable investments in 2022-2023 and planned in 2023-2024 to maintain the inventory total $103.2 million and $225.1 million, respectively. These investments will make it possible to complete the following work:

- Replacement of the supply pipes and sanitary drainage and the renovation of the kitchens and bathrooms in three six-units buildings in Mont-Laurier;
- Major work to upgrade and modernize four sets of five townhouses in St-François-de-la-Rivière-du-Sud. The work includes the replacing the roofs and adding access hatches to the attic, improving the thermal insulation, waterproofing and soundproofing of the exterior and common walls, upgrading the electricity and plumbing. It also includes renovating the kitchens and bathrooms, adding a wash-up room on the main floor and reconfiguring rooms in the basement;
- Upgrading the fire separations, masonry repairs, replacing the exterior doors and elevator and repairing the parking lot in a 35-unit building in Contrecoeur;
- Repairs to exterior envelopes and upgrading the mechanical systems (plumbing and ventilation) in various buildings;
- Upgrading the firebreak partitions and fire alarm systems in various buildings;
- Repairs to kitchens and bathrooms in various buildings.

Bodies subsidized by the SHQ

Probable investments in 2022-2023 and planned for 2023-2024, totalling $111.3 million and $65.2 million, respectively, will be allocated primarily to maintain the inventory. These investments will make it possible to complete the following work:

- Replacement of the supply pipes and electricity, modernizing the kitchens and renovating the common areas in eight four-unit buildings in St. Croix;
- Refurbishment of collapsed roofs and sidewalks in five buildings, 90 units, in Lachute;
- Replacement of windows and exterior cladding and insulation improvements for an eight-unit building in Ville Saguenay;
- Replacement of exterior cladding, balconies and canopies and insulation of walls and foundations. In addition, various plumbing and mechanical interventions in nine buildings, 20 dwellings, four semi-detached and one fourplex, in New Richmond;
- Development of a direct exterior access to the six ground-floor units, renovating the kitchens and bathrooms, the addition of a backflow prevention device and replacement of the water heaters in a 28-unit building in Lac-Etchemin;
- Refurbishing the mechanical, electrical and ventilation systems and upgrading the fire alarm system in a five-unit building in L'Épiphanie;
- Repairs to exterior envelopes and upgrading the mechanical systems (plumbing and ventilation) in various buildings;
- Upgrading the firebreak partitions and fire alarm systems in various buildings;
- Dwelling unit modernization.

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings belonging to the SHQ											
HLM Regular Public Component	26	27	1	10	13	3	374.3	108.2	92.1	(37.2)	537.4
HLM Inuit Public Component	4	19	15	5	6	1	19.0	5.3	39.4	(8.9)	54.8
HLM Regular Private Component Outside Reserve	N/A	0	n.a.	N/A	0	n.a.	N/A	n.a.	n.a.	n.a.	-
Total – Buildings	**22**	**25**	**3**	**9**	**12**	**3**	**393.3**	**113.5**	**131.5**	**(46.1)**	**592.2**
Buildings Belonging to Bodies Subsidized by SHQ											
HLM Regular Public Component	23	18	(5)	18	25	7					
HLM Inuit Public Component	11	10	(1)	4	2	-2					
HLM Regular Private Component	14	16	2	6	7	1			n.a.		
HLM Regular Private Component Outside Reserve	5	3	(2)	0	0	0					
Total – Buildings	**19**	**15**	**(4)**	**12**	**17**	**5**					
Buildings in the Public HLM portfolio											
HLM Regular Public Component	25	24	(1)	12	18	6			n.a.		
HLM Inuit Public Component	7	16	9	4	5	1					
Total – Buildings	**22**	**22**	0	**11**	**15**	4					

1 Percentages are weighted by infrastructure replacement value.

ADDITIONAL INFORMATION

Changes in condition

Buildings belonging to the SHQ

Overall, the proportions of buildings in poor (GCI of D) and very poor (GCI of E) condition have increased by 3%, respectively, from those presented in the 2022-2023 AMPI. More specifically, the proportion of buildings in poor condition (GCI of D) in the HLM public – Inuit component increased by 15% due to new findings of major window defects in these buildings.

Buildings belonging to bodies subsidized by the SHQ

Overall, the proportion of buildings in poor condition (GCI of D) decreased by 4% while the proportion of buildings in very poor condition (GCI of E) increased by 5% from those presented in the 2022-2023 AMPI.

More specifically, the proportion of buildings in the HLM regular public component in poor condition (GCI of D) decreased by 5% as a result of the bodies' planned asset maintenance work. The proportion of buildings in very poor condition (GCI of E) increased by 7% due to continued deterioration of infrastructure in poor condition (GCI of D) as some of the projects planned to address asset maintenance needs were not completed.

Change in the asset maintenance deficit

Overall, the AMD increased by $198.9 million, from $393.3 million to $592.2 million, over the last year. This variation is mainly due to the following:

- The increase of $113.5 million in the HLM regular public component resulting from natural deterioration caused mainly by the aging of the main components of buildings in poor and very poor condition that require mandatory repair work or upgrading;
- The addition of $92.1 million from new findings identified during the inspection of buildings in the HLM regular public component, such as masonry repairs, replacement of doors and windows, and upgrades to mechanical, electrical and ventilation systems, as well as kitchen and bathroom repairs;
- The addition of $39.4M for the HLM public – Inuit component related to new findings identified as a result of major window defects in buildings;
- Repair work on roofs, the replacement of windows and the refurbishment of mechanical, electrical, and ventilation systems for buildings in poor condition (GCI of D) or very poor condition (GCI of E) reduced the listed asset maintenance deficit by $46.1 million. This work falls within the scope of an investment allocation strategy that targets buildings whose needs are the most urgent and for which the asset maintenance deficit is significant.

Appendix 1

ADDITIONAL INFORMATION

Inspection and data update

The SHQ plans to inspect all buildings every five years. In this regard, the fourth inspection cycle for the HLM inventory began on January 1, 2021. The current AMPI inspection rate is 97.0% (7,379 out of 7,606 buildings). Regarding the 227 uninspected buildings, 119 were built less than five years ago and were considered to be in very good condition (GCI of A).

Methodology

Building inventories and inspections are completed during preparation of the building health reports. Each health report is prepared after an inspection to assess every component of the buildings and dwellings. Through this uniform and structured methodology, technical information is compiled on the components that could affect health and safety of individuals, building integrity, component operation or service availability. It should be noted that work is underway, in collaboration with the bodies, to improve the building inspection process to better monitor evolving conditions and the progression of needs.

In addition, the condition of buildings can change between inspections following the update or addition of deficiencies that might eventually require work to be carried out. The SHQ uses the same inspection processes for its own buildings as for those belonging to the bodies it subsidizes.

The condition indicator percentages (A / B / C / D / E) are weighted according to the current replacement value.

The AMD of the inspected infrastructure is extrapolated from the entire inventory in proportion to the total number of dwellings in that inventory.

CONSEIL DU TRÉSOR ET ADMINISTRATION GOUVERNEMENTALE

INFRASTRUCTURE MANAGEMENT

SOCIÉTÉ QUÉBÉCOISE DES INFRASTRUCTURES

VISION

To be the leader in asset management for the Gouvernement du Québec's building inventory, in order to offer innovative and sustainable solutions to all public bodies in accordance with government orientations, the fight against climate change and the transition to a green economy. To achieve this, the SQI has set out the following objectives:

- plan a sustainable real estate portfolio through exemplary focus on construction quality, integrating the building into the living environment and limiting impacts on the entire life cycle of the building;
- build excellence by putting the best teams of infrastructure, project management and property management experts at the service of its clients in order to offer comfortable, healthy and safe work environments;
- develop trust by achieving its mission with rigour, integrity and transparency while applying best practices in asset management.

ORIENTATION

To successfully carry out its mission, which consists of developing, maintaining and managing a building inventory that satisfies the needs of its clientele and changing standards and practices, and also by providing project management, operation and property management services that promote resource optimization and innovation, the SQI has, from the standpoint of the infrastructure under its responsibility, adopted the following orientation:

- prioritize investments in infrastructure maintenance and enhancement that ensure business continuity and, through a transition to design, completion, and operation methods that take into account the full life cycle of infrastructure, allow for sustainable development focused on the needs of departments and bodies to achieve their mission.

RESPONSIBILITIES

The SQI must maintain the Gouvernement du Québec's building inventory under its responsibility in a satisfactory condition, while developing the inventory in such a way as to meet the space needs of its clients by optimizing the human, material and financial resources available.

In this regard, SQI prioritizes its investments in a collaborative approach with its stakeholders and systemic stakeholders by taking into account the economic, environmental and social impacts on the life cycle of its assets. In short, SQI puts the safety, well-being and continuity of occupant operations at the heart of its decisions, creating healthy work environments that use state-of-the-art technology and respect the taxpayers' ability to pay.

As part of its public infrastructure management framework, the SQI established the terms, conditions, and guidelines for planning and managing investments. This is intended to prioritize asset maintenance and improve the condition of infrastructure owned by SQI.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The SQI building inventory includes 374 buildings and civil engineering structures totalling more than 1.9 million square metres in area. It includes office buildings used for government administration, transportation centres, courthouses, detention facilities, Sûreté du Québec police stations and other specialized buildings, in particular, conservatories of music and dramatic art, laboratories, warehouses, and underground parking lots and tunnels.

Infrastructure inventory[1, 2]
By infrastructure type and category

	Average Age[3] (years)	Quantity			Measurement[4] (sq. m.)		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings							
Office Buildings	37	63	63	0	507,289	500,431	(6,858)
Transportation Centres	37	91	92	1	203,216	206,886	3,670
Courthouses	42	43	42	(1)	437,388	432,231	(5,157)
Detention Facilities	26	14	14	0	208,557	208,557	0
Sûreté du Québec Police Stations	28	75	78	3	173,309	179,232	5,923
Other Specialized Buildings	35	64	62	(2)	208,583	208,022	(561)
Non-rental and Surplus Buildings	67	4	5	1	3,304	8,662	5,358
Civil Engineering Works							
Parking Facilities and Tunnels	25	18	18	0	218,728	218,728	0
Total – Infrastructures		**372**	**374**	**2**	**1,960,374**	**1,962,749**	**2,375**

1 Data as at October 17, 2022.
2 The inventory excludes emphyteutic leases (maintenance of assets under the lessor's responsibility), buildings under construction and rented buildings under capital leases, including the building located at 3800 Rue de Marly, Québec City.
3 Average age represents the “effective” age of infrastructure assets. This corresponds to the estimated age of an infrastructure, due mainly to the date of construction and the work carried out since.
4 Data pertaining to building dimension represent the leasable area, in compliance with the BOMA-96 standard. Non-rental buildings, parking lots and tunnels are measured according to gross area of the development. Variations might be caused by the update of leasable areas or after acquiring or disposing of infrastructure.

Variation in inventory

Since last year, the SQI has integrated the following buildings into its building inventory:

- the SQ station put into service in Rimouski;
- the SQ stations acquired in Prévost and Longueuil;
- the transportation centre put into service in Gaspé;
- the two office buildings acquired in Rouyn-Noranda and Québec City.

The SQI has disposed of the following buildings:

- the former Saguenay detention facility (classified as a non-rental surplus building);
- the former Palais de justice de Saint-Hyacinthe (demolition);
- two buildings, classified as other obsolete specialized buildings, in Saint-Bernard-de-Lacolle and Stanstead-Est.

Finally, the two office buildings located at the following addresses have been reclassified as surplus buildings:

- 3450 Rue Saint-Urbain, Montréal;
- 3700 Rue Berri, Montréal.

Between now and March 31, 2023, acquisitions are planned that will contribute to the Gouvernement du Québec's real estate vision of gradually increasing the proportion of owned government office space.

INFRASTRUCTURE SUSTAINABILITY

SOCIÉTÉ QUÉBÉCOISE DES INFRASTRUCTURES

Infrastructure conditions and asset maintenance deficit[1, 2]
By infrastructure type and category

	Government Condition Indicator[3] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings									
Office Buildings	15	7	24	46	38	16	80.0	120.7	200.7
Transportation Centres	9	21	23	53	32	15	12.0	48.6	60.6
Courthouses	36	13	8	57	38	5	80.9	35.3	116.2
Detention Facilities	33	36	7	76	0	24	0.0	133.6	133.6
Sûreté du Québec Police Stations	34	5	21	60	40	0	68.0	0.0	68.0
Other Specialized Buildings	54	15	11	80	19	1	13.3	4.9	18.2
Total – Rental Buildings	**30**	**15**	**15**	**60**	**29**	**11**	**254.2**	**343.1**	**597.3**
Non-rental and Surplus Buildings	0	2	0	2	82	16	1.7	12.5	14.2
Civil Engineering Works									
Parking Facilities and Tunnels	27	2	5	34	8	58	1.5	52.0	53.5
Total – Infrastructures	**29**	**15**	**15**	**59**	**30**	**11**	**257.4**	**407.6**	**665.0**

1 Data as at October 17, 2022.
2 The inventory excludes emphyteutic leases (maintenance of assets under the lessor's responsibility), buildings under construction and rented buildings under capital leases, including the building located at 3800 Rue de Marly, Québec City.
3 Percentages are weighted according to infrastructure replacement values.

Objectives

The following table presents the results obtained following data collection for the 2023-2024 AMPI.

Objectives	Reference value	Results		Target
	Reference AMPI	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Achieve a proportion of rental buildings in satisfactory condition (GCI of A, B or C) of 71%	62% / AMPI 2021-2022	65%	60%	71% / AMPI 2024-2025
Carry out at least $150.0M of work to reduce the AMD[1, 2]	$0M / AMPI 2021-2022	$58.8M	$108.2M	$150.0M / AMPI 2026-2027

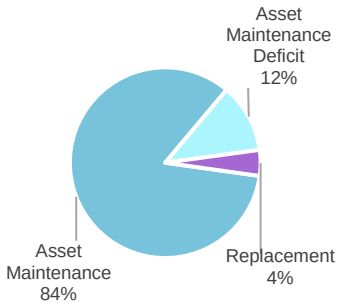
1 This objective does not take the natural deterioration of infrastructure into account, which will increase the cumulative AMD by March 2026.
2 The results presented are the cumulative cost of work carried out since the reference AMPI was filed.

The proportion of rental buildings in satisfactory condition (GCI of A, B, or C) has decreased by 5%, from 65% to 60% since the 2022-2023 AMPI was filed. This decrease is due mainly to natural deterioration and new findings observed during inspections, which exceed the asset maintenance work carried out. The "Investment strategy" and "Change in condition and in the AMD" sections of this AMPI elaborate on the underlying elements of this finding.

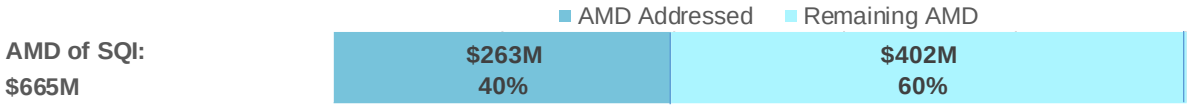
In addition, asset maintenance investments have reduced the AMD by $49.4 million ($108.2 million - $58.8 million) in 2022-2023, bringing the total AMD reduction investments to $108.2 million. Based on the current projection, the target of $150 million is expected to be achieved by the time the 2026-2027 AMPI is filed.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution by the Gouvernement du Québec, in millions of dollars and as a percentage)

	SQI	%
Infrastructure Maintenance		
Asset Maintenance	1,888.3	84
Asset Maintenance Deficit	263.4	12
Replacement	98.4	4
Total	**2,250.1**	**100**



Addressing the asset maintenance deficit



Investment strategy

For the first objective, which consists of investing in asset maintenance in order to improve the proportion of the building inventory in satisfactory condition (GCI of A, B or C), sustained efforts by the teams to carry out priority asset maintenance work have made it possible to improve the GCI of several buildings in the last year. However, in order to increase the overall condition indicator of the building inventory, major asset maintenance projects on buildings with higher replacement values will be required. To this end, the SQI has initiated studies, started some major projects and will continue to plan new major projects in the coming years. More significant investments in asset maintenance will be required in the coming years to improve the overall condition of the building inventory.

For the second objective, which consists of reducing $150 million of the AMD, a significant portion of the $159.7 million of infrastructure maintenance work planned for 2023-2024 is to perform work on infrastructure in poor and very poor condition (GCI of D or E) in order to reduce the current AMD estimated at $665.0 million. In the 2023-2033 QIP, planned infrastructure maintenance investments over the 10-year period will make it possible to address $263.4 million of the AMD (40%).

Investments intended to reduce the AMD will be achieved in particular by:

- work on building exteriors, such as curtain walls and the architectural components of certain office buildings and courthouses;
- various upgrades, such as the replacement or addition of protection and life safety and assets systems and the replacement of cooling systems;

- renovation work on certain detention facilities;
- upgrades to mechanical and electrical components;
- reconstruction of abrasive warehouses in several MTMD service centres that have reached the end of their useful life;
- sale or demolition of surplus buildings with an AMD.

Finally, the aging of the inventory could cause maintenance investments needs to accelerate. Since the level of investments made annually to reduce the cumulative AMD is currently below the rate of natural deterioration, major projects that will significantly reduce the AMD should be phased into future QIPs to accelerate the SQI's AMD management.

SITUATION

Investments listed in the QIP

By type

(contribution of the Gouvernement du Québec in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Société québécoise des infrastructures						
2021-2022						
Actual	74.6	21.9	18.0	**114.5**	90.0	**204.5**
Forecast[1]	74.1	39.5	19.1	**132.7**	176.1	**308.8**
Difference	0.5	(17.6)	(1.1)	**(18.2)**	(86.1)	**(104.3)**
2022-2023						
Probable	105.7	35.6	26.8	**168.1**	141.9	**310.0**
2023-2024						
Forecast	109.4	33.2	17.1	**159.7**	170.3	**330.0**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Infrastructure maintenance investments made in 2021-2022 total $114.5 million, or 86% of amounts earmarked. This rate represents a significant improvement over previous years, despite the issues associated with the pandemic. Lower-than-expected infrastructure enhancement investments are due mainly to the delay and deferral of several projects in detention facilities and courthouses because of specific issues:

- the redevelopment of the Palais de justice de Saint-Hyacinthe, whose schedule has been postponed to early 2022-2023 due to the temporary relocation of the occupants;
- the delayed acquisition of buildings and Sûreté du Québec police stations;
- changes to the work to be carried out in certain office buildings in Québec City and in a transportation centre in Montréal.

Probable investments in 2022-2023 are up $105.5 million from investments made in 2021-2022, from $204.5 million to $310.0 million. Despite the overheating construction market, which can lead to the cancellation of calls for tenders, and workforce availability issues, which can affect the ability to carry out planned projects, efforts are being rolled out to prioritize infrastructure maintenance investment needs.

Planned investments for 2023-2024, totalling $330.0 million, will allow ongoing projects to continue and new or delayed projects to be completed in order to:

- manage the AMD and maintain existing infrastructure;
- acquire buildings;
- redevelop spaces in the SQI's rental buildings;
- build new Sûreté du Québec police stations.

Infrastructure maintenance

Planned investments to maintain the portfolio seek to carry out work required to ensure the long-term physical and functional integrity of the SQI real estate portfolio:

- the majority of asset maintenance investments essentially concern work related to compliance with codes, structures, building exteriors, escalators and elevators, and the integrity of mechanical and electrical systems of a building as well as the functional renovation of workspaces;
- investments on infrastructure in poor condition and, therefore, at high risk of failing are targeted when work is planned since they make it possible to reduce the cumulative AMD;
- investments in replacement targeting mainly the abrasive warehouses, transportation centres and modular buildings for detention facilities.

Most of the total infrastructure maintenance investments in 2021-2022 ($114.5 million) and probable investments in 2022-2023 ($168.1 million), pertain to specific projects, rehabilitation projects and compulsory upgrading to standards included in asset maintenance envelopes.

Among these, the following projects had a significant impact on reducing the AMD:

- replacement of ventilation systems at the detention facility at 500 Rue de la Faune in Québec City, reducing the AMD by $10.0 million;
- replacement of electrical components at the Palais de justice de Montréal, reducing the AMD by $6.5 million;
- rehabilitation of the outer envelope of the chapelle des Sœurs-du-Bon-Pasteur at 1070–1080 Rue de la Chevrotière, in Québec City, reducing the AMD by $5.2 million;
- replacement of roof ventilation units at the transportation centre located at 5353 Boulevard Pierre-Bertrand in Québec City, reducing the AMD by $3.0 million;
- relocation of the Gaspé transportation centre, reducing the AMD by $2.7 million;
- upgrade of electrical panels at the Palais de justice de Montréal, reducing AMD by $1.2 million;
- replacement of the air sprinkler system piping at the Palais de justice de Québec, reducing the AMD by $1.1 million.

The SQI has also completed several asset maintenance projects to maintain the condition of buildings with a satisfactory GCI, including the following:

- modernization of the escalators of the office buildings at 875, Grande Allée Est, in Québec City;
- replacement of the ventilation boxes in the office buildings at 600 Rue Fullum in Montréal;
- modification of the coolers at the Sûreté du Québec headquarters in Québec City.

Infrastructure maintenance investments planned for 2023-2024, totalling $159.7 million, will help to complete several projects, including the following:

- repairing parking lot slabs at the Palais de justice de Montréal, reducing the AMD by $18.2 million;
- rehabilitating the envelope of the office buildings at 1141 Route de l'Église in Québec City, reducing the AMD by $10.4 million;
- replacing the main circuit breakers at the detention facility at 500 Rue de la Faune in Québec City, reducing the AMD by $9.7 million;

- sealing the foundations of the office building at 835 Boulevard René-Lévesque Est in Québec City, reducing the AMD by $3.6 million.

Inventory enhancement

Portfolio enhancement investments of $90.0 million in 2021-2022 and probable investments of $141.9 million in 2022-2023 facilitated the support of the Gouvernement du Québec's real estate vision, one objective of which is to increase the proportion of owned real estate compared to leased, primarily through the acquisition of the following buildings:

- the office buildings located at 24, avenue Murdoch in Rouyn-Noranda;
- the office buildings located at 3460 Rue de La Pérade in Québec City;
- the Sûreté du Québec police station at 3044 Boulevard du Curé-Labelle in Prévost.

In addition, some of these investments contributed to broaden or improve the service potential of the infrastructure portfolio in terms of quality and functionality. For example:

- consolidation of TAT staff at 500, Boulevard René-Lévesque Ouest in Montréal;
- relocation of the CTQ to 140, rue Crémazie Ouest, in Montréal;
- installation of access control systems and redesign of private spaces at 675 Boulevard René-Lévesque Est in Québec City.

The planned investments of $170.3 million for 2023-2024 will, on the one hand, make it possible to seize opportunities to acquire buildings to increase the proportion of owned real estate and, on the other hand, launch and carry out the following key projects:

- redevelopment of the Hector-Fabre building and the Marie-Fitzbach building in Québec City as part of the work environment transformation program;
- redevelopment of the Palais de justice de Saint-Hyacinthe;
- development of video court appearance and videoconference rooms in detention facilities and courthouses;
- several projects in the electric vehicle charging station installation program;
- several projects in the work environment transformation program.

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023[2]	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023[2]	2023-2024		2022-2023	2023-2024						
Buildings											
Office Buildings	41	38	(3)	13	16	3	198.1	12.1	(8.7)	(0.8)	200.7
Transportation Centres	21	32	11	16	15	(1)	59.6	1.3	3.7	(4.0)	60.6
Courthouses	38	38	0	6	5	(1)	266.8	7.9	(138.4)	(20.1)	116.2
Detention Facilities	0	0	0	24	24	0	147.3	5.8	(9.3)	(10.2)	133.6
Sûreté du Québec Police Stations	2	40	38	0	0	0	0.7	0.1	67.6	(0.4)	68.0
Other Specialized Buildings	19	19	0	1	1	0	22.7	3.2	(6.4)	(1.3)	18.2
Total – Rental Buildings	**25**	**29**	**4**	**10**	**11**	**1**	**695.2**	**30.4**	**(91.5)**	**(36.8)**	**597.3**
Non-rental and Surplus Buildings	0	82	82	92	16	(76)	16.8	2.8	6.9	(12.3)	14.2
Civil Engineering Works											
Parking Facilities and Tunnels	6	8	2	55	58	3	50.7	0.1	3.0	(0.3)	53.5
Total – Infrastructures	**25**	**30**	**5**	**11**	**11**	**0**	**762.7**	**33.3**	**(81.6)**	**(49.4)**	**665.0**

[1] Percentages are weighted by infrastructure replacement value.

ADDITIONAL INFORMATION

Change in condition and in the AMD

The proportion of infrastructure in poor condition (GCI of D) increased from 25% to 30%, while the proportion in very poor condition (GCI of E) has remained stable at 11%. The AMD has been reduced by $97.7 million overall, from $762.7 million to $665 million, and is due to:

- natural deterioration resulting mainly from the indexation of the cost of work and the update of asset maintenance needs ($33.3 million);
- new findings observed during the inspections carried out in the last year and the revision of the AMD evaluation method[4] (-$81.6 million);
- reduction of the AMD listed as a result of the work carried out ($49.4 million).

Office buildings

- The proportion of office buildings in poor or very poor condition (GCI of D or E) remained stable. Nevertheless, 3% of buildings went from poor condition (GCI of D) to very poor condition (GCI of E) due to new findings from annual inspections.
  - Major asset maintenance projects are planned in Québec City for the buildings at 12 Rue Saint-Louis, 1141 Route de l'Église and 1075 Chemin Sainte-Foy as well as in Montréal at 360 Rue McGill. Over time, these projects involving buildings in poor and very poor condition (GCI of D or E) will result in a reduction of $61.5 million in the AMD.

[4] The revision of the building inventory AMD evaluation method (described in Appendix 1) allows for standardized accountability reporting based on the facility condition index to make it comparable to other government buildings, notably in the health and education sectors for which SQI is the project manager.

Transportation centres

- The proportion of transportation centres in poor condition (GCI of D) increased from 21% to 32% due to new findings in recent inspections.
  - The cumulative AMD of $60.6 million for buildings in poor and very poor condition (GCI of D or E) is due mainly to the aging of several abrasive warehouses and transportation centres. Many projects to reduce a portion of the AMD are planned in the SQI investment plan.

Courthouses

- The proportion of courthouses in poor or very poor condition (GCI of D or E) remained stable compared with the previous year. The AMD decrease of $150.6 million (from $266.8 million to $116.2 million) compared to the 2022-2023 AMPI is due mainly to the change in the AMD[5] calculation method (reduction of the AMD of $109.2 million for the Palais de justice de Montréal and $19.2 million for the Palais de justice de Québec) as well as the demolition of the Palais de justice de Saint-Hyacinthe (reduction of $10.8 million).
  - The completion of major projects currently under study or in planning, particularly for the Palais de justice Montréal and Québec, will reduce the AMD of buildings in poor and very poor condition (GCI of D or E) by approximately $80.2 million.

Detention facilities

- The proportion of detention facilities in poor and very poor condition (GCI of D and E) remained stable. This stability is due to the fact that work to reduce the AMD has offset the deterioration and the addition of new findings on the buildings.
  - Many projects in progress or in the planning stage will reduce their AMD by $53.9 million over the coming years.

Sûreté du Québec police stations

- The proportion of Sûreté du Québec police stations in poor condition (GCI of D) has worsened from 2% to 40%. This significant variation is the result of new findings at the Grand quartier général located at 1701 Rue Parthenais in Montréal, adding an AMD of $66.7 million.

Other specialized buildings

- The proportion of other specialized buildings in poor or very poor condition (GCI of D or E) remained stable. The AMD decreased by $4.5 million, from $22.7 million to $18.2 million, due to the change in evaluation method[5].

Non-rental and surplus buildings

- The surplus buildings category shows a very high level of deterioration. However, they are no longer operational and pose no risks to the health and safety of individuals. The disposal of the former Saguenay detention facility reduced the AMD by $12.3 million.

Parking lots and tunnels

- The proportion of parking lots and tunnels in poor or very poor condition (GCI of D or E) increased by 5%. The AMD increased by $2.8 million, from $50.7 million to $53.5 million, due mainly to new findings observed on these types of infrastructure.

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5 The revision of the method for evaluating the AMD of the building inventory (method described in Appendix 1) makes it possible to standardize accountability on the basis of the condition index in order to make it comparable to other government buildings, particularly in the Health and Education sectors for which the SQI is the project manager.

Appendix 1

ADDITIONAL INFORMATION

Inspection and data update

The building inspection process is done continuously by building managers. Building operation technicians visit all buildings under their responsibility with a frequency determined according to the importance and complexity of the systems in each.

Although infrastructure component inspections are done continuously, the building management team must present a property condition assessment for each building and civil engineering structure under their responsibility according to a fixed schedule. Approximately 30% of the infrastructure is assessed each year. The assessment calendar is based on the risks associated with the use of the infrastructure and its condition. The entire infrastructure is assessed in this manner at least once every five years.

Evaluation of infrastructure condition

To determine infrastructure condition, the SQI uses quantitative parameters. The quantitative method used to measure its condition is the FCI calculation. Expressed as a percentage, FCI qualifies the health status of the infrastructure compared with its replacement value. It is computed as follows:

FCI = (Total cost of asset maintenance work to be carried out within zero to five years / replacement value) x 100%.

The SQI has defined the acceptable thresholds for FCI based on its experience with customer satisfaction, adequate funding of work and the resources required to maintain infrastructure. These thresholds serve as a reference to qualitatively define the GCI levels, which range from very good (GCI of A) to very poor (GCI of E).

AMD assessment of infrastructures

Regular asset maintenance refers to work to be carried out within zero to five years to protect the building components.

Any infrastructure with an FCI greater than 15% is considered to be in poor condition, and the estimate of its AMD is the product of the 15% excess and its replacement value.

In the 2022-2023 AMPI, the entire cost of work on components past the end of their useful life was accounted for as AMD, even if their completion improved the FCI beyond 15%.

CULTURE ET COMMUNICATIONS

INFRASTRUCTURE MANAGEMENT

THE MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS

VISION

Be the catalyst for a vibrant culture and a source of pride for Québec.

ORIENTATION

As a leader in government action in the fields of culture and communication, the MCC contributes to the promotion of these fields, to individual and community development, as well as to the establishment of an environment conducive to the creation and vitality of the territories.

With respect to the infrastructure under its responsibility, the MCC aims to promote access to culture and its dissemination through quality infrastructure.

RESPONSIBILITIES

Each year, substantial amounts are allocated to government bodies and state-owned enterprises that report to the Minister of Culture and Communications. These sums are used to maintain their assets, address their AMD, for the replacement of their infrastructure and for the enhancement of their inventory. The MCC ensures that the funds allocated are used for the purposes stipulated. It also ensures that information on infrastructure assets and any required documentation on their condition is available and relevant. This information allows MCC to establish a global, objective, and complete picture of the infrastructure portfolio under its responsibility.

The MCC thus provides proper management of infrastructure by applying the highest quality standards and enforcing the constituting acts of all government bodies and state-owned enterprises in its portfolio.

GOVERNMENT BODIES AND STATE-OWNED ENTERPRISES THAT REPORT TO THE MINISTER OF CULTURE AND COMMUNICATIONS

RESPONSIBILITIES

The government bodies and state-owned enterprises under the responsibility of the Minister of Culture and Communications establish a detailed plan of their needs for asset maintenance, AMD investments, infrastructure replacement as well as the enhancement of their inventory. They are responsible for the work carried out, regular follow-up and accountability report, and evaluations of the general condition of their infrastructure. In fact, government bodies and state-owned enterprises are responsible for evaluating and documenting the condition of their infrastructure so as to ensure optimal management of it, and to provide updated data periodically.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The infrastructure portfolio of government bodies and state-owned enterprises under the Minister's responsibility consists of a total of 50 buildings, of which 36 are protected under the CHA: 31 owned by SODEC (26 buildings and 5 interpretation sites), one venue building, one library and three museums. It also includes eight buildings of heritage interest, although they are not protected under this law.

The infrastructure portfolio also includes specialized equipment that is essential to fulfill the missions of the government bodies and state-owned enterprises.

Infrastructure inventory[1]
By infrastructure type and category

	Average Age[2] (years)	Quantity			Measurement (sq. m.)		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings							
Museums	71	9	9	0	87,981	87,981	0
Venues	47	5	5	0	143,945	143,945	0
Librairies	67	3	3	0	74,836	74,836	0
Broadcasting	126	2	2	0	14,552	14,552	0
Heritage Buildings[3]	243	31	31	0	26,738	26,738	0
Total – Buildings		**50**	**50**	**0**	**348,052**	**348,052**	**0**
Specialized Equipments							
Museums	15	32	35	3	n.a.	n.a.	n.a.
Venues	19	127	127	0	n.a.	n.a.	n.a.
Librairies	19	18	18	0	n.a.	n.a.	n.a.
Broadcasting	13	269	269	0	n.a.	n.a.	n.a.
Academy	32	105	105	0	n.a.	n.a.	n.a.
Total – Specialized Equipments		**551**	**554**	**3**	**n.a.**	**n.a.**	**n.a.**

1 Data as at December 31, 2022.
2 The average age represents the "apparent" age of an infrastructure. This corresponds to the estimated age of an infrastructure, due mainly to the date of construction and the work carried out since.
3 This category of buildings includes only heritage buildings owned by SODEC, that is, 26 buildings (housing, retail and parks) and five interpretation centres.

Variation in inventory

A slight increase of three specialized equipment for museums is noted. This increase is due to an update of the inventory of this equipment in 2022.

INFRASTRUCTURE SUSTAINABILITY

GOVERNMENT BODIES AND STATE-OWNED ENTERPRISES THAT REPORT TO THE MINISTER OF CULTURE AND COMMUNICATIONS

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings									
Museums	52	14	3	69	13	18	12.0	50.1	62.1
Venues	0	0	0	0	32	68	37.3	129.8	167.1
Librairies	97	0	0	97	0	3	–	3.2	3.2
Broadcasting	0	95	0	95	5	0	0.1	–	0.1
Heritage Buildings[3]	4	14	54	72	22	6	5.4	1.9	7.3
Total – Buildings	**33**	**9**	**4**	**46**	**19**	**35**	**54.8**	**185.0**	**239.8**
Specialized Equipments									
Museums	32	11	4	47	40	13	0.6	0.4	1.0
Venues	7	21	36	64	30	6	–	5.9	5.9
– Librairies	32	60	8	100	0	0	–	–	–
Broadcasting	24	4	8	36	54	10	15.0	–	15.0
Academy	80	0	2	82	7	11	–	–	–
Total – Specialized Equipments	**20**	**13**	**18**	**51**	**41**	**8**	**15.6**	**6.3**	**21.9**
Total – Infrastructures	**32**	**9**	**5**	**46**	**21**	**33**	**70.4**	**191.3**	**261.7**

1 Data as at December 31, 2022.
2 Percentages are weighted according to infrastructure replacement values.
3 This category of buildings includes only heritage buildings owned by SODEC, that is, 26 buildings (housing, retail and parks) and five interpretation centres.

ADDITIONAL INFORMATION

The following table presents the results obtained following data collection for this 2023–2024 AMPI.

Objectives

Objectives	Reference value	Results			Target
	Reference AMPI	AMPI 2021-2022	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Reach a proportion of 65% of buildings belonging to government bodies and state-owned enterprises that are in satisfactory or better condition (GCI of A, B or C)	57% AMPI 2020-2021	54%	53%	46%	65% AMPI 2025-2026
Carry out at least $16.6M worth of work to reduce the building AMD[1]	$0M AMPI 2020-2021	$13.1M	$41.7M	$70.6M	$16.6M AMPI 2025-2026

[1] The results presented for each year are the cumulative cost of work carried out since the reference AMPI was filed.

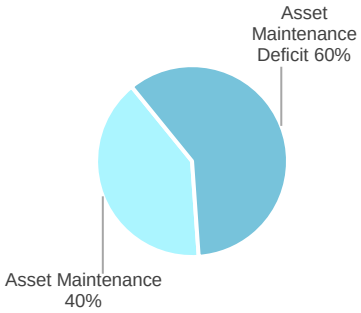
A decrease in the proportion of buildings belonging to government bodies and state-owned enterprises in satisfactory or better condition (GCI of A, B, or C) is noted since the 2020-2021 AMPI. This decrease is due mainly to the natural deterioration observed in certain buildings, which is increasing more rapidly than the infrastructure maintenance work carried out.

In addition, the update of the building health report for the Grand Théâtre de Québec revealed major new upgrades required, mainly on the ventilation system, the fire sprinklers and the elevators, bringing this building from a satisfactory condition (GCI of C) to a very poor condition (GCI of E). As a result, the aim of achieving 65% of buildings belonging to government bodies and state-owned enterprises in satisfactory or better condition (GCI of A, B, or C) by the time the 2025-2026 AMPI is filed appears difficult to achieve without a major increase in infrastructure maintenance work over the coming years.

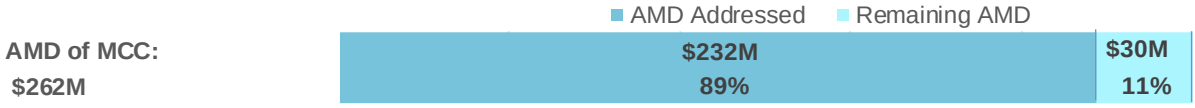
Furthermore, a gradual increase in work carried out to reduce the AMD is noted since the 2020-2021 AMPI was filed. As a result, the second goal of completing at least $16.6 million of work intended to reduce the AMD by the time the 2025-2026 AMPI is filed has already been achieved.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	MCC	%
Infrastructure maintenance		
Asset maintenance	156.3	40
Asset Maintenance Deficit	232.0	60
Total	**388.3**	**100**



Addressing the asset maintenance deficit



Investment strategy

The overall MCC infrastructure investment strategy is built around two intervention priorities to ensure that the infrastructure of government bodies and state-owned enterprises is in good condition and meets standards, as well as to maintain appropriate conditions for displaying and conserving assets and works of art. These priorities are:

- Asset maintenance: Continually perform asset maintenance interventions to prevent the deterioration of buildings and equipment belonging to government bodies and state-owned enterprises so as to avoid having to do major repairs;
- Addressing AMD: Prioritize interventions on venue buildings with a greater AMD, while meeting the needs of the other buildings with an AMD.

Planned investments in the 2023-2033 QIP for infrastructure maintenance of $388.3 million will allow for an anticipated $232.0 million AMD decrease, which is 89% of the AMD reported.

SITUATION

Investments listed in the QIP
By type
(contribution from the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Gouvernment Bodies and State-Owned Enterprises Reporting to the Minister of Culture and Communications						
2021-2022						
Actual	8.3	9.7	–	**18.0**	17.1	**35.1**
Forecast[1]	23.4	6.7	0.1	**30.2**	19.1	**49.3**
Difference	(15.1)	3.0	(0.1)	(12.2)	(2.0)	(14.2)
2022-2023						
Probable	13.7	28.0	–	41.7	39.1	80.8
2023-2024						
Forecast	12.5	23.7	–	36.2	53.1	89.3

[1] Planned in the 2021–2031 QIP.

ADDITIONAL INFORMATION

Difference between planned investments and actual investments

There is a total difference of $14.2 million between planned investments ($49.3 million) and actual investments ($35.1 million) for 2021-2022. This variation is due mainly to a delay in the completion of several infrastructure maintenance and infrastructure enhancement projects because of a shortage of workers, difficulties in obtaining materials and an overheated construction market.

Infrastructure maintenance

Infrastructure maintenance investments made it possible to carry out the following work:

- work dedicated to the structure and building envelopes;
- work dedicated to electromechanical facilities (electricity, heating, air conditioning and fire alarm systems);
- maintenance and replacement of specialized equipment (lighting systems, audiovisual systems, shelving systems and mobile shelves).

More specifically, infrastructure maintenance investments made in 2021-2022 and probable investments in 2022-2023, totalling $18.0 million and $41.7 million respectively, have mainly enabled the following projects to move forward:

- repair of the masonry on the pavillon Gérard-Morisset of the MNBAQ, which made it possible to restore the infrastructure to good condition (GCI of B);
- repair work on various SODEC heritage buildings, which reduced the AMD listed;

- repair work on SPDAM heritage buildings;
- work related to the installation of sprinklers in the Grand Théâtre de Québec;
- repair work on the STQ's Pied du Courant building;
- work on the STQ's transmission equipment.

Investments of $36.2 million planned in 2023-2024 for infrastructure maintenance will make it possible to carry out work on various buildings with AMD (GCI of D or E), notably:

- replacement of the motor control centres in the SPDAM buildings;
- modernization of the vertical elevator in the SPDAM theatre building;
- replacement of the air treatment system in the SPDAM theatre building;
- replacement of the air treatment system in the Grand Théâtre de Québec;
- maintenance of the Grand Théâtre de Québec's stage equipment.

Inventory enhancement

Infrastructure enhancement investments allow for the following type of work to be carried out:

- Design improvements to or expansion of existing infrastructure;
- Acquisition and construction of new infrastructure.

More specifically, investments made in 2021-2022 and probable investments in 2022-2023 total $17.1 million and $39.1 million respectively. These investments enabled the advancement of the following projects:

- Espace Riopelle at the MNBAQ;
- Universal access between the métro station and the corridor to the Place des Arts complex;
- Espaces bleu de la Capitale-Nationale in Québec City.

Planned investments of $53.1 million for infrastructure enhancement in 2023-2024 will make it possible to proceed with the Espace Riopelle project at the MNBAQ, redevelop the Espace bleu de la Capitale-Nationale in Québec City and carry out the following projects:

- Espace bleu de la Gaspésie in Percé;
- Espace bleu de l’Abitibi-Témiscamingue in Amos.

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings											
Museums	13	13	0	18	18	0	17.6	49.6	–	(5.1)	62.1
Venues	53	32	(21)	30	68	38	55.5	91.6	38.9	(18.9)	167.1
Librairies	0	0	0	3	3	0	1.1	3.4	–	(1.3)	3.2
Broadcasting	5	5	0	0	0	0	0.1	–	–	–	0.1
Heritage Buildings	19	22	3	5	6	1	9.3	1.2	0.4	(3.6)	7.3
Total – Buildings	**28**	**19**	**(9)**	**19**	**35**	**16**	**83.6**	**145.8**	**39.3**	**(28.9)**	**239.8**
Specialized Equipments											
Museums	45	40	(5)	16	13	(3)	0.9	0.1	–	–	1.0
Venues	30	30	0	6	6	0	9.0	–	–	–	5.9
Librairies	0	0	0	0	0	0	–	–	–	–	–
Broadcasting	54	54	0	10	10	0	14.9	1.9	–	(1.8)	15.0
Academy	7	7	0	11	11	0	–	–	–	–	–
Total – Specialized Equipments	**41**	**41**	**0**	**8**	**8**	**0**	**24.8**	**2.0**	**(1.9)**	**(3.0)**	**21.9**
Total – Infrastructures	**29**	**21**	**(8)**	**18**	**33**	**15**	**108.4**	**147.8**	**37.4**	**(31.9)**	**261.7**

[1] Percentages are weighted by infrastructure replacement value.

ADDITIONAL INFORMATION

Changes in condition

The proportion of buildings in poor or very poor condition (GCI of D or E) has increased for venue and heritage buildings as a result of updated building health reports during 2022-2023, tipping many of these buildings from satisfactory condition (GCI of C) or poor condition (GCI of D) to very poor condition (GCI of E). Moreover, the proportion of specialized equipment has remained stable.

Changes in the AMD

The net increase in AMD of $153.3 million, from $108.4 million to $261.7 million resulted from:

- Natural deterioration, valued at $147.8 million, or:
  - $145.8 million for SODEC's museums, venue buildings, libraries and heritage buildings. More specifically, this amount includes the work listed under asset maintenance which was not carried out during the year and is now considered as AMD, as well as the upward revision of the cost of work due to the overheating of the construction market for certain work already listed in AMD;
  - $2.0 million for specialized equipment, which can be explained by an increase in natural deterioration observed in the specialized equipment for museums ($0.1 million) and broadcasting ($1.9 million);

- The addition of new findings valued at $39.3 million for buildings is due mainly to the updated health reports for venue and heritage buildings. This increase is due mainly to the costs associated with the addition of repair needs, such as upgrading the ventilation system, fire sprinklers and elevators of the Grand Théâtre de Québec building, which went from a satisfactory condition (GCI of C) to a very poor condition (GCI of E);
- The $1.9 million decrease in AMD for specialized equipment in venue buildings resulting from the downward revaluation of their replacement cost;
- The reduction of $31.9 million in AMD is due mainly to:
  - Various repair work carried out which allowed for a $5.1 million reductionby the repair of certain museums ($3.5 million) and preparatory work related to the MACM redevelopment project ($1.6 million);
  - Repair work on the different SPDAM buildings, which resulted in a $18.9 million reduction;
  - Repair work of $1.3 million on the Saint-Sulpice library;
  - Targeted investments on heritage buildings belonging to SODEC, which resulted in a $3.6 million reduction;
  - Replacement of equipment that has reached the end of its useful life, which resulted in a $3.0 million reduction.

APPENDIX 1

ADDITIONAL INFORMATION

Inspection and data update

All buildings and specialized equipment were inspected. In addition, in compliance with its mission, SODEC continues to implement its investment plan on an annual basis to protect and develop its building inventory.

With a view to adopt sound infrastructure management practices alined with government guidelines, a continuous inspection schedule over a five-year period was established. An annual update is also performed mainly for the buildings' critical components. The objective of the update is to maintain an accurate profile of the condition of buildings and specialized equipment, thereby contributing to clearer decision-making in this respect.

Methodology

The evaluation method used to determine government condition indicators for infrastructure, with the exception of SODEC heritage buildings, is based on the FCI[6]. In contrast, the method used for SODEC buildings is weighted based on five criteria, as specified in the ministry's infrastructure management guidelines, by taking into account the specifics associated with these buildings. This method allows to consider the specifics of heritage infrastructure.

The priority interventions supported by health reports are recorded as an AMD for buildings whose FCI is above the satisfactory condition (15%). This data is updated annually and takes into account new investment needs, the work carried out and cost indexation. Given that the inspections for the Sept-Îles building, belonging to the Société de Télédiffusion du Québec, have not been updated in recent years, a theoretical deterioration was considered for the evaluation of the work to be carried out. The data is subsequently indexed on an annual basis.

The condition indicator percentages (A / B / C / D / E) are weighted according to the replacement value.

[6] Facility condition index: Total estimated cost of all the asset maintenance work that must be carried out over a 5-year period, divided by the replacement value of the infrastructure.

APPENDIX 2

Composition of the groups of bodies

Government bodies and state-owned enterprises that report to the Minister of Culture and Communications

Bibliothèque et Archives nationales du Québec
Conseil des Arts et des Lettres du Québec
Conservatoire de Musique et d'Art Dramatique du Québec
Musée d'art contemporain de Montréal
Musée de la Civilisation
Musée National des Beaux-arts du Québec
Société de Développement des Entreprises Culturelles
Société de la Place des Arts de Montréal
Société de Télédiffusion du Québec
Société du Grand Théâtre de Québec

ÉDUCATION

INFRASTRUCTURE MANAGEMENT

ÉDUCATION

VISION

The infrastructure condition of school organizations (school service centres, school boards) influences the quality of the education offered and the learning conditions of Québec students. Therefore, it is essential that they have healthy, stimulating and accessible environments that support their educational success. Whether from the standpoint of safe infrastructure or environments that satisfy the needs of students and staff, stakeholders' efforts must focus on reaching a common objective which is to offer teaching and learning conditions that meet the highest standards.

ORIENTATION

To fulfill its mission, which consists in promoting education, the MEQ has adopted the following orientation regarding the infrastructure under its responsibility:

- maintain conditions conducive to educational success by ensuring the quantity, quality, safety and sustainability of infrastructure.

RESPONSIBILITIES

The MEQ is responsible for the following:

- allocating amounts to school organizations to maintain assets, manage the AMD and add, reconstruct and improve their infrastructure;
- ensuring that the funds allocated are used for the purposes stipulated;
- prioritizing investments based on government issues.

SCHOOL ORGANIZATIONS

RESPONSIBILITIES

School organizations are responsible for the following:

- planning investments and carrying out work in accordance with the projects authorized, the funds allocated and the regulations in force;
- inspecting their infrastructure to establish an accurate picture of its condition and the work to be carried out to maintain or restore them in a good condition;
- managing the infrastructure they own or co-own;
- ensuring that their infrastructure is functional and that it remains safe and efficient.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The infrastructure portfolio of school organizations comprises 4,107 buildings occupying an area of 17.2 million square metres.

This portfolio is divided among 69 linguistic school organizations and three with special status (Centre de services scolaire du Littoral, Cree School Board and Kativik Ilisarniliriniq school board). It includes buildings from different categories, namely preschool, elementary and high school education establishments; vocational training and liberal studies centres; buildings devoted to administrative and other uses as well as surplus buildings.

Infrastructure inventory[1]
Per infrastructure type and category

	Average Age (years)	Quantity			Measurement (sq. m.)		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings							
Linguistic School organizations							
Educational Institutions							
Preschool and Primary Schools	62	2,304	2,314	10	7,562,646	7,672,217	109,571
High Schools	57	467	470	3	6,860,081	6,988,419	128,338
Vocational and Adult Education Centers	58	306	312	6	1,580,751	1,596,572	15,821
Administrative and other Buildings[2]	52	332	329	(3)	475,296	481,656	6,360
Special Status School organizations	30	571	577	6	309,157	312,165	3,008
Surplus Buildings[3]	70	106	105	(1)	191,350	184,935	(6,415)
Total – Buildings	**56**	**4,086**	**4,107**	**21**	**16,979,281**	**17,235,964**	**256,683**

1 Data as of February 1, 2023.
2 The "Administrative and other uses" category includes, for example, administrative offices, residences, workshops, warehouses and garages.
3 The "Surplus buildings" category includes buildings that are no longer used by school organizations.

Variation in inventory

Compared to the preceding period, the total inventory increased by 21 buildings for a new total of 4,107. This variation is due to:

- the addition of buildings, the sale, demolition or change in use (category) of buildings by school organizations or the MEQ when the predominant school clientele changed from one year to the next.

More specifically, by infrastructure category, the variations can be explained as follows:

- Kindergartens and primary schools:
  - addition of nine establishments in Montréal, Saint-Adolphe-d'Howard, L'Ange-Gardien, Scott, Saint-Lucien, Drummondville, Saguenay, Laval and Saint-Célestin;
  - demolition of a school in Saguenay;
  - change in primary use of schools other than preschool and primary schools resulting in the addition of two additional buildings;
- High schools:
  - addition of five establishments in Montréal, Laval, Saint-Zotique, Vaudreuil-Dorion and Drummondville;
  - change of primary use of secondary schools resulting in the removal of two buildings;
- Vocational and liberal studies centres:
  - addition of three establishments in Mascouche, Sainte-Justine-de-Newton and Longueuil;
  - change in the primary use of establishments other than training centres resulting in the addition of three more buildings;
- Administrative and other uses:
  - addition of two establishments in Saint-Pascal and Longueuil;
  - sale of a building in Mont-Laurier;
  - demolition of a building in Dégelis;
  - change in the primary use of administrative and other buildings resulting in the removal of three buildings;
- School organizations with special status:
  - addition of six buildings in Saint-Augustin, Kangirsuk, Akulivik, Umiujaq and Puvirnituq;
- Surplus buildings:
  - sale of a building in Sainte-Jeanne-d'Arc.

INFRASTRUCTURE SUSTAINABILITY

SCHOOL ORGANIZATIONS

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings									
Linguistic School organizations									
Educational Institutions									
Preschool and Primary Schools	12	12	14	38	37	25	898.0	2,870.6	3,768.6
High Schools	6	13	16	35	44	21	957.4	1,884.4	2,841.8
Vocational and Adult Education Centers	15	14	16	45	35	20	180.8	429.8	610.6
Administrative and other Buildings[3]	17	11	14	42	31	27	52.7	228.7	281.4
Special Status School organizations	62	17	13	92	5	3	8.0	20.5	28.5
Surplus Buildings[4]	13	3	4	20	18	62	6.7	122.9	129.6
Total – Buildings	**11**	**13**	**15**	**39**	**38**	**23**	**2,103.6**	**5,556.9**	**7,660.5**

1 Data as of February 1, 2023.
2 Percentages are weighted according to replacement values.
3 The "Administrative and other uses" category includes, for example, administrative offices, residences, workshops, warehouses and garages.
4 The "Surplus buildings" category includes buildings that are no longer used by school organizations.

ADDITIONAL INFORMATION

The MEQ adopted GIESS, a new infrastructure information management system to identify the work to be carried out by school organizations and support the strategic planning of their infrastructure projects. Commissioning of this new tool began as planned in 2020, but was delayed due to the pandemic. The asset maintenance module was rolled out in 2021, while the maintenance and project monitoring modules were rolled out on September 30, 2022.

In 2022, school organizations performed new inspections and reviewed the results of inspections conducted in 2021 under the new standardized method. However, nearly 8% of the building inventory has not yet been subject to a standardized inspection. Most of the uninspected buildings are residences, workshops, warehouses, garages, and other building types in the "Administrative and Other Uses" category. For indicative purposes, work has been started to adapt the inspection method for residences.

Objectives

The following table presents the results achieved following the data collection for this 2023-2024 AMPI, derived from the 2019-2023 MEQ Strategic Plan.

Objective	Reference value	Results			Target
	Reference AMPI	AMPI 2021-2022	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Increase the proportion of infrastructure in good condition (GCI of A,B or C) to 50% for all buildings under its responsibility	46% AMPI 2020-2021	44%	41%	39%	50% AMPI 2023-2024

This objective could not be achieved despite the significant investments made in recent years. In light of recent standardized inspection data, it will take time to improve the condition of the school building inventory given the backlog. It is also important to mention that the cost of work and materials has increased significantly and unpredictably in recent years, which has meant that with the available investment, less work has been carried out than planned.

The MEQ plans to revise its objective during the development of its 2023-2027 Strategic Plan to take into account the impact of new inspections performed by the network, updated costs related to inflation and investments made in asset maintenance.

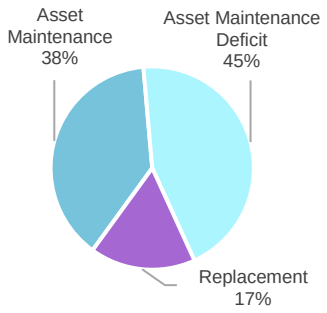
The MEQ has adopted the following orientations for its future investment choices:

- prioritize the work required to correct air and mould problems in schools;
- rapidly replace or repair critical components at the end of their useful life, such as roofs, windows and heating and ventilation systems;
- prioritize asset maintenance investments in schools that are in satisfactory condition (GCI of C) to prevent further deterioration or in schools that are in poor condition (GCI of D) to have a positive effect on the level of disrepair in the school building inventory;
- continue to implement the reconstruction plan for the most dilapidated schools (GCI of D or E).

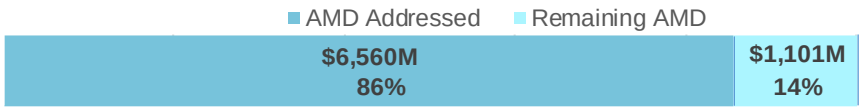
Infrastructure maintenance investments in the 2023-2033 QIP

(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	School organizations	%
Infrastructure Maintenance		
Asset Maintenance	5,510.9	38
Asset Maintenance Deficit	6,559.5	45
Replacement	2,421.6	17
Total	**14,492.0**	**100**



Addressing the asset maintenance deficit



Investment strategy

Investments of nearly $6.6 billion in the 2023-2033 QIP for the education sector address a significant portion of the AMD currently assessed in the AMPI (86%). Since the 2021-2031 QIP, the Government has implemented a strategy to progressively increase investments in order to raise the level of infrastructure maintenance investments, in particular that of the MEQ, which will have to target work that has a significant impact on the AMD. In addition, the Government has committed to enhancing this strategy by allocating $2.0 billion in the coming years, including $500.0 million granted to the 2023-2033 QIP.

The MEQ is taking the following actions to reduce the AMD:

- confirming the annual investment budgets for the school organizations as soon as possible to allow them to accelerate the completion of the work;
- planning for separate maintenance budgets, allocated in the school-organization operation envelopes, which must be used for this purpose;
- allowing school organizations to acquire modular buildings to free up space in schools that require priority repair work;
- encouraging school organizations to develop investment master plans in order to plan their renovation, replacement and new construction projects over the medium and long term;
- improving, through the new information management system, the tracking of investment needs in schools, including the effect of work carried out on changes in their condition and the AMD, which will allow optimal targeting of interventions.

Furthermore, the MEQ will continue to fulfill its plan to reconstruct the most dilapidated schools (GCI of D or E), through the following actions:

- targeting the most obsolete schools and, where possible, combining their reconstruction with the creation of new student spaces to meet the most urgent space deficits;
- considering the priorities identified by school organizations based on a cost/benefit analysis showing that it is more advantageous to rebuild the building than to renovate it;
- continuing to plan and carry out projects authorized in recent years.

SITUATION

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Replacement	Subtotal	Addition and Improvement	
School organizations						
2021-2022						
Actual	503.1	871.3	149.2	**1,523.6**	1,326.8	**2,850.4**
Forecast[1]	540.0	813.8	121.2	**1,475.0**	1,018.0	**2,493.0**
Difference	(36.9)	57.5	28.0	**48.6**	308.8	**357.4**
2022-2023						
Probable	466.5	644.2	429.9	**1,540.6**	1,460.2	**3,000.8**
2023-2024						
Forecast	629.5	649.0	382.1	**1,660.6**	1,502.6	**3,163.2**

[1] Planned in 2021-2022 QIP

ADDITIONAL INFORMATION

Differences Between Planned and Actual Investments

The difference of $357.4 million between planned investments of $2,493.0 million and actual investments of $2,850.4 million in 2021-2022 is due mainly to some expansion and new school construction projects that were completed faster than anticipated.

Infrastructure maintenance

Over the past five years, significant investments in public infrastructure have been made to maintain the school building inventory. In fact, for the education sector, the infrastructure maintenance investments increased by $6.8 billion, from $7.7 billion for 2018-2028 to $14.5 billion for 2023-2033. These investments will help ensure the well-being and safety of students and school staff.

Investments made in 2020-2021 and probable investments in 2022-2023, totalling $1,523.6 million and $1,540.6 million respectively, enabled the completion or continuation of work aimed primarily at maintaining or restoring buildings to satisfactory or better condition. Some examples of the work carried out are:

- repair work on roofs and exterior cladding and the replacement of windows and floor coverings;
- work to remedy problems related to mould and air quality in the schools;
- work to adapt buildings for students with handicaps or students experiencing adjustment or learning difficulties;
- replacement of institutional equipment;
- functional renovations such as the conversion of offices or multipurpose rooms into classrooms;
- rehabilitation or reconstruction of buildings damaged by disasters.

More specifically, these investments should make it possible to replace critical components in schools, such as:

- superstructure and envelope (e.g. floors, exterior claddings and roofs);
- interior refitting (e.g. partitions, stairs and interior finishes);
- services (e.g. plumbing, heating, ventilation and electricity).

In addition, the planned investments will allow for the completion of projects as:

- the partial rehabilitation of the outer envelope of École secondaire Pointe-Lévy, located in Lévis;
- the replacement of the drinking water distribution system at École secondaire André-Laurendeau in Longueuil;
- the replacement of the heating, ventilation and air conditioning systems at Polyvalente Jean-Dolbeau, located in Dolbeau-Mistassini.

To accelerate work in the schools and maximize short-term return, the process of confirming the investment budgets to the school organizations has been moved forward, and since 2019-2020, the MEQ has been making multi-year announcements. School organizations can therefore implement renovation project planning more quickly (most renovations occur during the summer).

Inventory enhancement

By 2026-2027, excluding the impact of the opening of kindergarten for four-year-olds, the MEQ foresees a deficit of about 500 classrooms in primary schools. These schools are mainly in the Lanaudière, Montérégie and Laurentides regions. By 2031-2032, the MEQ also forecasts a deficit of about 18,000 student spaces in secondary schools, mainly in the same regions as the primary schools.

In response to these growing needs in education, the Government is planning investments of nearly $7.8 billion in the 2023-2033 QIP, which will make it possible to:

- continue the planning and completion of close to 300 additional space projects authorized in recent years;
- announce new projects to build or expand schools, enabling more primary school classrooms and secondary student spaces to be added, benefiting thousands of students by 2026-2027;
- build the premises necessary to open 2,600 new kindergartens for 4-year-olds by the end of the 2029-2030 school year.

More specifically, investments of $1,502.6 million will enable the completion or continuation of certain projects in 2023-2024, such as:

- primary school - Saint-Jérôme - Construction (30 classes);
- primary school - Gatineau - Expansion and redevelopment (10 classes);
- primary school - Sainte-Brigitte-de-Laval - Construction (23 classes);
- secondary schools - Drummondville - Construction (1,256 student spaces).

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings											
Linguistic School organizations											
Educational Institutions											
Preschool and Primary Schools	38	37	(1)	21	25	4	2,904.3	373.8	921.8	(431.3)	3,768.6
High Schools	45	44	(1)	20	21	1	2,174.1	343.0	647.5	(322.8)	2,841.8
Vocational and Adult Education Centers	33	35	2	18	20	2	476.8	38.9	165.7	(70.8)	610.6
Administrative and other Buildings	26	31	5	28	27	(1)	213.6	24.0	75.5	(31.7)	281.4
Special Status School organizations	3	5	2	1	3	2	8.7	57.5	(36.4)	(1.3)	28.5
Surplus Buildings	8	18	10	66	62	(4)	89.8	9.3	43.8	(13.3)	129.6
Total – Buildings	**39**	**38**	**(1)**	**20**	**23**	**3**	**5,867.3**	**846.5**	**1,817.9**	**(871.2)**	**7,660.5**

[1] Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

Changes in condition

Overall, school infrastructure conditions deteriorated this year. This deterioration is due to the addition of new repair work needs identified during inspections carried out on specific components, as well as the effect of the increase in the cost of work, which takes the market reality into account.

Changes in the AMD

The overall increase in AMD of $1,793.2 million, from $5,867.3 million to $7,660.5 million, is due to the following:

- $846.5 million related to the natural deterioration of critical components of certain school buildings, such as foundations, floors, walls, roofs, plumbing and heating, ventilation and electrical systems;
- $1,817.9 million explained by the improvement of the inspection process, which made it possible to identify new asset maintenance work needs, and by the revision of the cost of work to be carried out;
- The reduction of $871.2 million is due mainly to:
  - the replacement of components that are outdated or at the end of their useful life, including:
    - infrastructure (e.g. foundations);
    - superstructure and envelope (e.g. floors, exterior claddings and roofs);
    - interior refitting (e.g. partitions, stairs and interior finishes);
    - services (e.g. plumbing, heating, ventilation and electricity);
    - other work;
  - work intended to eliminate problems that could affect air quality in certain buildings.

On the other hand, the optimization of the annual asset maintenance budget allocation process in the school organizations and the fact that this provides for multi-year allocations will support better planning of contracts, and maximize the volume of interventions carried out in the summer.

Furthermore, to address the anticipated increase in the AMD, the MEQ will pursue its efforts to target allocations and adopt measures to ensure that the work can be carried out accordingly.

Finally, implementing the new GIEES tool allows the MEQ, in collaboration with the school network, to target and put in place concrete means to address the physical wear and tear of the buildings.

APPENDIX 1

ADDITIONAL INFORMATION

Inspection and data update

The MEQ is continuing its efforts to improve the quality and consistency of the data produced to track and manage the maintenance of school buildings. In the last year, school organizations have taken greater ownership of the standardized inspection process implemented in 2021, allowing them to review the results from completed inspections and conduct new ones. The MEQ continues to work with school organizations to ensure that the inspection process is followed and properly enforced, and that data is reviewed when issues arise.

Methodology

After performing the inspections, the school organizations use an asset management software program to inventory the work they must carry out on their buildings within the next five years. The assessment of the condition and AMD of all buildings is based on the list of work entered in the software program according to the inspection procedures set out in the Cadre de gestion des infrastructures scolaires. The procedures seek to obtain a coherent and seamless assessment of the condition of buildings that is harmonized throughout the school network.

The GCI and the AMD are assessed based on an FCI.[7] Any building with an FCI greater than 15% is considered to be in poor condition, and the estimate of its AMD is the product of the 15% excess and its replacement value.

An adjustment factor is also applied, where applicable, to the cost of work to be carried out in order to take into account the specificities of buildings that have a financial impact, including the presence of contaminants and heritage constraints.

The condition indicator percentages (A / B / C / D / E) are weighted according to building replacement value.

[7] The facility condition index (FCI) of an infrastructure is the sum of the estimated cost of all asset maintenance work to be performed over a five-year horizon, divided by the replacement value of the infrastructure.

APPENDIX 2

DETAILED INVENTORY

School organizations (school service centres, school boards)
Buildings

	Quantity	Measure-ment (sq. m.)	Average Age (years)	Government condition indicator[1] (Number)						AMD (M$)
				A	B	C	ABC	D	E	
de Montréal	265	1,607,737	72	20	9	10	39	88	110	1,437.6
de Laval	117	676,992	54	13	5	4	22	20	68	663.8
des Mille-Îles	100	458,199	43	10	4	6	20	22	50	395.7
des Patriotes	77	404,849	49	7	3	1	11	21	45	381.4
English-Montréal	70	480,104	67	1	1	3	5	22	28	370.9
de la Capitale	86	513,423	58	7	4	12	23	37	25	328.7
Marguerite-Bourgeoys	132	824,585	64	16	13	20	49	54	26	279.8
de l'Estuaire	32	144,586	58	4	0	1	5	3	22	206.6
de la Côte-du-Sud	54	207,267	66	1	1	1	3	11	36	196.4
Marie-Victorin	86	520,757	60	8	4	8	20	45	15	155.6
du Fer	34	140,675	49	2	0	1	3	8	15	137.0
des Samares	102	377,999	53	13	11	16	40	21	36	134.5
des Affluents	81	459,804	47	11	15	8	34	23	20	125.2
Eastern Townships	32	143,614	74	1	1	3	5	11	13	114.9
des Phares	40	177,323	65	0	0	4	4	18	17	113.8
Sir-Wilfrid-Laurier	48	196,053	57	3	2	6	11	20	11	113.7
des Grandes-Seigneuries	64	324,382	54	11	10	8	29	16	17	107.2
de la Vallée-des-Tisserands	51	153,996	57	2	0	3	5	20	19	103.5
de la Rivière-du-Nord	65	313,116	52	11	9	7	27	27	11	102.0
des Découvreurs	39	229,985	58	1	6	7	14	15	10	100.6
des Hauts-Cantons	38	143,263	69	1	1	2	4	11	23	98.6
du Fleuve-et-des-Lacs	55	138,631	64	2	1	7	10	23	15	93.6
de l'Énergie	60	228,581	63	1	5	8	14	24	18	91.0
de Saint-Hyacinthe	52	234,225	62	6	4	10	20	17	15	90.6
des Laurentides	32	120,034	66	2	1	3	6	6	20	88.5
du Chemin-du-Roy	73	330,509	68	7	15	18	40	21	10	87.5
des Hautes-Rivières	56	259,330	65	3	5	12	20	28	8	86.8
de la Pointe-de-l'Île	70	506,030	58	8	11	9	28	30	10	85.4
Central Québec	37	88,795	71	16	1	4	21	6	8	71.4
Harricana	32	104,609	58	2	0	2	4	13	14	67.0
des Portages-de-l'Outaouais	49	251,794	47	6	9	8	23	17	7	64.8
des Chênes	53	223,776	58	7	7	5	19	27	7	63.6
du Val-des-Cerfs	47	238,641	62	2	6	9	17	25	4	62.0
des Monts-et-Marées	38	144,564	65	1	4	7	12	17	7	61.9
René-Lévesque	33	155,041	63	0	1	6	7	18	8	61.8
de la Riveraine	32	114,083	61	1	1	0	2	12	16	61.4

[1] Because the condition indicators of 316 buildings are unknown, the number of buildings rated A, B, C, D and E does not equal 4,107.

APPENDIX 2
(continued)

DETAILED INVENTORY

School organizations (school service centres, school boards)
Buildings

	Quantity	Measure-ment (sq. m.)	Average Age (years)	Government condition indicator[1] (Number)						AMD (M$)
				A	B	C	ABC	D	E	
New Frontiers	17	89,665	65	0	0	0	0	6	8	58.3
des Rives-du-Saguenay	48	256,313	64	5	9	11	25	18	5	55.7
Lester-B.-Pearson	54	376,302	60	5	11	10	26	23	5	54.7
du Lac-Abitibi	20	71,602	62	0	2	1	3	7	9	51.2
Western Québec	31	121,054	57	1	4	4	9	15	6	47.0
des Hauts-Bois-de-l'Outaouais	28	76,408	71	0	0	5	5	19	4	43.9
de Kamouraska-Rivière-du-Loup	48	180,272	63	5	9	5	19	22	5	43.5
des Navigateurs	78	336,297	55	18	13	11	42	23	8	37.5
du Lac-Saint-Jean	35	164,417	60	5	6	6	17	14	3	36.9
au Cœur-des-Vallées	27	103,134	58	5	4	1	10	9	5	36.3
des Chic-Chocs	28	114,682	63	1	6	6	13	9	6	32.7
de Rouyn-Noranda	26	104,116	59	0	1	4	5	13	7	30.6
des Trois-Lacs	51	246,594	48	8	6	8	22	20	6	29.8
Riverside	28	144,173	65	3	3	3	9	13	5	27.2
de la Région-de-Sherbrooke	58	302,055	61	7	9	23	39	16	2	27.0
des Draveurs	48	231,853	50	8	11	12	31	16	1	26.8
des Sommets	44	167,848	67	3	5	11	19	17	4	24.9
Kativik	264	121,874	32	121	43	22	186	29	18	24.5
de la Beauce-Etchemin	83	340,856	59	21	24	13	58	17	7	20.9
des Bois-Francs	58	233,119	65	6	8	11	25	25	2	20.8
de la Moyenne-Côte-Nord	11	22,434	62	0	0	0	0	9	2	20.0
de Sorel-Tracy	22	117,524	63	2	1	5	8	9	4	16.3
du Lac-Témiscamingue	20	57,709	62	0	5	3	8	5	4	13.7
de l'Or-et-des-Bois	24	110,680	64	3	5	4	12	9	3	13.2
des Appalaches	24	138,468	63	0	1	6	7	16	1	12.2
du Pays-des-Bleuets	49	173,366	55	10	7	11	28	7	3	9.4
de la Baie-James	37	80,324	48	13	2	3	18	7	0	8.2
de la Jonquière	28	177,693	68	6	4	8	18	8	1	7.3
de Charlevoix	16	81,501	64	1	4	6	11	4	1	4.5
de Portneuf	24	117,989	68	3	5	9	17	7	0	4.1
crie	238	155,249	25	128	22	21	171	13	4	4.0
Eastern Shores	17	32,638	64	2	4	4	10	5	0	3.8
des Premières-Seigneuries	77	391,025	58	23	31	16	70	4	1	3.2
des Îles	6	35,234	65	0	0	2	2	4	0	3.1
des Hautes-Laurentides	30	88,848	68	6	5	12	23	4	1	2.5
du Littoral	78	35,296	41	41	4	0	45	0	0	–
Total	**4,107**	**17,235,964**	**56**	**667**	**444**	**516**	**1 627**	**1,239**	**925**	**7,660.5**

[1] Because the condition indicators of 316 buildings are unknown, the number of buildings rated A, B, C, D and E does not equal 4,107.

ENSEIGNEMENT SUPÉRIEUR

INFRASTRUCTURE MANAGEMENT

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR

VISION

The quality of higher education sector infrastructure affects the impact of the service offered in Québec. It is, therefore, essential that students have stimulating learning environments at their disposal that are tailored to the labour market. Whether from the standpoint of safe infrastructure, cutting-edge laboratories or environments that satisfy the needs of students and staff, interveners' efforts must focus on attaining a common objective which is offering quality teaching that meets the highest standards.

ORIENTATION

To fulfill its mission, which most particularly consists of promoting higher education, the MES has adopted the orientation below with respect to the infrastructure for which it is responsible:

- Maintain conditions conducive to higher education by ensuring the quantity, quality, safety and sustainability of infrastructure.

RESPONSIBILITIES

The MES is responsible for:

- allocating funds to colleges and universities to maintain assets, address the AMD, and add, reconstruct and improve their infrastructure;
- ensuring that the funds allocated to establishments are used for the purposes stipulated;
- auditing the college and university capital expenditure budgets to ensure that allocations granted for spaces recognized for funding purposes are used solely for such spaces.

CEGEPS AND UNIVERSITIES

RESPONSIBILITIES

The MES funding formula distinguishes between spaces that are recognized and not recognized for funding purposes. The distinction between the two types of space relates to their mission and the standards that the MES applies.

The MES pays allocations for asset maintenance, addressing the AMD, and adding, reconstructing and improving buildings for designated spaces. Regarding such spaces, CEGEPs and universities are responsible for managing their infrastructure and planning work to be carried out, in accordance with the rules that the MES issues. The establishments must submit the projects that they plan to carry out based on an annual capital expenditure budget and obtain confirmation from the MES of the budgets' compliance. For each project, the establishments must provide a brief or detailed description, depending on the scope of the project, and provide funding details and building identification. The establishments must also submit information to the MES on the condition of these buildings.

In the AMPI, the MES does not report on spaces not recognized for funding purposes as it does not pay any allowances for such spaces. The establishments must rely on their own revenues to satisfy these investment needs. Each establishment is thus responsible for ensuring the quality, safety and sustainability of such spaces.

The MES provides standardized asset maintenance allocations to establishments for adding to and maintaining their MAOB furnishings. CEGEPs and universities are responsible for managing their equipment and planning interventions. Establishments must submit information regarding their significant equipment to the MES annually.

Since the 2022-2023 AMPI, significant equipment worth $100,000 or more and equipment deemed strategic have been identified for both educational networks. They are divided into the following three categories: teaching equipment, mobile equipment and other equipment.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The college network infrastructure portfolio encompasses 996 buildings, representing a surface area of approximately 2.7 million square metres, of which approximately 2.6 million square metres in 897 buildings are recognized by the MES for funding purposes. The equipment inventory in the CEGEP network consists of 1,961 pieces of equipment. It includes 1,721 pieces of teaching equipment, 37 pieces of mobile equipment and 203 pieces of other equipment. This inventory is spread among 48 CEGEPs.

The university network infrastructure portfolio encompasses 1,056 buildings, representing a surface area of approximately 4.9 million square metres, of which approximately 3.7 million square metres in 765 buildings are recognized by the MES for funding purposes. The equipment inventory in the university network has 4,474 pieces of equipment. It includes 4,092 pieces of teaching equipment, 133 pieces of mobile equipment and 249 pieces of other equipment. This inventory is spread among 19 universities.

Infrastructure inventory[1]
By infrastructure type and category

	Average Age (years)	Quantity			Measurement (sq. m.)		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
CEGEPs							
Buildings							
Spaces Designated for Funding	48	893	897	4	2,549,756	2,553,329	3,573
Equipments							
Equipment for Teaching Purposes	9	1,540	1,721	181	n.a.	n.a.	n.a.
Rolling Stock	7	39	37	(2)	n.a.	n.a.	n.a.
Other Equipment	6	278	203	(75)	n.a.	n.a.	n.a.
Total – Equipments	**8**	**1,857**	**1,961**	**104**	**n.a.**	**n.a.**	**n.a.**
Universities							
Buildings							
Spaces Designated for Funding	55	761	765	4	3,673,186	3,677,524	4,338
Equipments							
Equipment for Teaching Purposes	9	5,503	4,092	(1,411)	n.a.	n.a.	n.a.
Rolling Stock	10	150	133	(17)	n.a.	n.a.	n.a.
Other Equipment	8	484	249	(235)	n.a.	n.a.	n.a.
Total – Equipments	**9**	**6,137**	**4,474**	**(1,663)**	**n.a.**	**n.a.**	**n.a.**

[1] Data as at January 11, 2023, for buildings and February 8, 2023, for equipment.

Variation in inventory

CEGEPs

The inventory increased by four spaces recognized for funding purposes, for a new total of 897. This variation is due to:

- the addition of seven spaces recognized for funding purposes, namely:
  - the reconstruction of the residences after the fire (St-Jean pavilion) at the CEGEP de la Gaspésie et des Îles;
  - the expansion of the John Abbott CEGEP library;
  - the Vanier CEGEP main electrical building now recognized for funding purposes;
  - the expansion of Pavillon C at CEGEP de Rimouski;
  - the Michael-John-Brophy house at the CEGEP de Sainte-Foy now recognized for funding purposes;
  - the construction of a service building for a Bionest wastewater treatment system at CEGEP de Rimouski;
  - the construction of a pump house for fire drills at CEGEP de Rimouski;

- the removal of three spaces recognized for funding purposes, including:
  - Espace Hubert-Reeves at Collège de Bois-de-Boulogne;
  - Pavilion J at CEGEP Garneau;
  - the observatory at CEGEP de Trois-Rivières.

Universities

The inventory increased by four spaces recognized for funding purposes, for a new total of 765. This variation is due to:

- the construction of the Université du Québec à Rimouski sports centre, recognized in part for funding purposes;
- three buildings at Université Concordia now recognized for funding purposes.

The equipment inventory decreased by 1,663 mainly because computer equipment will be transferred to the information assets inventory presented in the Information Resources Investment and Expenditure Plan.

INFRASTRUCTURE SUSTAINABILITY

CEGEPS

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings									
Spaces Designated for Funding	9	12	24	45	45	10	285.9	204.1	490.0
Equipments									
Equipment for Teaching Purposes	34	17	17	68	3	29	3.9	41.5	45.4
Rolling Stock	25	23	4	52	6	42	–	0.8	0.8
Other Equipment	42	16	12	70	6	24	1.0	3.8	4.8
Total – Equipments	35	17	16	68	3	29	4.9	46.1	51.0
Total – Infrastructures	**10**	**12**	**24**	**46**	**44**	**10**	**290.8**	**250.2**	**541.0**

1 Data as at January 11, 2023, for buildings and February 8, 2023, for equipment.
2 Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

MES college infrastructure maintenance investments should make it possible to achieve the following objectives by March 31, 2026:

Objectives

Objectives	Reference value	Results	Target
	Reference AMPI	AMPI 2023-2024	Target AMPI
Increase the proportion of buildings and equipment in good condition to 70% (GCI of A, B or C)	49% / AMPI 2022-2023	46%	70% / AMPI 2026-2027
Carry out at least $256.6M of work intended to reduce the building AMD[1]	$0M / AMPI 2022-2023	$59.0M	$256.6M / AMPI 2026-2027
Carry out at least $20.5M of work intended to reduce the equipment AMD[1]	$0M / AMPI 2022-2023	$10.7M	$20.5M / AMPI 2026-2027

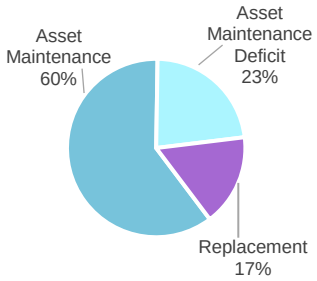
1 The results presented correspond to the cumulative cost of work carried out to reduce the asset maintenance deficit since the reference AMPI was filed.

The table above outlining the objectives presents a decrease of 3% in the proportion of buildings and equipment in satisfactory condition (GCI of A, B, or C) observed in the results of the 2022-2023 AMPI (49%) and the 2023-2024 AMPI (46%). This decrease is due to new findings from recent real estate property audits and the natural deterioration of the infrastructure portfolio.

In addition, asset maintenance investments in buildings and equipment have resulted in work of approximately $59.0 million and $10.7 million respectively to reduce the asset maintenance deficit in 2022-2023. Planned investments over the coming years are expected to meet the targets set by March 31, 2026.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	CEGEPs	%
Infrastructure Maintenance		
Asset Maintenance	1,239.2	60
Asset Maintenance Deficit	467.1	23
Replacement	341.1	17
Total	**2,047.4**	**100**



Addressing the asset maintenance deficit

The current portrait for CEGEPs shows that 46% of their network infrastructure portfolio is in good condition (GCI of A, B or C). Among the most deteriorated infrastructures (GCI of D or E), representing 54% of the college infrastructure portfolio, 70% are buildings built before 1980. Some are heritage buildings that must be rehabilitated or rebuilt over the next decade.

The MES has set, in the 2022-2023 AMPI, the following objective tol increase, by 2025-2026, the proportion of buildings and equipment in good condition (GCI of A, B or C) to 70% and carry out work of at least $256.6 million and $20.5 million respectively to reduce the AMD.

Investment strategy

The MES plans to use the following means to reduce the AMD of CEGEPs:

- Adjust the breakdown of standardized allocations in asset maintenance and AMD reduction in order to allow establishments to carry out work to improve the condition of the building inventory up to a satisfactory or better level (GCI of A, B or C);
- Provide grants to reduce the AMD by supporting establishments that are less eligible for government financial assistance;

- Implement a new planning tool to reduce the AMD and provide support to establishments in prioritizing the work to be carried out;
- Prioritize projects with a significant impact on the infrastructure condition and AMD management;
- Prioritize completing repairs or replacing critical components that have reached the end of their useful lives such as roofs, windows, and heating and ventilation systems;
- Update the establishments' building inspections to prioritize work on their building inventory.

SITUATION

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Replacement	Subtotal	Addition and Improvement	
CEGEPs						
2021-2022						
Actual	125.2	28.2	59.9	**213.3**	18.6	**231.9**
Forecast[1]	196.5	38.2	0.5	**235.2**	49.4	**284.6**
Difference	(71.3)	(10.0)	59.4	**(21.9)**	(30.8)	**(52.7)**
2022-2023						
Probable	122.3	30.7	63.0	**216.0**	75.8	**291.8**
2023-2024						
Forecast	88.6	44.1	44.4	**177.1**	86.5	**263.6**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Investments made in 2021-2022 and probable in 2022-2023, totalling $231.9 million and $291.8 million respectively, enabled the following projects to be completed or continued in infrastructure maintenance and enhancement.

Infrastructure maintenance

The main aim of infrastructure maintenance work is to maintain or restore buildings to a satisfactory or better condition (GCI of A, B or C). Some examples of the work carried out are:

- Replacement of mechanical and electrical systems such as compressed-air distribution systems, furnaces, refrigerated drinking fountains, air conditioners, cold water distribution systems and lighting systems;
- Work to address the AMD, such as the rehabilitation of exterior and interior staircases, doors, wall curtains, brick cladding and building roofs;
- Replacement of institutional equipment;
- Work on standard ground slabs and building foundation walls.

More specifically, such investments facilitated the following projects to be completed or continued:

- Renovation of the library at John Abbott College;
- Redesign of classrooms at CEGEP de Valleyfield;
- Partial refurbishment of the roof at CEGEP de Sherbrooke;
- Refurbishment of the elevators and roofs at CEGEP de Saint-Jérôme;
- Refurbishment and upgrade of the electrical entrance at Maisonneuve College;
- Refurbishment of ventilation systems in C Block at CEGEP du Vieux Montréal.

For 2023-2024, planned infrastructure maintenance investments totalling $177.1 million will make it possible, among other things, to start or complete several projects, including:

- Renovating sanitary facilities at CEGEP régional de Lanaudière's Joliette campus;
- Re-roofing and replacing doors and windows at CEGEP de La Pocatière;
- Refurbishing the thermal power plant and the chimneys at CEGEP de Sainte-Foy;
- Redeveloping of the cafeteria spaces at Lionel-Groulx College.

Inventory enhancement

The primary purposes of infrastructure enhancement are to increase the number of student spaces and improve the quality of services offered. Some examples of the work carried out are:

- Renewing equipment and redesigning premises to upgrade various college network programs;
- Adding spaces in Montréal and the surrounding area.

In 2023-2024, planned investments for portfolio enhancement totalling $86.5 million will achieve the following:

- One major expansion project is in the progress stage for Maisonneuve college;
- Eight major expansion projects are in the planning stage for CEGEPs of, Drummondville, Outaouais (Félix-Leclerc and Gabrielle-Roy campus), Granby and the Ahuntsic, Lionel-Groulx, Valleyfield and Rosemont College;
- Seven major projects to add space are currently under study or in the planning stage for CEGEPs régional de Lanaudière, Saint-Hyacinthe, Saint-Jérôme, Édouard-Montpetit and the Ahuntsic, Montmorency and Lionel Groulx College.

CEGEPS
(continued)

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings											
Spaces Designated for Funding	42	45	3	10	10	0	467.1	21.1	60.8	(59.0)	490.0
Equipments											
Equipment for Teaching Purposes	4	3	(1)	32	29	(3)	49.2	1.2	3.0	(8.0)	45.4
Rolling Stock	4	6	2	44	42	(2)	1.4	–	–	(0.6)	0.8
Other Equipment	5	6	1	26	24	(2)	6.9	–	–	(2.1)	4.8
Total – Equipments	4	3	(1)	32	29	(3)	57.5	1.2	3.0	(10.7)	51.0
Total – Infrastructures	**41**	**44**	**3**	**10**	**10**	**0**	**524.6**	**22.3**	**63.8**	**(69.7)**	**541.0**

[1] Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

Changes in condition

Beginning in 2020-2021 and ending in December 2022, the new inspection cycle has impacted the changes in the condition and asset maintenance deficit of buildings. To this end, the deterioration in the condition of college buildings noted in 2022 is due primarily to the increased work needs within five years for certain colleges.

Improvements in the condition of college equipment is due primarily to the replacement of obsolete equipment that has reached the end of its useful life, as well as the removal of some equipment in poor condition (GCI of D or E), which will be transferred to the information assets inventory presented in the Information Resources Investment and Expenditure Plan.

Changes in the AMD

The AMD increase of $22.9 million for buildings, from $467.1 million to $490.0 million, is due to the following factors:

- An increase of $21.1 million attributable to the natural deterioration of all spaces recognized for funding purposes;
- An increase of $60.8 million corresponding to findings of new work to be carried out identified during recent inspections;
- An AMD reduction of $59.0 million through work in recognized buildings, such as the rehabilitation of exterior and interior staircases, doors, wall curtains, brick cladding and building roofs.

The AMD decrease of $6.5 million for equipment, from $57.5 million to $51.0 million, is due to the following factors:

- An increase of $1.2 million due to normal wear and tear on equipment;
- An increase of $3.0 million due to addition to the equipment inventory with an AMD;
- A reduction of $10.7 million due to the replacement of equipment that has reached the end of its useful life and the removal of certain equipment that will be transferred to the information assets inventory presented in the Information Resources Investment and Expenditure Plan.

INFRASTRUCTURE SUSTAINABILITY

UNIVERSITIES

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings									
Spaces Designated for Funding	21	21	15	57	25	18	220.7	1,105.0	1,325.7
Equipments									
Equipment for Teaching Purposes	24	22	19	65	5	30	15.7	59.6	75.3
Rolling Stock	13	9	17	39	1	60	–	2.5	2.5
Other Equipment	14	25	11	50	3	47	0.4	11.3	11.7
Total – Equipments	23	22	19	64	5	31	16.1	73.4	89.5
Total – Infrastructures	**20**	**21**	**16**	**57**	**24**	**19**	**236.8**	**1,178.4**	**1,415.2**

1 Data as at January 11, 2023, for buildings and February 8, 2023, for equipment.
2 Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

MES university infrastructure maintenance investments will make it possible to achieve the following objectives by March 31, 2026:

Objectives

Objectives	Reference value	Results	Target
	Reference AMPI	AMPI 2023-2024	Target AMPI
Increase the proportion of buildings and equipment in good condition (GCI of A,B or C) to 75%	62%	57%	75%
	AMPI 2022-2023		AMPI 2026-2027
Carry out at least $491.2M of work intended to reduce the building AMD[1]	$0M	$84.0M	$491.2M
	AMPI 2022-2023		AMPI 2026-2027
Carry out at least $64.1M of work intended to reduce the equipment AMD[1]	$0M	$12.7M	$64.1M
	AMPI 2022-2023		AMPI 2026-2027

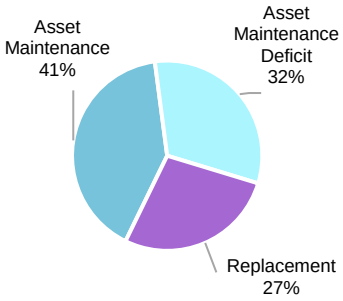
1 The results presented are the cumulative cost of work carried out since the reference AMPI was filed.

The table above outlining the objectives shows a decrease of 5% in the proportion of buildings and equipment in satisfactory condition (GCI of A, B, or C) noted in the results of the 2022-2023 AMPI (62%) and 2023-2024 AMPI (57%). This decrease is due to the addition of new findings from recent property audits and the natural deterioration of the infrastructure portfolio.

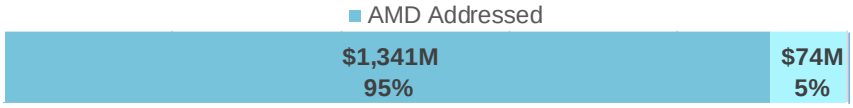
In addition, asset maintenance investments in buildings and equipment have resulted in work of $84.0 million and $12.7 million respectively to reduce the asset maintenance deficit in 2022-2023. Planned investments over the coming years are expected to meet the targets set by March 31, 2026.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Universities	%
Infrastructure Maintenance		
Asset Maintenance	1,717.7	41
Asset Maintenance Deficit	1,341.2	32
Replacement	1,161.8	27
Total	**4,220.7**	**100**



Addressing the asset maintenance deficit



The current overview of university infrastructure indicates that 57% are in good condition (GCI of A, B or C). On the other hand, 24% are in poor condition (GCI of D), and 19% in very poor condition (GCI E). The majority of the most deteriorated infrastructures (GCI of D or E) are buildings that were built before 1980 and are over 50 years old. Several of these infrastructures will be heritage buildings that will require, in the coming years, complex repair work with higher costs, due to the higher price of materials and use of specialized labour.

The MES has set, in the 2022-2023 AMPI, the following objective to increase to 75%, by 2025-2026, the proportion of university buildings and equipment in good condition (GCI of A, B or C) to 75% and carry out work of $491.2 million and $64.1 million respectively to reduce the AMD.

Investment strategy

The MES plans to use the following means to reduce the AMD of universities:

- Adjust the breakdown of standardized allocations in asset maintenance and AMD reduction in order to allow establishments to carry out work aimed at improving the condition of the building inventory up to a satisfactory or better level (GCI of A, B or C);
- Provide grants to reduce the AMD by supporting establishments that are less eligible for government financial assistance;
- Implement a new planning tool to reduce the AMD and provide support to establishments in prioritizing the work to be carried out;
- Prioritize projects with a significant impact on the infrastructure condition and AMD management;
- Prioritize completing repairs or replacing critical components that have reached the end of their useful lives such as roofs, windows, and heating and ventilation systems;
- Update the establishments' building inspections to prioritize work on building inventory.

SITUATION

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Universities						
2021-2022						
Actual	205.0	138.2	119.6	**462.8**	88.1	**550.9**
Forecast[1]	149.8	139.2	120.1	**409.1**	123.6	**532.7**
Difference	55.2	(1.0)	(0.5)	**53.7**	(35.5)	**18.2**
2022-2023						
Probable	206.9	115.4	120.0	**442.3**	236.4	**678.7**
2023-2024						
Forecast	186.4	175.0	120.0	**481.4**	166.7	**648.1**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Differences Between Planned and Actual Investments

The decrease of $35.5 million between the planned investments for 2021-2022 ($123.6 million) and actual investments made ($88.1 million) in infrastructure enhancement is due mainly to the postponement of certain projects. Postponement was necessary because of, among other things, changes in the scope of certain projects, a lack of internal and external labour, and the interdependence of certain postponed projects.

Investments made in 2021-2022 and probable in 2022-2023, totalling $550.9 million and $678.7 million respectively, enabled work to be completed or continued in infrastructure maintenance and enhancement.

Infrastructure maintenance

The main aim of infrastructure maintenance work is to maintain or restore buildings to satisfactory or better condition. Some examples of the work carried out are:

- Repair work on roofs and exterior cladding of buildings such as roof finishes, masonry and mortar joints;
- Replacement of mechanical and electrical systems such as compressed-air distribution systems, furnaces, refrigerated drinking fountains, air conditioners, cold water distribution systems and lighting systems;
- Work to address the AMD, such as the rehabilitation of doors and exterior staircases, windows, brick cladding and building roofs;
- Major reconstruction work on building facades.

More specifically, such investments facilitated the following projects to be completed or continued:

- McGill University, Raymond Building – Refurbishment;
- Concordia University, Vanier Library – Refurbishment;
- Bishop's University, Hamilton Hall – Refurbishment;
- Université du Québec à Montréal, Pavillon Judith-Jasmin – Refurbishment;
- McGill University, Macdonald-Stewart Building – Refurbishment.

For 2023-2024, planned infrastructure maintenance investments totalling $481.4 million will make it possible, among other things, to start or complete several projects, including:

- Université de Sherbrooke, Pavillon A5 – Renovation;
- Bishop's University, Divinity House – Renovation;
- Université du Québec à Trois-Rivières, Pavillon Michel-Sarrazin – Renovation of the outer walls;
- McGill University, Strathcona Music Building – Refurbishment;
- McGill University, Ferrier Hall – Refurbishment of the furnaces;
- Université de Montréal, Pavillon Roger-Gaudry – Refurbishment;
- Université du Québec à Chicoutimi – Major renovation of the main building;
- Université du Québec en Outaouais, Pavillon Alexandre-Taché – Upgrade of the heating, ventilation and air conditioning (HVAC) systems;
- Université de Montréal, Pavillon Marie-Victorin – Redevelopment.

Inventory enhancement

The primary purposes of infrastructure enhancement are to increase the number of student spaces and improve the quality of services offered. Some examples of the projects carried out are:

- École de technologie supérieure, Pavillon F – Construction;
- Université de Sherbrooke, Campus de la santé – Construction of a knowledge hub.

For 2023-2024, planned inventory enhancement investments totalling $166.7 million will enable a number of projects to be started or completed, including:

- Acquisition of Pavillon J.-A. Bombardier by Polytechnique Montréal;
- Expansion of phase I of the Université de Montréal Science Complex and redevelopment of the main pavilion at Université de Montréal;
- Construction of the unified campus at Université du Québec en Outaouais;
- Redevelopment of the former Royal Victoria Hospital site and construction of a new building at McGill University;
- Development of the Université du Québec en Abitibi-Témiscamingue centre in Mont-Laurier;
- Expansion of the Rimouski campus for the decentralized veterinary medicine training program at Université du Québec à Rimouski;

- Construction of an animal centre at the Faculty of Veterinary Medicine at the Université de Montréal Saint-Hyacinthe campus;
- Relocation and expansion of the animal shelter at the Faculty of Veterinary Medicine at the Université de Montréal Saint-Hyacinthe campus;
- Refurbishment and expansion of the École des sciences de gestion de l'Université du Québec à Montréal;
- Expansion of the Rouyn-Noranda campus at Université du Québec en Abitibi-Témiscamingue.

UNIVERSITIES
(continued)

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI			AMPI							
	2022-2023	2023-2024	Variation	2022-2023	2023-2024	Variation	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
Buildings											
Spaces Designated for Funding	18	25	7	21	18	(3)	1,214.8	82.5	112.4	(84.0)	1,325.7
Equipments											
Equipment for Teaching Purposes	10	5	(5)	22	30	8	68.2	10.7	1.1	(4.7)	75.3
Rolling Stock	1	1	0	57	60	3	2.5	–	0.2	(0.2)	2.5
Other Equipment	1	3	2	35	47	12	19.2	–	0.3	(7.8)	11.7
Total – Equipments	9	5	(4)	23	31	8	89.9	10.7	1.6	(13)	89.5
Total – Infrastructures	**17**	**24**	**7**	**21**	**19**	**(2)**	**1,304.7**	**93.2**	**114.0**	**(96.7)**	**1,415.2**

[1] Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

Changes in condition

Started in 2019 and approximately 80% complete, the new inspection cycle has affected the changes to the condition of buildings and the AMD. To this end, the deterioration in the condition of university buildings noted in 2022 is due primarily to the increased work needs within five years for certain universities.

The deterioration in the condition of university equipment is due primarily to normal wear and tear on several pieces of equipment that have reached the end of their useful life.

Changes in the AMD

The AMD increase of $110.9 million for buildings, from $1,214.8 million to $1,325.7 million, is due to the following factors:

- An increase of $82.5 million attributable to the natural deterioration of all spaces recognized for funding purposes;
- An increase of $112.4 million corresponding to findings of new work to be carried out identified during recent inspections;
- An AMD reduction of $84.0 million by carrying out work in recognized spaces, including the rehabilitation of exterior doors and staircases, falling from windows, brickwork facing, roofing, as well as major repair work on building facades.

The AMD decrease of $0.4 million in equipment, from $89.9 million to $89.5 million is due to the following factors:

- An increase of $10.7 million attributable to normal wear and tear on equipment;
- An increase of $1.6 million due to the addition to the equipment inventory with an AMD;
- A reduction of $12.7 million due to the replacement of equipment that has reached the end of its useful life and the removal of certain equipment that will be transferred to the information assets inventory presented in the Information Resources Investment and Expenditure Plan.

APPENDIX 1

ADDITIONAL INFORMATION

CEGEPS

Building inspection and data updates

Spaces recognized for funding purposes in the college network were initially inspected from 2010 through 2012. Each building component was assessed during these inspections. Inspections were accompanied by a renewal forecast and a list of asset maintenance work required to maintain or restore buildings to satisfactory condition. An annual update of this list was produced for 100% of the surface area of the building inventory in the network to reflect changes in asset maintenance needs and to sustain the work to be carried out in the short term. The condition of the college network building inventory is thus representative of the current situation.

The second inspection cycle in the college network was completed in December 2022.

Methodology

Colleges use a software package to record the work that they must carry out within the next five years on their buildings, subsequent to inspections conducted by a specialized firm. Condition and AMD assessments for all buildings are based on this list of work recorded in the software according to the inspection parameters set out in the *Cadre de gestion pour les investissements liés aux infrastructures des réseaux d'enseignement collegial et universitaire*, which seeks to obtain a coherent and continuous assessment of building condition that is harmonized throughout the college network.

The government condition indicator and the AMD are assessed based on an FCI[8]. Any building with an FCI above 15% is considered to be in poor condition and the estimate of its AMD is the product of the 15% excess and the building's replacement value.

The condition indicator percentages (A / B / C / D / E) are weighted according to building replacement value.

UNIVERSITIES

Building inspection and data updates

Buildings recognized for funding purposes in the university network were initially inspected from 2014 through the spring of 2016. The second inspection cycle in the university network began in 2019. The new network inspections will be approximately 80% complete by the end of 2022-2023 and are expected to be completed in 2023-2024.

[8] Facility condition index: the sum of the estimated cost of all the asset maintenance work to be performed over a five-year horizon, divided by the replacement value of the said infrastructure.

APPENDIX 1
(continued)

Methodology

Universities use a software package to record the work that they must carry out within the next five years on their buildings, subsequent to inspections conducted by a specialized firm. Condition and AMD assessments for all buildings are based on this list of work recorded in the software according to the inspection parameters set out in the *Cadre de gestion pour les investissements liés aux infrastructures des réseaux d'enseignement collegial et universitaire*, which seeks to obtain a coherent and continuous assessment of building condition that is harmonized throughout the university network.

The GCI and the AMD are assessed based on an FCI. Any building with an FCI above 15% is considered to be in poor condition and the estimate of its AMD is the product of the 15% excess and the building's replacement value.

The condition indicator percentages (A / B / C / D / E) are weighted according to building replacement value.

COLLEGE AND UNIVERSITY EQUIPMENT

Inventory and data updates

Initial data on the significant equipment for both educational networks were presented in the 2022-2023 AMPI.

The MES lists only equipment of significant value and for which replacement could have a major impact on the QIP Investments forecast. The equipment that must be declared is as follows:

- Equipment with an individual book acquisition value equal to or greater than $100,000;
- Equipment with an individual book acquisition value between $25,000 and $99,999, but that is considered strategic equipment.

The equipment must be in service, functional, and in use by the establishment as of June 30 of the current fiscal year. Information on equipment should normally be obtained from the establishments' fixed asset accounting records (except for the current replacement value), as of June 30 of the current fiscal year.

Methodology

The MES calculates the condition index for the asset by dividing the asset's accumulated depreciation by its acquisition cost. Subsequently, a condition indicator is assigned for each property, based on its condition index:

- A (very good): 0 to 30%
- B (good): 30.1 to 60%
- C (satisfactory): 60.1 to 90%
- D (poor): 90.1 to 99.9%
- E (very poor): 100%

An asset maintenance deficit is calculated on equipment that has a condition index of D or E. The asset maintenance deficit changes according to the normal wear of equipment identified. This deficit corresponds to the asset's current replacement value.

APPENDIX 2

CEGEPs
Buildings

	Quantity	Measurement (sq. m.)	Average Age (years)	Condition Indicator (number)						AMD ($M)
				A	B	C	ABC	D	E	
Cégep de Chicoutimi	44	68,138	49	8	3	6	17	16	11	41.9
Collège de Maisonneuve	13	63,823	45	3	1	1	5	3	5	41.6
Cégep de Rimouski	41	101,971	58	8	2	6	16	16	9	40.8
Collège de Bois-de-Boulogne	12	47,898	55	0	0	1	1	6	5	30.4
Cégep de Saint-Hyacinthe	19	53,227	28	3	2	2	7	7	5	28.8
Cégep du Vieux-Montréal	11	71,124	35	0	2	1	3	8	0	18.6
Cégep Édouard-Montpetit	32	106,144	37	1	2	7	10	20	2	18.6
Cégep de La Pocatière	15	41,764	51	1	1	3	5	8	2	17.6
Cégep John-Abbott	17	71,764	75	3	2	5	10	5	2	16.9
Cégep de Saint-Laurent	23	61,504	83	3	2	8	13	7	3	16.8
Collège de Rosemont	9	43,474	47	0	1	0	1	8	0	15.8
Collège Lionel-Groulx	41	70,608	54	6	4	6	16	18	7	15.6
Cégep régional de Lanaudière	28	88,979	36	8	3	6	17	9	2	15.6
Cégep de Limoilou	12	76,611	43	3	0	3	6	6	0	13.7
Cégep de Trois-Rivières	27	76,997	46	2	4	2	8	17	2	13.1
Cégep Garneau	23	61,160	38	3	5	4	12	8	3	12.4
Cégep de Sherbrooke	24	77,792	40	4	6	4	14	9	1	11.1
Cégep Vanier	17	64,184	68	2	2	4	8	7	2	8.8
Champlain Regional College	23	52,454	40	6	0	8	14	8	1	8.7
Cégep de Saint-Jérôme	24	58,664	49	5	4	5	14	6	4	8.1
Cégep de Sainte-Foy	43	78,220	39	15	11	7	33	5	5	7.7
Cégep de la Gaspésie et des Îles	21	47,600	53	4	9	4	17	3	1	7.6
Cégep de Lévis-Lauzon	36	55,981	40	7	5	8	20	7	9	7.0
Cégep Saint-Jean-sur-le-Richelieu	22	45,833	55	0	2	4	6	11	5	6.5
Cégep de l'Outaouais	11	64,249	33	3	1	2	6	5	0	6.0
Cégep de Matane	13	28,668	55	2	1	1	4	9	0	5.8
Cégep de Sept-Îles	4	16,158	18	3	0	0	3	1	0	5.5
Cégep de Thetford	10	31,710	48	4	1	1	6	2	2	4.8
Cégep de l'Abitibi-Témiscamingue	20	54,446	47	6	3	5	14	6	0	4.8
Cégep de Jonquière	26	80,090	43	4	9	4	17	8	1	4.6
Cégep de Victoriaville	20	50,690	51	3	3	5	11	7	2	4.1
Cégep de Shawinigan	1	31,391	48	0	0	0	0	1	0	4.1
Cégep de Sorel-Tracy	4	20,182	40	0	0	1	1	3	0	3.8
Collège de Valleyfield	8	42,558	67	1	1	4	6	2	0	3.6
Collège d'Alma	18	25,791	46	2	0	4	6	9	3	3.2
Collège Ahuntsic	17	88,702	32	5	3	5	13	3	1	3.0
Cégep Gérald-Godin	7	15,857	51	0	2	1	3	4	0	2.4

APPENDIX 2
(continued)

CEGEPs
Buildings

	Quantity	Measurement (sq. m.)	Average Age (years)	Condition Indicator (number)						AMD ($M)
				A	B	C	ABC	D	E	
Cégep André-Laurendeau	3	44,584	34	1	0	1	2	1	0	2.2
Collège Dawson	12	78,979	73	4	4	2	10	2	0	2.1
Collège Montmorency	15	70,067	18	9	2	3	14	0	1	1.7
Cégep Marie-Victorin	21	45,907	40	2	4	12	18	2	1	1.6
Cégep Beauce-Appalaches	15	27,816	56	2	5	1	8	4	3	1.1
Cégep de Drummondville	7	23,898	24	2	2	2	6	1	0	1.1
Cégep de Rivière-du-Loup	27	40,359	41	7	8	7	22	4	1	0.6
Cégep de Granby	7	22,913	60	1	1	3	5	2	0	0.2
Cégep de Saint-Félicien	14	17,577	32	2	5	6	13	1	0	–
Cégep de Baie-Comeau	15	23,161	48	8	6	0	14	0	1	–
Collège Héritage	5	15,880	13	3	1	1	5	0	0	–
Total[1]	**877**	**2,547,547**		**169**	**135**	**176**	**480**	**295**	**102**	**490.0**

[1] The quantity and dimensions do not match those of the infrastructure inventory because information is unavailable for certain buildings that were not inspected.

APPENDIX 2
(continued)

Universities
Buildings

	Quantity	Measurement (sq. m.)	Average Age (years)	Condition Indicator (number)						AMD ($M)
				A	B	C	ABC	D	E	
Université de Montréal	101	545,012	56	12	13	9	34	16	51	385.1
Université McGill	160	629,797	85	17	16	21	54	55	51	382.8
Université Laval	103	546,217	48	45	11	6	62	17	24	243.7
Université du Québec à Montréal	31	341,694	55	7	4	8	19	7	5	154.7
Université Concordia	62	398,421	81	6	5	4	15	19	28	70.1
Université de Sherbrooke	77	253,409	38	23	12	18	53	10	14	28.7
Institut national de recherche scientifique	29	79,648	39	11	2	3	16	4	9	18.9
Université du Québec à Rimouski	27	47,035	43	10	5	2	17	6	4	13.6
Polytechnique Montréal	11	113,983	38	4	3	3	10	1	0	8.1
HEC Montréal	6	81,458	46	0	0	1	1	5	0	7.0
Université Bishop's	25	53,195	70	4	7	5	16	5	4	6.3
Université du Québec à Trois-Rivières	39	124,917	32	25	8	4	37	2	0	3.8
Université du Québec (siège social)	4	26,560	34	1	1	1	3	1	0	1.0
Université du Québec à Chicoutimi	20	80,605	27	8	6	4	18	2	0	0.8
Université du Québec en Outaouais	13	50,766	45	6	5	1	12	1	0	0.8
Université du Québec en Abitibi-Témiscamingue	13	26,668	23	8	2	1	11	2	0	0.3
École nationale d'administration publique	1	11,734	23	0	1	0	1	0	0	–
École de technologie supérieure	7	118,056	42	4	3	0	7	0	0	–
Université TÉLUQ	1	7,827	22	0	0	1	1	0	0	–
Total[1]	**730**	**3,537,002**		**191**	**104**	**92**	**387**	**153**	**190**	**1,325.7**

[1] The quantity and dimensions do not match those of the infrastructure inventory because information is unavailable for certain buildings that were not inspected.

ENVIRONNEMENT, LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, FAUNE ET PARCS

INFRASTRUCTURE MANAGEMENT

MINISTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS

VISION

The MELCCFP's leadership in the fight against climate change and environmental protection is central to government action and fosters social development as well as a green and resilient economy for the benefit of present and future generations.

ORIENTATIONS

The MELCCFP mission is to contribute to Québec's sustainable development by playing a key role in fighting climate change, protecting the environment and conserving biodiversity, for the public's benefit.

The operation, management and oversight of the public dam inventory fall under the Department's purview. The MELCCFP must ensure the safety and functionality of this infrastructure.

More specifically, it must:

- safely manage dams;
- inspect and monitor dams so as to ensure their safety and operational efficiency;
- perform the required maintenance work in keeping with the current legislation;
- assess the safety of public dams and coordinate response to emergencies;
- for safety and environmental protection reasons, demolish dams that are not essential to the Government's mission.

RESPONSIBILITIES

The management of dams is subject to legal obligations that vary according to the type of dam (high-capacity, low-capacity and small dams). In addition to its legal obligations, the MELCCFP takes into account the risks associated with dams, along with the budget and human resources that it has been allocated for managing this infrastructure and prioritize interventions.

After the Act mainly to reinforce the enforcement of environmental and dam safety legislation, to ensure the responsible management of pesticides and to implement certain measures of the 2030 Plan for a Green Economy concerning zero emission vehicles[9] was passed, the legal obligations for upgrading high-capacity dams that are deemed to have low or minimal consequences in the event of failure have been significantly reduced. In addition, the MELCCFP is no longer required to conduct safety assessment studies or to maintain dams that are not likely to compromise the safety of individuals or property.

[9] Bill No. 102 (2022, chapter 8).

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The MELCCFP operates and administers 921 dams under the Dam Safety Act (chapter S-3.1.01), including 386 high-capacity dams and 535 low-capacity and small dams.

The Dam Safety Act precisely defines the "high-capacity" and "low-capacity" dam categories. All dams that fall under the Dam Safety Act and that are more than one metre in height but not considered "high-capacity" or "low-capacity" are referred to as "small dams".

High-capacity dams are subdivided into two major categories: 48 mechanized dams and 338 non-mechanized dams. Mechanized dams are equipped with electromechanical evacuation equipment to manage water levels and flows. Non-mechanized dams are equipped with a fixed threshold that does not allow such management. Accordingly, the complexity of mechanized dams' components and the need to ensure their reliability and functioning at all times requires major investments in relation to other types of dams.

Dams are categorized as non-essential when there is no confirmed utility and the level of consequence in case of failure is low or minimal. Generally, these dams are not accessible and are located in remote areas. Thus, while these dams remain in the AMPI, no assessment of their condition is planned in the future by the MELCCFP.

The MELCCFP is also responsible for other infrastructure:

- eight main buildings (service centres) containing office spaces and 22 auxiliary buildings (service buildings, warehouses, workshops, hangars and garages) acting as regional points of service to provide for the running and maintenance of nearby dams;
- a discharge pipe carrying effluent from the Resolute Forest Products commercial pulp plant in Saint-Félicien. The pipe, which the MELCCFP built in 1978, conveys water treated by the plant to the Rivière Mistassini located nearly 15 km away. The pipe's initial useful life was 25 years, but has been in use for 44 years;
- twenty-five dams not subject to the Dam Safety Act. Although not subject to the Act, these dams, including a flood protection dike at Pointe-Calumet, are part of the infrastructure portfolio under MELCCFP jurisdiction.

Infrastructure inventory[1]
Per infrastructure type and category

	Average Age (years)	Quantity			Measurement		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings							
Service Centers	25	30	30	0	3,364 sq. m	3,364 sq. m	0
Civil Engineering Works							
High-capacity Dams							
Mechanised	48	48	48	0	Variable	Variable	n.a.
Non-mechanised	30	337	324	(13)	Variable	Variable	n.a.
Non-essential[2]	53	0	14	14	Variable	Variable	n.a.
Total - High-capacity Dams	33	385	386	1	Variable	Variable	n.a.
Low-capacity and Small Dams							
Low-capacity mechanised	73	1	1	0	Variable	Variable	n.a.
Low-capacity non-mechanised	50	257	258	1	Variable	Variable	n.a.
Small Dams	57	275	275	0	Variable	Variable	n.a.
Non-essential[2]	78	0	1	1	Variable	Variable	n.a.
Total - Low-capacity and Small Dams	53	533	535	2	Variable	Variable	n.a.
Other dams	53	25	25	0	Variable	Variable	n.a.
Effluent Discharge Pipe	47	1	1	0	15 km	15 km	0
Total - Infrastructures	42	974	977	3	Variable	Variable	n.a.

1 Data as at November 2022.
2 Dams for which no utility is confirmed and whose level of consequences in case of failure is low or minimal. No assessment of their future status is planned.

Variation in inventory

The variation in inventory compared to the previous period is due to:

high-capacity dams:

- the net increase of one dam is due to the addition of one non-mechanized dam to the inventory from the MFFP and the transfer of 14 non-mechanized dams to the non-essential subcategory;

low-capacity and small dams:

- the increase of two dams is due to the addition of a non-mechanized low-capacity dam from SÉPAQ as well as the addition of a small, non-essential dam from the MFFP.

INFRASTRUCTURE SUSTAINABILITY

MINISTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS

Infrastructure conditions and asset maintenance deficit[1]
Per infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E[3]	GCI of D	GCI of E	Total
Buildings									
Service Centers	22	20	20	62	21	17	–	0.5	0.5
Civil Engineering Works									
High-capacity Dams									
Mechanised	14	11	11	36	64	0	61.4	–	61.4
Non-mechanised	74	6	1	81	18	1	17.6	0.2	17.8
Non-essential[4]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total – High-capacity Dams	20	11	10	41	59	0	79.0	0.2	79.2
Low-capacity and Small Dams									
Low-capacity mechanised	0	0	100	100	0	0	–	–	–
Low-capacity non-mechanised	6	14	13	33	35	32	0.8	–	0.8
Small Dams	4	11	23	38	62	0	0.6	–	0.6
Non-essential[4]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total – Low-capacity and Small Dams	5	13	17	35	45	20	1.4	–	1.4
Other dams	6	21	33	60	40	0	–	–	–
Effluent Discharge Pipe	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total – Infrastructures	**19**	**11**	**11**	**41**	**57**	**2**	**80.4**	**0.7**	**81.1**

1 Data as at November 2022
2 Percentages are weighted according to infrastructure replacement values.
3 The condition indicator E for civil engineering structures corresponds to structures that will be demolished, not structures in very poor condition.
4 Dams for which no utility is confirmed and whose level of consequences in case of failure is low or minimal. No assessment of their future status is planned.

ADDITIONAL INFORMATION

The revision of targets established in the 2020-2021 AMPI was required following significant changes to the baseline data, including the inclusion of over 160 dams in the inventory in 2020 and 2021, upward revisions to the replacement values of mechanized high-capacity dams, and the application of new seismic standards that caused a few dams to fall below the satisfactory condition threshold. As a result, to reflect the changing inventory, new objectives were presented to the 2022-2023 AMPI for the 2021-2022 reference year.

The planned investments in the 2023-2033 QIP for dams under MELCCFP jurisdiction are intended to achieve the following objectives:

Objectives

Objectives	Reference value	Results	Target
	Reference AMPI	AMPI 2023-2024	Target AMPI
Achieve a 45% proportion of mechanized high capacity dams in good condition by March 31, 2025	36% AMPI 2022-2023	36%	45% AMPI 2025-2026
Reduce the overall AMD for mechanized high capacity dams by $27.0M to a level of $26.0M by March 31, 2025	$53.0M AMPI 2022-2023	$61.4M	$26.0M AMPI 2025-2026
Achieve 81% of non-mechanized high-capacity dams in good condition by March 31, 2025	80% AMPI 2022-2023	81%	81% AMPI 2025-2026
Reduce the overall AMD for non mechanized high capacity dams by $3.9M to a level of $14.0M by March 31, 2025	$17.9M AMPI 2022-2023	$17.8M	$14.0M AMPI 2025-2026

Situation

Mechanized high-capacity dams

For mechanized high-capacity dams, the results noted during the period show no improvement. In fact, the proportion of dams in good condition remains at 36% compared to the reference year and there is an increase in the AMD of $8.4 million, bringing the total AMD to $61.4 million. This increase is due to new findings identified during new inspections or in the course of work.

The MELCCFP estimates that completion of the investments projects planned in the 2023-2033 QIP for 2023-2024 and 2024-2025 will increase the proportion of mechanized high-capacity dams in good condition to 44% and reduce the AMD by $25.1 million from the reference period to $27.9 million in 2024-2025. Thus, the MELCCFP believes that the targets set would not be fully met for dams in this category. This is due mainly to the delay of some projects owing to:

- land management issues related to the acquisition of private land to carry out work;
- administrative delays in obtaining provincial and federal authorizations;

- delays in the supply of equipment;
- constraints due to the pandemic.

More specifically, for mechanized high-capacity dams, the MELCCFP is targeting the following priority investment projects:

- Mégantic dam (Estrie) – Finalize the remedial work on the discharge equipment by March 31, 2023:
  - Effect of investments: addresses the entire AMD of $0.6 million and the GCI going from D to A;
- Saint-Didace dam (Lanaudière) – Finalize the remedial work on the discharge equipment by March 31, 2023, and carry out electrical repairs by March 31, 2024:
  - Effect of investments: addresses $1.0 million of the AMD and GCI going from D to B upon completion of the work scheduled for 2023;
- Duchesnay dam (Capitale-Nationale) – Finalize the concrete repair work by March 31, 2023, and the mechanical and electrical repair work by March 31, 2025:
  - Effect of investments: addresses $0.6 million of the AMD. However, new findings concerning mechanical and electrical equipment increased the AMD by $1.2 million. The GCI will go from D to A upon completion of the work scheduled for 2025;
- Choinière dam (Estrie) – Carry out the remedial work on the discharge equipment by March 31, 2025:
  - Effect of investments: addresses $0.3 million of the AMD and GCI going from D to B upon completion of the work scheduled for 2025;
- Portage-des-Roches dam (Saguenay–Lac-Saint-Jean) – Finalize the remedial work on the gantry crane by March 31, 2023, and carry out remedial work on the gate control by March 31, 2025:
  - Effect of investments: addresses $0.6 million of the AMD. However, new findings concerning mechanical and electrical equipment increased the AMD by $6.2 million. The goal of a GCI improving from D to C by 2025 remains.

Non-mechanized high-capacity dams

For non-mechanized high-capacity dams, the results over the period show that the target of 81% in good condition has been reached. However, there was a slight decrease in AMD of $0.1 million from the reference year, bringing the total AMD to $17.8 million.

The MELCCFP estimates that completion of the investments planned in the 2023-2033 QIP for 2023-2024 and 2024-2025 will increase the proportion of dams in good condition to 84% and reduce the AMD by $3.9 million from the reference period to $14.0 million. The goal would therefore be achieved for this category of dam.

More specifically, for non-mechanized high-capacity dams, the MELCCFP is targeting the following priority investment projects:

- Émileville Dam (Montérégie) – Finalize the spillway stabilization work by March 31, 2023:
  - Effect of investments: addresses the entire AMD of $1.6 million AMD and GCI going from D to A;

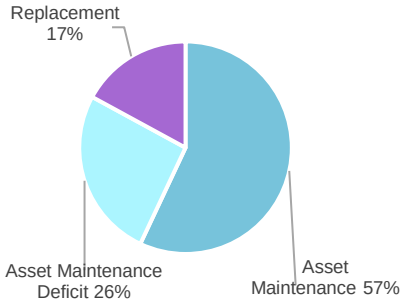
- Reconstruct the Émilie (Capitale-Nationale), Employés-Civils (Capitale-Nationale), Grandes-Pointes (Saguenay–Lac-Saint-Jean), White (Abitibi-Témiscamingue), Lac-Rimouski (Bas-Saint-Laurent), Léger (Abitibi-Témiscamingue), Loutre (Côte-Nord), Pimbina (Mauricie) and Renversi (Capitale-Nationale) dams by March 31, 2025 :
  - Effect of investments: addresses $2.1 million of the AMD by 2025. Two projects were postponed as they were deemed to be of lower priority. The goal of a GCI moving from D to A by 2025 will be achieved for 7 of the 9 identified dams;
- Demolish the Mare-du-Sault (Capitale-Nationale) and Wabano (Capitale-Nationale) dams by March 31, 2025:
  - Effect of investments: addresses $0.1 million of the AMD by 2025. The Wabano dam project has been postponed as it is considered a lower priority. Only the Mare-du-Sault dam will be removed from the inventory after its demolition by 2025.

Infrastructure maintenance investments in the 2023-2033 QIP

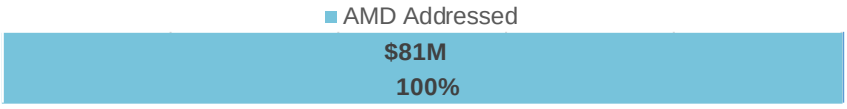
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Public Dams	%
Infrastructure Maintenance		
Asset Maintenance	178.3	57
Asset Maintenance Deficit	81.1	26
Replacement[1]	53.4	17
Total	**312.8**	**100**

[1] Replacement includes demolition.



Addressing the asset maintenance deficit



Investment strategy

The overall strategy for intervention on dams is based on an integrated asset management approach. This approach relies on better infrastructure knowledge, prioritization of actions based on risk management, and close monitoring of project progress, fostering a better completion rate for investment projects.

Knowledge of the infrastructure is based on an inspection system that enables continuous monitoring of dam conditions in order to detect defects in time and monitor their evolution. If necessary, safety assessment studies make it possible, by conducting hydraulic, geotechnical, structural, mechanical and electrical studies, to establish what remedial work is required to ensure dam integrity and safety.

Interventions are prioritized based on the impacts of deficiencies on the safety of people and property, and on the technical characteristics of various dam categories, in the following order of priority:

- restore dams to prevent medium or higher consequences in the event of a failure;
- maintain the condition of mechanized high-capacity dams. These dams are generally prioritized in planning asset maintenance work because the consequences of a failure or breakdown would generally be more serious than for other categories of dams. Interventions must be planned for the discharge equipment on all these dams to ensure proper operation, particularly under flood conditions;

- perform maintenance to prevent moderate or higher consequences on non-mechanized high-capacity dams in the event of a failure. These dams are prioritized over dams with low or very low consequences in the event of a failure. Non-mechanized dams usually require less investment in terms of human and financial resources over their useful life. Therefore, the MELCCFP prioritizes essential remedial work until conditions require complete reconstruction;
- repair or maintain the condition of other infrastructure to ensure serviceability.

Continuous project monitoring and control over each phase in execution provides for better control of the investment process. The project management procedure allows the MELCCFP monitoring committee to document the various project steps and to monitor control points and project progress. The goal is to quickly spot issues that could affect project execution so as to introduce corrective action. A dashboard provides a continuous picture of the situation.

Other elements

Some events (climatic or other) may make it necessary to take emergency action regarding a dam. Unscheduled work may be added to the plan and, where applicable, have an impact on the completion rate.

SITUATION

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Replacement	Subtotal	Addition and Improvement[1]	
MELCCFP						
2021-2022						
Actual	12.2	6.5	1.4	20.1	–	20.1
Forecast[2]	10.6	6.1	5.2	21.9	–	21.9
Difference	1.6	0.4	(3.8)	(1.8)	–	(1.8)
2022-2023						
Probable	6.5	4.9	2.2	13.6	0.3	13.9
2023-2024						
Forecast	13.6	9.4	3.7	26.7	–	26.7

1 Includes demolitions.
2 Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Investments made and planned

The investments for infrastructure maintenance are intended to perform the work required to ensure dam integrity, to protect people and property from risks associated with these works. When planning investments, work on dams that are in poor condition and deemed to be critical to the Government's mission are prioritized according to the risk assessment. This work helps maintain and restore dams based on findings noted during inspections.

Government investments intended to maintain public dams allow for the following repairs:

- heavy mechanical components such as gates, winches, gantries, generating sets or embedded parts;
- concrete components or correction of concrete pathologies;
- riprap spillways reshaping, riprap addition or filling of gaps;
- dikes reshaping, heightening, sealing, stabilization or drainage addition;
- electrical and control components such as electrical panels, heating systems, automated systems, or communications systems;
- service buildings, garages or equipment shelters.

Difference between planned investments and actual investments

Infrastructure maintenance investments in 2021-2022 totalled $20.1 million, $1.8 million less than the $21.9 million initially planned in the 2021-2031 QIP. This difference is primarily explained by:

- delays attributable to unforeseen circumstances in certain projects, such as land management issues related to the acquisition of private land to carry out the work, administrative delays in obtaining the provincial and federal authorizations required for certain projects, and delays in the supply of equipment for certain projects, including the Pimbina dam reconstruction project (Mauricie) the project to replace the heating equipment at the Sartigan dam (Chaudière-Appalaches) and the project to demolish the Mare-du-Sault dam (Capitale-Nationale);
- postponement of certain work in order to specify their scope, resulting from detailed inspections of certain components, in particular at the Saint-Didace (Lanaudière), and Grandes-Piles (Mauricie) dams;
- delay in the development of the Mathieu-D'Amours dam reconstruction project (Bas-Saint-Laurent) due to the pandemic;
- a delay in the replacement of the electrical system at the Grand-Moulin dam (Laval) that proved to be more complex than expected.

The probable investments for infrastructure maintenance in 2022-2023 total $13.6 million and will have made it possible to carry out the following work, in particular:

- finalization of the concrete repair work on the Duchesnay dam (Capitale-Nationale);
- finalization of the stabilization work on the Émileville dam (Montérégie);
- finalization of remedial work on the discharge equipment at the Mégantic dam (Estrie);
- finalization of remedial work on the gantry crane at the Portage-des-Roches dam (Saguenay–Lac-Saint-Jean);
- finalization of the upgrading work to bring the Pointe-Calumet dike (Laurentides) up to standard;
- finalization of the concrete repair work and work to enhance the load-bearing capacity of the bridge at the Sartigan dam (Chaudière-Appalaches);
- construction of a garage at the Pibrac service centre (Saguenay–Lac-Saint-Jean);
- continuation of remedial work on the discharge equipment at the Jules-Allard (Chaudière-Appalaches) and Saint-Didace (Lanaudière) dams;
- preparation of plans and specifications for the reconstruction of the Mathieu-D'Amours dam (Bas-St-Laurent);
- preparatory and preliminary work for the reconstruction of the Retenue (Capitale-Nationale) and White (Abitibi-Témiscamingue) dams;
- start of work to replace the gate control equipment at the Portage-des-Roches dam (Saguenay–Lac-Saint-Jean);
- start of remedial work on the discharge equipment at the Choinière dam (Montérégie);
- construction of the access road for the reconstruction of the Léger dam (Abitibi-Témiscamingue).

Planned investments in asset maintenance ($13.6 million) and for the AMD ($9.4 million) in 2023-2024, totalling $23.0 million, will facilitate the completion of the following projects:

- finalization of the mechanical and electrical work on the Saint-Didace dam (Lanaudière);
- replacement of the electrical system at the Grand-Moulin (Laval) and Aylmer (Estrie) dams;
- remedial work on the discharge equipment of the Montagne-Noire (Laurentides), Choinière (Montérégie), De la Décharge (Estrie) and Ludger (Laurentides) dams;
- finalization of remedial work on the discharge equipment at the Jules-Allard dam (Chaudière-Appalaches);
- stabilization of the dikes at the Beaudet dam (Centre-du-Québec);
- safety work at the Quinze dam (Abitibi-Témiscamingue);
- continuation of remedial work on the control system at the Portage-des-Roches dam (Saguenay–Lac-Saint-Jean);
- remedial work to bring the Haut dam (Bas-Saint-Laurent) up to standard and to improve safety at the Seigneurial dam (Montérégie);
- installation of the stop-log system at the Reno dam (Laurentides).

Planned investments for replacing and levelling the infrastructure in 2023-2024, totalling $3.7 million, will facilitate the completion of the following projects:

- reconstruction of the Léger (Abitibi-Témiscamingue), Émilie (Capitale-Nationale), Pimbina (Mauricie), Grande-Piles (Mauricie), Lac-Rimouski (Bas-Saint-Laurent) and Lac-à-la-Loutre (Côte-Nord) dams;
- finalization of plans and specifications and start of reconstruction work on the Mathieu-D'Amours dam (Bas-Saint-Laurent);
- detail engineering for the reconstruction of the Retenue (Capitale-Nationale) and White (Abitibi-Témiscamingue) dams;
- levelling of the Mare-du-Sault dam (Capitale-Nationale).

Change in infrastructure conditions and asset maintenance deficit
Per infrastructure type and category

	GCI of D[1] (%)			GCI of E[1,2] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings											
Service Centers	21	21	0	20	17	(3)	0.5	–	–	–	0.5
Civil Engineering Works											
High-capacity Dams											
Mechanised	64	64	0	0	0	0	53.0	–	15.5	(7.1)	61.4
Non-mechanised	18	18	0	2	1	(1)	17.9	–	1.5	(1.6)	17.8
Non-essential[3]	N/A	N/A	n.a.	N/A	N/A	n.a.	N/A	n.a.	n.a.	n.a.	N/A
Total – High-capacity Dams	59	59	0	0	0	0	70.9	0.0	17.0	(8.7)	79.2
Low-capacity and Small Dams											
Low-capacity mechanised	0	0	0	0	0	0	-	–	–	–	–
Low-capacity non-mechanised	50	35	(15)	0	32	32	0.2	–	0.6	–	0.8
Small Dams	62	62	0	0	0	0	0.2	–	0.4	–	0.6
Non-essential[3]	N/A	N/A	n.a.	N/A	N/A	n.a.	N/A	n.a.	n.a.	n.a.	N/A
Other dams	40	40	0	0	0	0	–	–	–	–	–
Effluent Discharge Pipe	N/A	N/A	n.a.	N/A	N/A	n.a.	N/A	n.a.	n.a.	n.a.	N/A
Total – Infrastructures	**59**	**57**	**(2)**	**0**	**2**	**2**	**71.8**	**–**	**18.0**	**(8.7)**	**81.1**

1 Percentages are weighted by infrastructure replacement value.
2 The condition indicator E for civil engineering structures corresponds to structures that will be demolished, not structures that are in very poor condition
3 Dams for which no utility is confirmed and whose level of consequences in case of failure is low or minimal. No assessment of their future status is planned.

ADDITIONAL INFORMATION

Changes in condition

The proportion of non-mechanized high-capacity dams with a GCI of E decreased from 2% to 1% due to the reclassification of 14 non-mechanized high-capacity dams slated for demolition to the non-essential dams' category.

The proportion of low-capacity dams and small dams in poor condition (GCI of D) decreased by 12% while the proportion of those slated for demolition (GCI of E) increased by 20%. This variation is due mainly to the addition of the Jean-Larose dam (GCI of E) to the inventory.

Changes in the AMD

The AMD assessment for the public dam inventory focuses primarily on high-capacity dams. These dams represent nearly 90% of the overall dam inventory value and are the only MELCCFP infrastructure subject to strict civil security standards.

As such, and in accordance with the provisions of the Dam Safety Regulation, the MELCCFP's public infrastructure investments primarily target high-capacity dams.

Overall, the AMD increased by $9.3 million from $71.8 million to $81.1 million. This increase is due to:

- new findings representing an increase of $18.0 million, resulting from:

  mechanized high-capacity dams ($15.5 million):

  - new information or clarification of the scope of work to be carried out as a result of specialized inspections, safety assessment studies or additional analyses ($7.5 million);
  - update of the AMD from $8.5 million to $16.5 million for four public dams that were the responsibility of a private company benefiting from these dams that were taken over by the MELCCFP in 2022 ($8.0 million);

  non-mechanized high-capacity dams ($1.5 million):

  - new information or clarification of the scope of work to be carried out as a result of specialized inspections, safety assessment studies or additional analyses ($1.1 million);
  - new dams that have been inspected and require work ($0.7 million);
  - clarification of the parameters for calculating the cost of work, mainly by increasing the costs or by refining the estimates ($0.1 million);
  - cancellation or postponement of non-essential asset maintenance projects on a few dams (-$0.4 million);

  low-capacity and small dams ($1.0 million):

  - new dams that have been inspected and require work within seven years ($0.6 million + $0.4 million);
- work completed to address the AMD listed on high-capacity dams. This reduced the AMD listed by $8.7 million.

APPENDIX 1

ADDITIONAL INFORMATION

Inspection and data update

An inspection program for high-capacity dams was developed based on the risk posed by this type of dam (very low, low, moderate, and considerable dam failure consequences). This program applies equally to dams with a condition indicator of A, B or C (up to standard), D (to be renovated) or E (to be dismantled or levelled). Investment needs for dams in poor condition (GCI of D), with a "moderate" or "high" level of consequences are prioritized during work planning and in developing the QIP.

Thus, all high-capacity dams under MELCCFP jurisdiction are inspected at least once a year, in accordance with the Dam Safety Regulation provisions. The purpose of these inspections is to evaluate the safety of these structures and help guide planning for interventions to be carried out, based on the anomalies observed. According to the priorities established for the required interventions, investment needs are then estimated.

While there is no obligation under the Dam Safety Act, given their low impact on the safety of people and property, in 2018-2019, the MELCCFP began implementing a four-year visual inspection plan for low-capacity dams, small dams and dams under one metre. The program slowed down in 2020-2021 and 2021-2022 due to the pandemic. These inspections aim to validate the general condition of these structures and confirm their category. An assessment of the relevance of carrying out work according to the risks associated with each structure was conducted in part on the dams inspected and will continue in the coming years.

Delays in inspections of low-capacity dams, small dams and dams under one metre led to a review of the inspection program for all structures under MELCCFP jurisdiction, integrating new dams in all categories that have not yet been inspected. Thus, a comprehensive new program defining inspection frequencies for various categories of dams is currently being developed and will be delivered by April 2023.

A service provider was mandated to evaluate the condition of the Saint-Félicien effluent discharge pipe and to conduct a feasibility study for the restoration of this structure. The MELCCFP conducts regular monitoring to control the risks associated with the use of this pipe.

Methodology

The condition indicator percentages (A / B / C / D / E) are weighted according to the replacement value. A GCI of A, B or C indicates that the dam is in good condition. A GCI of D indicates that the dam is not up to standard or that it requires significant and sometimes urgent asset maintenance work. GCI of E indicates that the dam is to be levelled.

Condition indicators and the AMD are not extrapolated for low-capacity and small dams, nor for dams that are not subject to requirements, with a few exceptions for dams of significant importance to the population or that pose risks to the safety of property and people.

SANTÉ ET SERVICES SOCIAUX

INFRASTRUCTURE MANAGEMENT

THE MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX

VISION

The MSSS seeks to offer an integrated and efficient health and social services network where accessibility and well-being for all are central to its actions.

ORIENTATIONS

To fulfill its mission, which is to maintain, improve and restore the health and well-being of Quebecers by providing access to a range of quality, integrated health and social services, thereby contributing to the social and economic development of Québec, the MSSS had adopted, with respect to the infrastructures under its jurisdiction, the following orientations:

- ensure the sound management of the HSSN infrastructure[10];
- carry out new infrastructure investments aimed at priority needs;
- ensure the safety of individuals and property, curb the deterioration of buildings and monitor their conservation.

RESPONSIBILITIES

The MSSS determines priorities, objectives and orientations with respect to health and social services and ensures their application.

It evaluates and allocates the funds necessary to maintain assets, reduce the AMD and to add, replace or enhance HSSN infrastructure. In this respect, it ensures that the funds allocated to the HSSN are used for the intended purposes.

[10] Appendix 1 presents the list of bodies encompassed by the HSSN.

THE HEALTH AND SOCIAL SERVICES NETWORK

RESPONSIBILITIES

The HSSN establishments are responsible for maintaining HSSN infrastructure in accordance with MSSS programs and orientations. They inspect and identify the asset maintenance needs of buildings. In addition, they prioritize and plan investments to be made and then approved by the MSSS as part of the annual update of the three-year fixed asset and equipment intervention plans.

In collaboration with the HSSN establishments, the MSSS updates and certifies each year the building inventory and the inventory of medical equipment.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

Building inventory

The HSSN building inventory includes 2,827 buildings with a total surface area of 9.8 million square metres. The buildings are divided into seven main categories corresponding to their respective missions:

- hospitals, which include short-term care centres, health care centres and psychiatric centres;
- CHSLD including seniors' homes and alternative residences;
- rehabilitation centres;
- youth centres;
- CLSCs;
- other buildings, including staff and doctors' quarters, research centres, administrative spaces, warehouses, laundries and boiler rooms;
- surplus buildings for which no use is foreseen within the next five years.

Medical equipment

The principal medical equipment includes 19,215 devices used to support health care in specialties such as medical imaging, radiation therapy, medical biology, monitoring, respiratory therapy, surgery, health care and endoscopy.

Infrastructure inventory[1]
By infrastructure type and category

	Average Age (years)	Quantity			Measurement (sq. m.)		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Real Estates							
Buildings							
Hospital centres	51	577	598	21	4,804,352	4,959,543	155,191
CHSLD[2]	45	462	462	0	2,135,156	2,140,424	5,268
Rehabilitation centres	54	176	177	1	401,373	399,479	(1,894)
Youth centres	53	181	184	3	331,644	333,603	1,959
Local community service centres	39	190	193	3	367,967	369,901	1,934
Other[3]	42	1,105	1,167	62	1,325,861	1,513,917	188,056
Surplus buildings	74	43	46	3	139,961	89,628	(50,333)
Total – Buildings		**2,734**	**2,827**	**93**	**9,506,314**	**9,806,495**	**300,181**
Equipments							
Medical equipments							
Imaging	8	3,983	4,068	85	n.a.	n.a.	n.a.
Radiotherapy	9	127	129	2	n.a.	n.a.	n.a.
Medical biology	8	2,171	2,246	75	n.a.	n.a.	n.a.
Monitoring (Number facilities)	8	1,102	1,125	23	n.a.	n.a.	n.a.
Respiratory therapy	7	3,559	3,925	366	n.a.	n.a.	n.a.
Surgery	9	891	1,181	290	n.a.	n.a.	n.a.
Care	8	1,412	1,633	221	n.a.	n.a.	n.a.
Endoscopy	6	1,548	2,581	1,033	n.a.	n.a.	n.a.
Other	9	2,203	2,327	124	n.a.	n.a.	n.a.
Total – Equipments		**16,996**	**19,215**	**2,219**	**n.a.**	**n.a.**	**n.a.**

1 Data as at December 13, 2022, for building inventory and medical equipment.
2 Includes three MDA Mas.
3 Other buildings include staff and doctors' quarters, research centres, administrative spaces, warehouses, laundries and boiler rooms.

Variation in inventory

Compared to the 2022-2023 AMPI, the total number of buildings increased by 93. This increase is due mainly to the addition of new buildings constructed or acquired to meet the needs of HSSN establishments such as:

- Hôpital de Saint-Eustache: construction of a new rapid hospitalization complex;
- Hôpital de l'Enfant-Jésus, hospital complex — Québec City — construction and redevelopment, G and V wings completed;
- IUCPQ: new pavilion for the Centre ÉPIC;
- CHUM: reintroduction of 9 buildings of the Hôtel-Dieu-de-Montréal in the "Other" category;
- St. Mary's Hospital Center: new COVID modular building;
- CIUSSS de l'Est-de-l'Île-de-Montréal: addition of the 10 Boscoville buildings (former NPO and youth centre) to their inventory;

- construction of eight new employee residences in the North;
- construction of three seniors' homes and alternative residences in Sherbrooke, Lévis and Rivière-du-Loup.

Compared with the 2022 2023 AMPI, the total number of medical devices in the HSSN that are valued at $100,000 or more, or are of a strategic nature, regardless of their value, increased by 2,219. This variation is mainly attributable to the acquisition of new devices to meet the needs of the HSSN, particularly in endoscopy.

INFRASTRUCTURE SUSTAINABILITY

THE HEALTH AND SOCIAL SERVICES NETWORK

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Real Estates									
Buildings									
Hospital centres	49	19	14	82	14	4	308.2	648.7	956.9
CHSLD	19	16	20	55	33	12	200.8	322.6	523.4
Rehabilitation centres	27	25	12	64	33	3	36.4	28.5	64.9
Youth centres	27	27	16	70	19	11	18.9	70.2	89.1
Local community service centres	34	24	18	76	22	2	22.6	15.7	38.3
Other[3]	44	21	8	73	16	11	79.5	302.2	381.7
Surplus buildings[4]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total – Buildings	**43**	**19**	**14**	**76**	**18**	**6**	**666.4**	**1,387.9**	**2,054.3**
Equipments									
Medical equipments									
Imaging	22	27	24	73	22	5	237.7	60.5	298.2
Radiotherapy	21	30	27	78	19	3	41.8	7.0	48.8
Medical biology	20	17	27	64	26	10	53.3	19.3	72.6
Monitoring (Number facilities)	25	29	27	81	17	2	33.2	4.8	38.0
Respiratory therapy	38	31	15	84	14	2	26.4	3.8	30.2
Surgery	26	28	23	77	18	5	33.3	9.8	43.1
Care	30	25	27	82	14	4	23.2	5.7	28.9
Endoscopy	28	31	22	81	12	7	24.5	14.7	39.2
Other	25	29	30	84	11	5	32.1	13.7	45.8
Total – Equipments	**25**	**27**	**24**	**76**	**19**	**5**	**505.5**	**139.3**	**644.8**
Total – Infrastructures	**42**	**20**	**14**	**76**	**18**	**6**	**1,171.9**	**1,527.2**	**2,699.1**

1 Data as at December 13, 2022, for building inventory and medical equipment.
2 Percentages are weighted according to replacement values.
3 Other buildings include staff and doctors' quarters, research centres, administrative spaces, warehouses, laundries and boiler rooms.
4 Cursory inspections of surplus buildings do not make it possible to establish their GCI and AMD.

ADDITIONAL INFORMATION

The following table presents the results obtained following data collection for the 2023-2024 AMPI.

Objectives

Objectives	Reference value	Results			Target
	Reference AMPI	AMPI 2021-2022	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Carry out at least $271.5M of work intended to reduce the AMD listed on buildings[1]	$0M AMPI 2020-2021	$39.3M	$254.3M	$463.0M	$271.5M AMPI 2023-2024
Replace at least $152.9M in medical equipment aimed at reducing the AMD listed on medical devices[1]	$0M AMPI 2020-2021	$239.6M	$367.0M	$439.3M	$152.9M AMPI 2023-2024

[1] The results presented are the cumulative cost of work carried out since the reference AMPI was filed.

Situation status

The compiled results show that the targets set for carrying out the work intended to reduce the AMD listed have been achieved and even surpassed.

Given the magnitude of providing for asset maintenance needs and replacing medical equipment in the coming years, the MSSS has set new targets to accelerate investments in order to improve the proportion of HSSN infrastructure in good condition and reduce the AMD listed. As such, the purpose of infrastructure investments and the implementation of the infrastructure maintenance strategy will be to achieve the following objectives and meet the new targets:

For buildings:

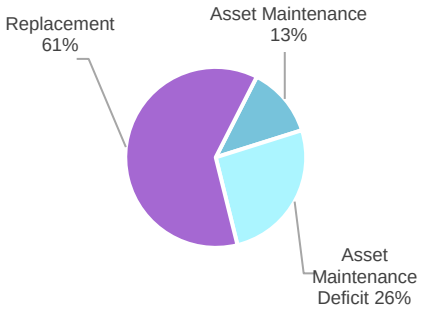
- achieve a proportion of 80% of buildings in good condition by March 31, 2028;
- carry out at least $342.4 million of work intended to reduce the AMD listed on buildings by March 31, 2028.

For equipment:

- maintain a proportion of 76% of equipment in good condition by March 31, 2026;
- invest at least $396.3 million to reduce the AMD listed on medical devices by March 31, 2026.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	HSSN	%
Infrastructure Maintenance		
Asset Maintenance	1,311.6	13
Asset Maintenance Deficit	2,697.0	26
Replacement	6,368.0	61
Total	**10,376.6**	**100**



Addressing the asset maintenance deficit

Investment strategy

Infrastructure maintenance

The HSSN establishments' infrastructure management practices are designed to ensure the sustainability of the infrastructure and keep it in good condition while maintaining access and availability for care. To do so, the asset maintenance investments of nearly $10.4 billion must be made at the appropriate times throughout the infrastructure's useful life cycle.

To maintain and preserve the current infrastructure portfolio in the coming years, intervention plans are foreseen to meet the following needs:

- rebuild or renovate CHSLD in poor condition (GCI of D) and very poor condition (GCI of E);
- upgrade several lines to control lead and copper levels in drinking water;
- continue refurbishing the facades of certain buildings;
- modernize the most obsolete surgical units and emergency departments;
- implement the recommendations of the Commission sur l'amiante regarding the removal of asbestos from the components of certain establishments, primarily those built before 1980;
- respond to the asset maintenance needs of indoor parking lots;
- modernize, upgrade and refit existing buildings to make these spaces more functional;
- accelerate the replacement and installation of new medical equipment.

AMD management

Investments of $2,697.0 million planned in the 2023-2033 QIP for the health and social services sector will make it possible to address 100% of the AMD listed for buildings and medical devices.

To ensure AMD management of the HSSN, the MSSS will use the following means:

- participate with HSSN establishments in the development of their AMD management targets;
- support and coach HSSN establishments to ensure control and monitoring of sound asset maintenance management indicators;
- promote group purchases of medical equipment, advance approvals for replacement projects by two years, and facilitate the commitment of new resources to optimize the acquisition processes.

SITUATION

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Health and Social Services						
2021-2022						
Actual	251.1	205.7	651.0	**1,107.8**	1,260.5	**2,368.3**
Forecast[1]	334.7	117.7	246.2	**698.6**	1,634.9	**2,333.5**
Difference	(83.6)	88.0	404.8	**409.2**	(374.4)	**34.8**
2022-2023						
Probable	227.6	208.7	615.0	**1,051.3**	1,812.4	**2,863.7**
2023-2024						
Forecast	135.8	397.6	655.0	**1,188.4**	2,332.9	**3,521.3**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Difference between planned investments and actual investments

Infrastructure maintenance investments in 2021-2022 totalled $1,107.8 million, which is $409.2 million more than the $698.6 million planned. This difference is mainly explained by the increase in the capacity of the HSSN to carry out work to maintain the building inventory. This increase in capacity is the result of sustained efforts deployed by the MSSS, over the past few years, to support the institutions in carrying out their investment projects. Among the efforts made, we note the increase in the amounts allocated, rigorous supervision in the monitoring of expenditure and the increase in human resources dedicated to the completion of investment projects.

However, infrastructure enhancement investments were $374.4 million less than planned, due mainly to delays in the completion of seniors' homes and alternative residences.

Infrastructure maintenance

Infrastructure maintenance investments allow for necessary work to be performed to maintain the physical condition of HSSN buildings or to restore those that are in poor condition (reduction of the AMD). These investments are necessary and must be made throughout a building's useful life in order to maintain its service potential, ensure the health and safety of individuals, and curb the building's physical wear and tear. Such work focuses on the building structure or exterior, mechanical and electrical systems, and compliance with mandatory codes and standards. Furthermore, investments are also made to replace medical devices, furniture, and other non-medical equipment across the HSSN.

The probable investments for infrastructure maintenance in 2022-2023 total $1,051.3 million and will have made it possible to carry out the following work, in particular:

- Institut de psychiatrie légale Philippe-Pinel – Montréal – replacement of pumps and water towers;
- Hôpital de LaSalle – Montréal – changes to air conditioning systems and ventilation units;
- CHSLD de Sainte-Claire – Chaudière-Appalaches – refurbishment of the elevators;
- CHSLD de Rouyn-Noranda – Abitibi-Témiscamingue – upgrading of the fire alarm systems;
- Centre d'activité de jour en déficience intellectuelle et du trouble du spectre de l'autisme de Gatineau – Outaouais – replacement of the roof ventilation unit.

The planned investments of $135.8 million in asset maintenance and $397.6 million in AMD management for 2023-2024 will notably facilitate the completion of the following projects:

- Centre d'hébergement de La Pinière – Laval – replacement of a hot water tank;
- Hôtel-Dieu de Lévis – Chaudière-Appalaches – replacement and repair of the water towers and the operating suite's floors;
- Centre multiservices de santé et de services sociaux Saint-Joseph – Mauricie and Centre-du-Québec — replacement of the ventilation systems on two levels;
- Institut universitaire de Gériatrie de Montréal – Montréal – replacement and upgrade of mechanical equipment;
- CHSLD de Cartierville – Montréal – upgrade of the ventilation and air conditioning system.

The planned investments in infrastructure replacement for 2023-2024, totalling $655.0 million, will facilitate the completion of the following projects:

- Jewish General Hospital planning (phase IV) – Montréal – redevelopment;
- Montreal General Hospital studies, care units – maintenance;
- Hôtel-Dieu de Québec studies – maintenance;
- Hôpital Notre-Dame, services de santé mentale et dépendance – Montréal – redevelopment.

Inventory enhancement

Investments made to enhance the inventory in 2021-2022 ($1,260.5 million) notably enabled the completion, continuation or start of the following major projects:

- seniors' homes and alternative residences – Régions administratives du Québec – construction;
- Lachine Hospital – Montréal – construction and redevelopment;
- Montréal Heart Institute, emergency, ambulatory services and training centre – expansion and redevelopment;
- Hôpital du Sacré-Cœur de Montréal, trauma centre and mother-child unit – expansion and redevelopment;
- Hôpital Fleurimont, mother-child centre and emergency department – Sherbrooke – construction;
- Hôpital de l'Enfant-Jésus, hospital complex — Québec City — construction and redevelopment;
- Hôpital de Verdun, care units and ambulatory services – Montréal – expansion and redevelopment;
- Centre de réadaptation pour jeunes en difficulté d'adaptation – Saint-Jérôme – construction;
- Centre hospitalier de Vaudreuil-Soulanges, hospital complex – Vaudreuil-Dorion – construction;

- Hôpital Pierre-Le Gardeur, care unit – Terrebonne – construction and expansion;
- Hôpital Honoré-Mercier, emergency department – Saint-Hyacinthe – expansion and redevelopment.

The investments also helped to continue or plan the following projects:

- Hôpital Charles-Le Moyne, operating area and outpatient surgery – Longueuil – expansion and redevelopment;
- Centre de santé régional Eeyou-Eenou – Chisasibi – construction;
- Centre hospitalier affilié universitaire de l'Outaouais, hospital complex – Gatineau – construction;
- Hôpital de Chicoutimi, operating area – Saguenay – maintenance and enhancement;
- Hôpital de Verdun, care units and ambulatory services — Montréal — expansion and redevelopment (in progress);
- Hôpital de La Malbaie planning, emergency and care units – expansion and redevelopment;
- Hôpital régional de Sept-Îles planning, emergency suite and operating area - expansion and redevelopment;
- Hôpital Fleury, emergency suite – Montréal – expansion and redevelopment;
- Hôpital régional de Saint-Jérôme, technical support centre, surgery – construction, expansion and redevelopment;
- Hôtel-Dieu de Lévis, endoscopic and operating suites and logistics services – expansion and redevelopment.

Finally, the investments allowed for the continuation or analysis of the following projects:

- Hôpital Pierre-Boucher, emergency department and care units — Longueuil — maintenance and enhancement;
- Hôpital de la Cité-de-la-Santé – Laval – maintenance and enhancement;
- Hôpital de Saint-Eustache, emergency department and care units — maintenance and enhancement;
- Lakeshore General Hospital, emergency department – Pointe-Claire – maintenance and enhancement;
- Hôpital du Suroît, emergency department – Salaberry-de-Valleyfield – maintenance and enhancement;
- Centre hospitalier universitaire Sainte-Justine, centre de réadaptation Marie Enfant – Montréal – maintenance and enhancement;
- Hôpital régional de Rimouski, operating area and mental health – maintenance and enhancement.

The $1,812.4 million in probable investments for 2022-2023 and the $2,332.9 million in planned investments for 2023-2024 will allow, in addition to continuing the projects underway and those in the planning stages, to begin studies of several new major projects, including:

- seniors' homes and alternative residences – Régions administratives du Québec;
- Hôpital de l'Enfant-Jésus, hospital complex — Québec City — construction and redevelopment;
- Hôpital de Verdun, care units and ambulatory services – Montréal – expansion and redevelopment;
- Hôpital Fleurimont, mother-child centre and emergency department – Sherbrooke – construction;
- Hôpital Pierre-Le Gardeur, care units – Terrebonne – construction and expansion.

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Real Estates											
Buildings											
Hospital centres	7	14	7	1	4	3	331.0	36.8	702.4	(113.3)	956.9
CHSLD	16	33	17	3	12	9	164.2	20.1	390.4	(51.3)	523.4
Rehabilitation centres	12	33	21	3	3	0	28.1	2.5	42.6	(8.3)	64.9
Youth centres	22	19	(3)	9	11	2	55.0	3.4	43.2	(12.5)	89.1
Local community service centres	14	22	8	0	2	2	18.0	1.5	21.9	(3.1)	38.3
Other	13	16	3	7	11	4	194.9	14.7	192.3	(20.2)	381.7
Surplus buildings	N/A	N/A	n.a.	N/A	N/A	n.a.	N/A	N/A	N/A	N/A	N/A
Total – Buildings	**10**	**18**	**8**	**2**	**6**	**4**	**791.2**	**79.0**	**1,392.8**	**(208.7)**	**2,054.3**
Equipments											
Medical equipments											
Imaging	22	22	0	6	5	(1)	300.7	55.5	–	(58.0)	298.2
Radiotherapy	20	19	(1)	5	3	(2)	53.0	16.1	–	(20.3)	48.8
Medical biology	27	26	(1)	9	10	1	71.6	12.5	–	(11.5)	72.6
Monitoring (Number facilities)	16	17	1	2	2	0	34.4	6.1	–	(2.5)	38.0
Respiratory therapy	15	14	(1)	2	2	0	31.1	9.2	–	(10.1)	30.2
Surgery	20	18	(2)	7	5	(2)	35.9	10.3	–	(3.1)	43.1
Care	16	14	(2)	2	4	2	26.2	4.0	–	(1.3)	28.9
Endoscopy	17	12	(5)	13	7	(6)	35.6	9.3	–	(5.7)	39.2
Other	13	11	(2)	7	5	(2)	43.0	9.1	–	(6.3)	45.8
Total – Equipments	**23**	**19**	**-4**	**8**	**5**	**(3)**	**631.5**	**132.1**	**–**	**(118.8)**	**644.8**
Total – Infrastructures	**10**	**18**	**8**	**3**	**6**	**3**	**1,422.7**	**211.1**	**1,392.8**	**(327.5)**	**2,699.1**

[1] Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

Buildings

Changes in condition

The proportion of buildings in poor (GCI of D) and in very poor condition (GCI of E) has increased from the 2022-2023 AMPI.

In 2022-2023, HSSN establishments performed technical audits to update all asset maintenance needs to be completed in the coming years on all HSSN buildings. Compared to the needs listed in previous technical audits (2015-2020), the MSSS considers that this new asset maintenance needs assessment to be completed is more comprehensive. Thus, the changes to the condition of the buildings and the resulting AMD estimate are more representative of reality.

Changes in the AMD

The AMD increase of $1,263.1 million, from $791.2 million to $2,054.3 million, relative to the 2022-2023 AMPI is explained by:

- Indexation of cost of work, which represents a total of the AMD of $79.0 million;
- Reduction of AMD for a total amount of $208.7 million;
- new findings which increased the AMD of $1,392.8 million, including:
  - asset maintenance needs listed during the period, which include major work on mandatory upgrading of certain buildings to seismic reinforcement standards, as well as the mandatory upgrading of air conditioning and ventilation systems.

Cursory inspections of surplus buildings do not make it possible to establish their GCI and AMD. As a result, the MSSS no longer monitor GCIs and AMDs for buildings in this building category. In addition to expenditures incurred to ensure the integrity and safety of these buildings, the MSSS does not anticipate performing additional work on surplus buildings whose use has been discontinued.

Medical devices

Changes in condition

Overall, the proportion of medical devices with a GCI of D or E is stable compared with the previous year.

The implementation of the continuous device replacement program made it possible to carry out a large part of the planned device replacements in HSSN establishments. However, the pandemic context and labour shortage slowed the replacement and completion of certain new medical equipment installation projects.

Changes in the AMD

The net increase in AMD for medical devices is $13.3 million, from $631.5 million to $644.8 million, compared to the 2022-2023 AMPI.

The AMD increased by $132.1 million during the period due to an increase in the number of devices in the HSSN whose actual age exceeds the pre-established standardized service life. In return, the planned replacement of devices in HSSN institutions, subsidized by investments allocations in the QIP, helped reduce the AMD by $118.8 million.

The increase in AMD is due mainly to a backlog of equipment replacement due to the pandemic context and labour shortages.

The MSSS will thus continue its efforts to accelerate the replacement and installation of new medical equipment by promoting bundled procurements, accelerating project approvals and optimizing the acquisition process.

Despite an increase in the AMD of medical devices, the MSSS still anticipates a significant reduction in this AMD over the coming years.

Appendix 1

ADDITIONAL INFORMATION

Five-year inspection and building inventory data

The second inspection cycle is now complete and will make it possible to establish the new AMD for the building inventory in the 2023-2024 AMPI. This second cycle, unlike the previous one, includes seismic reinforcement work and several facade repair projects that could not be included in the previous period due to ongoing studies.

It should be noted that cursory inspections of surplus buildings do not make it possible to establish their GCI and AMD. As a result, the MSSS does not monitor GCIs and AMDs for buildings in this building category. In addition to expenditures incurred to ensure the integrity and safety of these buildings, the MSSS does not anticipate performing additional work on surplus buildings whose use has been discontinued.

Data update regarding asset maintenance projects

The update of data regarding asset maintenance projects is completed by HSSN establishments during the annual update of real estate preservation and functionality plans (PCFI) and equipment and furniture preservation plans (PCEM) in the MSSS asset management system (Actifs + Réseau).

Methodology

The GCI and the AMD only estimate the physical wear and tear of a building and do not take into consideration the functional obsolescence of buildings, that is, an outmoded development concept, inadequate configuration or non-optimal space layout, excluding the mandatory upgrades which are considered in the GCI and AMD. Thus, the evaluation of the physical wear and tear of a building does not account for its functional obsolescence.

The condition of a device is determined according to its actual age in relation to its pre-established standardized useful life. Medical devices are usually replaced at the end of their useful life. The AMD for medical devices largely corresponds to the delay in completing the work necessary to replace devices that are beyond their pre-established standardized useful life.

The condition indicator percentages (A / B / C / D / E) are determined based on the replacement value of buildings or medical devices. For additional information, Appendix 3 presents the condition indicator of buildings according to their age group.

APPENDIX 2

COMPOSITION OF THE GROUPS OF BODIES

Health and social services network

CISSS du Bas-Saint-Laurent
CIUSSS du Saguenay – Lac-Saint-Jean
CHU de Québec – Université Laval
CIUSSS de la Capitale-Nationale
Institut universitaire de cardiologie et de pneumologie de Québec – Université Laval
CIUSSS de la Mauricie-et-du-Centre-du-Québec
CIUSSS de l'Estrie – CHUS
CIUSSS de l'Ouest-de-l'Île-de-Montréal
CIUSSS du Centre-Ouest-de-l'Île-de-Montréal
CIUSSS du Centre-Sud-de-l'Île-de-Montréal
CIUSSS du Nord-de-l'Île-de-Montréal
CIUSSS de l'Est-de-l'Île-de-Montréal
CHUM
CHU Sainte-Justine
CUSM
Institut de cardiologie de Montréal
Institut national de psychiatrie légale Philippe-Pinel
CISSS de l'Outaouais
CISSS de l'Abitibi-Témiscamingue
CISSS de la Côte-Nord
CLSC Naskapi
CRSSS de la Baie-James
CISSS de la Gaspésie
CISSS des Îles
CISSS de Chaudière-Appalaches
CISSS de Laval
CISSS de Lanaudière
CISSS des Laurentides
CISSS de la Montérégie-Centre
CISSS de la Montérégie-Est
CISSS de la Montérégie-Ouest
RRSSS du Nunavik
Cree Board of Health and Social Services of James Bay

APPENDIX 3

DETAILED INVENTORY

The health and social services network

Buildings[1]

	Quantity	Measurement (sq. m.)	Government condition indicator (%)					
			A	B	C	ABC	D	E
0-10 years								
Hospital centres	50	787,351	100	0	0	100	0	0
CHSLD	22	64,119	100	0	0	100	0	0
Rehabilitation centres	10	25,534	100	0	0	100	0	0
Youth centres	13	15,481	100	0	0	100	0	0
Local community service centres	18	30,100	100	0	0	100	0	0
Other	164	265,430	100	0	0	100	0	0
11-20 years								
Hospital centres	65	351,841	97	1	0	98	1	1
CHSLD	51	214,494	80	6	4	90	10	0
Rehabilitation centres	17	41,170	91	8	0	99	1	0
Youth centres	18	10,726	94	0	6	100	0	0
Local community service centres	35	68,378	77	14	7	98	2	0
Other	199	126,036	85	7	3	95	4	1
21-30 years								
Hospital centres	59	222,619	78	17	4	99	0	1
CHSLD	82	310,958	28	21	27	76	19	5
Rehabilitation centres	4	1,943	41	0	36	77	23	0
Youth centres	13	33,076	12	72	13	97	3	0
Local community service centres	31	21,929	51	27	13	91	6	3
Other	162	104,307	32	35	8	75	21	4
31-40 years								
Hospital centres	42	320,865	43	28	23	94	0	6
CHSLD	32	141,533	7	5	33	45	38	17
Rehabilitation centres	14	6,060	26	40	24	90	10	0
Youth centres	9	8,306	5	37	20	62	38	0
Local community service centres	30	56,227	9	21	27	57	43	0
Other	87	77,499	24	46	17	87	9	4
41-50 years								
Hospital centres	51	316,338	45	34	8	87	13	0
CHSLD	87	407,421	5	15	19	39	37	24
Rehabilitation centres	29	34,241	17	19	21	57	43	0
Youth centres	28	44,451	3	34	18	55	29	16
Local community service centres	27	51,122	25	20	12	57	40	3
Other	91	67,958	15	36	15	66	26	8

APPENDIX 3
(continued)

The health and social services network
Buildings[1]

	Quantity	Measurement (sq. m.)	Government condition indicator (%)					
			A	B	C	ABC	D	E
51-60 years								
Hospital centres	93	750,616	28	30	18	76	18	6
CHSLD	111	484,842	7	10	29	46	41	13
Rehabilitation centres	39	167,103	8	24	9	41	53	6
Youth centres	33	58,383	12	13	1	26	51	23
Local community service centres	16	44,391	0	34	23	57	43	0
Other	150	222,664	19	18	20	57	26	17
61-70 years								
Hospital centres	74	771,764	17	33	22	72	21	7
CHSLD	28	154,379	1	26	26	53	43	4
Rehabilitation centres	29	40,224	6	38	3	47	46	7
Youth centres	28	55,811	62	31	6	99	1	0
Local community service centres	16	41,492	6	57	21	84	16	0
Other	119	241,352	27	23	10	60	22	18
70 years and more								
Hospital centres	164	1,438,147	31	18	18	67	27	6
CHSLD	49	362,678	5	26	11	42	41	17
Rehabilitation centres	35	83,204	21	38	30	89	8	3
Youth centres	42	107,367	14	22	35	71	14	15
Local community service centres	20	56,264	11	35	29	75	17	8
Other	195	408,671	28	28	6	62	21	17
Total	**2 781**	**9 716 866**	**38**	**20**	**16**	**74**	**20**	**6**

[1] Inspected buildings. Surplus buildings are not considered in this appendix.

TOURISME

INFRASTRUCTURE MANAGEMENT

THE OLYMPIC PARK

VISION

The Olympic Park's vision for infrastructure management is to safely operate its facilities to their fullest potential, in keeping with their heritage value.

ORIENTATION

Since its new constituting Act came into force on November 1, 2020, the Olympic Park's mission is "to develop, manage, promote and operate Olympic Park facilities and to enhance its Olympic heritage and legacy." To successfully carry out this mission, it has adopted the following orientation with respect to the infrastructure and systems for which it is responsible:

- Securing, upgrading, renovating and modernizing facilities, systems and equipment.

It carries out its mission in accordance with the principles set out in the Sustainable Development Act. The Olympic Park intends to fully assume its role in this regard by maintaining, repairing, modernizing, optimizing, upgrading and restoring the value in use of its infrastructure so it retains its socio-economic and community value.

RESPONSIBILITIES

The Olympic Park, which is under the legal responsibility of the Minister of Tourism, must manage its infrastructure and plan any actions that need to be taken.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The Olympic Park infrastructure portfolio consists of numerous buildings and systems that are one-of-a-kind, grouped as follows: the Olympic Stadium and adjoining buildings (Tower, Sports Centre, administrative offices and leased spaces), the roof, the Esplanade, all outdoor spaces around the Olympic Stadium, and parking lots.

Infrastructure inventory[1]
By infrastructure type and category

	Average Age[2] (years)	Quantity			Measurement (sq. m.)		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings							
Olympic Stadium and Other Buildings	30	12	12	0	295,912	295,912	0
Roof	24	1	1	0	23,266	23,266	0
Esplanade and Outdoor Spaces Around the Olympic Stadium	29	3	3	0	150,533	150,533	0
Civil Engineering Works							
Parking lots	17	8	8	0	163,043	163,043	0

1 Data as at December 1, 2022.
2 Average age represents the “effective” age of infrastructure assets. This corresponds to the estimated age of an infrastructure, due mainly to the date of construction and the work carried out since.

INFRASTRUCTURE SUSTAINABILITY

THE OLYMPIC PARK

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Buildings									
Olympic Stadium and Other Buildings	11	14	0	25	65	10	428.2	87.3	515.5
Roof	0	0	0	0	0	100	–	N/A	N/A
Esplanade and Outdoor Spaces Around the Olympic Stadium	22	2	15	39	42	19	39.4	58.6	98.0
Total – Buildings	11	12	1	24	60	16	467.6	145.9	613.5
Civil Engineering Works									
Parking lots	33	31	17	81	19	0	13.2	–	13.2
Total – Infrastructures	**13**	**14**	**3**	**30**	**56**	**14**	**480.8**	**145.9**	**626.7**

1 Data as at December 1, 2022.
2 Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

The objectives presented in this section were established within the context of the 2022-2023 AMPI to reflect available investment levels, the interdependence of several projects, and the organization's strategic priorities.

The following table presents the results obtained following data collection for this 2023-2024 AMPI.

Objectives

Objectives	Reference value	Results	Target
	Reference AMPI	AMPI 2023-2024	Target AMPI
Achieve or maintain, in the Olympic Stadium and other buildings category, a proportion of 44% of infrastructure with a satisfactory or better GCI (GCI of A,B or C)	25% AMPI 2022-2023	25%	44% AMPI 2027-2028
Achieve or maintain, in the Roofing category, a proportion of 100% of the infrastructure with satisfactory GCI or better (GCI of A,B or C)	0% AMPI 2022-2023	0%	100% AMPI 2027-2028
Achieve or maintain, in the Esplanade and outdoor spaces surrounding the Stadium category, a proportion of 39% of infrastructure with satisfactory or better GCI (GCI of A, B or C)	39%	39%	39%

	AMPI 2022-2023		AMPI 2027-2028
Achieve or maintain, in the Parking category, a proportion of 81% of infrastructure with satisfactory or better GCI (GCI of A,B or C)	81% / AMPI 2022-2023	81%	81% / AMPI 2027-2028
Reduce the AMD to a total of $253.7M for Olympic Stadium and other buildings, a decrease of $204.9M	$458.6M / AMPI 2022-2023	$515.5M	$253.7M / AMPI 2027-2028
Reduce the AMD to a total of $97.1M for the Esplanade and outdoor areas surrounding the Stadium, a decrease of $1.2M	$98.3M / AMPI 2022-2023	$98.0M	$97.1M / AMPI 2027-2028

The table above demonstrates that the proportion of infrastructure in satisfactory or better condition (GCI of A, B, or C) did not improve in 2022-2023. This situation is explained as follows:

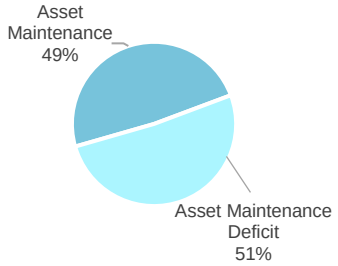
- for the Olympic Stadium and other buildings, schedule delays due mainly to procurement processes, the current condition of the construction market and a lack of internal resources;
- for the Roofing category, due to the fact that the business case is still being developed and therefore the replacement work has not started.

Furthermore, despite the objective of reducing the AMD of the Olympic Stadium and other buildings category by $204.9 million by the time the 2027-2028 AMPI is submitted, an increase in the AMD of $56.9 million, from $458.6 million to $515.5 million, was observed following the completion of additional studies and the addition of newly identified needs, mainly corresponding to the development needs of the East Hall, the rehabilitation of the Bennett accesses as well as the exterior development of the Tower roof.

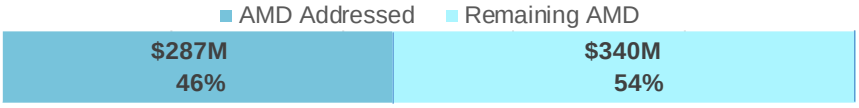
Lastly, there is a slight decrease of $0.3 million in the AMD for the Esplanade and outdoor areas surrounding the Stadium category, from $98.3 million to $98.0 million in 2022-2023. This decrease is due mainly to the targeted work in the original flag rehabilitation area, and a downward adjustment of costs when the planning for the outdoor and lighting projects in Olympic Park was updated.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Olympic Park	%
Infrastructure Maintenance		
Asset Maintenance	272.6	49
Asset Maintenance Deficit	286.6	51
Total	**559.2**	**100**



AMD management



Investment strategy

Infrastructure management practices and investments made over the last few years continue to modernize the aging Olympic Park. In line with its new mission adopted in 2020 to develop and enhance the Olympic heritage and legacy, the organization has adjusted its investment strategy in order to achieve its objectives. Thus, the targeted projects, specifically the rehabilitation of leased spaces, the development of the Tower's tourist areas, the replacement of the funicular, the exterior development of the Tower roof, as well as the East Hall development project will make it possible to address part of the AMD while substantially increasing the potential for own-source revenues.

The $559.2 million total infrastructure maintenance investments will allow asset maintenance work to proceed with a view to achieving the organization's business objectives and enhancing the client experience for visitors, partners and promoters, including $286.6 million to allow for addressing 46% of the AMD.

SITUATION

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Olympic Park						
2021-2022						
Actual	12.1	15.5	–	**27.6**	0.4	**28.0**
Forecast[1]	18.0	76.5	–	**94.5**	5.8	**100.3**
Difference	(5.9)	(61.0)	–	**(66.9)**	(5.4)	**(72.3)**
2022-2023						
Probable	8.5	56.1	–	**64.6**	5.9	**70.5**
2023-2024						
Forecast	46.2	93.1	–	**139.3**	6.2	**145.5**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Investments in 2021-2022 and probable investments in 2022-2023, totalling $28.0 million and $70.5 million, respectively, enabled the following main projects to be continued or completed:

- rehabilitation of the fire alarm system (work);
- repairs to a section of the parking lots (work);
- repairs to sector 900 of the Esplanade/skate park (work);
- Montréal Tower upgrading and renovation program (work);
- renovation of the Montréal tower tourist areas (work);
- replacement of the funicular (work);
- exterior development of the Tower roof (work);
- development of the base building on floors 8 to 14 of the Montréal Tower (work);
- maintenance of structural components (work);
- replacement of sliding doors (plans and specifications and work);
- repairs to evacuation doors (plans and specifications and work);
- redevelopment of the site’s eastern access (Vert-Viau project) (work);
- refurbishment of the administrative offices (work);
- replacement of a synthetic turf field (plans, specifications and work);
- replacement of the Olympic Stadium roof (continued business case development);
- Stadium modernization program (plans and specifications);
- refurbishment of the Esplanade waterproofing between axes 6A and 15A (plans and specifications and work);
- East Hall restoration (plans and specifications);

- rehabilitation of Bennett accesses (plans and specifications).

The $72.3 million difference between planned investments and investments made in 2021-2022 is due mainly to delays in procurement processes and the current state of the construction market. Investment delays with smaller-scale projects for this period were necessary due to, among other things, the need for additional studies for larger-scale projects, a lack of internal resources and interdependencies with partner work taking place in the Olympic Park quadrangle.

Probable investments for 2022-2023 are expected to increase over investments made in 2021-2022 to $70.5 million, to continue to address projects identified as priorities for the organization.

Planned investments in 2023-2024 amounting to $145.5 million will mainly make it possible to complete the following strategic projects:

- replacement of the Olympic Stadium roof (continued business case development, Request for Proposals and start of design/build);
- East Hall restoration (plans and specifications);
- rehabilitation of Bennett accesses (plans and specifications).

These investments will also facilitate the continuation of the following projects for 2023-2024:

- renovation of the Montréal tower tourist areas (work);
- replacement of the funicular (work);
- exterior development of the Tower roof (work);
- maintenance of structural components (work);
- redevelopment of the site's eastern access (Vert-Viau project) (work);
- refurbishment of the Esplanade waterproofing between axes 6A and 15A (work);
- Part of the Stadium modernization program, including interrelated roof projects:
  - Stadium modernization – main stadium lighting (plans and specifications);
  - Stadium modernization – soundproofing equipment (plans and specifications);
  - Stadium modernization – electric generators (plans and specifications);
  - Stadium modernization – stadium's electrical and mechanical systems (plans and specifications);
  - Stadium modernization – IT and telecommunications infrastructure (plans and specifications).

Change in infrastructure conditions and asset maintenance deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings											
Olympic Stadium and Other Buildings	65	65	0	10	10	0	458.6	–	73.0	(16.1)	515.5
Roof	0	0	0	100	100	0	N/A	n.a.	n.a.	n.a.	N/A
Esplanade and Outdoor Spaces Around the Olympic Stadium	42	42	0	19	19	0	98.3	–	(0.3)	–	98.0
Total – Buildings	**60**	**60**	**0**	**16**	**16**	**0**	**556.9**	–	**72.7**	**(16.1)**	**613.5**
Civil Engineering Works											
Parking lots	19	19	0	0	0	0	13.5	–	–	(0.3)	13.2
Total – Infrastructures	**56**	**56**	**0**	**14**	**14**	**0**	**570.4**	**–**	**72.7**	**(16.4)**	**626.7**

[1] Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

Changes in condition

The proportion of infrastructure in very poor condition (GCI of D or E) has remained stable. However, surveys and inspections have identified new repair needs, for which work is planned, resulting in a 10% increase in the AMD.

Changes in the AMD

The net increase in AMD of $56.3 million, from $570.4 million to $626.7 million, is due mainly to:

- the addition of new findings valued at $72.7 million, consisting of:
  - additional studies and new requirements listed under the "Olympic Stadium and other buildings" category, amounting to $73.0 million, corresponding mainly to the need for developing the East Hall, rehabilitating the Bennett accesses and exterior development of the Tower roof;
  - addition of the newly identified need to re-waterproof the slabs on the esplanade in the "Esplanade and outdoor spaces surrounding the Stadium" category, amounting to $2.6 million;
  - the $2.9 million decrease is due mainly to reassessment of costs when the planning for the outdoor and lighting projects in the Olympic Park was updated, which is included in the "Esplanade and outdoor spaces surrounding the Stadium" category.
- Reduction of the AMD assessed at $16.4 million, due mainly to:
  - $16.1 million for work carried out in the "Olympic Stadium and other buildings" category, including the renovation of the Tower's tourist areas, including the replacement of the funicular and the exterior landscaping of the roof, the repair of the administrative offices, maintenance work on the structural components, as well as repair work on the sliding and evacuation doors;
  - $0.3 million for the rehabilitation of parking lots P2 (phases 4b) and P3 (phases 4a), included in the "Parking lots" category.

APPENDIX 1

Additional information

Inspection and data update

Annual follow-up and ongoing updates to the work to be performed on the overall site are carried out in order to maintain a representative state of the Olympic Park's condition. Verifications of the park's infrastructure as part of a five-year monitoring program of Olympic Park structures are also conducted on an ongoing basis.

Methodology

Based on the expertise obtained, the Olympic Stadium roof has reached the end of its useful life and can no longer be repaired. Consequently, it must be replaced and it is not therefore necessary to evaluate the AMD. The project to replace the Olympic Stadium roof is included in the "planning stage" category of the 2023-2033 QIP. In the meantime, to guarantee the absolute safety of anyone occupying the space, the Olympic Park has applied an occupancy management protocol for the main enclosure. The Régie du bâtiment du Québec reviews and approves the protocol annually.

The condition indicator percentages (A / B / C / D / E) are weighted according to replacement values.

APPENDIX 2

DETAILED INVENTORY

	Quantity	Measurement (sq. m.)	Average Age (years)	Condition Indicator	Asset Maintenance Deficit ($M)
Olympic Stadium and Other Buildings					
Montréal Tower, Tourist Spaces and Observatory	3	27,503	24	B	77.5
Stadium (Tiers, Access Balconies, Play Area and Technical Services)	4	187,428	46	D	396.9
Sports Center	1	32,572	8	B	-
Thermal Power Plant	1	8,306	11	B	-
Administrative Offices and leased spaces	2	27,681	39	E	41.1
Institut national du sport du Québec (INSQ)	1	12,422	8	A	-
Total	**12**	**295,912**	**30**	**D**	**515.5**
Roof	**1**	**23,266**	**24**	**E**	**N/A**
Esplanade and Outdoor Spaces Around the Olympic Stadium					
Soccer Practice Pitch (P5-2 Roof)	1	17,489	10	A	-
Walkway Around the Stadium and Access Points	1	84,666	32	D	35.7
Esplanade (Sectors 100 to 900) and Access Points	1	48,378	45	D	62.3
Total	**3**	**150,533**	**29**	**D**	**98.0**
Parking lots					
Indoor parking (P1)	1	32,315	8	A	-
Indoor parking (P2 et P3)	2	58,889	14	D	13.2
Indoor parking (P4)	1	21,552	16	A	-
Indoor parking (P5 Level 1)	1	22,582	8	B	-
Indoor parking (P5 Level 2)	1	17,708	6	B	-
Outdoor parking (P7 - StarCité Cinema)	1	5,010	22	B	-
Outdoor parking (P8)	1	4,987	46	B	-
Total	**8**	**163,043**	**17**	**B**	**13.2**

TRANSPORTS ET MOBILITÉ DURABLE

INFRASTRUCTURE MANAGEMENT

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

VISION

As a major player in the organization of transport systems, the MTMD exercises innovative leadership in managing the transport networks, equipment, services and programs for which it is responsible. The main focus of its activities is to ensure rigorous, innovative and competent management of the major road network[11], essential for economic exchange and for linking regions of Québec.

ORIENTATIONS

The mission of the MTMD is to ensure, across Québec, the sustainable mobility of individuals and goods by means of efficient, safe transport systems that contribute to Québec's development. Maintaining road infrastructure in good condition, especially roads and structures, is central to its initiatives and devotes a substantial portion of its budgets to it.

In accordance with its mission, the MTMD must ensure that major projects, asset maintenance work and new infrastructure construction are carried out. It must also ensure the infrastructure replacement that is required because of the age or condition of the infrastructure. The work carried out by the MTMD aims to expand and adapt the road network to meet the needs of the public and ensure Québec's economic development. In its 2019-2023 Strategic Plan, the MTMD adopted the following orientations:

- invest in the maintenance of the transport system infrastructure;
- ensure an efficient and safe transport system that has a lower carbon footprint and supports a strong economy.

RESPONSIBILITIES

The MTMD is responsible for carrying out all construction, repair and maintenance work required for the infrastructure under its jurisdiction. The acquisition and disposition of building components are also governed by laws and regulations that define the MTMD initiatives. The Minister of Transport and Sustainable Mobility is also responsible for the STQ.

Furthermore, the MTMD administers financial assistance programs[12] to meet the priority needs of public transit corporations. It must ensure that requests from such corporations comply with the rules established and oversee accountability for spending from the standpoint of government investments.

[11] Major road network: network that includes autoroutes, national, regional and collector roads, as well as resource access roads
[12] The financial assistance programs are presented in Appendix 1.

The Act respecting the Ministère des Transports and the Act respecting roads stipulate the powers and obligations of the Minister, and more particularly those relating to road network management under their responsibility. In this respect, the Act specifies that the MTMD can carry out on the network all acts and exercise all of the rights of an owner, although it stipulates that the local municipalities own roads that the government builds or rebuilds, except for highways, which the government owns, or those declared by government decree to be highways.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The MTMD manages the major road network totalling 31,131 kilometres and 5,660 structures, (overpasses, bridges over watercourses, tunnels and retaining walls). Since 2007, the MTMD has also been responsible for 4,262 bridges located in the municipal network whose management was ceded back to municipalities in 1993.

The MTMD assets also include a portfolio of culverts less than three metres wide. This portfolio consists of 62,013 culverts distributed on the road network managed by the MTMD, 12,696 of which are part of the RSSCE.

Other infrastructure also falls under MTMD jurisdiction. Inspections conducted on this infrastructure are oriented and documented to ensure compliance with the safety standards in force. The infrastructure consists of:

- buildings: wayside parks (roadside rest areas and service areas) and airport terminal buildings;
- civil engineering structures: overhead and roadside sign structures;
- electrotechnical equipment (lighting systems and light signals);
- air, rail and marine transport infrastructure: airports, heliports, the Société de chemin de fer de la Gaspésie and the Chemin de fer de Québec Central, ferry terminals and wharves.

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

Infrastructure inventory[1]
Per infrastructure type and category

	Average Age (years)	Quantity			Measurement		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Civil Engineering Works							
Highway System Roadways	N/A	n.a.	n.a.	n.a.	31,091 km	31,131 km	40 km
Structures							
Highway System	41	5,495	5,660	165	5,030,925 sq. m	5,109,408 sq. m	78,483 sq. m
Municipal Bridges	N/A	4,264	4,262	(2)	755,581 sq. m	753,491 sq. m	(2,090) sq. m
Culverts under 3 m	N/A	62,035	62,013	(22)	1,454,297 m	1,455,964 m	1,667 m

[1] Results based on data from 2021 reports for the 2023-2024 AMPI.

Variation in inventory

Highway system roadways

The inventory of roadway kilometres has varied slightly over the years. This variance can be justified by the construction of new roadway segments, the addition of divided roadways, the extension of an existing road, or the acquisition or transfer of kilometres to municipalities. Compared to the 2022-2023 AMPI, an increase of 40 kilometres was noted.

Highway system structures and municipal bridges

The number of highway system structures has increased by 165 overall as a result of road redesign, system development, replacement of some culverts with structures wider than 4.5 metres and the demolition of some structures. For the municipal network inventory, three bridges were demolished without being replaced and one was taken over by decree.

Culverts less than three metres wide

The inventory recorded in AMPI fluctuates slightly each year. Compared to the 2022-2023 AMPI, the number of culverts has decreased by 22, from 62,035 to 62,013. New culverts are inventoried annually, mainly due to the fact that culverts have not always been systematically inventoried at the following their construction, in particular culverts that were built before the 2000s. In addition, changes in the characteristics of culverts following reconstruction as well as the addition of new culverts directly influence the inventory. It should be noted that the number of culverts can also decrease when, for example, a culvert is eliminated or a culvert is replaced by a structure.

INFRASTRUCTURE SUSTAINABILITY

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
Civil Engineering Works									
			By Length						
Highway System Roadways	18	22	11	51	20	29			
			By Value				2,279.0	7,805.0	10,084.0
	16	25	12	53	20	27			
Structures			By Number						
	22	28	28	78	7	15			
Highway System			By Value				–	8,440.1	8,440.1
	11	18	27	56	7	37			
			By Number						
	17	13	32	62	8	30			
Municipal Bridges			By Value				–	616.3	616.3
	12	14	34	60	10	30			
			By Number						
	50	22	11	83	9	8			
Culverts under 3 m			By Value				506.2	567.6	1,073.8
	51	22	11	84	8	8			
Total by value[2]	**16**	**21**	**19**	**56**	**14**	**30**	**2,785.2**	**17,429.0**	**20,214.2**

1 Results based on data from 2021 reports for the 2023-2024 AMPI.
2 The overall GCI percentage of MTMD assets, weighted by value, is presented here for government accountability purposes. These indicators are not used by the MTMD to monitor its Strategic Plan.

ADDITIONAL INFORMATION

The strategies put forward by the expert units are updated annually in order to slow the AMD growth and improve the proportion of infrastructure in good condition. In this regard, the following table presents the results obtained for the targets presented in the 2019-2023 MTMD Strategic Plan.

Objectives

Objectives	Reference value	Results				Target
	Reference AMPI	AMPI 2020-2021	AMPI 2021-2022	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Attain 53% of roadways (based on length) on the major road network in good condition according to the GCI	50% / AMPI 2019-2020	49%	49%	50%	51%	53% / AMPI 2024-2025
Attain 79% of the structures (based on number) of the major road network in good condition according to the GCI	76% / AMPI 2019-2020	77%	77%	77%	78%	79% / AMPI 2024-2025
Attain 61% of municipal bridges (based on number) managed by the MTMD in good condition according to the GCI	58% / AMPI 2019-2020	59%	59%	61%	62%	61% / AMPI 2024-2025

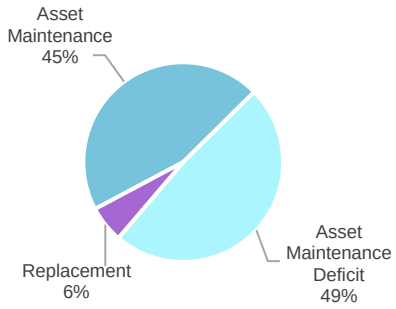
In the 2022-2023 AMPI, the MTMD estimated that current planned investments in the QIP and deployed strategies will reduce the AMD on its assets by $1.8 billion by the 2024-2025 AMPI[13]. To date, the work carried out by MTMD has reduced the AMD by $1.26 billion.

The AMD of $20.2 billion is the result of underinvestment in road infrastructure maintenance, particularly between 1980 and 2000. Furthermore, since a large proportion of road network structures have been built between 1960 and 1970, many are at the end of their useful life.

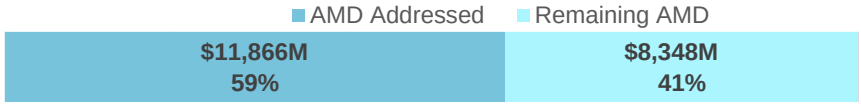
[13] This target does not take into account natural deterioration and new findings on the road asset portfolio.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Road Network	%
Infrastructure Maintenance		
Asset Maintenance	11,062.4	45
Asset Maintenance Deficit	11,866.4	49
Replacement	1,454.8	6
Total	**24,383.6**	**100**



Addressing the asset maintenance deficit[1,2]



1 Level of investments planned in the 2023-2033 QIP to perform interventions on assets in AMD status
2 Residual AMD includes infrastructure AMD on which investments were made prior to the 2023-2033 QIP, but for which the reduction of the AMD will be fully recognized when it is put into service.

Investment strategies

In the 2023-2033 QIP, investments of nearly $11.9 billion to manage AMD are planned in order to carry out interventions on the assets, which could ultimately reduce up to 59% of all the AMD listed to date. However, the natural degradation of road infrastructure will influence the variation of the AMD in the coming years.

In addition, it should be noted that investments made will allow for a reduction of the AMD only after the infrastructure has been put into service.

Carrying out work related to functional development on existing infrastructure, essential in particular for increasing road safety, managing traffic and addressing sustainability issues related to the adaptation to climate change, requires the use of an increasingly significant portion of the investment envelopes available in infrastructure maintenance.

Highway system roadways

The MTMD has adopted a planning strategy for roadway conservation interventions to ensure that road network users enjoy a high level of service, and to maximize the long-term benefits of investments. The challenge is to invest in the right roadway at the right time by using the proper techniques, through optimum planning of interventions, and by avoiding the "worst is first" reflex.

Therefore, the MTMD intends to allocate most available investments to perform rehabilitation interventions that offer superior benefits and returns in relation to cost intended to restore roadways to good condition and address their AMD. The short-term goal will be to carry out an optimal number of interventions on the roadways that will extend the end of their useful life and improve ride comfort while reducing a significant portion of the AMD.

The MTMD bases its intervention planning on modern principles of sound management of road assets. This relies on five complementary components:

- initiate immediate work on roadways where the pavement condition could compromise safety;
- perform preventive work to keep roadways in good condition and extend their useful life by means of economic interventions;
- carry out minor rehabilitation interventions offering superior benefits and returns in relation to cost based on the residual useful life of the roadways;
- carry out major rehabilitation interventions offering superior benefits and returns in relation to cost based on the residual useful life of the roadways;
- limit work that addresses other considerations and uncertainties through interventions that do not fall within other components.

In addition to following the above parameters, the MTMD retains a balance between investments in complex interventions (that remedy major deficiencies) and investments in basic interventions (that remedy minor deficiencies). Furthermore, special attention should be paid to heavily used road segments that display rutting[14].

Highway system structures and municipal bridges

The intervention strategy devoted to structures prioritizes measures that ensure public safety. The MTMD initiatives also seek to maintain assets to ensure the portfolio's sustainability. Finally, because of the necessary investments, the strategic importance of structures and multi-year planning of initiatives, major structures are handled separately.

Indeed, based on the 2021-2023 integrated intervention strategy, the preservation of structures hinges on four key principles:

- slowing the pace at which structures deteriorate through targeted preventive maintenance interventions and low-cost repairs likely to postpone investments in major interventions by between five and 10 years;
- reducing the number of structures to be repaired on the RSSCE;
- focusing efforts to repair structures on interventions limited to correcting structural deficiencies or other safety issues, while avoiding "non-priority" interventions;
- making medium- and long-term changes to how structure intervention needs are addressed, with an eye to increasing the time available for planning and undertaking major repair work.

In its strategic planning for the work to be carried out in the coming years, the MTMD has planned several major reconstruction and repair projects on main highway system structures. These investments will help reduce the current AMD of $8.4 billion on these structures by more than 85%. These projects include:

- major repair work on the Ville-Marie and Viger tunnels, as well as the Louis-Hippolyte-La Fontaine tunnel;
- reconstruction of the Honoré-Mercier, Île-d'Orléans and Île-aux-Tourtes bridges;
- repair work on Pierre-Laporte and Laviolette bridges;
- major repair of the eastern section of the Autoroute 40 (Autoroute Métropolitaine), east sector.

[14] Ruts: Longitudinal depressions located in the wheel tracks.

Culverts less than three metres wide

The intervention strategy for culverts with an opening of less than three metres aims to respond to the following four objectives:

- undertaking interventions on culverts posing a risk to user safety or that are necessary to maintain the level of road network service;
- undertaking interventions on culverts located underneath roadway projects;
- undertaking preventive interventions on culverts in good condition;
- undertaking interventions on culverts in poor condition, in cases where only minor work is required to restore them to good condition.

This prioritization makes it possible to ensure user safety, optimal use of resources and the sustainability of culverts. Furthermore, it avoids the "worst is first" reflex.

SITUATION

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Replacement	Subtotal	Addition and Improvement	
Ministère des Transports						
2021-2022						
Actual	976.7	936.3	183.2	**2,096.2**	594.6	**2,690.8**
Forecast[1]	1,211.1	1,150.0	–	**2,361.1**	538.9	**2,900.0**
Difference	(234.4)	(213.7)	183.2	**(264.9)**	55.7	**(209.2)**
2022-2023						
Probable	974.2	1,035.3	125.5	**2,135.0**	662.7	**2,797.7**
2023-2024						
Forecast	1,153.8	1,221.6	135.6	**2,511.0**	794.2	**3,305.2**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Differences Between Planned and Actual Investments

Investments made in 2021-2022 for infrastructure maintenance totalled $2,096.2 million, which is $264.9 million less than initially planned. This difference is explained primarily by the slower completion of certain projects, such as:

- Gouin bridge, between Saint-Jean-sur-Richelieu and Iberville – reconstruction;
- Autoroute 13 and autoroute 40 interchange, various structures – Montréal – repair and reconstruction;
- Pie-IX bridge (route 125), between Montréal and Laval – repair.

Investments made in 2021-2022 for infrastructure enhancement totalled $594.6 million, which is $55.7 million more than initially planned. This difference is explained primarily by the completion of certain projects faster than anticipated, such as:

- Autoroute 30, between Brossard and Boucherville, roadway and UBS – repair and development;
- Route 138, between Kegaska and La Romaine – construction.

Infrastructure maintenance

Investments made in 2021-2022 and probable investments in 2022-2023 for infrastructure maintenance totalled $2,096.2 million and $2,135.0 million respectively. It made possible to carry out or continue the following work:

- Quatre-Bourgeois overpass above Autoroute 73 – Québec – reconstruction;
- Île-aux-Tourtes bridge, between Vaudreuil-Dorion and Senneville – reconstruction;
- Ville-Marie and Viger tunnels – Montréal – repair;
- Interchanges north of the Pierre-Laporte and Québec bridges integrating public transit measures – reconstruction and development.

Furthermore, for 2023-2024, planned investments for infrastructure maintenance total $2,511.0 million and will be allocated to the following projects, among others:

- Louis-Hippolyte-La Fontaine tunnel between Montréal and Longueuil – repair;
- Pierre-Laporte bridge, between Québec City and Lévis – repair;
- Laviolette bridge, between Trois-Rivières and Bécancour, slab – repair.

Inventory enhancement

Investments made in 2021-2022 and probable investments in 2022-2023 for infrastructure enhancement total $594.6 million and $662.7 million respectively. It made possible to carry out or continue the following work:

- Autoroute 55, between Bécancour and Sainte-Eulalie – widening and redevelopment;
- Autoroute 85, (Claude-Béchard) between Saint-Antonin et Saint-Louis-du-Ha! Ha! (phase III) – construction;
- Autoroute 30, between Brossard and Boucherville – widening;
- Autoroute 50, between Gatineau and L'Ange-Gardien – widening;
- Route 139 – Granby – repair and construction.

For 2023-2024, investments of $794.2 million are planned for infrastructure enhancement. These investments will allow to carry out the following work:

- Autoroute de l'Aluminium (Autoroute 70), between Chemin de la Grande-Anse and the La Baie borough – construction;
- Autoroute 19 between Laval and Bois-des-Filion – construction;
- Interchanges of autoroutes 440 and 15, overhead ramp – Laval – construction.

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

Change in Infrastructure Condition and Asset Maintenance Deficit[1]
By infrastructure type and category

	GCI of D (%)			GCI of E (%)			Asset maintenance deficit ($M)				
	AMPI			AMPI							
	2022-2023	2023-2024	Variation	2022-2023	2023-2024	Variation	AMPI 2022-2023	Natural deterioration	New findings	Reduction	AMPI 2023-2024
Civil engineering structures											
			Based on length								
Highway system roadways	21	20	(1)	29	29	0					
			Based on value				9,315.0	705.0	800.0	(736.0)	10,084.0
	21	20	(1)	27	27	0					
Structures			Based on number								
	7	7	0	16	15	(1)					
Highway system			Based on value				8,393.6	31.0	277.4	(261.9)	8,440.1
	8	7	(1)	38	37	(1)					
			Based on number								
	7	8	1	32	30	(2)					
Municipal bridges			Based on value				614.0	29.0	45.8	(72.5)	616.3
	8	10	2	31	30	(1)					
			Based on number								
	9	9	0	8	8	0					
Culverts under 3 m			Based on value				1,094.3	134.9	34.8	(190.2)	1,073.8
	9	8	(1)	8	8	0					
Total by value[2]	**14**	**14**	**0**	**30**	**30**	**0**	**19,416.9**	**899.9**	**1,158.0**	**(1,260.6)**	**20,214.2**

1 Results based on data from the 2020 reports for the 2022-2023 AMPI and the 2021 reports for the 2023-2024 AMPI.
2 The overall GCI percentage of MTMD assets, weighted by value, is presented here for government accountability purposes. These indicators are not used by the MTMD to monitor its Strategic Plan.

ADDITIONAL INFORMATION

Changes in condition

Overall, the condition of the road network infrastructure has remained stable, despite the repair and reconstruction work carried out on all MTMD road assets.

Changes in the AMD

The overall increase of $797.3 million in the AMD, from $19,416.9 million to $20,214.2 million, reflects the natural deterioration in the portfolio, updated cost of work, as well as the state of progress on certain projects.

Natural deterioration

An increase of $899.9 million is the result of natural deterioration found during routine inspections or assessment, which breaks down as follows:

- an amount of $705.0 million for roadways with a null residual useful life[15] or less than three years:
  - an amount of $221.0 million for the natural aging of 265 kilometres of roadways that passed the major deficiency threshold this year, resulting in greater and more expensive intervention needs;
  - an amount of $484.0 million for the natural aging of 963 kilometres of roadways that reached a residual useful life of less than three years this year, i.e., the threshold for a segment of roadway to be considered an AMD;
- an amount of $134.9 million for culverts;
- amounts of $31.0 million for highway system structures and $29.0 million for municipal system bridges.

New findings

An increase of $1,158.0 million resulted primarily from the following:

- overall increase of $800.0 million due to the updated need for intervention and the upward revision of costs of roadway repair work;
- amounts of $277.4 million for highway system structures and $45.8 million for municipal bridges following the update of work plans and new deficient structures over the past five years;
- an amount of $34.8 million for culverts related to the upward revision of the cost of work, the addition of new culverts to the inventory that were in poor condition at the time of the inspection, and the effect of the new categorization of certain structures outside the "Culvert" category.

Reduction

The reduction of $1,260.6 reduction is the result of work done on deficient infrastructure:

- an amount of $736.0 million for repair work carried out to fix deficiencies on roadways;
- amounts of $261.9 million for highway system structures and $72.5 million for municipal bridges as a result of interventions for their rehabilitation or reconstruction as well as correcting deficiencies;
- an amount of $190.2 million in interventions for repair or reconstruction work on culverts.

[15] The residual useful life of a roadway indicates the number of years remaining before it reaches the major deficiency threshold according to one of the four indicators used in the assessment. These indicators are described in Appendix 1.

APPENDIX 1

Additional information

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

Inspection and data update

Due to data collection processing and analysis delays regarding inspections and work carried out on road infrastructure under the jurisdiction of the MTMD, the 2023-2024 AMPI was prepared using information from the 2021 reports. This report enables the MTMD to present a report on the condition and the AMD aligned with the latest certified data from inspections and with intervention strategies implemented during the same period.

Highway system roadways

The MTMD monitors 83% of the roadways under its management, which is 25,866 km out of the 31,131 km of Québec's highway system. The unmonitored portion of roadways mainly comprises gravel roads and onramps. The MTMD intends to monitor at least half of the paved primary roadways per year, thereby covering all paved primary roadways every two years.

Structures (highway system and municipal bridges)

The inspection program provides a comprehensive picture of the condition of all structures under the jurisdiction of the MTMD. Follow-up is carried out by means of different types of inspections at frequencies that vary depending on the age and the level of deterioration of the structure.

Culverts less than three metres wide

Culverts are inspected according to the methodology found in the culvert inspection program. These inspections make it possible to learn the condition of culverts located under the roads making up the road network under MTMD management. The frequency with which a culvert is inspected is determined by its condition, characteristics and the importance of the road link.

Methodology

Highway system roadways

The AMD and GCI are determined based on inspection data from 2021. The extrapolation for the AMD and the GCI is performed taking into account the representativeness and relative scope of the unmonitored portions of the network.

Condition indicator

For more than 20 years, the MTMD has been inspecting the main paved roadways, monitoring changes in their condition and publishing an annual report based on various road condition indicators.

Until 2019, the IRI was the only indicator used to describe roadway condition. This indicator was used by a very large number of road administrations around the world. Its definition and calculation are subject to international standards. This was the indicator used by the MTMD to evaluate its performance in the Strategic Plan.

APPENDIX 1
(continued)

Since 2019, four indicators have been combined to create a new indicator integrated for the purposes of the GCI: the IRI, the rutting index, the cracking index and vulnerability to freezing. A road segment can offer good ride quality although it displays a fairly high cracking rate. The combination of the four indicators means that the assessment presented based on the GCI can differ from that relying solely on the IRI. As a result, using this combination of indices better links the condition of infrastructure to the investments necessary to attain what is deemed satisfactory or better condition.

This new indicator is used by the MTMD to set performance targets based on the percentage of the road network in good condition. The MTMD reports them in its annual report, and publishes the results of its monitoring in its Bilan annuel d'état du réseau routier. A roadway in good condition is defined as a road segment whose four-indicator value is below the deficiency threshold between what is deemed good condition and a condition that requires intervention.

Asset maintenance deficit

The AMD value of roadways represents the cost of work to repair roadways in poor and very poor condition for which the intervention has not been carried out. As a result, these roadways have reached a severely deficient state where, for some, the residual useful life is three years or less.

Structures (highway system and municipal bridges)

Condition indicator

For several years, the MTMD has used different indicators to monitor the safety, functionality and general condition of structures. The key indicator that most road authorities use is the "proportion of the number of structures in good condition," which, for GCI purposes, corresponds to all condition indicators above the threshold, which are: very good (A), good (B) and satisfactory (C), while structures "to be repaired" are allocated based on condition indices of: poor (D) and very poor (E).

At the MTMD, this indicator is based on the inspection data, targeting the main elements whose condition will require intervention within the five coming years. Other complementary indicators are also used, such as:

- the functionality index of a structure, which determines whether the structure satisfies users' needs;
- the behaviour index of a structure, which reflects its stability and safety.

Combining the results of these indicators makes it possible to select most worthwhile and advantageous interventions.

The "proportion of structures in good condition" indicator is expressed as a number, facilitating its interpretation. However, this approach has the drawback of attributing the same weight to each structure, regardless of size. Another way of presenting the information, which appears in the previous table, is in a percentage of the value of the structures. This approach has the advantage of making the connection between investment needs from the viewpoint of the relative importance of structures. Consequently, high-value structures influence the comprehensive overview of the GCI of structures.

APPENDIX 1
(continued)

Asset maintenance deficit

The AMD of structures in the major road network and municipal bridges is the total work required for more than five years to restore the condition of structures. This value is largely influenced by a few major structures requiring work and for which the MTMD has planned major work, such as the Louis-Hippolyte-La Fontaine bridge-tunnel, the Ville-Marie and Viger tunnels and the Île-aux-Tourtes, Île-d'Orléans and Honoré-Mercier bridges. The MTMD will continue to foster interventions that ensure public safety while being committed to a replacement and maintenance cycle for aging assets for many years.

Finally, the MTMD has also developed other indicators in response to specific needs, such as:

- the general condition indicator, which offers a cursory picture of the condition of structures for the general public classifying them into four main categories:
  - those requiring replacement;
  - those requiring major work;
  - those requiring repairs;
  - those requiring no intervention;
- the index of investments to be made for restoration, developed at the request of the Auditor General of Québec.

The Bilan de l'état des structures presents information on the highway system structures and municipal bridges under the jurisdiction of the MTMD. The Rapport annuel de gestion du ministère des Transports includes accountability based on targets established under the 2019-2023 Strategic Plan. The MTMD presents the general inspection reports on its structures on its website.

Culverts less than three metres wide

Condition indicator

The MTMD inspects culverts based on 18 criteria divided into four categories: structural capacity, hydraulic capacity, condition of the embankment and the roadway, as well as the condition of other components such as the headwall.

These inspections attribute a CCI to each culvert. The CCI determines the GCI linked to the infrastructure.

Culverts that are classified as A, B or C are deemed to be in good condition and do not require any major intervention in the short term. Some of them may require minor repairs or maintenance to ensure their proper operation and to prolong their useful life. Culverts that are in poor condition, in condition class D and E, require repairs, rehabilitation or reconstruction.

Asset maintenance deficit

The AMD for culverts less than three metres wide represents the cost of asset maintenance interventions required to restore culverts considered in poor and very poor condition (GCI of D and E) to good condition.

INFRASTRUCTURE MANAGEMENT

PUBLIC TRANSIT CORPORATIONS

RESPONSIBILITIES

Since they own their infrastructure, public transit corporations are responsible for the construction, maintenance, operation and funding of such infrastructure, including compliance with the related regulations.

Consequently, each public transit corporation is responsible for evaluating, documenting and updating data related to the condition of infrastructure to support optimum management focused on their priorities.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The infrastructure portfolio of public transit corporations comprises buildings such as terminals and bus shelters, garages for mechanical maintenance of equipment, stations, and administrative and service buildings.

Civil engineering works include the infrastructure related to operating the Métro, i.e., stations and tunnels, auxiliary structures, reserved bus lanes and parking lots, and sites required to adequately manage the fleet of vehicles. Such structures also include infrastructure related to the operation of the train network, i.e., railroads, bridges, culverts, tunnels and walls.

Finally, equipment comprises Métro cars, including the new state-of-the-art AZUR cars that combine better reliability, higher capacity and greater comfort. Equipment related to the operation of the train network, i.e., locomotives and passenger cars, are also under the responsibility of the public transit corporations. The public transit equipment inventory also includes a fleet of buses that provides quality public transit, intervention vehicles and all other equipment essential to ensure service continuity.

PUBLIC TRANSIT CORPORATIONS

Infrastructure inventory[1]
Per infrastructure type and category

	Average Age (years)	Quantity			Measurement		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings							
Stations	23	50	50	0	1,220,253 sq. m	1,220,253 sq. m	0 sq. m
Garages and Workshops	35	44	44	0	1,447,027 sq. m	1,505,391 sq. m	58,364 sq. m
Terminus	16	61	57	(4)	411,604 sq. m	457,829 sq. m	46,225 sq. m
Administration and Services	40	17	17	0	125,779 sq. m	115,136 sq. m	(10,643) sq. m
Bus Shelters, Shelters and Temperature-controlled Stations	12	5,001	5,073	72	53,584 sq. m	59,339 sq. m	5,755 sq. m
Civil Engineering Works							
Métro							
Stations	46	68	68	0	249,701 sq. m	595,004 sq. m	345,303 sq. m
Tunnels	44	92	92	0	67 km	67 km	0 km
Auxiliary Structures[2]	44	119	119	0	N/A	N/A	n.a.
Trains							
Railroad Tracks	9	n.a.	n.a.	n.a.	55 km	55 km	0 km
Bridges, Culverts, Tunnels and Walls	26	214	210	(4)	n.a.	n.a.	n.a.
Reserved Lanes	12	n.a.	n.a.	n.a.	428 km	402 km	(26) km
Park-and-ride Lots	12	47	42	(5)	625,096 sq. m	642,967 sq. m	17,871 sq. m
Equipments							
Métro Cars							
MR-73	46	360	360	0	n.a.	n.a.	n.a.
AZUR	5	612	639	27	n.a.	n.a.	n.a.
Buses							
Standard	8	3,701	3,794	93	n.a.	n.a.	n.a.
Articulated	9	465	466	1	n.a.	n.a.	n.a.
Minibus	5	137	148	11	n.a.	n.a.	n.a.
Trains							
Locomotives	18	41	41	0	n.a.	n.a.	n.a.
Passenger Rail Cars	15	206	208	2	n.a.	n.a.	n.a.
Emergency Response Vehicules	8	754	1,051	297	n.a.	n.a.	n.a.
Other[3]	11	79	85	6	n.a.	n.a.	n.a.

1 Results mainly based on data as at December 31, 2022.
2 Auxiliary structures correspond to the infrastructure that contain the Métro's electrical and mechanical equipment.
3 The "Other" category includes the following elements: elevating platforms, mechanical and washing sweepers, lift trucks, floor cleaners, electric vehicles and platforms.

Variation in inventory

The decrease in the number of infrastructures in the "Terminals" and "Incentive parking lots" categories is primarily the result of the removal of some infrastructure that is no longer under the responsibility of the transit corporations.

The increase in the number of infrastructures in the "Emergency vehicles" and "Other" categories is due mainly to updates to the STM's equipment inventory.

Lastly, for the "Métro stations," "Garages and workshops," "Terminals" and "Incentive parking lots" categories, the increase in observed size is the result of data updates. Specifically, the total surface area, which includes all floors, is now considered rather than the tread contact area.

INFRASTRUCTURE SUSTAINABILITY

PUBLIC TRANSIT CORPORATIONS

Infrastructure Conditions[1]
By infrastructure type and category

	Government Condition Indicator (GCI) (%)					
	A	B	C	ABC	D	E
Buildings						
Stations	2	26	42	70	30	0
Garages and Workshops	11	30	20	61	21	18
Terminus	35	31	23	89	8	3
Administration and Services	31	25	19	75	0	25
Bus Shelters, Shelters and Temperature-controlled Stations	21	27	40	88	4	8
Civil Engineering Works						
Métro						
Stations	19	47	21	87	7	6
Tunnels	95	4	1	100	0	0
Auxiliary Structures	5	5	29	39	32	29
Trains						
Railroad Tracks	0	0	100	100	0	0
Bridges, Culverts, Tunnels and Walls	40	26	16	82	15	3
Reserved Lanes	29	58	13	100	0	0
Park-and-ride Lots	33	43	21	97	3	0
Equipments						
Métro Cars						
MR-73	0	0	0	0	100	0
AZUR	100	0	0	100	0	0
Buses						
Standard	37	29	23	89	6	5
Articulated	0	15	28	43	55	2
Minibus	40	23	14	77	20	3
Trains						
Locomotives	2	22	76	100	0	0
Passenger Rail Cars	78	0	19	97	3	0
Emergency Response Vehicules	35	18	19	72	14	14
Other	21	18	10	49	40	11
Total – Infrastructures[2]	**35**	**25**	**18**	**78**	**13**	**9**

1 Results mainly based on data as at December 31, 2022.
2 Percentages are weighted according to replacement values.

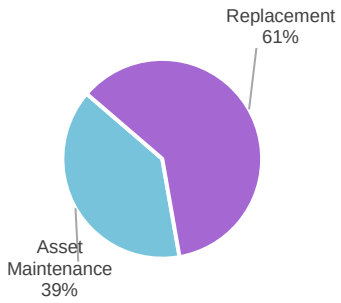
Objectives

- Ensure a safe, high-quality service offer that adheres to current standards;
- Maintain infrastructure in good condition (GCI of A, B or C) by means of continuous replacement and refurbishment of equipment, rolling stock and infrastructure that has reached the end of its useful life.

Infrastructure maintenance investments in the 2023-2033 QIP

(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	Public Transit	%
Infrastructure Maintenance		
Asset Maintenance	1,091.2	39
Replacement	1,701.1	61
Total	**2,792.3**	**100**



Investment strategy

The majority of the public transit corporations' infrastructure portfolio is in good condition (GCI of A, B or C). This situation illustrates the efforts made by these corporations, while supported by the MTMD assistance programs, to maintain and develop infrastructure that delivers efficient, quality services and meets the needs of the public.

Therefore, to provide safe, dependable and fast services and to counter the deterioration of the infrastructure portfolio, investments of nearly $2.8 billion are planned to maintain and replace infrastructure at the end of its useful life.

In concrete terms, the key investment projects planned for infrastructure maintenance aim to:

- replace fixed Métro equipment, including escalators, ventilation, elevators and train control equipment;
- perform general repairs to critical Métro civil engineering works, such as electrical, mechanical and structural systems;
- reconstruct and upgrade buildings, such as the RTL operations centre in Saint-Hubert and exo's Île-Perrot stations;
- replace rolling stock, including passenger cars and locomotives from the train network, Métro cars and buses.

Finally, considering the relative importance of the replacement value of the Métro's infrastructure (stations, tunnels, auxiliary structures, garages and workshops), it will be necessary to carry out major asset maintenance work in order to counter their deterioration and maintain or restore them to a satisfactory or better condition (GCI of A, B or C).

SITUATION

PUBLIC TRANSIT CORPORATIONS

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Replacement	Subtotal	Addition and Improvement	
Public Transit Authorities						
2021-2022						
Actual	677.1	–	182.9	**860.0**	1,371.9	**2,231.9**
Forecast[1]	182.5	–	180.6	**363.1**	532.1	**895.2**
Difference	494.6	–	2.3	**496.9**	839.8	**1,336.7**
2022-2023						
Probable[2]	149.9	–	214.7	**364.6**	1,229.5	**1,594.1**
2023-2024						
Forecast	167.5	–	192.6	**360.1**	648.2	**1,008.3**

1 Planned in the 2021-2031 QIP.
2. Infrastructure enhancement investments in 2022-2023 include an advance financial assistance payment of $500.0 million for public transit projects of the ARTM and two public transit corporations: the RTC, and the STL.

ADDITIONAL INFORMATION

Differences Between Planned and Actual Investments

Investments made in 2021-2022 are $1,336.7 million higher than originally planned. This is due mainly to the advance payment of $1,120.0 million in financial assistance to projects under the STM's responsibility, which was not anticipated in 2021-2022. This advance funding from the Government will allow for the completion of several infrastructure maintenance and enhancement projects.

With regard to infrastructure maintenance, these amounts are allocated to the Réno-Systèmes and Réno-Infrastructures programs, which include projects to repair fixed equipment and Métro infrastructure. Furthermore, with regard to infrastructure enhancement, financial assistance was allocated to the Métro station accessibility programs, which improves universal accessibility, and to the Métro blue line extension project.

Infrastructure maintenance

As for the funds allocated by the MTMD to support the public transit corporations, the probable investments in 2022-2023 and the planned investments in 2023-2024, totalling $364.6 million and $360.1 million, respectively, enabled the following key projects to be continued or carried out:

- Montréal Métro, AZUR Métro cars – replacement;
- the continuation of the Montréal Métro renovation programs:
  - Réno-Infrastructures program (repair of stations, auxiliary structures, tunnels, garages and workshops);
  - Réno-Systèmes program (replacement or upgrading of operations-related equipment, including, for example, ventilation, elevators and track equipment such as rail supports and guide bars).

Inventory enhancement

The probable investments in 2022-2023 and planned investments in 2023-2024 total $1,229.5 million and $648.2 million respectively and will allow the following major projects to be carried out or continued:

- integrated bus rapid transit service on Boulevard Pie-X between Montréal and Laval – development and construction;
- structuring public transit network in Ville de Québec (preparatory work) – construction;
- Montréal Métro, station accessibility program (phases I and II) – enhancement;
- STM's garage in Côte-Vertu — Montréal — construction;
- Montréal Métro, blue line from the Saint-Michel station to Anjou (preparatory work) – extension.

PUBLIC TRANSIT CORPORATIONS

Change in infrastructure condition
By infrastructure type and category

	GCI of D (%)			GCI of E (%)		
	AMPI		Variation	AMPI		Variation
	2022-2023	2023-2024		2022-2023	2023-2024	
Buildings						
Stations	30	30	0	0	0	0
Garages and Workshops	23	21	(2)	19	18	(1)
Terminus	11	8	(3)	6	3	(3)
Administration and Services	0	0	0	25	25	0
Bus Shelters, Shelters and Temperature-controlled Stations	8	4	(4)	2	8	6
Civil Engineering Works						
Métro						
Stations	12	7	(5)	9	6	(3)
Tunnels	0	0	0	0	0	0
Auxiliary Structures	32	32	0	29	29	0
Trains						
Railroad Tracks	0	0	0	0	0	0
Bridges, Culverts, Tunnels and Walls	16	15	(1)	3	3	0
Reserved Lanes	1	0	(1)	0	0	0
Park-and-ride Lots	0	3	3	0	0	0
Equipments						
Métro Cars						
MR-73	100	100	0	0	0	0
AZUR	0	0	0	0	0	0
Buses						
Standard	3	6	3	3	5	2
Articulated	55	55	0	2	2	0
Minibus	8	20	12	2	3	1
Trains						
Locomotives	0	0	0	0	0	0
Passenger Rail Cars	0	3	3	0	0	0
Emergency Response Vehicules	55	14	(41)	1	14	13
Other	33	40	7	14	11	(3)
Total – Infrastructures[1]	**14**	**13**	**(1)**	**6**	**9**	**3**

[1] Percentages are weighted according to replacement values.

ADDITIONAL INFORMATION

Changes in condition

The condition of public transit corporation infrastructure has deteriorated slightly. This finding is due mainly to the deterioration of buildings in the "Bus shelters, protective shelters and heated stations" category as well as the aging of standard buses and minibuses.

In addition, the net decrease of 28% (41% decrease GCI of D and 13% increase GCI of E) in the proportion of intervention vehicles in poor condition is due mainly to the addition of 584 vehicles in good condition (GCI of A, B, or C) during updates to the STM's inventory.

APPENDIX 1

Additional information

MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE

Ministère des Transports et de la mobilité durable financial assistance programs meeting the needs of public transit corporations

The MTMD administers financial assistance programs to meet the priority needs of public transit corporations. It must ensure that applications from such corporations comply with the rules established and oversee accountability for spending from the standpoint of government investments.

The financial assistance programs seek primarily to support transportation authorities to carry out the capital projects necessary to organize and operate services. The programs are intended to foster the maintenance, enhancement and development of public transit equipment and infrastructure.

Public transit corporations benefit, in particular, from the following subsidy programs:

- PAGTCP – Capital component: the objectives targeted by this program are to maintain existing assets in good condition, to improve the quality of the services offered to the clientele, and to develop new services;
- Programme d'aide aux immobilisations en transport en commun of the SOFIL: this program, which came into effect on January 1, 2006, targets capital projects in the realm of public transit. Funding sources include a portion of the revenue from the federal excise tax on gasoline, revenue from registrations of automobiles with high-displacement engines, and revenue from the Land Transportation Network Fund;
- PAFFITC: this program stems from the Canada-Québec Agreement on the Public Transit Infrastructure Fund, reached on June 29, 2016. The program seeks to support investments to restore and improve existing public transit networks and those targeting the elaboration of studies to support longer-term network expansion projects;
- PAGITC: this program stems from the signing of the IBA with the Government of Canada and is designed to support new public transit infrastructure construction, expansion, improvement and restoration projects, and active transportation projects.

APPENDIX 1
(continued)

Additional information

PUBLIC TRANSIT CORPORATIONS

Inspection and data update

The inventory of public transit infrastructure incorporates the majority of the infrastructure owned by public transit corporations, i.e., the ARTM, exo, STM, RTC, RTL, STL, STO, STLévis, STTR, STS (Saguenay) and STS (Sherbrooke).

The MTMD does not own public transit infrastructure and the inventory hinges on the available data provided by the public transit corporations. From the standpoint of government guidelines, the MTMD collects and processes, in collaboration with all of the public transit corporations, data to establish and update a complete, representative picture of the condition of infrastructure owned by these corporations. This approach seeks to plan the Gouvernement du Québec investments to support public transit corporations over the next ten years, bearing in mind the responsibilities linked to the ownership of the related infrastructure.

Methodology

The condition indicator percentages (A / B / C / D / E) are weighted based on infrastructure for all categories, other than reserved lanes and railroad lines, which are weighted based on the number of kilometres.

INFRASTRUCTURE MANAGEMENT

THE SOCIÉTÉ DES TRAVERSIERS DU QUÉBEC

VISION

A successful and innovative government enterprise, a leader in maritime transportation.

ORIENTATION

Offer reliable services through an efficient, safe fleet and land infrastructure portfolio.

RESPONSIBILITIES

The STQ, which falls under the responsibility of the Minister of Transport and Sustainable Mobility, must ensure that the infrastructure it owns enables it to attain the objectives hereunder. To succeed in doing so, the STQ must allocate the resources required to:

- guarantee the infrastructure's integrity;
- ensure compliance with the applicable regulatory requirements;
- carry out work that extend their useful life;
- undertake improvements to satisfy new requirements;
- replace infrastructures at the end of their useful life.

DESCRIPTION OF THE INFRASTRUCTURE PORTFOLIO

The STQ is responsible for the maintenance of services for two connections and 11 crossings[16], nine of which it operates. They are located mainly along the St. Lawrence River, between Sorel-Tracy and the Basse-Côte-Nord.

Aside from its head office building, the STQ owns infrastructure that encompasses 22 vessels (15 ferries, three passenger vessels and four work craft), buildings (terminals, service buildings, footbridges, warehouses, workshops), wharves, landing docks as well as other civil engineering structures (waiting areas, access roads, parking lots, ripraps).

[16] Crossing: route followed by a ferry on a watercourse.

THE SOCIÉTÉ DES TRAVERSIERS DU QUÉBEC

Infrastructure inventory[1]
By infrastructure type and category

	Average Age (years)	Quantity			Measurement		
		AMPI		Variation	AMPI		Variation
		2022-2023	2023-2024		2022-2023	2023-2024	
Buildings	22	85	86	1	9,005 sq. m	9,543 sq. m	538
Civil Engineering Works							
Wharves	38	26	26	0	65,022 sq. m	65,022 sq. m	0
Docks	19	20	20	0	3,604 sq. m	3,604 sq. m	0
Other	34	22	22	0	161,298 sq. m	161,298 sq. m	0
Equipments							
Vessels	27	22	22	0	n.a.	n.a.	n.a.

[1] Data as at November 2022.

Variation in inventory

The variation in the building inventory is due to the construction of a new station in Chevery, which was completed in 2022.

INFRASTRUCTURE SUSTAINABILITY

THE SOCIÉTÉ DES TRAVERSIERS DU QUÉBEC

Infrastructure conditions and asset maintenance deficit[1]
By infrastructure type and category

	Government Condition Indicator[2] (GCI) (%)						Asset Maintenance Deficit ($M)		
	A	B	C	ABC	D	E	GCI of D	GCI of E	Total
–	83	11	0	94	6	0	–	–	–
Civil Engineering Works									
Wharves	8	9	10	27	73	0	126.4	–	126.4
Docks	36	0	64	100	0	0	–	–	–
Other	83	17	0	100	0	0	–	–	–
Equipments									
Vessels	54	20	15	89	11	0	14.2	–	14.2
Total – Infrastructures	**52**	**16**	**15**	**83**	**17**	**0**	**140.6**	–	**140.6**

1 Data as at November 2022.
2 Percentages are weighted according to replacement values.
3 The buildings in poor condition (GCI of D) do not have an AMD since the work listed on them is not considered a priority by the STQ.

ADDITIONAL INFORMATION

Over the coming years, the targets presented in the table below are related to the operational objective of maintaining delivery of the planned number of crossings at 99.5%.

Objectives

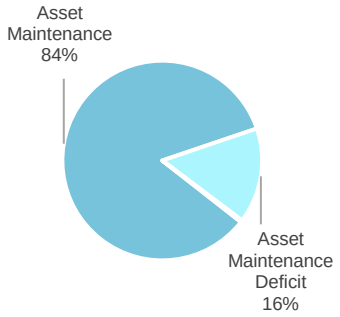
Objectives	Reference value	Results		Target
	Reference AMPI	AMPI 2022-2023	AMPI 2023-2024	Target AMPI
Achieve a proportion of infrastructure with an GCI greater than or equal to C of 35% for wharves	27% / AMPI 2021-2022	24%	27%	35% / AMPI 2025-2026
Carry out at least $28.3M of work intended to reduce the wharve AMD[1]	$0M / AMPI 2022-2023	n.a.	$10.4M	$28.3M / AMPI 2026-2027
Achieve a proportion of infrastructure with an GCI greater than or equal to C of 92% for vessels	89% / AMPI 2021-2022	89%	89%	92% / AMPI 2025-2026
Carry out at least $34.6M of work intended to reduce the vessel AMD[1, 2]	$0M / AMPI 2022-2023	n.a.	$20.4M	$34.6M / AMPI 2026-2027

1 The results presented are the cumulative cost of work carried out since the reference AMPI was filed.
2 Initially established at $10.0 million, a new target was set at $34.6 million to account for the increased cost of certain projects such as the recapitalization and redevelopment of the MV Joseph-Savard.

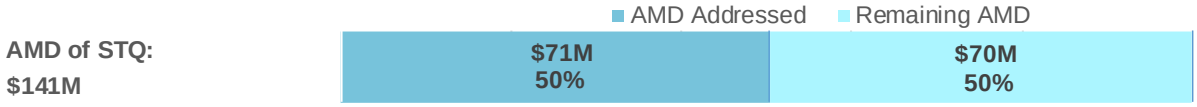
The proportion of wharves in satisfactory condition (GCI of A, B, or C) has not improved in the two years since the 2021-2022 AMPI was filed. This result is due to the fact that the asset maintenance work carried out on the wharves was not enough to counteract the deterioration observed due to aging. In the coming years, several targeted repair projects to slow down deterioration, as well as other larger projects, will help improve their condition.

Infrastructure maintenance investments in the 2023-2033 QIP
(contribution of the Gouvernement du Québec, in millions of dollars and as a percentage)

	STQ	%
Infrastructure Maintenance		
Asset Maintenance	386.3	84
Asset Maintenance Deficit	70.8	16
Replacement	1.4	0
Total	**458.5**	**100**



Addressing the asset maintenance deficit



Investment strategy

To ensure the sustainability of its assets and maintain their performance, the STQ must update and implement its investment plans taking into account the main stages of their useful life cycle: acquisition, operation, maintenance, asset maintenance and disposal. The decisions made at any time during this cycle can impact the residual useful life of STQ assets. This is particularly important considering that many infrastructures are aging and require investments to prevent their deterioration and remain operational.

More concretely, for the vessel investment plan, it is important to plan long-term to optimize interventions that require dry docking and ensure the continuity of service. Consequently, work planned according to the useful life cycle includes:

- midlife interventions when a vessel reaches approximately 30 years of age;
- thorough inspection and maintenance of each vessel over a five-year period are intended for work such as:
  - the restoration of vessel structural components;
  - the recapitalization of mechanical components (engines, propellers), electrical (power distribution systems), electronics (radars, communication systems) and other systems (fire detection and suppression, rescue equipment and systems).

This work makes it possible to obtain the certifications required to continue vessel operations.

The STQ's investment strategy consists of prioritizing targeted repair work on essential components to keep them operational and extend their useful life. By following these procedures, the STQ gains extra time to plan the reconstruction of wharves and landing docks, which will make it possible to provide superior management of the AMD listed in the coming years and respond to needs associated with the evolution of the service offer. For example, the asset maintenance project currently being planned at the L'Isle-aux-Coudres and Saint-Joseph-de-la-Rive wharves will extend the infrastructure's useful life in preparation for a major reconstruction project that is under study and will in time help reduce its AMD.

In addition, for some infrastructure categories, and particularly for vessels, interventions not foreseen in the initial planning may be required to deal with unexpected component breakdowns or to comply with new standards. When possible, these are completed during maintenance periods scheduled in the investment plan.

SITUATION STATUS

Investments listed in the QIP
By type
(contribution by the Gouvernement du Québec, in millions of dollars)

	Infrastructure Maintenance				Infrastructure Enhancement	Total
	Asset Maintenance	Asset Maintenance Deficit	Repla-cement	Subtotal	Addition and Improvement	
Société des traversiers du Québec						
2021-2022						
Actual	14.1	12.6	–	**26.7**	11.3	**38.0**
Forecast[1]	12.0	22.1	2.0	**36.1**	14.3	**50.4**
Difference	2.1	(9.5)	(2.0)	**(9.4)**	(3.0)	**(12.4)**
2022-2023						
Probable	16.3	31.0	3.9	**51.2**	3.6	**54.8**
2023-2024						
Forecast	38.3	17.4	1.4	**57.1**	11.6	**68.7**

[1] Planned in the 2021-2031 QIP.

ADDITIONAL INFORMATION

Differences Between Planned and Actual Investments

The investments made in 2021-2022 for maintaining the STQ infrastructure portfolio totalled $26.7 million while planned investments were $36.1 million. This variation of $9.4 million is due to the slower-than-anticipated completion of certain projects, including the recapitalization and redevelopment of the MV Joseph-Savard, for which work planned in 2021-2022 has been postponed to 2022-2023 due to delays in the component supply chain.

Infrastructure maintenance

Probable investments in infrastructure maintenance were $51.2 million in 2022-2023 and enabled completion or continuation of the following projects:

- recapitalization and redevelopment of the MV Joseph-Savard – L'Isle-aux-Coudres – Saint-Joseph-de-la-Rive crossing;
- recapitalization of the L'Isle-aux-Coudres and Saint-Joseph-de-la-Rive wharfs before completing the major project;
- reconstruction of the Saint-Augustin wharf of the Rivière Saint-Augustin crossing (Basse-Côte-Nord);
- reconstruction of the pier on the east side in Matane.

Planned investments for 2023-2024 amount to $57.1 million. These investments will enable the continuation or completion of the following projects:

- asset maintenance work on the MV Didace-Guèvremont;
- reconstruction of the pier (wharf component) on the east side in Matane;
- reconstruction of the Saint-Augustin wharf of the Rivière Saint-Augustin crossing (Basse-Côte-Nord);
- maintenance of L'Isle-aux-Coudres wharf assets;
- replacement of the MV Radisson engine.

Inventory enhancement

The investments made in 2021-2022 in enhancement projects totalled $11.3 million, while probable investments for 2022-2023 are $3.6 million. These amounts facilitated completion or continuation of the following projects:

- construction of a freight transport vessel at the Rivière Saint-Augustin crossing (Basse-Côte Nord), the MV Jos-Hébert;
- construction of a multifunctional building in Chevery;
- better traffic flow to the ferry from Sorel-Tracy to Saint-Ignace-de-Loyola.

Planned investments in 2023-2024 for infrastructure enhancement projects total $11.6 million. These investments will allow make it possible to plan new projects or continue ongoing projects, including the project to acquire vessels for western Québec crossings, namely in Tadoussac–Baie-Sainte-Catherine, Saint-Joseph-de-la-Rive–L'Isle-aux-Coudres and Sorel-Tracy–Saint-Ignace-de-Loyola.

THE SOCIÉTÉ DES TRAVERSIERS DU QUÉBEC

Change in Infrastructure Conditions and Asset Maintenance Deficit
By infrastructure type and category

	GCI of D[1] (%)			GCI of E[1] (%)			Asset Maintenance Deficit ($M)				
	AMPI		Varia-tion	AMPI		Varia-tion	AMPI 2022-2023	Natural Degradation	New Findings	Decrease	AMPI 2023-2024
	2022-2023	2023-2024		2022-2023	2023-2024						
Buildings	1	6	5	0	0	0	–	–	–	–	–
Civil Engineering Works											
Wharves	63	73	10	13	0	(13)	117.2	19.6	–	(10.4)	126.4
Docks	0	0	0	0	0	0	–	–	–	–	–
Other	0	0	0	0	0	0	–	–	–	–	–
Equipments											
Vessels	11	11	0	0	0	0	10.0	–	21.6	(17.4)	14.2
Total – Infrastructures	**15**	**17**	**2**	**2**	**0**	**(2)**	**127.2**	**19.6**	**21.6**	**(27.8)**	**140.6**

[1] Percentages are weighted by infrastructure replacement value.

ADDITIONAL INFORMATION

Changes in condition

The proportion of STQ buildings in poor condition (GCI of D) increased by 5%. This deterioration in condition is explained by the completion of inspections during the year, which reported new needs for certain buildings.

The upward variation of 10% in the proportion of wharves assessed in poor condition (GCI of D) is due to two wharves improving from very poor condition (GCI of E) to poor condition (GCI of D) as a result of asset maintenance work carried out in the last year. The condition of one wharve was also revised from a GCI of D to a GCI of C after a recent inspection that showed a longer-than-anticipated remaining useful life.

The proportion of vessels in poor condition (GCI of D) remained stable. Infrastructure maintenance projects are underway and will help improve the condition of vessels within the next two years.

Changes in the AMD

The net increase in AMD of $13.4 million, from $127.2 million to $140.6 million, is due mainly to the following elements:

- the increase of AMD of $19.6 million resulting from natural deterioration due to the aging of wharves, many of which are nearing or have passed the end of their useful life;
- the new findings on vessels of $21.6 million result from an increase in the cost of work to repair the MV Joseph-Savard and the MV Radisson, as well as the need to replace the ACV L'Esprit de Pakuashipi, which has reached the end of its useful life.
- the reduction of $27.8 million is the result of the following work:
  - — the mid-life recapitalization work carried out on the MV Joseph-Savard, which resulted in an AMD reduction of $17.4 million;
  - — interventions on the docks that enabled a reduction of $10.4 million.

APPENDIX 1

Additional information

THE SOCIÉTÉ DES TRAVERSIERS DU QUÉBEC

Inspection and data update

A continuous inspection schedule was established targeting the critical components of essential buildings and civil engineering structures for delivery of the required service. The objective is to have an up-to-date picture of the infrastructure condition to support decisions about them.

For vessels, a periodic inspection and follow-up program for all components is required under the legislative and standards-based obligations imposed by the Canada Shipping Act, 2001, among others, and the statutory regulations of classification societies. As a result of these inspections, each vessel obtains the periodic statutory approvals needed to maintain the certification required to perform its mission.

Methodology

The average age of the wharves and docks represents their effective age, which considers the infrastructure's chronological age and the work done on it to ensure its ability to render service until the end of its useful life.

For the vessels, buildings and civil engineering structures, the average age of these infrastructures corresponds to their actual age.

The GCI for buildings and "other" civil engineering works is based on the FCI. Expressed as a percentage, the FCI is calculated as follows:

FCI = (Total cost of asset maintenance work to be carried out within zero to five years / replacement value) x 100%.

When the FCI is greater than 15%, the infrastructure is considered to be in poor condition (GCI of D or E).

For wharves and docks, the determination of the GCI is gradually shifting from a methodology based on a theoretical deterioration model based on their apparent age to a method based on the analysis of detailed inspection reports.

Over the years, the condition indicators will all be supported by inspection reports and the deterioration curve model will gradually be abandoned.

For vessels, the condition evaluation method takes unto account their facility condition index and age to better reflect the situation. This method supports enlightened investment decisions regarding them.

The asset maintenance work (and its costs) to be included in the AMD are those listed on infrastructure with a GCI of D or E and which correct a defect identified as a priority by the STQ.

The STQ determines the priority of the work to be carried out based on the work's potential impact on health and safety, service continuity and the acceleration of deterioration that may result from it.

Conseil du trésor
Québec