NRC-CNRC

Consolidated Financial Statements

National Research Council Canada

March 31, 2020

National Research Council Canada

Statement of Management Responsibility Including Internal Control over Financial Reporting

Responsibility for the integrity and objectivity of the accompanying consolidated financial statements for the year ended March 31, 2020, and all information contained in these consolidated statements rests with the management of the National Research Council Canada (NRC). These consolidated financial statements have been prepared by management using the Government's accounting policies, which are based on Canadian public sector accounting standards.

Management is responsible for the integrity and objectivity of the information in these consolidated financial statements. Some of the information in the consolidated financial statements is based on management's best estimates and judgment, and gives due consideration to materiality. To fulfil its accounting and reporting responsibilities, management maintains a set of accounts that provides a centralized record of NRC's financial transactions. Financial information submitted in the preparation of the Public Accounts of Canada, and included in NRC's Departmental Results Report, is consistent with these consolidated financial statements.

Management is also responsible for maintaining an effective system of internal control over financial reporting (ICFR) designed to provide reasonable assurance that financial information is reliable, that assets are safeguarded and that transactions are properly authorized and recorded in accordance with the *Financial Administration Act* and other applicable legislation, regulations, authorities and policies.

Management seeks to ensure the objectivity and integrity of data in its consolidated financial statements through careful selection, training and development of qualified staff; through organizational arrangements that provide appropriate divisions of responsibility; through communication programs aimed at ensuring that regulations, policies, standards and managerial authorities are understood throughout NRC; and through conducting an annual assessment of the effectiveness of the system of ICFR.

The system of ICFR is designed to mitigate risks to a reasonable level based on an ongoing process to identify key risks, to assess the effectiveness of associated key controls, and to make any necessary adjustments.

A risk-based assessment of the system of ICFR for the year ended March 31, 2020 was completed in accordance with the Treasury Board *Policy on Financial Management* and the results and action plans are summarized in the annex.

The effectiveness and adequacy of NRC's system of internal control is reviewed by the work of Internal Audit and Financial Monitoring staff, who conduct periodic audits of different areas of NRC's operations, and by the NRC Departmental Audit Committee, which oversees management's responsibilities for maintaining adequate control systems and the quality of financial reporting, and which recommends the consolidated financial statements to the President.

Ernst & Young LLP has expressed an opinion on the fair presentation of the consolidated financial statements of NRC for the year ended March 31, 2020, which does not include an audit opinion on the annual assessment of the effectiveness of NRC's ICFR.

Iain Stewart President Dale MacMillan CPA, CGA
Vice-President, Corporate Services
and Chief Financial Officer

Ottawa, Canada July 17, 2020

Independent auditor's report

To the National Research Council Canada

Opinion

We have audited the consolidated financial statements of the **National Research Council Canada** ["NRC"], which comprise the consolidated statement of financial position as at March 31, 2020, the consolidated statement of operations and departmental net financial position, the consolidated statement of change in departmental net financial assets and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of NRC as at March 31, 2020, and its consolidated results of operations, and its consolidated cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of NRC in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing NRC's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate NRC or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the NRC's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to
 fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is
 sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement
 resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional
 omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of NRC's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on NRC's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause NRC to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the NRC to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Ottawa, Canada July 17, 2020 Chartered Professional Accountants Licensed Public Accountants

Ernst & young LLP

National Research Council Canada Consolidated Statement of Financial Position As at March 31

(in thousands of dollars)	2020	2019
The second of th		
Financial Assets	050 704	222 627
Due from Consolidated Revenue Fund	252,791	333,687
Accounts receivable (Note 4)	35,871	35,955
Inventory for resale	6,780	6,500
Cash and investments (Note 5)	10,766	16,682
Total gross financial assets	306,208	392,824
Financial assets held on behalf of Government		
Accounts receivable (Note 4)	(52)	(39)
Total financial assets held on behalf of Government	(52)	(39)
Total net financial assets	306,156	392,785
Liabilities		
Accounts payable and accrued liabilities (Note 6)	164,720	228,865
Vacation pay and compensatory leave	35,936	30,911
Lease inducements	25,110	27,658
Deferred revenues (Note 7)	11,312	11,140
Lease obligation for tangible capital assets (Note 8)	43	343
Employee future benefits (Note 9)	44,205	45,596
Total liabilities	281,326	344,513
Departmental net financial assets	24,830	48,272
Now Swampial accepts		
Non-financial assets	14,473	15,215
Prepaid expenses	5,467	5,313
Endowment fund investments (Note 10) Inventory for consumption	6,331	7,217
Tangible capital assets (Note 11)	701,495	664,569
Total non-financial assets	727,766	692,314
Departmental net financial position	752,596	740,586
Departmental net imancial position	102,000	,

Contractual rights (Note 12) Contractual obligations (Note 13) Environmental liabilities (Note 14) Contingent liabilities (Note 15)

The accompanying notes form an integral part of these consolidated financial statements.

lain Stewart President

and Chief Financial Officer

Dale MacMillan, CPA, CGA
Vice-President, Corporate Services

Ottawa, Canada July 17, 2020

National Research Council Canada Consolidated Statement of Operations and Departmental Net Financial Position For the Year Ended March 31

(in thousands of dollars)	2020	2020	2019
	Planned		
_	Results		
Expenses		4 000 405	007.044
Science and Innovation	1,001,114	1,062,165	967,044
Internal Services	212,727	162,370	156,644
Total expenses	1,213,841	1,224,535	1,123,688
Revenues			
Technical services	94,978	94,163	98,806
Research services	64,674	59,901	64,264
Intellectual property, royalties and fees	5,637	8,125	6,115
Grants and contributions	11,177	2,729	8,569
Rentals	9,311	7,210	7,290
Sales of goods and information products	5,238	3,145	5,420
Lease inducement revenues	2,548	2,548	2,548
Other	-	5,677	5,217
Revenues earned on behalf of Government	(135)	(64)	(44)
Total revenues	193,428	183,434	198,185
Net cost of operations before government funding and transfers	1,020,413	1,041,101	925,503
Government funding and transfers			
Net cash provided by Government	1,020,678	1,094,380	897,017
Change in due from Consolidated Revenue Fund Services provided without charge by other government departments	-	(80,896)	30,141
and agencies (Note 16a)	58,368	39,627	34,772
Transfers from other government departments (Note 17)	-	-	(4)
Net revenues from operations after government funding and			
transfers	58,633	12,010	36,423
Departmental net financial position – Beginning of year	740,586	740,586	704,163
Departmental net financial position – End of year	799,219	752,596	740,586

Segmented information (Note 18)

The accompanying notes form an integral part of these consolidated financial statements.

National Research Council Canada Consolidated Statement of Change in Departmental Net Financial Assets For the Year Ended March 31

(in thousands of dollars)	2020 2020 Planned Results		Planned		2019
Net revenues from operations after government funding and transfers	58,633	12,010	36,423		
Change due to tangible capital assets Acquisition of tangible capital assets Amortization of tangible capital assets Proceeds from disposal of tangible capital assets Net loss on disposal of tangible capital assets including adjustments Transfers from other government departments (Note 17) Other adjustments Total change due to tangible capital assets	(117,041) 50,000 - - - - - (67,041)	(91,673) 51,825 424 1,394 - 1,104 (36,926)	(89,997) 51,505 696 196 4 (467) (38,063)		
Change due to inventory for consumption	-	886	(470)		
Change due to endowment fund investments	-	(154)	(54)		
Change due to prepaid expenses	-	742	518		
Net change in departmental net financial assets	(8,408)	(23,442)	(1,646)		
Departmental net financial assets – Beginning of year	48,272	48,272	49,918		
Departmental net financial assets – End of year	39,864	24,830	48,272		

The accompanying notes form an integral part of these consolidated financial statements.

National Research Council Canada Consolidated Statement of Cash Flows For the Year Ended March 31

(in thousands of dollars)	2020	2019
Operating activities		
Net cost of operations before government funding and transfers Non-cash items:	1,041,101	925,503
Amortization of tangible capital assets	(51,825)	(51,505)
Net loss on disposal of tangible capital assets	(1,394)	(196)
Services provided without charge by other government		
departments and agencies (Note 16a)	(39,627)	(34,772)
Other adjustments to tangible capital assets	(1,104)	467
Variations in Consolidated Statement of Financial Position:		
Increase (decrease) in accounts receivable	(97)	(6,671)
Increase (decrease) in inventory for resale	280	360
Increase (decrease) in prepaid expenses	(742)	(518)
Increase (decrease) in inventory for consumption	(886)	470
Decrease (increase) in accounts payable and accrued liabilities	64,145	(31,810)
Decrease (increase) in vacation pay and compensatory leave	(5,025)	(1,165)
Decrease (increase) in lease inducements	2,548	2,548
Decrease (increase) in deferred revenue	(172)	(2,001)
Decrease (increase) in lease obligation for tangible capital assets	-	(49)
Decrease (increase) in employee future benefits	1,391	1,040
Cash used in operating activities	1,008,593	801,701
Capital investing activities		
Acquisitions of tangible capital assets	91,673	89,997
Proceeds from disposal of tangible capital assets	(424)	(696)
Cash used in capital investing activities	91,249	89,301
Investing activities		
Income from endowment fund investments	154	154
Awards granted from endowment fund	-	(100)
Increase (decrease) in CFHT and TIO cash and investments	(5,916)	5,536
Cash used in (provided by) investing activities	(5,762)	5,590
Financing activity		
Lease payments for tangible capital assets	300	425
Cash used in financing activity	300	425
Net cash provided by Government of Canada	1,094,380	897,017

The accompanying notes form an integral part of these consolidated financial statements.

National Research Council Canada Notes to Consolidated Financial Statements

For the Year Ended March 31, 2020

1. Authority and Objectives

The National Research Council is the Government of Canada's largest science and research organization and exists under the *National Research Council Act* (NRC Act). The NRC is a departmental corporation named in Schedule II of the *Financial Administration Act*. The mission of NRC is to have an impact by advancing knowledge, applying leading-edge technologies, and working with other innovators to find creative, relevant and sustainable solutions to Canada's current and future economic, social and environmental challenges.

In delivering its mandate, the NRC reports under the Core Responsibility Science and Innovation, which is to grow and enhance the prosperity of Canada through: undertaking, assisting and promoting innovation-driven research and development; advancing fundamental science and Canada's global research excellence; providing government, business and research communities with access to scientific and technological infrastructure, services and information; and supporting Canada's skilled workforce and capabilities in science and innovation.

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct services that support program delivery in the organization, regardless of the Internal Services delivery model in a department. These services are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; and Acquisition Management Services.

2. Summary of Significant Accounting Policies

These consolidated financial statements have been prepared using the Government's accounting policies stated below, which are based on Canadian public sector accounting standards. The presentation and results using the stated accounting policies do not result in any significant differences from Canadian public sector accounting standards.

Significant accounting policies are as follows:

a) Parliamentary authorities

NRC is financed mainly by the Government of Canada through Parliamentary authorities. Financial reporting of authorities provided to NRC do not parallel financial reporting according to generally accepted accounting principles since authorities are primarily based on cash flow requirements. Consequently, items recognized in the Consolidated Statement of Operations and Departmental Net Financial Position and in the Consolidated Statement of Financial Position are not necessarily the same as those provided through authorities from Parliament. Note 3 provides a reconciliation between the bases of reporting. The planned results amounts in the "Expenses" and "Revenues" sections of the Consolidated Statement of Operations and Departmental Net Financial Position are the amounts reported in the Consolidated Future-oriented Statement of Operations included in the 2019-20 Departmental Plan. The planned results amounts in the "Government funding and transfers" section of the Consolidated Statement of Operations and Departmental Net Financial Position and the Consolidated Statement of Change in Departmental Net Financial Assets were prepared for internal management purposes and have not been previously published.

b) Consolidation

These consolidated financial statements include both NRC and its portion of the accounts for organizations for which it has consolidated operations between January 1 and December 31, 2019. These organizations include the Canada-France-Hawaii Telescope Corporation (CFHT) and the TMT International Observatory, LLC (TIO). The NRC relationship with CFHT and TIO meets the definition of a government partnership under Canadian public sector accounting standards, which requires that its results be proportionally consolidated within those of NRC. All inter-organizational balances and transactions are eliminated as part of the consolidation process. CFHT and TIO have audited financial statements as at December 31, 2019 that have been proportionally consolidated with NRC's March 31, 2020 financial statements.

c) Net cash provided by Government

NRC operates within the Consolidated Revenue Fund (CRF), which is administered by the Receiver General for Canada. All cash received by NRC is deposited to the CRF and all cash disbursements made by NRC are paid from the CRF. The net cash provided by Government is the difference between all cash receipts and all cash disbursements including transactions between departments (including agencies) of the Government.

d) Amounts due from the CRF

Amounts due from the CRF are the result of timing differences at year-end between when a transaction affects authorities and when it is processed through the CRF. Amounts due from the CRF represent the net amount of cash that NRC is entitled to draw from the CRF without further authorities to discharge its liabilities.

e) Revenues

Revenues are recognized in the year in which the underlying transaction or event occurred that gave rise to revenues as follows:

- Research and technical services: Revenues are recognized as services are provided based on percentage of completion.
- Licences and fees for intellectual property: Revenues are recognized at the point of time when the customer has a right to use NRC's intellectual property and the performance obligation is satisfied.
- Royalties generated from usage or based on customer's sales from licences: Revenues are recognized over the licence period as performance is satisfied and the right to payment is enforceable.
- Sales of goods and information products: Revenues are recognized when goods or information products are delivered to the client.
- Rentals: Revenues are recognized in the period to which the lease or use of property relates.
- Grants and contributions: Revenues are recognized when the transfer payment is authorized
 and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an
 obligation that meets the definition of a liability.

Funds received for which NRC has an obligation to other parties for the provision of goods, services or the use of assets in the future are recorded as deferred revenues.

Receipts are deposited to the CRF. Under the NRC Act, money received by NRC through the conduct of its operations is respendable in the current or in subsequent years.

Revenues that are non-respendable are not available to discharge NRC's liabilities. While the President of NRC is expected to maintain accounting control, he has no authority regarding the disposition of non-respendable revenues. As a result, non-respendable revenues are considered to be earned on behalf of the Government of Canada and are therefore presented as a reduction of NRC's gross revenues.

f) Expenses

- Expenses are recorded on the accrual basis.
- Contributions are recognized in the year in which the recipient has met the eligibility criteria or fulfilled the terms of a contractual transfer agreement, provided that the transfer is authorized and a reasonable estimate can be made.
- Grants are recognized in the year in which the conditions for payment are met. In the case of
 grants that do not form part of an existing program, the expense is recognized when the
 Government announces a decision to make a non-recurring transfer, provided the enabling
 legislation or authorization for payment receives parliamentary approval prior to the
 completion of the consolidated financial statements.
- Vacation pay and compensatory leave are accrued as the benefits are earned by employees under their respective terms of employment.
- Services provided without charge by other government departments and agencies for accommodation, employer contributions to the health and dental insurance plans and legal services workers' compensation are recorded as operating expenses at their estimated cost, when estimable.

g) Employee future benefits

i) Pension benefits

Eligible employees participate in the Public Service Pension Plan (the Plan), a multi-employer pension plan administered by the Government of Canada. NRC's contributions to the Plan are charged to expenses in the year incurred and represent NRC's total obligation to the Plan. NRC's responsibility with regard to the Plan is limited to its contributions. Actuarial surpluses or deficiencies are recognized in the financial statements of the Government of Canada, as the Plan's sponsor.

ii) Severance benefits

Employees entitled to severance benefits under labour contracts or conditions of employment earn these benefits as services necessary to earn them are rendered. The obligation relating to the benefits earned by employees is derived from an actuarial valuation specific to NRC.

iii) Sick leave benefits

NRC employees are eligible to accumulate sick leave until termination of employment. Unused sick leave is not eligible for payment on retirement or termination, nor can it be used as vacation. All sick leave is an accumulating non-vesting benefit. A liability is recorded for sick leave balances expected to be taken in excess of future allotments. The cost of sick leave as well as the present value of the obligation is determined using an actuarial valuation. Any gains and losses are recognized in net results in the period in which they arise.

h) Lease inducements

Lease inducements represent incentives received by NRC to enter into lease agreements for property at a nominal cost of one dollar. Lease inducements are deferred and amortized on the same basis as the related tangible capital assets.

i) Accounts receivable

Accounts receivable are stated at the lower of cost and net recoverable value. A valuation allowance is recorded for receivables where recovery is considered uncertain.

j) Contingent liabilities

Contingent liabilities are potential liabilities, which may become actual liabilities when one or more future events occur or fail to occur. To the extent that the future event is likely to occur or fail to occur, and a reasonable estimate of the loss can be made, an estimated liability is accrued and an expense recorded. If the likelihood is not determinable or an amount cannot be reasonably estimated, the contingency is disclosed in the notes to the consolidated financial statements.

k) Environmental liabilities

Environmental liabilities consist of estimated costs related to the remediation of contaminated sites as well as estimated costs related to obligations associated with the retirement of tangible capital assets and other environmental liabilities.

i) Contaminated sites

A liability for remediation of contaminated sites is recognized when all of the following criteria are satisfied:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- NRC is directly responsible or accepts responsibility;
- NRC expects that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.

The liability reflects NRC's best estimate of the amount required to remediate the sites to the current minimum standard for their use prior to contamination. When the cash flows required to settle or otherwise extinguish a liability are expected to occur over extended future periods, a present value technique is used. The discount rate applied is taken from the Government's CRF monthly lending rates for periods of one year and over. The discount rates used are based on the term rate associated with the estimated number of years to complete remediation.

ii) Asset retirement obligations

A liability for an asset retirement obligation is recognized when all of the following criteria are satisfied:

- there is an agreement, contract, legislation, or a constructive or equitable obligation that obligates NRC to incur retirement costs in relation to a tangible capital asset;
- the past event or transaction giving rise to the retirement liability has occurred;
- it is expected that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.

These costs are normally capitalized and amortized over the asset's estimated useful life based on NRC's best estimates of the cost to retire the tangible capital asset. The liability reflects the present value of estimated cash flows required to retire the assets where amounts can be reasonably estimated and is expected to be settled as the related sites, facilities or assets are removed from service.

The recorded environmental liabilities are adjusted each year, as required, for present value adjustments, inflation, new obligations, changes in management estimates and actual costs incurred.

If the likelihood of NRC's responsibility is not determinable, a contingent liability is disclosed in the notes to the consolidated financial statements. If measurement uncertainty exists, it is also disclosed in the notes to the consolidated financial statements.

I) Inventory

Inventory consists of parts, materials and supplies held for future program delivery as well as inventory for resale. Inventory for resale is recorded at the lower of cost, using the average cost method, or net realizable value. Inventory for consumption is recorded at cost using the average cost method.

m) Equity investments

Equity investments include shares in public and privately held companies. Equity investments are typically obtained as a result of debt settlement negotiations or as a result of non-monetary transactions (where financial assistance at better-than-market conditions was provided to firms through access to intellectual property, equipment and incubation space in laboratories). If the estimates of the non-monetary transactions cannot be determined, the equity investments are initially recorded at a nominal value. Otherwise they are initially recorded at fair value based on market prices. If the fair value of equity investments becomes lower than the book value and this decline in value is considered to be other than temporary, the equity investments are written down to fair value.

n) Endowment fund investments

Endowments consist of donations subject to externally imposed restrictions stipulating that the resources be maintained permanently by NRC. Income from the endowment fund investments may only be used for the purposes established by the donors.

Funds received for endowments are invested in bonds and other low-risk instruments and are carried at amortized cost. Discounts and premiums arising on the purchase of these investments are amortized over the term of the investments.

o) Foreign currency transactions

Transactions involving foreign currencies are translated into Canadian dollar equivalents using rates of exchange in effect at the time of those transactions. Monetary assets and liabilities denominated in a foreign currency and CFHT and TIO assets and liabilities are translated into Canadian dollars using the rate of exchange in effect at year-end. Gains and losses resulting from foreign currency transactions are included in the applicable line on the Consolidated Statement of Operations and Departmental Net Financial Position according to the activities to which they relate. Net gains and losses relating to the sale of goods or services denominated in a foreign currency are included in revenues. Net gains and losses relating to the purchase of goods or services denominated in a foreign currency are included in expenses. Contractual obligations may contain foreign currencies that are translated into Canadian dollar equivalents using the rate of exchange in effect at March 31, 2020. CFHT and TIO revenues and expenses are translated into Canadian dollar equivalents using the average rate during the fiscal year.

p) Tangible capital assets

All tangible capital assets and leasehold improvements having an initial cost of \$10,000 or more are recorded at their acquisition cost. Contributed tangible capital assets are recorded at fair value at the date of contribution. NRC does not capitalize intangibles, works of art and historical treasures that have cultural, aesthetic or historical value. Assets acquired under tangible capital leases are initially recorded at the lower of the present value of the minimum lease payments at the inception of the lease or fair value. Tangible capital assets held for sale are recorded at the lower of their carrying value or fair value less cost to sell and no amortization is recorded once the tangible capital asset is deemed held for sale.

Amortization of tangible capital assets is calculated on a straight-line basis over the estimated useful life of the asset as follows:

Asset Class	Amortization Period
Land	Not applicable
Buildings and facilities	25 years
Works and infrastructure	25 - 40 years
Machinery, equipment and furniture	10 years
Informatics equipment	5 years
Informatics software	5 years
Vehicles	7 years
Aircraft	15 - 30 years
Leasehold improvements	Lesser of the remaining term of the lease or
	useful life of the improvement
Leased tangible capital assets	In accordance with the asset class

Assets under construction are recorded in the applicable capital asset class in the year that they become available for use and are not amortized until they become available for use.

Where NRC enters into land leases at a nominal value, the transaction is considered as a non-monetary transaction and is recorded at fair value. If the fair value cannot be reasonably determined, the amount of the transaction is recorded at a nominal value.

The tangible capital assets consolidated from CFHT are stated at cost. Amortization is calculated on the straight-line method over the estimated useful lives of the tangible capital assets ranging from 4 to 50 years.

The tangible capital assets consolidated from TIO are stated at cost. Amortization is calculated on the straight-line method over the estimated useful lives of the tangible capital assets ranging from 3 to 10 years.

q) Measurement uncertainty

The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses reported in the consolidated financial statements. At the time of preparation of these consolidated financial statements, management believes the estimates and assumptions to be reasonable. The most significant items where estimates are used are percentage of completion on revenues from the provision of services, contingent liabilities, remediation liabilities, asset retirement obligations, the liability for employee severance benefits, sick leave benefits, the allowance for doubtful accounts, the fair value of non-monetary transactions related to leased tangible capital assets and the useful life of tangible capital assets. Actual results could significantly differ from those estimated. Management's estimates are reviewed periodically and, as adjustments become necessary, they are recorded in the consolidated financial statements in the year they become known.

Standards effective for fiscal years beginning on or after April 1, 2022

[i] PS 1201 Financial Statement Presentation ("PS 1201") was amended to conform to PS 3450 Financial Instruments ("PS 3450"), and requires a new statement of remeasurement gains and losses separate from the statement of operations. Included in this new statement are the unrealized gains and losses arising from the remeasurement of financial instruments and items denominated in foreign currencies, as well as the government's proportionate share of other comprehensive income that arises when a government includes the results of government business enterprises and partnerships.

[ii] PS 3401 Portfolio Investments ("PS 3401") has removed the distinction between temporary and portfolio investments. This section was amended to conform to PS 3450, and now includes pooled investments in its scope. Upon adoption of PS 3450 and PS 3041, PS 3030 Temporary Investments ("PS 3030") will no longer apply.

[iii] PS 2601 Foreign Currency Translation ("PS 2601") requires exchange rates to be adjusted to the rate in effect at the financial statement date for monetary assets and liabilities denominated in foreign currency and non-monetary items included in the fair value category. Unrealized gains and losses are to be presented in the statement of remeasurement gains and losses. Gains and losses on long-term monetary assets and liabilities are amortized over the remaining term of the item.

[iv] PS 3450 Financial Instruments ("PS 3450") establishes recognition, measurement, and disclosure requirements for derivative and non-derivative financial instruments. The standard requires fair value measurement of derivatives and equity instruments that are quoted in an active market; all other financial instruments can be measured at cost/amortized cost or fair value at the election of the government. Unrealized gains and losses are presented in a new statement of remeasurement gains and losses. There is the requirement to disclose the nature and extent of risks arising from financial instruments and clarification is given for the de-recognition of financial liabilities.

[v] PS 3280 Asset Retirement Obligations ("PS 3280") requires entities to record asset retirement obligations. An asset retirement obligation is a legal obligation associated with the retirement of a tangible capital asset. Asset retirement costs associated with a tangible capital asset controlled by the entity increase the carrying amount of the related tangible capital asset and are expensed in a rational and systematic manner. Asset retirement costs associated with an asset no longer in

productive use are expensed. Subsequent measurement of the liability can result in either a change in the carrying amount of the related tangible capital asset, or an expense, depending on the nature of the re-measurement and whether the asset remains in productive use. This new section will be effective for fiscal years beginning on or after April 1, 2021. Earlier adoption is permitted.

Standards effective for fiscal years beginning on or after April 1, 2023

PS 3400 Revenue ("PS 3400") was recently issued and proposes a framework that includes two categories of revenue — exchange transactions or unilateral transactions. Revenue from an exchange transaction is recognized when the public sector entity has satisfied the performance obligation(s). If no performance obligation is present, it would be unilateral revenues. Unilateral revenues are recognized when a public sector entity has the authority to claim or retain an inflow of economic resources and a past event gives rise to a claim on economic resources. This new section will be effective for fiscal years beginning on or after April 1, 2022. Earlier adoption is permitted.

NRC continues to assess the impacts of the above standards. While the timing of standards adoption may vary, certain standards must be adopted concurrently. The requirements in PS 1201, PS 3450, PS 2601 and PS 3401 must be implemented at the same time.

3. Parliamentary Authorities

NRC receives most of its funding through annual parliamentary authorities. Items recognized in the Consolidated Statement of Operations and the Departmental Net Financial Position and the Consolidated Statement of Financial Position in one year may be funded through parliamentary authorities in prior, current or future years. Accordingly, NRC has different net results of operations for the year on a government funding basis than on an accrual accounting basis. The differences are reconciled in the following tables:

a) Reconciliation of net cost of operations to current year authorities used

(in thousands of dollars)	2020	2019
Net cost of operations before government funding and transfers	1,041,101	925,503
Adjustments for items affecting net cost of operations but not affecting authorities:		
Revenues	183,434	198,185
Amortization of tangible capital assets	(51,825)	(51,505)
Services provided without charge by other government departments and	(0.,0=0)	(51,555)
agencies (Note 16a)	(39,627)	(34,772)
Decrease (increase) in salary accrual	6,021	`16,670 [′]
Decrease (increase) in employee future benefits	1,391	1,040
Refund of previous years' expenditures	1,284	5,243
Other decrease (increase)	87	(712)
Bad debt expense	(1,163)	(876)
Loss on disposal of tangible capital assets	(1,394)	(196)
Decrease (Increase) in vacation pay and compensatory leave	(5,025)	(1,165)
Decrease (increase) in remediation liabilities (Note 6)	1,100	(234)
Portions of accounts of CFHT and TIO (Note 16c and 16d)	(3,135)	4,068
Total items affecting net cost of operations but not affecting		
authorities	91,148	135,746
Adjustments for items not affecting net cost of operations		
but affecting authorities:		
Acquisitions of tangible capital assets and additions to assets under		
construction	83,401	83,267
Increase (decrease) in prepaid expenses	(742)	(518)
Increase (decrease) in inventory	(606)	830
Decrease (increase) in lease obligations for tangible capital assets	300	376
Total items not affecting net cost of operations		
but affecting authorities	82,353	83,955
Current year authorities used	1,214,602	1,145,204

b) Authorities provided and used

(in thousands of dollars)	2020	2019
Authorities provided:		
Vote 1 – Operating expenditures	472,801	461,018
Vote 5 – Capital expenditures	59,914	81,657
Vote 10 – Grants and contributions	464,166	517,708
Statutory amounts:		
Revenues pursuant to paragraph 5(1)(e) of the National Research		
Council Act	305,090	325,009
Contributions to employee benefit plans	63,672	59,717
Proceeds from the disposal of surplus Crown assets	948	718
Collection agency fees	1	1
Loss on foreign exchange	-	-
Less:		
Revenues available for use in future years	(106,920)	(129,745)
Lapsed authorities:		
Frozen allotments – Operating	-	(809)
Frozen allotments – Grants and contributions	(26,291)	(111,634)
Frozen allotments – Capital	(1,052)	-
Unexpended authorities – Grants and contributions	(2,650)	(16,856)
Unexpended authorities – Operating	(7,238)	(21,634)
Unexpended authorities – Capital	(7,839)	(19,946)
Current year authorities used	1,214,602	1,145,204

4. Accounts Receivable

The following table presents details of NRC's accounts receivable balances:

(in thousands of dollars)	2020	2019
Receivables from external parties	30,995	31,445
Receivables from Canada Revenue Agency GST (Note 16b)	2.649	2,533
Receivables from other government departments and agencies (Note 16b)	2,748	2,568
CFHT – Accounts receivable	372	[′] 79
TIO – Accounts receivable	2	1
Receivable and advances from employees	284	256
	37,050	36,882
Less: Allowance for doubtful accounts on receivables from external parties	(1,179)	(927)
Accounts receivable net of allowances	35,871	35,955
Accounts receivable held on behalf of Government	(52)	(39)
Net accounts receivable	35,819	35,916

5. Cash and Investments

(in thousands of dollars)	2020	2019
0 1 1: 1 11 0515	4.000	4.000
Cash and investments held by CFHT	1,926	1,928
Cash held by TIO	8,840	14,754
Equity investments	-	-
Cash and investments	10,766	16,682

Equity investments include shares in two public companies (two in 2019) and one privately held company (one in 2019). These shares were obtained through debt settlement or non-monetary transactions. NRC will consider timely opportunities for divestiture of equity investments by taking into account the interests, market liquidity and expected future growth of the applicable company.

As at March 31, 2020, the book value of the equity investments was three dollars (three dollars in 2019). The fair value of NRC's equity investments in public companies was three dollars (three dollars in 2019). The fair value of the privately held companies is not determinable.

6. Accounts Payable and Accrued Liabilities

The following table presents details of NRC's accounts payable and accrued liabilities:

(in thousands of dollars)	2020	2019
Accounts in a valid a Cutament months	100.005	446.040
Accounts payable – External parties	108,265	146,343
Accounts payable – Other government departments and agencies (Note 16b)	10,061	30,925
Accrued wages and employee benefits	36,307	40,873
Contractor holdbacks	1,173	1,973
Remediation liabilities (Note 14a)	2,359	3,458
Sales tax payable	561	352
CFHT – Accounts payable	272	258
TIO – Accounts payable	5,722	4,683
Total accounts payable and accrued liabilities	164,720	228,865

7. Deferred Revenues

Deferred revenues represents the balances at year-end of unearned revenues stemming from amounts received from external parties that are restricted in order to fund the expenditures related to specific research projects and stemming from amounts received for fees prior to services being performed. Revenues are recognized in the period in which these expenditures are incurred or in which the service is performed. Details of the transactions related to this account are as follows:

(in thousands of dollars)	2020	2019
On and and a large	40.004	0.000
Opening balance	10,981	8,986
Funds received	45,653	47,464
Revenues recognized	(45,490)	(45,469)
Closing balance	11,144	10,981
CFHT – Deferred revenues	168	159
Total deferred revenues	11,312	11,140

8. Lease Obligation for Tangible Capital Assets

NRC has entered into an agreement to lease scientific equipment under capital lease with a cost of \$901,000 and accumulated amortization of \$204,000 as at March 31, 2020 (\$113,000 as at March 31, 2019). The obligation related to the upcoming years includes the following:

(in thousands of dollars)	2020	2019
2020	-	185
2021	-	121
2022	46	46
2023	-	-
2024		
Total future minimum lease payments	46	352
Less: imputed interest (1.75%)	(3)	(9)
Balance of obligations under leased tangible capital assets	43	343

9. Employee Future Benefits

a) Pension benefits

Eligible NRC employees participate in the Public Service Pension Plan (the Plan), which is sponsored and administered by the Government of Canada. Pension benefits accrue up to a maximum of 35 years at a rate of 2% per year of pensionable service, times the average of the best five consecutive years of earnings. The benefits are integrated with Canada/Québec Pension Plans benefits and they are indexed to inflation.

Both the employees and NRC contribute to the cost of the Plan. Due to the amendment of the *Public Service Superannuation Act* following the implementation of provisions related to *Canada's Economic Action Plan 2012*, employee contributors have been divided into two groups – Group 1 relates to existing Plan members as of December 31, 2012 and Group 2 relates to members joining the Plan on or after January 1, 2013. Each group has a distinct contribution rate.

The 2019-2020 expense amounts to \$44,111,992 (\$41,646,764 in 2019). For Group 1 members, the expense represents approximately 1.01 times (1.01 times in 2019) the employee contribution and, for Group 2 members, approximately 1.00 times (1.00 times in 2019) the employee contributions.

NRC's responsibility with regard to the Plan is limited to its contributions. Actuarial surpluses or deficiencies are recognized in the financial statements of the Government of Canada, as the Plan's sponsor.

b) Severance benefits

NRC provides severance benefits to its employees based on eligibility, years of service and salary at termination of employment. However, since 2011, the accumulation of severance benefits for voluntary departures progressively ceased for substantially all employees. Employees subject to these changes were given the option to be paid the full or partial value of benefits earned to date or collect the full or remaining value of benefits upon departure from the public service. Severance benefits are unfunded and, consequently, the outstanding obligation will be paid from future authorities. The changes in the obligations during the year were as follows:

(in thousands of dollars)	2020	2019
Accrued severance benefit obligation – beginning of year	29,199	30,281
Expense for the year:	_0,.00	00,20.
Current service cost	808	754
Interest cost	202	490
Actuarial loss	-	-
	30,209	31,525
Benefits paid during the year	(2,436)	(2,326)
Accrued benefit obligation, end of year	27,773	29,199

At the end of fiscal year 2018, an actuarial valuation of NRC's severance benefits obligation was completed using the projected benefit method. The significant actuarial assumptions adopted in measuring the severance benefits obligation are as follows

	2020	2019
Discount rate	0.7%	1.7%
Rate of compensation economic increase per year:	0.7 %	1.770
2019	2.0%	2.0%
2020	2.0%	2.0%
Average remaining service period of active employees	12.0 years	13.0 years

c) Sick Leave Benefits

NRC provides benefits for sick leave to its eligible employees consisting of one and one-quarter (1 1/4) days of sick leave per calendar month. Sick leave can only be used for paid time off at the employee's normal rate of pay when the employee is unable to perform their duties because of illness or injury. Unused sick leave benefits accumulate during the employee's period of service and no payment is due to employees upon termination of employment for unused days. The changes in the obligation during the year were as follows:

(in thousands of dollars)	2020	2019
Accrued benefit obligation, beginning of year	16,397	16,355
Expense for the year:	•	•
Current service cost	2,223	2,166
Interest cost	341	340
Actuarial gain	-	-
	18,961	18,861
Benefits paid during the year	(2,529)	(2,464)
Accrued benefit obligation, end of year	16,432	16,397

At the end of fiscal year 2018, an actuarial valuation of NRC's employee sick leave benefit obligation was completed using the projected benefit method prorated on services. The significant actuarial assumptions adopted in measuring the employee sick leave benefit obligation are as follows:

	2020	2019
	0.404	0.407
Discount rate	2.1%	2.1%
Rate of compensation economic increase per year:		
2019	2.2%	2.2%
2020	2.5%	2.5%
Average remaining service period of active employees	12.8 years	12.8 years

10. Endowment Fund Investments

This account was established pursuant to paragraph 5(1)(f) of the NRC Act to record the residue of the estate of the late H.L. Holmes. Up to two thirds of the endowment fund's annual net income (maximum of \$100,000) is used to finance the H.L. Holmes award on an annual basis. The award provides the opportunity to post-doctoral students to study at world famous graduate schools or research institutes under outstanding researchers. The monetary value and number of awards granted is established by the H.L. Holmes selection committee.

(in thousands of dollars)	2020	2019
Endowment fund investments, beginning of year	5,313	5,259
Net income from endowment	154	154
Awards granted	-	(100)
Endowment fund investments, end of year	5,467	5,313

The portfolio for endowment fund investments had an average effective return of 2.71% (3.02% in 2019) and an average term to maturity of 2.62 years as at March 31, 2020 (2.66 years as at March 31, 2019). The fair value of the endowment fund investments as at March 31, 2020 was \$5,438,891 (\$5,284,329 in 2019).

11. Tangible Capital Assets

(in thousands of dollars)	of Cost				Accumulated Amortization				Net Book Value			
Tangible capital asset class	Opening balance	Acquisitions	Adjustments (1)	Disposals and write- offs	Closing balance	Opening balance	Amortization	Adjustments	Disposals and write- offs	Closing balance	2020	2019
Land	9,766	-	3,679	-	13,445	-	-	-	-	-	13,445	9,766
Buildings and												
facilities	850,245	5,728	33,680	(5,400)	884,253	(569,761)	(19,316)	(74)	5,400	(583,751)	300,502	280,484
Works and												
infrastructure	40,664	1,643	9,523	(3)	51,827	(23,042)	(988)	-	-	(24,030)	27,797	17,622
Machinery,												
equipment and		40.470	40.770	(05.040)	=== = 10	(4.40.000)	(05.05.4)	(707)	04.400	(440 ==0)	400.000	400.000
furniture	574,765	13,478	12,779	(25,310)	575,712	(440,903)	(25,351)	(707)	24,188	(442,773)	132,939	133,862
Informatics	04.007	504	(20)	(4.055)	20.007	(20,000)	(400)		2 222	(20.252)	0.054	4.004
equipment	34,097	504	(39)	(1,955)	32,607	(32,893)	(499)	-	3,039	(30,353)	2,254	1,204
Informatics software	20,186	600	219	(749)	20,256	(17,881)	(794)		795	(17,880)	2,376	2,305
Vehicles	3,202	294	17	(289)	3,224	(2,288)		(7)	283	(17,000)	959	2,303 914
Aircraft	19,414	294	182	(367)	19,229	(2,200) (12,149)	(253) (472)	(1)	143	(2,203) (12,478)	6,751	7,265
Leasehold	13,414	-	102	(307)	19,229	(12,149)	(412)	_	143	(12,470)	0,751	7,205
improvements	17,460	_	64	_	17,524	(9,186)	(682)	_	_	(9,868)	7,656	8,274
Assets under	17,400		04		17,524	(3,100)	(002)		_	(3,000)	7,000	0,214
construction	123,704	55,503	(60,580)	(543)	118,084	_	_	_	_	_	118,084	123,704
Assets under	0,. 0 .	33,333	(00,000)	(0.0)	,						,	0,. 0 .
construction –												
NRC/TIO	20,814	5,651	-	-	26,465	-	-	-	-	-	26,465	20,814
Leased tangible	,	,			,						,	,
capital assets	64,601	-	-	-	64,601	(36,155)	(2,639)	-	-	(38,794)	25,807	28,446
CFHT –						, ,	, ,			, ,		
Tangible												
capital assets	19,299	76	1,269	(17)	20,627	(12,480)	(567)	(939)	-	(13,986)	6,641	6,819
TIO - Tangible												
capital assets	23,855	8,196	(1,265)	(9)	30,777	(765)	(264)	71	-	(958)	29,819	23,090
Total	1,822,072	91,673	(472)	(34,642)	1,878,631	(1,157,503)	(51,825)	(1,656)	33,848	(1,177,136)	701,495	664,569

⁽¹⁾ Adjustments include assets under construction of \$60,580,000 that were transferred to the other categories upon completion of the assets. During the year, NRC received six pieces of equipment with a total cost of \$338,698 and accumulated amortization of \$338,692 (net book value of \$6) an aircraft part with a cost of \$35,000 and accumulated amortization of \$34,999 from two other government departments (OGD). Also, NRC transferred eleven pieces of equipment to another OGD with a total cost of \$210,388 and accumulated amortization of \$210,377 and sixty hardware assets with a total cost of \$1,085,005 and accumulated amortization of \$1,084,945.

Amortization expense for the year ended March 31, 2020 is \$51,824,764 (\$51,504,898 in 2019).

At March 31, 2020, NRC held eight land lease agreements (eight in 2019) for a nominal annual cost with universities. In these instances, NRC owns the building on the leased land. The fair value of the land leases for these non-monetary transactions could not be determined at the inception of the lease; therefore, they are recorded at a nominal value.

On March 21, 1996, NRC entered into a non-monetary transaction consisting of a lease agreement with the University of Western Ontario, whereby leased property was provided to NRC for 25 years (to August 31, 2022) at a nominal cost of one dollar. The property was recorded as a leased tangible capital asset at its fair value of \$10,000,000. The annual amortization of \$400,000 for the leased tangible capital asset is exactly offset by the amortization of the deferred contribution related to the leased property.

On May 23, 2006, NRC took possession of a new facility and entered into a non-monetary transaction with the University of Alberta at a nominal cost of one dollar per year. The lease provides a one-year term with options to renew on 10 sequential occasions, each of the first nine renewals to be for a period of five years and the 10th renewal for a period of four years (to May 22, 2031). The building was recorded as a leased tangible capital asset at its fair value of \$44,400,000. The annual amortization of \$1,776,000 for the leased tangible capital asset is exactly offset by the amortization of the deferred contribution related to the leased building.

On September 1, 2006, NRC took possession of a new facility and entered into a non-monetary transaction with the University of Prince Edward Island at a nominal cost of one dollar per year. The latest lease starting April 1, 2018 provides a three-year term with renewal options for two additional periods of one year. The building was recorded as a leased tangible capital asset at its fair value of \$9,300,000. The annual amortization of \$372,000 for the leased tangible capital asset is exactly offset by the amortization of the deferred contribution related to the leased building.

12. Contractual Rights

The activities of NRC sometimes involve the negotiation of contracts or agreements with outside parties that result in NRC having rights to both assets and revenues in the future. They principally involve research and technical services, and intellectual property, royalties and fees. Major contractual rights that will generate revenues in future years and that can be reasonably estimated are summarized as follows:

					2025 and	
(in thousands of dollars)	2021	2022	2023	2024	thereafter	Total
Revenue contracts	66,038	14,620	6,423	4,547	17,821	109,449

13. Contractual Obligations

The nature of NRC's activities can result in some large multi-year contracts and obligations whereby NRC will be obligated to make future payments in order to carry out its transfer payment programs or when the services/goods are received. Transfer payments and significant operating contractual obligations that can be reasonably estimated are summarized as follows:

(in thousands of dollars)	2021	2022	2023	2024	2025 and thereafter	Total
Transfer payments Operating contracts	213,107 80,129	39,405 15,504	2,542 10,753	204 912	- 540	255,258 107,838
Total	293,236	54,909	13,295	1,116	540	363,096

Transfer payments contractual obligations to CFHT and TIO as shown in Notes 16c) and 16d) have been excluded from the contractual obligations.

14. Environmental Liabilities

a) Remediation of contaminated sites

The Government has developed a "Federal Approach to Contaminated Sites", which incorporates a risk-based approach to the management of contaminated sites. Under this approach, the Government has inventoried the contaminated sites on federal lands; each site identified is to be classified, managed and recorded in a consistent manner. The systematic approach aides in the identification of the high-risk sites in order to allocate limited resources to those sites that pose the highest risk to the environment and human health.

NRC has identified three sites (five sites in 2019) where action is possible and for which a liability of \$2,358,615 (\$3,458,402 in 2019) has been recorded. The estimated liability is based on either external scientific/engineering consultants or NRC environmental officers with contaminated site experience reviewing the results of the assessments and underlying assumptions, and estimating the cost of the most likely remediation or risk management scenario. No additional sites were identified during 2019-2020.

The following table presents the total estimated amounts of these liabilities by nature, the associated expected recoveries and the total undiscounted future expenditures as at March 31, 2020 and March 31, 2019. When the liability estimate is based on future cash requirement, the amount is adjusted for inflation using a forecast Consumer Price Index rate of 2%. Inflation is included in the undiscounted amount. The source of the contamination is associated with the operations and maintenance where activities such as fuel storage/handling, waste sites and use of metal-based paint resulted in former or accidental contamination, e.g. metals, petroleum hydrocarbons, polyaromatic hydrocarbons, etc. Sites often have multiple sources of contamination.

Nature of Liability								
Nature	Number of Sites 2020	Estimated Liability 2020	Estimated Total Undiscounted Expenditures 2020	Number of Sites 2019	Estimated Liability 2019	Estimated Total Undiscounted Expenditures 2019		
Office/Commercial/ Industrial Operations	3	2,358,615	2,358,615	3	3,458,402	3,458,402		
Total	3	2,358,615	2,358,615	3	3,458,402	3,458,402		

There were no expected recoveries in 2019 and 2020, and the estimated total undiscounted expenditures equal the estimated liability in 2019 and 2020.

b) Asset retirement obligation

NRC has recognized an asset retirement obligation of \$640,000 (\$641,000 in 2019) in the consolidated financial statements as a result of its legal obligation to retire storage tank systems for petroleum products and allied petroleum products. The undiscounted amount of expected future cash flows required to settle the asset retirement obligation is estimated at \$711,000 (\$740,000 in 2019). The liability for the expected future cash flows, as reflected in the consolidated financial statements, has been discounted at a weighted average of 1.48% (1.77% in 2019) based on the Government of Canada benchmark bonds. This obligation will be settled over the useful lives of the operating assets. The following table summarizes the changes in the future asset retirement obligation:

(in thousands of dollars)	2020	2019
Asset retirement obligation, beginning of year	641	658
Obligations decreased	(3)	- (4-7)
Accretion of future asset retirement obligation	2	(17)
Asset retirement obligation, end of year	640	641

Other asset retirement obligations, such as the costs associated with the removal and disposal of asbestos and other designated substances located in NRC buildings, have not been recognized in the consolidated financial statements due to the fact that they are subject to several uncertainties. NRC generally incurs the cost of removing and disposing regulated substances during major building renovations; consequently, the timing and scope of these renovations cannot be reasonably estimated at this time and therefore fair values cannot be reasonably determined. Changes in these assumptions and uncertainties could materially affect NRC's assets and liabilities as well as the resulting amortization and accretion expenses related to the asset retirement obligation.

The NRC's ongoing efforts to assess contaminated sites and asset retirement obligations may result in additional environmental liabilities. Any additional liabilities will be accrued in the year in which they become known and can be reasonably estimated.

15. Contingent Liabilities

Claims have been made against NRC in the normal course of operations. Legal proceedings for three claims were pending at March 31, 2020 (three in 2019). NRC has one claim that it believes will likely result in a liability of \$10,000 (none in 2019), no claim that it believes will likely result in a liability where the amount is indeterminable (none in 2019) and two claims that it believes that outcome is indeterminable, as is the liability amount (three in 2019). In 2020, NRC has zero claims that it believes the outcome is unlikely (none in 2019).

16. Related Party Transactions

NRC is related as a result of common ownership to all government departments, agencies and Crown corporations. NRC enters into transactions with these entities in the normal course of business and on normal trade terms. During the year, NRC received common services that were obtained without charge from OGDs as disclosed below.

a) Common services provided without charge by OGDs and agencies

During the year, NRC received services without charge from OGDs and agencies. These services have been recognized in NRC's Consolidated Statement of Operations and Departmental Net Financial Position as follows:

(in thousands of dollars)	2020	2019
Employer's contributions to the health and dental insurance plans provided		
by Treasury Board Secretariat	39,056	34,215
Legal services provided by Justice Canada	189	179
Workers' compensation benefits provided by Employment and Social		
Development Canada	140	151
Accommodation Services provided by Public Services and Procurement		
Canada (PSPC)	242	227
Total	39,627	34,772

The Government has centralized some of its administrative activities for efficiency, cost-effectiveness purposes and economic delivery of programs to the public. As a result, the Government uses central agencies and common service organizations so that one department performs services for all other departments and agencies without charge. The costs of these services, such as the payroll and cheque issuance services provided by PSPC, are not included in NRC's Consolidated Statement of Operations and Departmental Net Financial Position.

b) Other transactions with related parties

(in thousands of dollars)	2020	2019
Accounts receivable from OGDs and agencies	5,397	5,101
Accounts payable to OGDs and agencies	10,061	30,925
Expenses – OGDs and agencies	108,330	98,034
Revenues – OGDs and agencies	79,562	78,810

Expenses and revenues disclosed in b) exclude common services provided without charge, which are already disclosed in a).

c) Canada-France-Hawaii Telescope Corporation

NRC has a related party relationship with the following non-federal government entity:

NRC was a founding member of the Canada-France-Hawaii Telescope Corporation (CFHT), a tax-exempt, not-for-profit organization established under Hawaii state law to design, construct and operate a large optical telescope near the summit of Mauna Kea, Hawaii, USA, along with laboratories, equipment and associated installations. CFHT was established in 1974 by a Tripartite Agreement among NRC, the Centre National de la Recherche Scientifique of France and the University of Hawaii. NRC makes annual contributions to fund its 42.5% share of the cost of operations of the telescope and receives no direct benefit in return. However, as a result of NRC's contributions, Canada receives access to telescope observation hours for Canadian astronomers. As a founding member, NRC can appoint four of the 10 members of the Board of Directors. The NRC relationship with CFHT is considered a government partnership for accounting purposes and CFHT results are proportionally consolidated in these statements. In 2020, NRC contributed \$4.5 million to CFHT (\$4.3 million in 2019). These contributions are eliminated upon consolidation. CFHT's condensed financial information for the year ended December 31 is as follows:

(in thousands of dollars)	December 31, 2019	December 31, 2018
Total assets Total liabilities Total unrestricted net assets	22,415 	20,953 1,515 19,438
Total revenues Total expenses Net operating results	14,179 15,150 (971)	13,072 13,982 (910)

NRC's future contractual obligations to CFHT are not included in the transfer payment contractual obligations (Note 13) and are as follows:

(in thousands of dollars)	2021	2022	2023	2024	2025 and thereafter	Total
CFHT	4,883	4,942	5,001	5,061	5,122	25,009

d) TMT International Observatory, LLC

NRC has a related party relationship with the following non-federal government entity:

NRC is a member since April 2015 of the TMT International Observatory, LLC (TIO), a tax-exempt, not-for-profit organization established under the state law of Delaware, USA. TIO was incorporated in May 2014 and formed for the purpose of the execution of the Thirty Meter Telescope Project through the construction, commissioning and operation of an observatory. TIO was established in 2014 by the Regents of the University of California, the California Institute of Technology, the National Institutes of Natural Sciences (Japan) and the National Astronomical Observatories of the Chinese Academy of Sciences. The Department of Sciences of Technology, Government of India and NRC subsequently became members in 2014 and 2015, respectively. The NRC relationship with TIO is considered a government partnership for accounting purposes and TIO results are proportionally consolidated in these statements. The NRC membership participation was 19.5% as of December 31, 2019 based on the aggregate pledged by all current parties. In 2020, NRC contributed \$14.0 million for TIO's Assets Under Construction (\$13.1 million in 2019). TIO's condensed financial information for the year ended December 31 is as follows:

(in thousands of dollars)	December 31, 2019	December 31, 2018
Total assets Total liabilities Total unrestricted net assets	199,073 30,801 168,272	195,193 25,329 169,864
Total revenues Total expenses Net operating results	29,066 39,124 (10,058)	76,951 20,905 56,046

NRC's future contractual obligations to TIO are based on Parliamentary authorities granted in 2015. NRC is aware of delays in the project, but no impact to future obligations has been identified at the completion of these consolidated financial statements. These contractual obligations for TIO are not included in the transfer payment contractual obligations (Note 13) and are as follows:

(in thousands of dollars)	2021	2022	2023	2024	2025 and thereafter	Total
TIO	58,839	52,028	36,160	21,617	-	168,644

17. Transfers From/To OGDs

Transfer of tangible capital assets between OGDs and NRC have occurred in 2019 and 2020.

The transactions are as follows:

(in thousands of dollars)	2020	2019
Net tangible capital asset transfers	_	1
Total	<u> </u>	4

18. Segmented Information

Presentation by segment is based on the NRC's core responsibility. The presentation by segment is based on the same accounting policies as described in the Summary of Significant Accounting Policies in Note 2. The following table presents the expenses incurred and revenues generated for the main core responsibilities, by major object of expense and by major type of revenues. The segment results for the period are as follows:

(in thousands of dollars)	Science and Innovation	Internal Services	2020 Total	2019 Total
Transfer payments				
Grants and contributions	417,861	-	417,861	367,515
Total transfer payments	417,861	-	417,861	367,515
Operating expenses				
Salaries and employee benefits	410,998	113,688	524,686	479,433
Utilities, material and supplies	75,179	9,171	84,350	86,378
Amortization of tangible capital assets	49,264	2,561	51,825	51,505
Professional services	54,881	19,787	74,668	70,601
Repair and maintenance	15,513	3,409	18,922	20,671
Payment in lieu of taxes	12,141	1,891	14,032	13,520
Transportation and communication	15,120	2,692	17,812	18,174
Rentals	4,383	7,311	11,694	10,244
Awards	1,916	26	1,942	1,171
Loss (gain) on disposal of tangible capital				
assets	1,792	(397)	1,395	196
Costs of goods sold	714	-	714	692
Information	1,237	552	1,789	1,851
Bad debts	-	1,163	1,163	876
Other	1,166	516	1,682	861
Total operating expenses	644,304	162,370	806,674	756,173
Total expenses	1,062,165	162,370	1,224,535	1,123,688
Revenues				
Research services	59,901	-	59,901	64,264
Technical services	93,451	712	94,163	98,806
Intellectual property, royalties and fees	8,125	-	8,125	6,115
Sales of goods and information products	3,123	22	3,145	5,420
Rentals	45	7,165	7,210	7,290
Grants and contributions	2,047	682	2,729	8,569
Lease inducement revenue	-	2,548	2,548	2,548
Other	3,772	1,905	5,677	5,217
Revenues earned on behalf of Government		(64)	(64)	(44)
Total revenues	170,464	12,970	183,434	198,185
Net cost of operations before government funding and transfers	891,701	149,400	1,041,101	925,503

19. Financial Instruments

NRC's financial instruments consist of due from CRF, accounts receivable, investments and accounts payable and accrued liabilities. Unless otherwise noted, it is management's opinion that NRC is not exposed to significant interest rate risk, currency risk or credit risk arising from these financial instruments. Unless otherwise disclosed in these consolidated financial statements, management estimates that the carrying values of the financial instruments approximate their fair value due to their impending maturity.

20. Subsequent Events

The outbreak of the Coronavirus disease ["COVID-19"] has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally resulting in an economic slowdown. The duration and impact of the COVID-19 outbreak is unknown at this time. As a result, it is not possible to reliably estimate the length and severity of the impact on the NRC's financial position and financial results in future periods.

During the first quarter of fiscal year 2020-21, NRC received approval and funding for the following new programs and initiatives in support of Canada's COVID-19 pandemic response:

- the Industrial Research Assistance Program (IRAP) Innovative Solutions Canada COVID-19
 Challenge Program to expedite technology development and quickly bring solutions to the
 market or for government procurement (\$15 million);
- the Pandemic Response Challenge Program to accelerate research and development in priority areas in the fight against COVID-19 (\$15 million);
- increasing biomanufacturing capacity to produce vaccines for clinical trials, and fill and finish individual doses of vaccine as soon as one is available (\$44 million);
- the Youth Employment and Skills Strategy program (\$15 million); and
- the IRAP Innovation Assistance Program (\$250 million).

Annex to the Statement of Management Responsibility including Internal Control over Financial Reporting (Unaudited)

For the year ended March 31, 2020

1. Introduction

This document provides summary information on the measures taken by NRC to maintain an effective system of internal control over financial reporting, including information on internal control management, assessment results and related action plans.

Detailed information on NRC's authority, mandate and program activities can be found in the 2020-21 Departmental Plan and the 2019-20 Departmental Results Report.

2. Departmental system of internal control over financial reporting

2.1 Internal control management

NRC has a well-established governance and accountability structure to support departmental assessment efforts and oversight of its system of internal control. A departmental financial management framework is in place which includes:

- organizational accountability structures as they relate to internal control management to support sound financial management, including roles and responsibilities of senior departmental managers for control management in their areas of responsibility
- values and ethics
- ongoing communication and training on statutory requirements, and policies and procedures for sound financial management and control
- monitoring of regular updates to internal control management, as well as the provision of related assessment results and action plans to the deputy head and senior departmental management and, as applicable, the Departmental Audit Committee.

The Departmental Audit Committee provides advice to the deputy head on the adequacy and the functioning of NRC's risk management, control and governance frameworks and processes.

2.2 Service arrangements relevant to financial statements

NRC relies on other organizations for processing certain transactions that are recorded in its financial statements, as follows:

Common service arrangements

- Public Services and Procurement Canada (PSPC) which administers the payments of salaries and the procurement of goods and services in accordance with NRC's Delegation of Authority, and provides some accommodation services on behalf of NRC
- Shared Services Canada, which provides IT infrastructure services
- The Department of Justice Canada which provides legal services

 The Treasury Board of Canada Secretariat, which provides information on public service insurance and centrally administers payment of the employer's share of contributions toward statutory employee benefit plans

Readers of this annex may refer to the annexes of the above-noted departments for a greater understanding of the system of internal control over financial reporting related to these specific services.

3. Departmental assessment results for the 2019-20 fiscal year

The following table summarizes the status of the ongoing monitoring activities according to the previous fiscal year's rotational plan.

Previous year's rotational ongoing monitoring plan for current fiscal year	Status	
Entity level controls	Deferred following an external review NRC's approach to plan and conduct intern controls assessments.	
Information technology general controls (ITGC): contribution management system access and authentication	Completed as planned and remedial actions started.	
Procurement to payment:	 Completed as planned, no remedial actions required. Completed as planned, opportunities for improvement noted. 	
Transfer payments: CanExport Program (IRAP) Industrial Research Assistance Program (IRAP) contribution agreements and claims New Beginnings – Small Teams	 Completed as planned, opportunities for improvement noted. Completion planned for in 2020-21. Completed as planned, no remedial actions required. 	
Capital assets:	Completed as planned, no remedial actions required.	

Previous year's rotational ongoing monitoring plan for current fiscal year	Status
	Completed as planned, opportunities for improvement noted.
Inventory for consumption	Completed as planned, opportunities for improvement noted.
Payroll administration:Hiring, modifications, and departures.Liabilities	 Completed as planned and remedial actions started. Completed as planned, no remedial actions required.
Revenues, receivables and receipts: sales contracts and intellectual property royalties	Deferred due to the implementation of recommendations from the audit of research agreement management and intellectual property royalties and awards led by Office of Audit and Evaluation in 2018-19.
Master data: general ledger accounts	Completed as planned, no remedial actions required.

In 2019-20, NRC also followed up on the status of remedial plans from previous years. Action plans related to information technology general controls, transfer payments and capital assets are in progress.

In 2019-20, NRC documented business processes for a new transfer payment program and a new inventory for consumption process. Updates to the accounts payable account verification and payment release business processes were made to reflect the new account verification framework.

The key findings and significant adjustments required from the current fiscal year's assessment activities are summarized in section 3.1.

3.1 New or significantly amended key controls

Changes impacting NRC's key financial controls during 2019-20 included:

- NRC implemented an updated Delegation of Authority matrix (June 2019) within SAP in addition to also implementing the government of Canada's new Electronic Authentication and Authorization (EAA) in support of S.33 (July 2019).
- In a continued effort to improve business processes through the use of electronic processing and with the shift of the majority of NRC's employees moving to telework in March 2020 due to COVID-19, the focus moved to the increased use of digital signatures. As a result, a new NRC Digital Authorization Directive was implemented in

early 2020-21. This is allowing for continued authorizations despite the move to working remotely.

3.2 Ongoing monitoring program

NRC's rotational risk-based monitoring plan was re-assessed and updated to reflect the impacts of key changes and previous year results and is covering a five-year period (2017-18 to 2021-22). NRC completed its annual assessment of financial controls within procurement to payment, transfer payments, capital assets, inventory, payroll administration and master data business areas in addition to ITGCs. The only exception to NRC's plan related to entity level controls as a result of the recommendation to update the frequency of review, following the external review of NRC's approach to plan and conduct internal controls assessments.

Overall, the key controls tested performed as intended, with remediation required as follows:

- ITGC: Testing this year focused on the access and authentication for the contribution management system. Although some small improvements were noted, there continue to be access control weaknesses detected and these have been communicated to the responsible parties and actions plans are underway. Compensatory controls are present.
- Payroll administration: Testing this year focused on the sub-process related to hiring, payroll modifications, payroll liabilities and departures. In-roads have been made in relation to quality assurance conducted by compensation. Although these improvements were noted, weaknesses in relation to the administration of human resources delegations, system access exceptions and timely sign off related to departures were identified as areas with opportunities for improvement. These have been communicated to the responsible parties and action plans are underway.

4. Departmental action plan for the next fiscal year and subsequent years

During fiscal year 2019-20, NRC reviewed its approach and will be developing an updated plan in 2020-21 for the next five years related to Internal Controls over Financial Management (ICFM). NRC will consider the impacts of COVID-19 on the organization and will incorporate changes, where applicable. The plan will also be developed in coordination with the Office of Audit and Evaluation in order to avoid overlap.

In addition to the ongoing monitoring rotational plan, NRC also plans to review remediation actions completed in all areas in which issues were noted in Section 3.