

# 2022 Program Summary

## Office of the Chief Information Security Officer

While we aim to provide fully accessible content, there is no text alternative available for some of the content within these pages. If you require alternate formats or need assistance understanding our charts, graphs, or any other content, please contact us at [FPD@toronto.ca](mailto:FPD@toronto.ca).

### Description

Cyber resiliency and intelligence are keys to success in helping to secure the City of Toronto against emerging threats. In an ever-changing cyber threat environment, resiliency will allow the City to explore and onboard new technologies rapidly in a safe manner.

**Vision:** To become a Global Leader in Urban Cyber Innovation.

**Mission:** To deliver world class Cyber services to the City of Toronto and build the Cyber practice into a mature Cyber centre of excellence.

**Strategy:** To build cyber resiliency and cyber intelligence capabilities into the City of Toronto to be able to predict, prevent and respond to emerging cyber threats.

### Why We Do It

In addition to the societal benefits, the Office of the Chief Information Security Officer (CISO) continues to fulfill its mandate to:

- **Minimize the impact of cyber incidents that result in financials loss, reputational damage, service disruption, legal liability and loss of life through the delivery of relevant cyber governance;**
- **Support the City's strategic priorities of keeping Toronto moving and building resilience by contributing to improvement initiatives (ModernTO, Financial Transformation, and COVID-19 Recovery);**
- **Promote financial sustainability by containing costs through automated, efficient and/or streamlined processes.**

*The City of Toronto aims to deliver these outcomes equitably, efficiently and with excellent customer service to help improve the lives of Torontonians and work to earn their trust and confidence.*

## What Service We Provide

### Cyber Services

#### Digital Government

**Who We Serve:** All City Divisions, Councillors, and the Public

**What We Deliver:**

- Strategy, governance, and advisory accountabilities City-wide.
- Cyber culture, awareness and training.
- Managing digital risk and support the operationalization of digital programs and cloud initiatives.
- Modernizing infrastructure, oversight over cyber compliance, and enhancing the Cyber Practice.
- Detection, prevention, and mitigation of cyber risk including the City's critical infrastructure

#### Business Resilience (Including Modernization Recovery)

**Who We Serve:** All City Divisions, Councillors, and the Public

**What We Deliver:**

- Improve business resilience and support the processes enabling business transactions.
- Assess risk and protect against unauthorized access for business applications.
- Data Rights Protection to safeguard personal and health information of City staff and the Public.

**How Much Resources (gross 2022 operating budget): \$44.7 million**

## Budget at a Glance

### 2022 OPERATING BUDGET

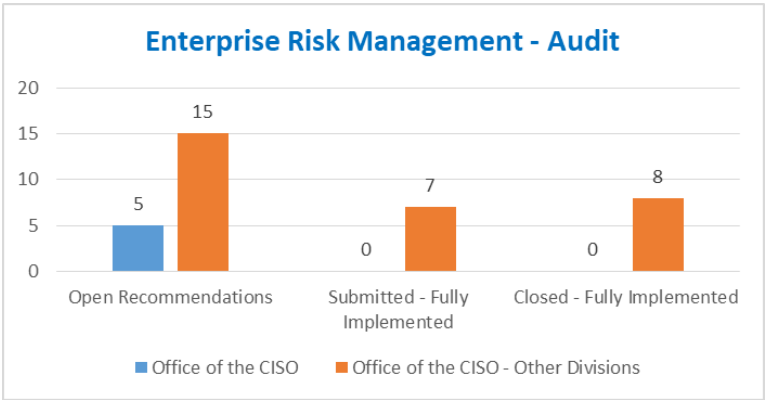
<u>\$Million</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Revenues	\$5.0	\$0.0	\$0.0
Gross Expenditures	\$44.7	\$50.8	\$53.2
Net Expenditures	\$39.7	\$50.8	\$53.2
Approved Positions	80.0	80.0	77.0

### 2022 - 2031 10-YEAR CAPITAL PLAN

<u>\$Million</u>	<u>2022</u>	<u>2023-2031</u>	<u>Total</u>
Gross Expenditures	\$8.0	\$24.3	\$32.3
Debt	\$8.0	\$24.3	\$32.3

Note: Includes 2021 carry forward funding

How Well We Are Doing – Behind the Numbers



- In 2021: Open audit recommendations were as follows - 5 in the Office of the CISO, 13 jointly between TSD and Office of the CISO and 2 jointly between TSD and Toronto Water.
- In 2021 submitted as fully implemented were 7 recommendation, all 7 were Office of the CISO - TSD related.
- 2021 closed, fully implemented audit recommendations were as follows: 5 Office of the CISO - TSD and 3 Office of the CISO - Toronto Water.
- Investments in the 2022 budget will continue remediation of open audit recommendations.

## How Well We Are Doing

Service	Measure	2019 Actual	2020 Actual	2021 Target	2021 Projection	Status	2022 Target	2023 Target
Outcome Measures								
Digital Government	% of cyber policies and standards reviewed annually by Office of the CISO			100%	100%	●	100%	100%
	% of scheduled vulnerability scans completed per quarter			100%	100%	●	100%	100%
	% of existing endpoints monitored by Threat Management solution (servers, workstations, mobiles)			90%	88%	●	90%	90%
Business Resilience	% of risk assessments conducted for critical risk projects			100%	100%	●	100%	100%
	% of investigations reviewed within 30 days			90%	100%	●	90%	90%
Service Level Measures								
Cyber Governance	Inquiries responded and/or actioned within one (1) business day			100%	100%	●	100%	100%
	Cyber service requests responded within two (2) business days			90%	90%	●	90%	90%
	Cyber policies, procedures and standards review requests from City divisions and agencies and corporations actioned within ten (10) business days			90%	90%	●	90%	90%
	Mandatory cyber awareness training conducted yearly for all staff			85%	65%	●	85%	85%

Service	Measure	2019 Actual	2020 Actual	2021 Target	2021 Projection	Status	2022 Target	2023 Target
Other Measures								
Cyber Operations	Standard Cyber Incident Management Response Targets							
	<ul style="list-style-type: none"> <li>Priority 1: 2 business hours</li> <li>Priority 2: 8 business hours (1 day)</li> <li>Priority 3: 24 business hours (3 days)</li> <li>Priority 4: 48 business hours (6 days)</li> </ul>			100%	100%	●	100%	100%
	Ad-hoc security vulnerability scans scheduled within 24 hours <i>(based on approved change window, scans are scheduled after normal office hours)</i>			90%	90%	●	90%	90%
	New assets added for vulnerability scanning within 4 hours <i>(based on assets requests received)</i>			90%	90%	●	90%	90%
	Addition/ changes for security scans within 2 business days <i>(based on approved user lists for addition/change)</i>			90%	90%	●	90%	90%
	Enterprise cyber risk assessments completed within 12 weeks*			90%	80%	●	90%	90%

\*Assessments include: cloud, threat risk, technical security, architecture reviews, critical infrastructure, vulnerability management, penetration testing, code scanning and privacy impact assessments  
Assessments timeline initiated after requirements elicitation is completed and project documentation is delivered by divisions)

● 80% - 100%    ● 64 - 79%    ● 63% and Under

COVID-19 IMPACT AND RECOVERY

2022 Impact and Recovery

Operating Budget Impact

N/A

## EXPERIENCES, CHALLENGES AND PRIORITIES

### Our Experience and Success

- Built the Cyber practice, following the creation of the Office of the CISO division in 2020,
- Conducted over 190 cyber assessments including Privacy, Threat, Cloud, Application Security, Vulnerability, Ethical Hacking and Security Reviews).
- Collaborated with Managed Security Services Provider (MSSP) to enhance protection of digital assets.
- Enhanced City's cyber defence and protection of digital assets.

### Key Challenges and Risks

- Increasing level of cybercrime globally.
- Demand for cyber talent is growing at a pace far exceeding the supply. Challenging to retain and attract cyber talent.
- High global demand for cyber services resulting in limited participation from service providers in cyber procurements.
- Decentralized cyber functions.

### Priority Actions

Continuing investments to enhance the City's resilience to cyber risks to minimize the impact of a cyber-attack which could result in potential financial loss, reputational damage, service disruption, legal liability and loss of life.

#### Digital Government

- Strategy, governance, and advisory accountabilities City-wide.
- Cyber culture, awareness and training.
- Managing digital risk and support the operationalization of digital programs and cloud initiatives.
- Modernizing infrastructure, oversight over cyber compliance, and enhancing the Cyber Practice.
- Detection, prevention, and mitigation of cyber risk including the City's critical infrastructure.

#### Business Resilience

- Improving business resilience and supporting the processes enabling business transactions.
- Assessing risk and protecting against unauthorized access for public facing business applications.
- Safeguarding personal and health information of City staff and the Public.
- Enhancing cyber forensic capabilities to investigate fraud, waste, theft, cyber breaches and violations.
- Remediating Auditor General Findings to resolve cyber recommendations.

## RECOMMENDATIONS

City Council approved the following recommendations:

1. City Council approve the 2022 Operating Budget of \$44.663 million gross, \$5.000 million revenue and \$39.663 million net for the following services:

**Service:**

	<b>Gross Expenditures (\$000s)</b>	<b>Revenue (\$000s)</b>	<b>Net Expenditures (\$000s)</b>
Cyber Security	\$44,662.5	\$5,000.0	\$39,662.5
<b>Total Program Budget</b>	<b>\$44,662.5</b>	<b>\$5,000.0</b>	<b>\$39,662.5</b>

2. City Council approve the 2022 staff complement for the Office of the CISO of 80.0 positions comprised entirely of operating positions.
3. City Council approve 2022 Capital Budget for the Office of the CISO with cash flows and future year commitments totaling \$32.270 million as detailed by project in [Appendix 6a](#).

# **2022 OPERATING BUDGET**

## 2022 OPERATING BUDGET OVERVIEW

Table 1: 2022 Operating Budget by Service

(In \$000s)	2020 Actual	2021 Budget	2021 Projection*	2022 Base Budget	2022 New / Enhanced	2022 Budget	Change v. 2021 Projection	
By Service	\$	\$	\$	\$	\$	\$	\$	%
<b>Revenues</b>								
Office of the CISO		382.5			5,000.0	5,000.0	5,000.0	N/A
<b>Total Revenues</b>		<b>382.5</b>			<b>5,000.0</b>	<b>5,000.0</b>	<b>5,000.0</b>	<b>N/A</b>
<b>Expenditures</b>								
Office of the CISO		28,437.7	17,138.6	26,732.0	17,930.5	44,662.5	27,523.8	160.6%
<b>Total Gross Expenditures</b>		<b>28,437.7</b>	<b>17,138.6</b>	<b>26,732.0</b>	<b>17,930.5</b>	<b>44,662.5</b>	<b>27,523.8</b>	<b>160.6%</b>
<b>Net Expenditures</b>		<b>28,055.2</b>	<b>17,138.6</b>	<b>26,732.0</b>	<b>12,930.5</b>	<b>39,662.5</b>	<b>22,523.8</b>	<b>131.4%</b>
<b>Approved Positions**</b>		<b>65.0</b>	<b>N/A</b>	<b>65.0</b>	<b>15.0</b>	<b>80.0</b>	<b>N/A</b>	<b>N/A</b>

Prior to 2021, Cyber was budgeted under Technology Services

\*2021 Projection based on Q3 Variance Report

\*\*YoY comparison based on approved positions

### COSTS TO MAINTAIN EXISTING SERVICES

**Total 2022 Base Budget** expenditures of \$26.732 million gross reflecting an increase of \$9.593 million in spending above 2021 projected year-end actuals (prior to enhancements), predominantly arising from:

- Delayed recruitment impacting 2021 projections, attributed to global cyber resource shortage and the COVID-19 pandemic;
- The full year impacts in the 2022 budget from the 23 new complement approved in 2021; and
- Procurement delays of large cyber initiatives due to delayed recruitment of resources.

### COSTS TO ENHANCE SERVICES

**New and Enhanced Service** expenditures of \$17.931 million gross, \$12.931 million net enabling:

- Increased City visibility into cyber threats;
- Ability to meet business needs for cyber modernization, business resilience and digitization of support services; and
- Increase of the City's cyber maturity level above desired target to a managed, measurable and controlled cyber practice.

### EQUITY IMPACTS OF BUDGET CHANGES

**No significant equity impacts:** The changes in the 2022 Operating Budget do not have any significant equity impacts.

**2022 OPERATING BUDGET KEY DRIVERS**

The 2022 Operating Budget for the Office of the CISO is \$27.524 million gross or 160.6% higher than the 2021 Projected Actuals. Table 2a below summarizes the changes by revenue and expenditure category for the 2022 Operating Budget, while Table 2b summarizes New and Enhanced requests

**Table 2a: 2022 Operating Budget by Revenue / Expenditure Category**

Category (In \$000s)	2019 Actual	2020 Actual	2021 Budget	2021 Projection*	2022 Budget	2022 Change from 2021 Projection	
	\$	\$	\$	\$	\$	\$	%
Contribution From Reserves/Reserve Funds			382.5		5,000.0	5,000.0	
<b>Total Revenues</b>			<b>382.5</b>		<b>5,000.0</b>	<b>5,000.0</b>	
Salaries and Benefits			10,177.2	7,818.7	13,868.3	6,049.5	77.4%
Materials & Supplies			23.4	0.0	39.2	39.1	N/A
Equipment			92.3	129.2	71.6	(57.5)	(44.5%)
Service and Rent			18,144.8	9,190.7	30,683.4	21,492.7	233.9%
<b>Total Gross Expenditures</b>			<b>28,437.7</b>	<b>17,138.6</b>	<b>44,662.5</b>	<b>27,523.8</b>	<b>160.6%</b>
<b>Net Expenditures</b>			<b>28,055.2</b>	<b>17,138.6</b>	<b>39,662.5</b>	<b>22,523.8</b>	<b>131.4%</b>

\*2021 Projection based on Q3 Variance Report

Prior to 2021, Cyber was budgeted under Technology Services

**Key Base Drivers:****Salaries & Benefits:**

Increase due to

- Delays in 2021 recruitment attributed to global cyber resource shortage and the COVID-19 pandemic; and
- 2022 full year impacts of the 23 complement approved by Council 2021.

**Services and Rents:**

- Increase mainly due to procurement delays of large cyber initiatives due to lack of resources.

**Table 2b: 2021 New / Enhanced**

New / Enhanced Request	2022				2023 Annualized Gross	Equity Impact	Supports Key Outcome / Priority Actions	
	Revenue	Gross	Net	Positions				
In \$ Thousands								
1	Business Resilience (Centralization)		1,343.6	1,343.6		763.4	No Impact	-Risk assessments on the City's business application -Embedded cyber controls in business applications to protect confidentiality of data
2	Cyber Foundation (Table Stakes)	5,000.0	8,250.0	3,250.0		10,464.5	No Impact	-Threat Detection Response -Endpoint Threat Detection & Response -Remediation of cyber audit findings -Centralization of cyber risks -Threat intelligence & Threat Hunting -Service Management
3	Cyber Practice Development (Additional complement)		3,394.6	3,394.6	15.0	4,589.8	No Impact	-Build out cyber foundation, support across all cyber domains
4	Digitization Support Services		4,942.2	4,942.2		8,213.0	No Impact	-Protection of virtualized technologies, services and business applications as the City is digitizing over 400+ services -Protection of digital identities ensuring the right users are accessing the right information -Centralized digital identities for the City's residents to deliver services efficiency, improve customer satisfaction and reduce cost (one resident = one ID)
Total New / Enhanced		5,000.0	17,930.5	12,930.5	15.0	24,030.7		

The 2022 Operating Budget includes a total net expenditure of \$12.931 million in investments to support priority actions as detailed in the table above.

The investments enhance the City's resilience to cyber risks in order to minimize the impact of a cyberattack resulting in potential financials loss, reputational damage, service disruption, legal liability and loss of life.

**Note:**

- For additional information on 2022 key cost drivers refer to [Appendix 4](#) for the 2022 New and Enhanced Service Priorities.

**2023 & 2024 OUTLOOKS****Table 3: 2023 and 2024 Outlooks**

(\$000s)	2021 Projection	2022 Budget	2023 Outlook	2024 Outlook
Revenues		5,000.0		
Gross Expenditures	17,138.6	44,662.5	50,786.1	53,241.3
<b>Net Expenditures</b>	<b>17,138.6</b>	<b>39,662.5</b>	<b>50,786.1</b>	<b>53,241.3</b>
<b>Approved Positions</b>	<b>N/A</b>	<b>80.0</b>	<b>80.0</b>	<b>77.0</b>

**Key drivers**

The 2023 Outlook with total gross expenditures of \$50.786 million reflects an anticipated \$6.124 million or 13.71 percent increase in gross expenditures above the 2022 Operating Budget; The 2024 Outlooks expects a further increase of \$2.455 million or 4.83 percent above 2023 gross expenditures.

These changes arise from the following:

**Impacts of 2022 decisions**

- Net operating impacts of \$11.124 million in 2023 (including Salaries & Benefits) for licensing of cyber initiatives to detect, protect and response to cyber threats.
- Net operating impacts of \$2.46 million in 2024 for licensing of cyber initiatives to detect, protect and response to cyber threats.

**Salaries and Benefits**

- Operating impacts of \$1.2 million in 2023 for the annualization of the additional 15 positions.
- No impacts in 2024

**Inflationary Impacts**

- Minimal operational impact for consumer price index increase on licensing costs.

**One-Time Funding Reversal**

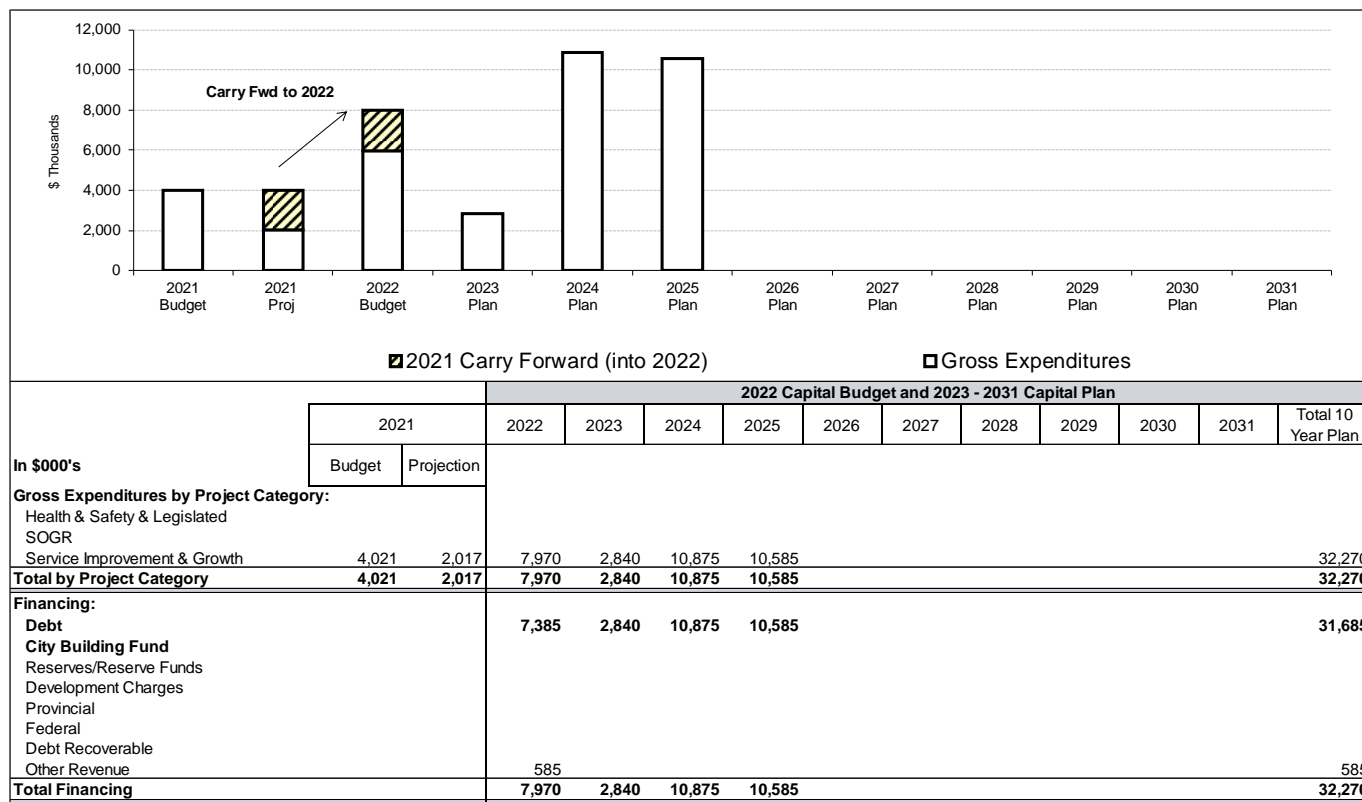
- Reversal of one-time funding for Cyber Foundation

# **2022 – 2031 CAPITAL BUDGET AND PLAN**

## 2022 – 2031 CAPITAL BUDGET & PLAN OVERVIEW

**Chart 1: 10-Year Capital Plan Overview**

(\$'000)



### Changes to Existing Projects

(\$6.136 Million)

The 2022-2031 Capital Budget and Plan reflects the following changes to existing projects over the nine common years (2022-2030):

- \$6.136 million in increased funding for the implementation and infrastructure for *Digitization Support Services*

### New Projects

(\$7.995 Million)


The 2022-2031 Capital Budget and Plan includes new projects. Key projects are as follows:

- Added capital funding towards Infrastructure and hardware for *Cyber Foundation*

#### Note:

For additional information, refer to [Appendix 6](#) for a more detailed listing of the 2022 and 2023-2031 Capital Budget & Plan by project; .

**2022 – 2031 CAPITAL BUDGET AND PLAN****\$32.3 Million 10-Year Gross Capital Program**


<b>Service Improvement, Enhancement and Growth</b>
<b>\$32.3M 100%</b>
<ul style="list-style-type: none"> <li>• MSSP Infrastructure</li> <li>• Digital Forensics</li> <li>• Infrastructure cost for new cyber initiatives to detect, protect and response to cyber threats.</li> <li>• Implementation cost for new cyber initiatives to detect, protect and response to cyber threats.</li> </ul>

\*Information above includes full project / sub-project 2022-2031 Budget and Plan cash flows. Does not break out the climate component costs separately

**How the Capital Program is Funded**

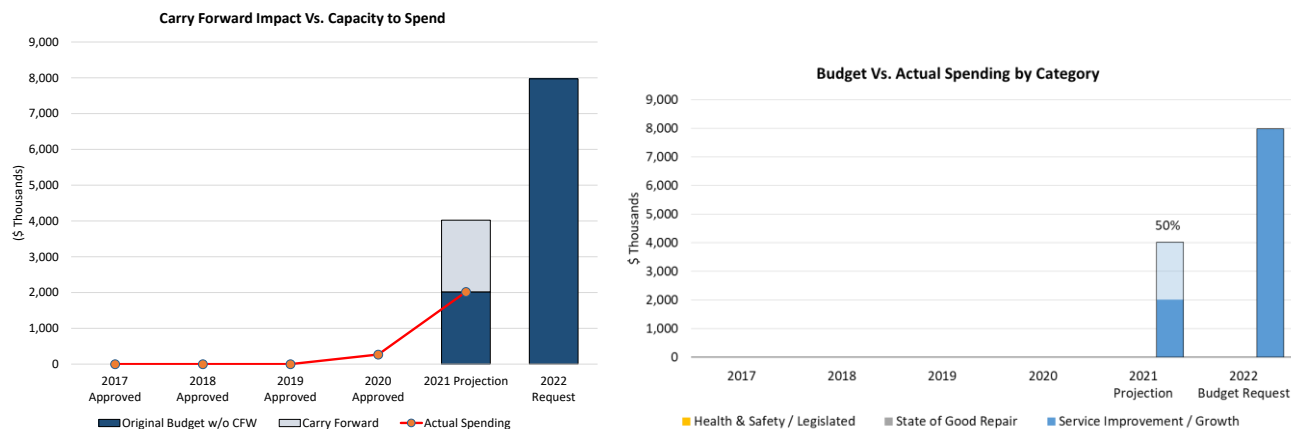
<b>City of Toronto</b>	
<b>\$32.3 M 100%</b>	
Debt	\$ 32.3 M

## CAPACITY TO SPEND REVIEW

The 10-Year Capital Plan has been developed with consideration of historical demonstrated ability to spend within any given year of the ten year capital plan. A review was undertaken to ensure budgets align with Office of the CISO's ability to spend and the market's capacity to deliver.

A key component in determining an appropriate level of annual cash flows includes historical capacity to spend reviews by project categories (Chart 2 below) as well as the level of projected 2021 underspending that will be carried forward into 2022 to complete capital work.

**Chart 2 – Capacity to Spend**



\*2020 budget and actuals reported in Technology Services Division

### Capacity to Spend Review Impact on the 10-Year Plan

Based on the review of historical capital spending constraints and a capacity to spend review, \$2.004 million in capital spending originally cash flowed in 2021 has been deferred to 2022. Adjustments to the Capital Plan are noted below:

- Deferral of \$17.553 million for the Cyber Command Centre to 2024.
- Increase of \$6.136 million Digitization Support Services to support the cyber modernization of the City's digital services.
- A total of \$7.995 million in Cyber Foundation includes \$1.419 million reallocation from Managed Security Services and Infrastructure Vulnerability Scanning.

**OPERATING IMPACT OF COMPLETED CAPITAL PROJECTS**

Approval of the 2022 Capital Budget will impact the 2023 Operating Budget by a total of \$6.050 million net arising from Cyber Foundation and the Digitization Support Services, as shown in Table 4 below.

**Table 4: Net Operating Impact Summary**  
(In \$000's)

Projects	2022 Budget		2023 Plan		2024 Plan		2025 Plan		2026 Plan		2022-2026		2022-2031	
	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions
<b>Previously Approved</b>														
N/A														
<b>Sub-Total: Previously Approved</b>														
<b>New Projects - 2022</b>														
Digitization Support Services	4,942.2		3,270.8		2,190.5						10,403.5		10,403.5	
Cyber Foundation	7,305.8		2,779.7		480.0		537.3				11,102.8		11,102.8	
<b>Sub-Total: New Projects - 2022</b>	<b>12,248.0</b>		<b>6,050.4</b>		<b>2,670.5</b>		<b>537.3</b>				<b>21,506.2</b>		<b>21,506.2</b>	
<b>New Projects - Future Years</b>														
N/A														
<b>Sub-Total: New Projects - Future Years</b>														
<b>Total (Net)</b>	<b>12,248.0</b>		<b>6,050.4</b>		<b>2,670.5</b>		<b>537.3</b>				<b>21,506.2</b>		<b>21,506.2</b>	

## New projects

- An aggregate total of \$21.506 million (including \$10.404 million for Digitization Support Services and \$11.103 million for Cyber Foundation) is required to implement and support new cyber initiatives to detect, protect and response to cyber threats.

# APPENDICES

## **Appendix 1**

### **COVID-19 Impact and Recovery**

**N/A**

## **Appendix 2**

### **2022 Balancing Actions**

**N/A**

## **Appendix 3**

### **Summary of 2022 Service Changes**

**N/A**

## **Appendix 4**

### **Summary of 2022 New / Enhanced Service Priorities Included in Budget**

## 2022 Operating Budget - Council Approved New and Enhanced Services Summary by Service (\$000's)

Form ID		Corporate Services  Program - Office of the Chief Information Security Officer	Adjustments				2023 Plan Net Change	2024 Plan Net Change																																																																													
Category	Equity Impact		Gross Expenditure	Revenue	Net	Approved Positions																																																																															
25187		Business Resilience (Centralization)																																																																																			
74	No Impact	<b>Description:</b>  Limited resources to provide support to City's divisions and Agencies & Corporation for the following cyber assessments:- Enhance the application security program- Conduct comprehensive risk assessments on business applications and assess embedded cyber controls in business applications- Provide cyber advisory services for enterprise applications- PCI risk assessments and threat risk assessment  <b>Service Level Impact:</b>  N/A  <b>Equity Statement:</b>  No Significant equity impacts: The changes in the Office of the CISO’ 2022 Operating Budget do not have any significant equity impacts.  <b>Service:</b> CY-Office of CISO  <table><tr><td>Staff Recommended Changes:</td><td>1,343.6</td><td>0.0</td><td>1,343.6</td><td>0.00</td><td>(580.3)</td><td>(290.6)</td></tr><tr><td>BC Recommended Changes:</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.0</td><td>0.0</td></tr><tr><td>EC Recommended Changes:</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.0</td><td>0.0</td></tr><tr><td>CC Recommended Changes:</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.0</td><td>0.0</td></tr><tr><td>Total Council Approved:</td><td>1,343.6</td><td>0.0</td><td>1,343.6</td><td>0.00</td><td>(580.3)</td><td>(290.6)</td></tr><tr><td colspan="7"><b>Staff Recommended:</b></td></tr><tr><td></td><td>1,343.6</td><td>0.0</td><td>1,343.6</td><td>0.00</td><td>(580.3)</td><td>(290.6)</td></tr><tr><td><b>Budget Committee Recommended:</b></td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.0</td><td>0.0</td></tr><tr><td><b>Executive Committee Recommended:</b></td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.0</td><td>0.0</td></tr><tr><td><b>City Council Approved:</b></td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.0</td><td>0.0</td></tr><tr><td><b>Council Approved New/Enhanced Services:</b></td><td>1,343.6</td><td>0.0</td><td>1,343.6</td><td>0.00</td><td>(580.3)</td><td>(290.6)</td></tr></table>							Staff Recommended Changes:	1,343.6	0.0	1,343.6	0.00	(580.3)	(290.6)	BC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0	EC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0	CC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0	Total Council Approved:	1,343.6	0.0	1,343.6	0.00	(580.3)	(290.6)	<b>Staff Recommended:</b>								1,343.6	0.0	1,343.6	0.00	(580.3)	(290.6)	<b>Budget Committee Recommended:</b>	0.0	0.0	0.0	0.00	0.0	0.0	<b>Executive Committee Recommended:</b>	0.0	0.0	0.0	0.00	0.0	0.0	<b>City Council Approved:</b>	0.0	0.0	0.0	0.00	0.0	0.0	<b>Council Approved New/Enhanced Services:</b>	1,343.6	0.0	1,343.6	0.00	(580.3)	(290.6)
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<b>Staff Recommended:</b>																																																																																					
	1,343.6	0.0	1,343.6	0.00	(580.3)	(290.6)																																																																															
<b>Budget Committee Recommended:</b>	0.0	0.0	0.0	0.00	0.0	0.0																																																																															
<b>Executive Committee Recommended:</b>	0.0	0.0	0.0	0.00	0.0	0.0																																																																															
<b>City Council Approved:</b>	0.0	0.0	0.0	0.00	0.0	0.0																																																																															
<b>Council Approved New/Enhanced Services:</b>	1,343.6	0.0	1,343.6	0.00	(580.3)	(290.6)																																																																															

25188		Cyber Foundation (Table Stakes)
74	No Impact	<b>Description:</b>

**Category:**

71 - Operating Impact of New Capital Projects      74 - New Services  
72 - Enhanced Services-Service Expansion      75 - New Revenues

## 2022 Operating Budget - Council Approved New and Enhanced Services Summary by Service (\$000's)

Form ID		Corporate Services	Adjustments				2023 Plan Net Change	2024 Plan Net Change
Category	Equity Impact		Gross Expenditure	Revenue	Net	Approved Positions		

The proposed changes will enhance the following cyber initiatives: - Cryptography & Encryption - Governance, Risk & Compliance - Network Threat Detection & Response - Threat Intelligence - Cyber Service Management. The proposed changes will also address the remediation of the outstanding audit findings, enhance executive cyber awareness training for the City's leadership team, develop cyber change management governance and cyber operations service management.

### Service Level Impact:

N/A

### Equity Statement:

No Significant equity impacts: The changes in the Office of the CISO' 2022 Operating Budget do not have any significant equity impacts.

### Service: CY-Office of CISO

Staff Recommended Changes:	8,250.0	5,000.0	3,250.0	0.00	7,214.5	480.0
BC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
EC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
CC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
Total Council Approved:	8,250.0	5,000.0	3,250.0	0.00	7,214.5	480.0
<b>Staff Recommended:</b>	<b>8,250.0</b>	<b>5,000.0</b>	<b>3,250.0</b>	<b>0.00</b>	<b>7,214.5</b>	<b>480.0</b>
<b>Budget Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Executive Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>City Council Approved:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Council Approved New/Enhanced Services:</b>	<b>8,250.0</b>	<b>5,000.0</b>	<b>3,250.0</b>	<b>0.00</b>	<b>7,214.5</b>	<b>480.0</b>

25189	Cyber Practice Development (Additional complement)
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74	No Impact	<b>Description:</b>
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Additional 15 complement to build out cyber foundation and provide support across all cyber domains for all the City's divisions and its Agencies & Corporations.

## 2022 Operating Budget - Council Approved New and Enhanced Services Summary by Service (\$000's)

Form ID		Corporate Services	Adjustments				2023 Plan Net Change	2024 Plan Net Change
Category	Equity Impact		Gross Expenditure	Revenue	Net	Approved Positions		

### Service Level Impact:

N/A

### Equity Statement:

No Significant equity impacts: The changes in the Office of the CISO' 2022 Operating Budget do not have any significant equity impacts.

### Service: CY-Office of CISO

Staff Recommended Changes:	3,394.6	0.0	3,394.6	15.00	1,195.2	0.0
BC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
EC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
CC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
Total Council Approved:	3,394.6	0.0	3,394.6	15.00	1,195.2	0.0
<b>Staff Recommended:</b>	<b>3,394.6</b>	<b>0.0</b>	<b>3,394.6</b>	<b>15.00</b>	<b>1,195.2</b>	<b>0.0</b>
<b>Budget Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Executive Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>City Council Approved:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Council Approved New/Enhanced Services:</b>	<b>3,394.6</b>	<b>0.0</b>	<b>3,394.6</b>	<b>15.00</b>	<b>1,195.2</b>	<b>0.0</b>

25190
74 No Impact

### Digitization Support Services

### Description:

Enhance the following cyber initiatives: - Cloud protection and multi-factor authentication solution across the City and its Agencies & Corporations - Conduct comprehensive risk assessment on Election technologies -(i.e. 2022 municipal election) - Enhance existing Identity & Access Management solution for the City - Initiate digital identities for the public (strategy, roadmap and pilot in 2022 with gradual implementation in future years) - Conduct Privacy Impact Assessment, Threat Risk Assessments and Operational Technology Assessments on existing initiatives

### Service Level Impact:

N/A

### Category:

71 - Operating Impact of New Capital Projects      74 - New Services  
72 - Enhanced Services-Service Expansion      75 - New Revenues

## 2022 Operating Budget - Council Approved New and Enhanced Services Summary by Service (\$000's)

Form ID		Corporate Services	Adjustments				2023 Plan Net Change	2024 Plan Net Change
Category	Equity Impact		Gross Expenditure	Revenue	Net	Approved Positions		

### Equity Statement:

No Significant equity impacts: The changes in the Office of the CISO' 2022 Operating Budget do not have any significant equity impacts.

### Service: CY-Office of CISO

Staff Recommended Changes:	4,942.2	0.0	4,942.2	0.00	3,270.8	2,190.5
BC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
EC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
CC Recommended Changes:	0.0	0.0	0.0	0.00	0.0	0.0
Total Council Approved:	4,942.2	0.0	4,942.2	0.00	3,270.8	2,190.5
<b>Staff Recommended:</b>	<b>4,942.2</b>	<b>0.0</b>	<b>4,942.2</b>	<b>0.00</b>	<b>3,270.8</b>	<b>2,190.5</b>
<b>Budget Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Executive Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>City Council Approved:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Council Approved New/Enhanced Services:</b>	<b>4,942.2</b>	<b>0.0</b>	<b>4,942.2</b>	<b>0.00</b>	<b>3,270.8</b>	<b>2,190.5</b>

25221	MSSP (Not Rec'd)
74	NA

### Description:

### Service Level Impact:

### Equity Statement:

<b>Staff Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>
<b>Budget Committee Recommended:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0.0</b>	<b>0.0</b>

### Category:

71 - Operating Impact of New Capital Projects      74 - New Services  
72 - Enhanced Services-Service Expansion      75 - New Revenues

## 2022 Operating Budget - Council Approved New and Enhanced Services Summary by Service (\$000's)

Form ID		Corporate Services	Adjustments				2023 Plan Net Change	2024 Plan Net Change
Category	Equity Impact		Gross Expenditure	Revenue	Net	Approved Positions		
		Program - Office of the Chief Information Security Officer						
		Executive Committee Recommended:	0.0	0.0	0.0	0.00	0.0	0.0
		City Council Approved:	0.0	0.0	0.0	0.00	0.0	0.0
		Council Approved New/Enhanced Services:	0.0	0.0	0.0	0.00	0.0	0.0

### Summary:

Staff Recommended:	17,930.5	5,000.0	12,930.5	15.00	11,100.2	2,379.9
Budget Committee Recommended:	0.0	0.0	0.0	0.00	0.0	0.0
Executive Committee Recommended:	0.0	0.0	0.0	0.00	0.0	0.0
City Council Approved:	0.0	0.0	0.0	0.00	0.0	0.0
Council Approved New/Enhanced Services:	17,930.5	5,000.0	12,930.5	15.00	11,100.2	2,379.9

### Category:

71 - Operating Impact of New Capital Projects  
72 - Enhanced Services-Service Expansion

74 - New Services  
75 - New Revenues

## **Appendix 5**

### **Summary of 2022 New / Enhanced Service Priorities Not Included in Budget**

**N/A**

## Appendix 6

### 2022 Capital Budget; 2023 - 2031 Capital Plan Including Carry Forward Funding

Project Code	(In \$000s)	2022 Budget	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	2030 Plan	2031 Plan	2022 - 2031 Total	Health & Safety & Legislated	SOG	Growth & Improved Service
CY001	Cyber Command Centre			8,777	8,777							17,554			17,554
CY002	Digitization Support Services	1,980	2,125	1,453	1,163							6,721			6,721
CY003	Cyber Foundation	5,990	715	645	645							7,995			7,995
	<b>Total Expenditures (including carry forward from 2021)</b>	<b>7,970</b>	<b>2,840</b>	<b>10,875</b>	<b>10,585</b>							<b>32,270</b>			<b>32,270</b>

\*Information above includes full project / sub-project 2022-2031 Budget and Plan cash flows. Does not break out the climate component costs separately

Appendix 6a

2022 Cash Flow and Future Year Commitments Including Carry Forward Funding

Project Code	(In \$000s)	2022 Budget	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	2030 Plan	2031 Plan	Total 2022 Cash Flow & FY Commits	Previously Approved	Change in Scope	New w/ Future Year
CY001	Cyber Command Centre			8,777	8,777							17,554	17,554		
CY002	Digitization Support Services	1,980	2,125	1,453	1,163							6,721	585	6,136	
CY003	Cyber Foundation	5,990	715	645	645							7,995			7,995

Appendix 6b

2023 - 2031 Capital Plan

N/A

## **Appendix 7**

### **Reporting on Major Capital Projects: Status Update**

**N/A**

## **Appendix 8**

### **Summary of Capital Needs Constraints**

**(In \$ Millions)**

**N/A**

## **Appendix 9**

### **2022 User Fee Changes**

**(Excludes User Fees Adjusted for Inflation)**

**N/A**

## Appendix 10

### Inflows and Outflows to/from Reserves and Reserve Funds

#### 2022 Operating Budget

##### Program Specific Reserve / Reserve Funds

N/A

##### Corporate Reserve / Reserve Funds

The 2022 Operating Budget includes a one-time draw of \$5.000 million (for one-time costs) from funds available and set aside in the Tax Stabilization Reserve.

### Inflows and Outflows to/from Reserves and Reserve Funds

#### 2022 – 2031 Capital Budget and Plan

##### Program Specific Reserve / Reserve Funds

N/A

##### Corporate Reserve / Reserve Funds

N/A

## Appendix 11

### Glossary

**Approved Position:** Permanent or temporary positions that support the delivery of City services and service levels as approved by Council.

**Actuals:** An actual financial amount paid (or received) for the delivery of City services (these exclude any commitments to be paid in the future).

**Capacity to Spend:** Ability to spend money along with the capacity to deliver projects as demonstrated by historic spending patterns and approved contractual obligations.

**Capital Budget:** A Capital Budget is the City's plan to acquire / build assets or extend the useful life of existing assets; an example of a capital expenditure is the construction of a new community centre.

**Capital Needs Constraints:** The capital needs that cannot be accommodated within the capital plan that the Division or Agency have the capacity to deliver.

**Complement:** Positions that support the delivery of City services and service levels as approved by Council.

**Efficiencies:** Reductions in the cost of delivering a service without a reduction in service level.

**New / Enhanced:** New and enhanced service changes resulting in an increase in service levels from what was previously approved by Council.

**Operating Budget:** An Operating Budget is the City's annual plan to provide services to the residents of Toronto; the budget includes all revenues and expenses needed to provided services; an example of an operating cost would be the cost to run the TTC subways.

**Operating Impact of Completed Capital Projects:** The additional expense (or savings) and positions needed to operate or maintain a new asset; an example would be the additional expense and staff needed to operate a recently completed community centre.

**Rate Supported Budget:** Budget fully funded by user fees such as Solid Waste, Toronto Water and Toronto Parking Authority

**State of Good Repair (SOGR):** The cost of maintaining assets to ensure they are able to support the delivery of City services and meet service outcomes

**Tax Supported Budget:** Budget funded by property taxes.

**User Fees:** Program generated fee and rental revenue for the use of its services (such as the TTC fare, ice rental fees and various City permits).