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Evaluation of Real Property (RP) Acquisition, Maintenance and Disposal

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Table of Contents

Acronyms and Abbreviations	i
Results in Brief	iv
Introduction	1
Background	1
Aim	2
Objectives	2
Scope	3
Methodology	4
Limitations	5
Description of Program.....	6
Findings and Recommendations	16
Relevance	16
Performance (Effectiveness, Economy, and Efficiency)	19
Effectiveness	20
Disposal	26
RP M&R	28
Funding of RP M&R at the National Level.....	28
M&R Spending as a Percentage of RRC	29
State of Realty Assets (SORA) Report.....	30
Identification, Prioritization, and Approval of RP M&R Requirements	32
Economy	34
Background	34
MAF.....	34
RP Functional Review	34
Financial.....	34
HR	35
Efficiency	38
Background	38
Asset Management System	38
Non-financial Information	39
Financial Information	39
Fidelity of Information	40
Procurement and Contracting for the M&R of RP Infrastructure.....	41
Training	41
Performance Measurement.....	42
Benchmarking	43
Conclusion	45
Annex A—Management Action Plan	A-1
Annex B—Logic Model	B-1
Annex C—Evaluation Matrix	C-1

Acronyms and Abbreviations

ADM(Fin CS)	Assistant Deputy Minister (Finance and Corporate Services)
ADM(IE)	Assistant Deputy Minister (Infrastructure and Environment)
ADM(IM)	Assistant Deputy Minister (Information Management)
ADM(Mat)	Assistant Deputy Minister (Materiel)
AMS	Asset Management System
B/WCEO	Base/Wing Construction Engineering Officer
B/WPO	Base/Wing Property Officer
CANOSCOM	Canadian Operational Support Command
CANSOFCOM	Canadian Special Operations Forces Command
CAP	Capital Assistance Program
CDS	Chief of the Defence Staff
CEFCOM	Canadian Expeditionary Forces Command
CEO	Chief Executive Officer
CIP Infra	Capital Investment Plan Infrastructure
CF	Canadian Forces
CFDS	<i>Canada First</i> Defence Strategy
CFEMS	Canadian Forces Engineering Management System
CFHA	Canadian Forces Housing Agency
CISOE	Construction in Support of Equipment
CLC	Canada Lands Company
Comd	Commander
CRS	Chief Review Services
DAOD	Departmental Administrative Orders and Directives
DCC	Defence Construction Canada
DGE	Director General Environment
DGME	Director General Military Engineering
DGNS	Director General Nuclear Safety
DGRP	Director General Real Property
DIEC	Director Infrastructure and Environment Comptrollership
DIEIM	Director Infrastructure and Environment Issues Management
DM	Deputy Minister
DND	Department of National Defence



DRMIS	Defence Resource Management Information System
DRPM	Director Real Property Management
DRPP	Director Real Property Planning
FMAS	Financial Managerial Accounting System
FRPFIA	<i>Federal Real Property and Federal Immovables Act</i>
FY	Fiscal Year
GC	Government of Canada
GIS	Geographical Information System
HR	Human Resources
IE	Infrastructure and Environment
IEBM	Infrastructure and Environment Business Modernization
IEOC	Infrastructure and Environment Oversight Committee
IETF	Infrastructure and Environment Training Framework
IM	Information Management
IT	Information Technology
L1	Level One
LTD	Learning, Training and Development
M&R	Maintenance and Repair
MAF	Management Accountability Framework
MND	Minister of National Defence
MoD	Ministry of Defence
NDHQ	National Defence Headquarters
O&M	Operations and Maintenance
OAG	Office of the Auditor General
OPI	Office of Primary Interest
PAA	Program Activity Architecture
PAD	Project Approval Directive
PAG	Project Approval Guide
PM	Project Manager
PMB	Program Management Board
PMF	Performance Management Framework
PWGSC	Public Works and Government Services Canada
R3A	Realty Asset Accrual Accounting



RAIS	Realty Asset Information System
RAMM	Realty Asset Management Manual
RP	Real Property
RPMC	Real Property Management Committee
RRC	Realty Replacement Cost
SORA	State of Realty Assets
SWE	Salary Wage Envelope
TB	Treasury Board
TBS	Treasury Board of Canada Secretariat
UK	United Kingdom
US	United States
UXO	Unexploded Explosive Ordnance
VCDS	Vice Chief of the Defence Staff



Results in Brief

An evaluation of RP acquisition, maintenance, and disposal in support of maritime, land, aerospace, and joint activities was approved in the fiscal year (FY) 2009/10 Department of National Defence/Canadian Forces (DND/CF) Evaluation Plan prepared by Chief Review Services (CRS). According to the DND/CF Program Activity Architecture (PAA), RP Acquisition and Disposal is a sub-activity (1.4.1) of the RP and Informatics Infrastructure Acquisition and Disposal Program (1.4). RP Maintenance is a sub-sub activity (5.1.3.1) of Asset Management Services (5.1.3). Both of these activities contribute to the DND/CF meeting the strategic outcome of acquiring resources to meet government defence expectations.

The aim of the evaluation was to assess the relevance and performance of the RP Infrastructure Acquisition, Maintenance and Disposal Program provided by the DND/CF in support of maritime, land, aerospace, and joint¹ activities. The evaluation did not examine if the appropriate RP assets were in place, nor if they were needed.

According to DND PAA of April 2010, the DND/CF RP Acquisition, Maintenance and Disposal Program is “an extensive portfolio of land, works, buildings and informatics required to support the delivery of defence operations. It aims to ensure that the right RP is acquired and disposed of, and is available where and when needed, while providing value for money, advancing objectives for the greening of government land, and buildings, and adhering to best practices for asset life cycle management. Program activities include working with stakeholders to define requirements; updating

Overall Assessment

- RP acquisition and disposal by the DND/CF is relevant and is accomplished in accordance with the legislation and policies of the federal government.
- The project approval process for RP is complex and involved, which inhibits the timely and efficient execution of most RP projects.
- RP disposal generally occurs within the time frame approved by Treasury Board (TB).
- RP under-spending in RP acquisition may impact the ability of the DND/CF to meet the aim set out in the *Canada First Defence Strategy (CFDS)* of 25 percent RP acquisition in the next 10 years, and 50 percent in the next 20 years.
- RP training for military and civilian staff is inconsistent across the country.
- Information about RP is unreliable and is not captured, held, or disseminated in a consistent manner.
- There is no systematic national performance measurement strategy that measures how well RP is being delivered.

¹ “Joint” in the context of this report refers to its use in the PAA and as defined in the CFDS: “Joint and Common Readiness includes those centralized force generation and sustainment activities that either extend beyond, or integrate, the maritime, land and aerospace force generation mandates.” In a military context, the word “joint” refers to a combination of any of the maritime, land or aerospace services in addition to special forces.

the RP development and management plans; managing projects for new and replacement construction; and identifying and eliminating excess facilities. RP is acquired through construction, purchase or capital leases, maintained and recapitalized throughout its life, and disposed of through deconstruction, sale, or transfer. The activity includes the Capital Assistance Program (CAP) which is a capital contribution program under which National Defence makes financial contributions to support the transfer of infrastructure facilities to provinces, territories, municipalities and/or their agencies.” This latter aspect of the program was the object of a CRS report in November 2009 and was not addressed in the present evaluation. Moreover, the Canadian Forces Housing Agency (CFHA) was not included in this evaluation as an audit of the CFHA had been done by CRS in March 2010.

The focus of the evaluation was on the acquisition, maintenance, and disposal of RP; however, infrastructure maintenance, functional authority, project approval, training, and information management (IM) were also examined.

This evaluation found that the RP Acquisition, Maintenance and Disposal Program is relevant and that there is a continued need to realize the vision for infrastructure outlined in the CFDS. In terms of performance, the RP Program supports the on-going requirements and operations of the DND/CF, thus meeting its first outcome.

In terms of financial resources, the CFDS establishes that eight percent of the total defence spending should be spent on infrastructure over the next 20 years. Using realty replacement cost (RRC) as a basis of comparison, the CFDS stated that Defence should increase its spending on RRC² from an average of 2.5 percent annually from 2000 to 2006 to 3.9 percent of RRC over the next 20 years.

Funding for recapitalization or replacement-related work that could be implemented by either the Assistant Deputy Minister (Infrastructure and Environment) (ADM(IE)), Level One (L1) custodians, or Construction in Support of Engineering (CISOE) is available to meet this target of 2.5 percent of RRC; however, the DND/CF has not spent it all. For the three FYs ending in FY 2010/11, of \$2.3 billion that was available, the DND/CF did not spend about \$700 million. For FY 2010/11 alone, of a \$950 million budget for RP acquisition, \$361 million was not spent. Under-spending at this rate may mean that the DND/CF does not meet the CFDS target of 25 percent RP replacement in the next 10 years, and 50 percent RP replacement in the next 20 years.

With the exception of the CFHA, the DND/CF is not meeting the spending targets on maintenance and repair (M&R). The CFDS calls for 1.4 percent of RRC to be spent annually on M&R. For FY 2010/11, approximately 1.04 percent of RRC was spent by the DND/CF on M&R. This level of investment does not meet the level deemed necessary by RP staff to offset infrastructure deterioration and may affect compliance with health and safety standards.

² This includes the recapitalization of assets, M&R, and construction in support of equipment (CISOE). The amount of 3.9 percent, just under four percent, does not include construction in support of a new capability.

The complexity of the RP acquisition, maintenance, and disposal processes, the lack of trained RP staff across the country, unreliable information, and a lengthy project approval process inhibit the management of RP infrastructure in meeting its optimal efficiency and effectiveness.

The absence of an integrated information system to support sound, timely, and cost-effective management decisions affects the ability of the DND/CF to accurately report on RP. Serious deficiencies in these systems have been documented in Office of the Auditor General (OAG) audits and annual departmental financial management attestations. This situation may result in the DND/CF being unable to produce an audit of financial systems in 2015.

Finally, performance measurement is inconsistent. There is no national performance measurement strategy that measures how well RP is being delivered and that monitors the performance of the entire RP asset base consistently.

Findings and Recommendations

Key Findings

Relevance

- There is a continued need for the RP Acquisition, Maintenance and Disposal Program to realize the vision for infrastructure outlined in the CFDS.
- The RP Acquisition, Maintenance and Disposal Program is aligned with three of the outcome areas identified in the whole-of-government framework and to the departmental strategic outcome for acquisition of resources.
- The roles of the Minister of National Defence (MND), the Deputy Minister (DM) and the ADM(IE) align with and follow appropriate Government of Canada (GC) legislation and policies to deliver the RP Acquisition, Maintenance and Disposal Program within the DND/CF.

Performance

- The expected outcome for the RP program to support the DND/CF requirements and operations is met.
- ADM(IE) exercises good governance and effective planning of the RP program through the Infrastructure and Environment Oversight Committee (IEOC) and its supporting communities.
- The expected outcome for RP acquisition of effective, efficient, modern, and sustainable RP that meets the requirements of the DND/CF is improving but has not yet met its optimal efficiency and effectiveness.
- The RP acquisition and CISOE program does not spend its funding. For the three fiscal years ending in FY 2010/11, of \$2.3 billion that was available, the DND/CF did not spend \$700 million. Of a \$950-million budget for RP acquisition in FY 2010/11, \$361 million were not spent.



- Notwithstanding the changes made to the RP project approval process over the past few years, the current streamlined RP project approval process remains cumbersome and lengthy.
- In the past, funds allocated for RP M&R were sometimes used for operational needs. The Vice Chief of the Defence Staff (VCDS) addressed this issue by “fencing” the amount of money to be spent by L1 custodians on RP M&R to ensure that resources allocated for RP M&R are not directed to other activities, such as readiness. For FY 2011/12, the targeted investment is 1.0 percent of RRC. For FY 2012/13, the targeted investment is 1.2 percent of RRC, and for FY 2013/14, it is 1.4 percent of RRC.
- Routine RP disposals generally occur within the time frame approved by TB. Strategic disposals outside the control of the DND usually take longer than the TB standard time for completion.
- RP infrastructure continues to deteriorate and may affect compliance with the CFDS strategic direction, and building habitation and occupation standards.
- L1s and base/wing staffs do not have the human resources (HR) necessary to undertake systematic life cycle planning activities due to the number of vacant positions both military and civilian.
- The non-integrated RP IM systems and the lack of fidelity in the raw data contained in their databases, do not allow ADM(IE) to have full knowledge of asset holdings or confirmed asset values. Consequently, the DND/CF is unable to attest to the auditability of the financial statements until the raw data is valid and the RP systems are integrated.
- Training in RP for military and civilian positions is inconsistent across the country. There are no national standards to which RP personnel are trained.
- There is no systematic and consistent performance measurement or reporting system in place for RP activities and outcomes.

Recommendations

1. ADM(IE) review the streamlined RP project approval process to propose a new approach by using a risk-based analysis of RP construction projects, so that those RP construction projects rated at low risk do not follow the same level of oversight as high-risk RP construction projects.
2. ADM(IE) review with the L1 custodians and the Chief Executive Officer (CEO)/CFHA the dollar value approval limits of RP acquisition projects and make recommendations to the MND to increase the expenditure delegation thresholds to mitigate further under-spending.
3. ADM(IE) prepare an impact statement on the effect that under-spending in RP acquisition will have on the ability of the DND/CF to meet the aim set out in the CFDS of 25 percent RP Acquisition in the next 10 years and 50 percent in the next 20 years.



4. ADM(IE) continue development with Assistant Deputy Minister (Materiel) (ADM(Mat)) of an approach whereby CISOE would be integrated into the construction program including its funding priorities, governance and performance measures, and reported as part of the DND/CF Construction Program.
5. ADM(IE) prepare an impact statement on the effect that under-spending in M&R will have on the ability of the DND/CF to meet their mission and objectives and to be in compliance with occupational standards.
6. ADM(IE) conduct an HR review to determine the appropriate skill sets required to meet the needs of modern RP asset management.
7. ADM(IE) review the classification of civilian RP positions at the command/formation/base/wing level to ensure that there is consistency across the country, and that the classifications are at the appropriate level.
8. Assistant Deputy Minister (Information Management) (ADM(IM)) and ADM(IE) continue with the implementation of a single IM system (SAP) RP solution for RP management and accounting to meet the requirements of all RP staff within the DND/CF.
9. ADM(IE) and the Assistant Deputy Minister (Finance and Corporate Services) (ADM(Fin CS)) report on the ability of the DND/CF to meet TB policy, which requires that by FY 2015/16 the DND/CF demonstrate a process and internal controls that allows for full knowledge of asset holdings to confirm asset values and effective control and oversight of RP assets.
10. ADM(IE) establish a national training program in RP for military and civilian positions with common standards for equivalent positions across the DND/CF.
11. ADM(IE) develop a national performance measurement strategy that measures how well the RP program is being delivered and that will result in monitoring the performance of its entire RP asset base consistently.

Note: Please refer to [Annex A](#)—Management Action Plan for the management response to the CRS recommendations.

Introduction

Background

RP, as it is defined within the DND/CF, is not just land. It is also all the assets represented by infrastructure, buildings, and works. The life cycle of RP includes the planning, acquisition, use, maintenance, and disposal. RP is the infrastructure pillar in the CFDS.³

The DND/CF administers the largest RP assets (lands and buildings) of the federal government. RP holdings enable the DND/CF to support the government's national security and foreign policy objectives by maintaining the ability to deliver excellence at home, be a strong and reliable partner in the defence of North America, and project leadership abroad by making meaningful contributions to international security.

The DND/CF's RP portfolio consists of buildings, works (including roads, jetties, weapon ranges, training areas, etc.), water, storm and sewer pipes, and land covering 2.2 million hectares (four times the size of Prince Edward Island) at an RRC of \$22.88 billion.⁴ To support this portfolio in FY 2010/11 the DND/CF RP program had an annual budget of \$1.371 billion (about 6.28 percent of the DND/CF total budget⁵) allocated to RP acquisition, M&R, and program operations. Since 1990, the DND has acquired 173 properties (approximately 10,200 hectares) and disposed of 245 properties (approximately 2,750 hectares).⁶

While the DM is accountable to the MND for the administration of DND's RP, this custodial accountability is distributed between ADM(IE), as the functional authority, and the L1 custodians⁷ to support their programs. In most cases, military L1 custodians have delegated the responsibility for the management of their assigned RP to base/wing Commanders (Comd) or their equivalent. Base/wing Comds are normally supported by construction engineering organizations comprised of CF members and public servants. These organizations are supported by Defence Construction Canada (DCC),⁸ the RP function within Public Works and Government Services Canada (PWGSC), and contractors. In addition, CFHA is the operator/maintainer of the residential housing portfolio.

³ CFDS, 12 May 2008.

⁴ At 2010 valuations.

⁵ Whereas CFDS recommends eight percent.

⁶ Annex J RP Functional Review, ADM(IE) 2010, unpublished.

⁷ An RP manager within the DND/CF is someone at the ADM level who is in charge of a departmental group (i.e., the Infrastructure and Environment Group, as ADM(IE)). For the military, an RP manager is normally a lieutenant-general or a vice-admiral, such as the commander, Air Command. Sometimes the RP manager is at the rank of a major-general, as is the case with the commander, Canadian Operational Support Command (CANOSCOM), or a brigadier-general in the case of the Commander of Canadian Special Operations Forces Command (CANSOFCOM). An RP manager may delegate responsibility for RP holdings to a subordinate level.

⁸ DCC is a Crown Corporation with a mandate to provide contracting, construction contract management, and related services to the DND.

Acquisition, maintenance, and disposal of RP is accomplished in accordance with the Policy Framework for the Management of Assets and Acquired Services. These policies and directives flow from the *Federal Real Property and Federal Immovables Act* (FRPFIA).

Aim

The aim of the evaluation was to assess the relevance and performance (effectiveness, efficiency, and economy) of the RP Acquisition, Maintenance and Disposal Program within the DND/CF in support of maritime, land, aerospace, and joint activities.

A secondary aim was to examine the performance of some of the components of RP internal services undertaken to ensure RP is managed in an efficient and effective manner. Included were the following:

- functional authority
- training
- information systems

Objectives

In accordance with the core evaluation issues noted in the TB's Directive on the Evaluation Function, this evaluation considered the following issues related to relevance and performance:

Relevance

Issue 1: Continued Need for Program. Assessment of the extent to which the RP Acquisition, Maintenance and Disposal Program continues to address a demonstrable need and is responsive to the needs of the DND/CF.

Issue 2: Alignment with Government Priorities. Assessment of the linkages between the RP Acquisition, Maintenance and Disposal Program and (i) federal government priorities and (ii) DND/CF strategic outcomes.

Issue 3: Alignment with Federal Roles and Responsibilities. Assessment of the role and responsibilities of the federal government in delivering the RP Acquisition, Maintenance and Disposal Program for the DND/CF.

Performance (Effectiveness, Efficiency, and Economy)

Issue 4: Achievement of Expected Outcomes. Assessment of progress towards expected outcomes with reference to performance targets and program reach, program design, including the linkage and contribution of outputs to outcomes for the acquisition, maintenance, and disposal of RP along with infrastructure maintenance and some internal RP services: functional authority, training, and information infrastructure.



Issue 5: Demonstration of Economy and Efficiency. Assessment of resource utilization in relation to the production of outputs and progress towards expected outcomes in the acquisition, maintenance, and disposal of RP.

Scope

The evaluation focused on the relevance and performance of the acquisition, maintenance, and disposal of RP within the DND/CF as required by the Evaluation Directive.⁹ To guide the evaluation of RP relevance and performance, the DND PAA¹⁰ was used to identify the use of RP in two sections: Section 1.4 RP and Informatics Infrastructure Acquisition, Maintenance, and Disposal, and Section 5.1 Internal Services.

RP Acquisition and Disposal is identified as a sub-activity of the program activity: RP and Informatics Infrastructure Acquisition and Disposal. Four sub-sub-activities have been identified for Real Property Acquisition and Disposal and were included in the study:

- Maritime RP Acquisition and Disposal
- Land RP Acquisition and Disposal
- Aerospace RP Acquisition and Disposal
- Joint RP Acquisition and Disposal

With regards to acquisition, the evaluation examined the following components:

- identification and prioritization of requirements
- project approvals
- project realization
- resources

For disposal, the evaluation included:

- identification of disposal projects
- project approvals
- project realization
- resources

The evaluation also examined infrastructure maintenance under Section 5.1 Internal Services of the PAA (as the RP program involves activities undertaken to ensure RP is managed in a sustainable and financially responsible manner throughout its life cycle).

⁹ Directive on Evaluation Function, TB, April 2009.

¹⁰ DND/CF PAA, February 2010.

Some of the components of the Internal Services strategic outcome, as identified in the PAA, were included:

- an assessment of the effectiveness of ADM(IE)'s functional authority role. In particular, whether the functional responsibilities of ADM(IE) were well communicated and understood within the DND/CF;
- adequacy of the RP training provided; and
- adequacy of the information systems for RP management.

The CFHA was the subject of an audit¹¹ by CRS in 2010 and consequently was not considered as part of this evaluation.

RP acquisition, maintenance, and disposal also includes the CAP, a program through which DND provides funding to support the transfer of infrastructure and facilities to provinces, territories, or municipalities. An evaluation of the CAP¹² was completed by CRS in November 2009 as required under the Policy on Transfer Payments¹³.

Methodology

Multiple sources of evidence were used to address the evaluation issues and questions:

- **Document Review.** Documents reviewed included strategic documents such as the Departmental Report on Plans and Priorities, as well as policies, directives, and standards (Defence Administrative Orders and Directives (DAOD) 4001-0/4001/1, Realty Asset Management Manual (RAMM), Realty Asset National Portfolio Management Plan 2008/09 to 2012/13, Infrastructure and Environment (IE) Functional Planning Guidance, etc.).
- **Interviews with Key Stakeholders.** Stakeholders interviewed included the ADM(IE), his senior staff, and representatives from the Director Real Property Management (DRPM), Director Real Property Planning (DRPP), the three environmental commands, joint staff, and the four operational command headquarters.
- **Site Visits and Interviews.** Site visits were made to four CF bases/wings and interviews were held with the Base/Wing Construction Engineering Officers (B/WCEO) and Base/Wing Property Officers (B/WPO) to further enhance the team's knowledge and appreciation of the magnitude and diversity of the DND/CF RP portfolio.

¹¹ Audit of Financial Stewardship of the CF Housing Portfolio, 7053-50-4 (CRS), March 2010.

¹² Evaluation of the Contribution Agreement of the Capital Assistance Program, 1258-178 (CRS), November 2009.

¹³ Policy on Transfer Payments, Appendix A, Treasury Board of Canada Secretariat (TBS).

- **Telephone Interviews.** In addition to face-to-face interviews, telephone interviews with 17 B/WPOs and 5 B/WCEOs from DND/CF bases across Canada were conducted to obtain feedback on their experience with the program. By analyzing the comments received on the relevance and performance of the program, the evaluation team assessed the role of the ADM(IE) in managing the RP function and portfolio across Canada.
- Interviews with the senior policy staff from the RP Branch of PWGSC and the Material Policy Division of the TBS were also conducted to confirm the relevance and performance of the RP function in DND.
- A document review of the defence organizations of the United States (US) and Australia to identify best practices in the acquisition and disposal of RP was conducted, as well as a review of the report by the United Kingdom (UK) Comptroller and Auditor General of the UK's Ministry of Defence (MoD) and its RP portfolio.

Limitations

An RP life cycle management approach is used by the DND/CF to reflect the whole life cost of RP. The physical life cycle of RP is divided into three distinct phases: acquisition; use, operation and maintenance, and disposal. Within the federal government, a fourth phase has been added—investment planning. This evaluation examined acquisition, maintenance, and disposal. The component of “use and operation” was included as a function of acquisition and disposal. “Investment planning” was not included in this study as it will be the subject of a CRS audit in 2011.

The evaluation did not examine if the appropriate RP assets were in place, or if they were needed. The intent of the evaluation was to determine if the acquisition, maintenance, and disposal of RP was in alignment with the government's needs, roles, and responsibilities, if the RP program achieved its expected outcomes, and if it demonstrated efficiency and economy.

Lack of clearly identified outputs and outcomes for the RP Acquisition, Maintenance and Disposal Program made assessing the achievement of expected outcomes difficult.

The information available from RP databases is limited. Information is dispersed among several organizations:

- the ADM(IE) group;
- the three environmental commands (maritime, land, and air);
- the Canadian Forces Support Unit Ottawa;
- the Assistant Deputy Minister (Science and Technology) group;
- the Military Personnel Command; and
- the operational commands (Canadian Expeditionary Forces Command (CEFCOM), Canadian Operational Support Command (CANOSCOM), and Canadian Special Operations Forces Command (CANSOFCOM)).

Moreover, the information available in the Realty Asset Information System (RAIS) and Realty Asset Accrual Accounting (R3A) databases is not current, (with major problems encountered with the validation of asset holdings and inconsistencies between RAIS and R3A). It is also inconsistent with the information available in databases held elsewhere. This made it difficult to reconcile information holdings across the DND/CF as a whole and the evaluators relied upon information provided largely by ADM(IE) staff.

All RP managed by CEFCOM is situated outside Canada. RP managed by CANOSCOM is minor and also located outside Canada. RP managed by CANSOFCOM is highly classified and secure. None of the RP managed by these three operational commands has been included in this evaluation.

Data from interviews that could be incorporated into the report had to be carefully scrutinized in order to protect the privacy of individuals. As a result, some useful information may not have been included.

Description of Program

Defence RP Portfolio

According to the DND/CF PAA, RP acquisition, maintenance, and disposal is a sub-activity of the RP and Informatics Infrastructure Acquisition, Maintenance and Disposal Program, which contributes to DND meeting the strategic outcome of acquiring resources to meet government defence expectations.

The Defence RP portfolio¹⁴ comprises 33 percent of federal buildings and seven percent of federal lands. The portfolio consists of over 35,000 assets concentrated among 25 main installations and bases across Canada, as well as smaller installations in 290 locations across Canada. The RRC for the RP portfolio of buildings (including housing) and works is estimated at \$22 billion. Approximately 4,976 military and civilian employees provide a variety of RP services.

Included in the portfolio are 20,695 buildings, 13,378 works and 1,016 parcels of land consisting of offices, barracks, military schools, housing, armouries, hangars, storage facilities, police stations, post offices, and schools. The inventory includes every type of municipal works (such as roads, bridges, electrical distribution systems, street lighting, water supply systems, sanitary sewers and storm water systems, etc.), as well as operational works (such as airfields, runway and taxiway lighting systems, wharves and jetties, communication structures, and a variety of different types of training areas). While the majority of DND RP is owned, some is leased. Leased buildings account for 11 percent of the floor space, but only two percent of the number of buildings. More than three-quarters (77 percent) of the land is leased. Also included in the DND portfolio are ranges and training areas, which are essential for developing and maintaining Canada's military capability and readiness.

¹⁴ As at 31 March 2010.

RP Management in the DND/CF

RP is managed in alignment to the DND/CF's corporate business strategy. RP decisions are made according to operational needs, within a context of evolving technological, policy, and legal developments.

As the custodian of the largest portfolio of federal government RP, the DND/CF manages the planning, acquisition, construction, operation, maintenance, and disposal of its RP. This is done in accordance with TB policy, generally accepted RP practice principles, and the RP delegation of authority.

DAOD 4001-1 – Realty Asset Management, was issued in 1999 and provides RP policy direction for the DND/CF. RP is only held to support programs and operations. L1 custodians have a stewardship responsibility to ensure that government policies relating to the environment, health, and safety are respected.

Within the DND/CF, RP management is decentralized, with devolution of responsibility and the associated budgets for the operational and tactical level management of RP to L1 custodians.¹⁵ L1 custodians have responsibility for the management of RP that supports their respective programs; however, strategic planning, policy, and advice with respect to RP are not devolved and are retained by ADM(IE).

Strategic RP management by ADM(IE) involves the development of departmental policies and plans that focus on the long range (up to 30 years). Plans are linked to DND/CF operational plans and ensure implementation of federal government policies, goals, plans and directions. Within the overall strategic plan approved at the national level, each L1 custodian at the DND/CF is responsible for ensuring that RPs are appropriate for their respective operational requirements. The major custodians are the commanders of the three environmental commands (maritime, land, and air) and those commanders of the operational commands who manage RP.¹⁶ An important part of planning for future operations is the identification of RP requirements by the three commanders of the environmental commands and the commanders of the operational commands.

Identification of future requirements is one of the steps in RP planning. In order for RP projects to achieve their operational mandates, capabilities, and directions, RP requirements are planned in accordance with the expected end state of a base/wing or national RP portfolio. They are approved and implemented in accordance with RP development plans. The master development plans provide the development visions and concepts for the RP to meet operational mandates, directions, and requirements. Capital investment plans translate the development visions and concepts into phased programs

¹⁵ Custodians operate/maintain infrastructure and are responsible for the maintenance construction program for non-residential property.

¹⁶ CEFCOM, CANSOFCOM and CANOSCOM.

and projects. Tactical level management of RP is carried out by DND/CF personnel located at Defence sites under the direction of the local base/wing Comd, with a focus of responding to short-term needs for land, buildings, works, and other infrastructure.

The Logic Model ([Annex B](#)) identifies the outputs and outcomes for the maritime, land, air, and joint RP acquisition, maintenance, and disposal programs. In terms of acquisition, RP is to be acquired and recapitalized in such a way as to ensure that the DND/CF has the facilities that it requires when and where needed.

Roles and Responsibilities

Accountability for the administration of RP within the DND/CF is distributed between the DM, ADM(IE) as the functional authority, and L1 custodians to support their programs.¹⁷

The DM is accountable to the MND and to TB for the management of assets, including RP acquisition, management, and disposal. Specifically, the DM is responsible for implementing an effective management framework, including departmental procedures, processes, and systems. This framework must demonstrate how the management of assets is effectively integrated with program expenditure, financial, and HR considerations to promote value for money. The DM ensures that monitoring of assets and acquired services management practices and controls are in place and that expeditious when control failures are identified.

ADM(IE) is the functional authority for RP and has horizontal responsibility for the leadership and coordination of RP activities to ensure the stewardship of the DND/CF RP portfolio. ADM(IE) is the custodian for RP that has been designated as surplus to program requirements and transferred to ADM(IE) from the L1 custodian through the Corporate RP Transfer Program. ADM(IE) provides the following:

- corporate leadership through advocacy of the RP function;
- RP advice to the MND, DM, Chief of the Defence Staff (CDS), and VCDS;
- functional direction (frameworks, policies, directions, and standards);
- functional guidance (advice, manuals, guidelines, and tools) to the L1 custodians; and
- functional oversight (compliance monitoring and reporting) on behalf of the DM.

¹⁷ L1 custodians with assigned RP include: Commander Maritime Command, Commander Land Force Command, Commander Air Command, Commander Military Personnel Command, ADM(IE), Assistant Deputy Minister (Science and Technology), ADM(Fin CS), the VCDS, and the commanders of CEFCOM, CANOSCOM, and CANSOFCOM.

L1 custodians are accountable for the delivery of their assigned missions and programs. This includes the life cycle management of assigned RP on behalf of the DM in accordance with the applicable legislation, regulations, government policies, DND functional direction, and due diligence obligations. L1 custodians are accountable to the DM¹⁸ for adhering to the functional direction of the ADM(IE).

More specifically, L1 custodians are responsible for the following:

- identifying and assessing current and evolving operational requirements;
- life cycle planning that identifies, from a technical perspective, what RP should be maintained, repaired, rehabilitated, or recapitalized first. Plans are informed by an understanding of the strategic direction, the inventory, its condition, remaining service life, and accumulated deferred maintenance;
- portfolio development planning that identifies, from a suitability perspective, how the portfolio should evolve over time and where development should take place; and
- establishing investment priorities and assigning resources.

To assist them in these responsibilities, L1 custodians are given advice on their RP portfolio through their participation in various ADM(IE) governance bodies, from the IEOC, and from their RP advisors. L1 custodians and their advisors establish and recommend investment priorities and resource allocation for their respective commands and influence the prioritization of the Corporate Construction Program.

At the base/wing level, the responsibility for RP lies with the base/wing Comd. Reporting to the base/wing Comd, and advising him or her on RP, is a B/WCEO organization led by a DND/CF officer. B/WCEO organizations are comprised of DND/CF members, to ensure sustainment of a deployable capability, and civilians (the B/WPOs) for specific expertise, stability and continuity. The B/WCEO organizations are further supported by DCC, PWGSC and contracted resources. The B/WCEOs are responsible for RP life cycle and development planning activities and for recommending RP investment priorities to their base/wing Comd.

At a practical level, there is significant “official and unofficial” transfer of information between the B/WCEOs, the B/WPOs, and the ADM(IE) staff at National Defence Headquarters (NDHQ) through the technical network.

¹⁸ L1 custodians are accountable to the DM, through the Line of Departmental Authority and Accountability, for DND employees and DND/CF members, in the exercise of delegated statutory, policy, and administrative authorities related to the management of funds, public service employees, property, and other resources. This is not accountability for military operations (where the military commanders would be accountable to the CDS). The bridge between the military and the Department’s statutory responsibilities is established through the VCDS as Chief of Staff for both the DM and the CDS.

RP Committee Structure

DND/CF RP activities are coordinated and integrated by the engagement of L1 custodian representative stakeholders on four key committees that support RP decision making and information sharing:

- **The IEOC**, chaired by ADM(IE), engages L1 custodians in IE issues with the aim of improving the management of these activities. It functions as an advisory board to ADM(IE).
- **The Real Property Management Committee (RPMC)**, chaired by the Director General Real Property (DGRP), is a sub-committee of the IEOC and provides review, guidance, and coordination of strategic RP concepts, policy, procedures, plans, and systems related to the effective management of the Department's RP.
- **The RP Development Planning Sub-Committee**, chaired by DRPP, is a sub-committee of RPMC that provides leadership and advice in the area of development planning in order to ensure responsible, effective, and proactive long-term management of all the DND/CF RP for which DND/CF is the custodian.
- **The Infrastructure Senior Review Board**, chaired by the DGRP, is a special purpose board that assesses the readiness of projects and the associated documentation to proceed to expenditure authority. It reviews capital construction projects with values greater than \$5 million and below \$60 million.
- **The IE Policy Committee**, chaired by the IE Chief of Staff, provides assistance and advice to the IE Group in the development and implementation of policy instruments related to IE management.

ADM(IE) Organizational Structure

Within the ADM(IE) group, the following individuals have responsibility for carrying out RP activities:

- DGRP;
- Director General Military Engineering (DGME);
- Director General Environment (DGE);
- Director General Nuclear Safety (DGNS);
- Director Infrastructure and Environment Comptrollership (DIEC);
- Director Infrastructure and Environment Issues Management (DIEIM); and
- CEO CFHA.

DGRP is accountable for the clarification of how RP supports the operational requirements of the DND/CF. It accomplishes this through the development of investment and management options, strategic planning, development of policies and action plans, and reporting on results. Strategic advice is provided to the DGRP through two directorates:

- DRPM
- DRPP



DGME is accountable for the development, co-ordination, and assurance of military engineering input to DND/CF plans and operations. This includes fire protection functional direction, oversight, and advice; architectural and engineering (architecture, civil/structural, mechanical, and electrical) functional direction, oversight, and advice; construction, environmental, and unexploded explosive ordnance (UXO) clearance project management; energy conservation, efficiency, and management advice; respiratory protection program administration; environmental engineering advice; and range and training area life cycle management policy.

DGE is accountable for providing project direction and management advice, oversight, and related professional services in environmental protection and stewardship.

DGNS is accountable for the development, co-ordination, and assurance of the implementation of a comprehensive nuclear safety program. This responsibility encompasses radioactive materials and other sources of ionizing radiation in use within the DND/CF with a view to assuring overall design, development, and operational safety. DGNS is responsible for assuring compliance with the nuclear safety program, which includes technical safety analyses of the adequacy of design and behaviour of equipment and activities initiated by or including DND/CF personnel.

DIEC is accountable for providing financial and contracting advice and has financial and contracting reporting, analysis, support, review, and challenge responsibilities. DIEC is the functional authority for all DND/CF RP financial and accounting activities.

DIEIM is accountable for providing consultation, strategic analysis and planning, policy considerations, coordination, and other business recommendations with respect to sensitive and/or multi-jurisdictional or organizational matters. DIEIM is the departmental lead on strategic analysis, coordination, and policy development regarding aboriginal issues.

The CEO CFHA has the mandate to operate and maintain the Department's housing portfolio, which consists of approximately 12,600 DND residential housing units at bases and wings located at 32 sites across Canada. The CEO CFHA's duties include the allocation, maintenance, repairs, and recapitalization of the housing units, the administration of the shelter charge system, and the strategic management of the housing assets on behalf of DND.

Other Departments and Agencies Involved with RP at the DND/CF

Several other federal government departments and agencies have an involvement in the RP management activities of the DND/CF:

- Defence Construction (1951) Limited (commonly known as DCC) is a Crown corporation that provides contracting, construction management, and IE services for the DND/CF over five service lines: construction services, contract services, environmental services, project and program management services, and real property management services. DCC has one customer: the DND/CF. DCC has sole rights to manage any DND/CF construction project exceeding a cost of \$60,000;



- TBS officials advise the TB ministers on the RP plans and expenditures of the DND/CF, and assist in the development of government RP policy instruments. Within the TBS, the RP and Materiel Policy Division provides advice on the RP aspect of the DND/CF Management Accountability Framework (MAF);
- Department of Justice Canada provides DND with legal services, including legal advice and opinions on RP matters and transactions;
- Environment Canada and the Canadian Environmental Assessment Agency develop environmental policies and provide advice on environmental matters;
- Parks Canada provides advice on heritage buildings; and
- PWGSC, as the custodian of most office accommodations for the federal government, has program responsibilities for RP and a limited policy role. The DND/CF may choose to use the optional contract services provided by PWGSC.

Annual RP Expenditures

The CFDS assigned eight percent of the total annual defence spending over the next 20 years to RP. On an annual basis, the CFDS states that Defence should move from spending an average of 2.5 percent of RRC to 3.9 percent of RRC. This means that on average the DND/CF should spend 2.5 percent of RRC annually on RP acquisition and CISOE and 1.4 percent of RRC annually on M&R. Currently, the DND/CF spends approximately 6.28 percent of annual defence spending on RP (an amount of about \$1,371 million for FY 2010/11). RP spending for FY 2010/11 was broken down as follows:

- RP acquisition¹⁹—approximately \$589 million;²⁰
- Operations and maintenance (O&M)²¹—approximately \$545 million; and
- M&R²²—approximately \$237 million.

According to ADM(IE)'s RP Functional Review of April 2010, spending on RP increased about 22 percent in the four fiscal years from FY 2006/07 to FY 2009/10 (from approximately \$1,091 million to approximately \$1,411 million). It then decreased in FY 2010/11 to \$1,371 million (see Figure 1).

¹⁹ Acquisition is defined as a construction investment related to recapitalization construction, or the betterment of, or construction to replace, an existing realty asset.

²⁰ Totals may not add up due to rounding.

²¹ O&M: These costs are items, such as plant operations, leases, utilities, payment in lieu of taxes, grounds care, waste collection and disposal, and monitoring services.

²² M&R: These costs include all work to maintain or preserve the service potential of a realty asset.

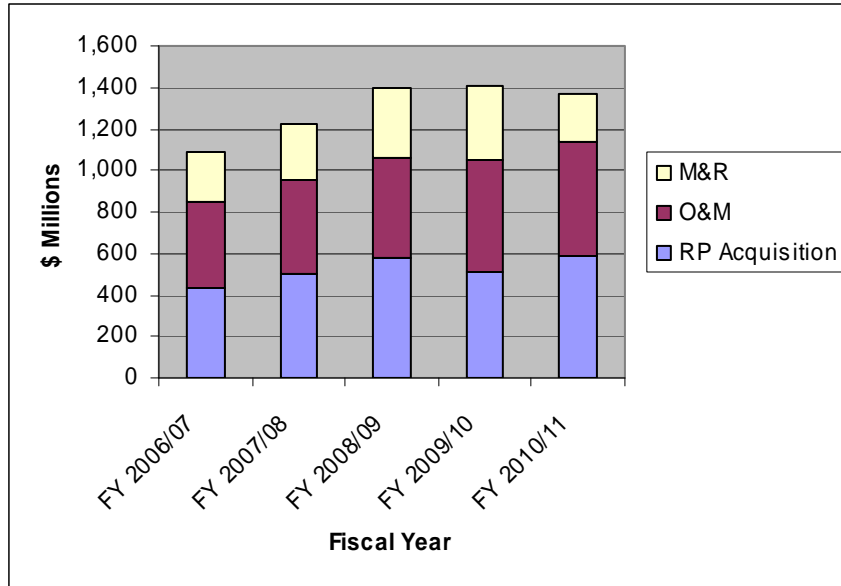


Figure 1. Annual Expenditure by the DND/CF on RP. This chart shows the DND/CF's annual spending on RP over the past five fiscal years.²³ The data is provided in Table 1.

Expenditures	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	FY 2010/11
M&R	\$245M	\$264M	\$338M	\$361M	\$237M
O&M	\$414M	\$459M	\$487M	\$541M	\$545M
RP Acquisition	\$432M	\$497M	\$575M	\$510M	\$589M
Total ²⁴	\$1,091M	\$1,220M	\$1,399M	\$1,411M	\$1,371M

Table 1. Annual Expenditure by the DND/CF on RP from FY 2006/07 to FY 2010/11.

RP Acquisition, Life Cycle Management/Maintenance, and Disposal

RP is acquired through construction, acquisition, purchase, lease or capital lease.

Acquisition includes the following:

- a transaction that adds a new RP, or an immovable, to DND inventory by purchase, exchange, gift, expropriation, easement, servitude, lease, or licence;
- a custody transfer from another department or an agent Crown corporation;
- a transfer of administration of RP, or an immovable, to DND from another department or an agent Crown corporation; or
- a transfer of administration and control of RP, or an immovable, to the federal government from a province.

²³ Source: ADM(IE).

²⁴ Totals may not add up due to rounding.

RP Life Cycle Management, Maintenance, and Recapitalization

RP acquisition is also achieved through a combination of corporate and L1 custodian construction and recapitalization programs. Corporate programs address corporate priorities and major initiatives and L1 custodian programs typically address L1 custodian priorities and life cycle investment requirements. With the exception of residential housing, funding for L1 custodian programs is allocated through the business planning process based on funding availability and the RRC (or relative size) of the L1 custodian's portfolio (see Table 2). Funding for RP at the base/wing level is subject to priority setting by the base/wing Commander. It is not unusual for infrastructure to be a lesser priority in the business planning process at the L1 custodian level. In addition to the programs of the major custodians, ADM(IE) administers a corporate program for small RP custodians.

DND/CF Commands/ Organizations	RRC—Building and Works				Land ²⁵ (Owned and Leased)
	Non-Residential Building	Residential Buildings ²⁶	Works	Total	
DND—All Commands	\$13.26 billion	\$1.97 billion	\$7.65 billion	\$22.88 billion	2.20 million hectares
Land Force Command	44.9%	46.2%	34.4%	41.5%	23.1%
Air Command	27.6%	29.2%	31.5%	28.9%	70.7%
Maritime Command	15.1%	10.4%	17.3%	15.14%	2.1%
Military Personnel Command	5.2%	6.2%	4.3%	5.0%	0.4%
Defence Research and Development Canada	2.3%	0.0%	1.2%	1.8%	0.0%
Other	4.8%	8.0%	11.6%	7.4%	3.8%

Table 2. Profile of DND RP.²⁷ This table shows the RP holdings by RRC for the DND/CF at the L1 custodian level. Rows are by command or principal holder. Columns are by dollar value and percent of the total. The right-hand column shows the amount of land in area and the percentage held by each command/principal holder.

RP is disposed of through de-construction, sale, transfer, or lease. Disposal includes the following:

- a transaction that removes RP, or an immovable, from DND inventory by sale, letters of patent, grant, act of concession, exchange, gift, easement, servitude, lease, or licence;
- a custody transfer to another department or an agent Crown corporation;
- a transfer of administration of RP, or an immovable, from the DND to another department or an agent Crown corporation; or

²⁵ RRCs are not applicable to land assets. The percentages in this column are based on a percentage of total hectares.

²⁶ Residential housing units located on bases and wings are operated and maintained by the CFHA.

²⁷ Infrastructure and Environment Functional Planning Guidance FY 2009/10.

- a transfer of administration and control of RP, or an immovable, from the DND to a province.

L1 custodians are responsible for the identification of RP that is surplus to their requirements. Surplus RP is either demolished/de-constructed or disposed of through routine or strategic disposals (once strategic input from the DGRP has been obtained).

Changes in RP Holdings and Investment

During the period 2004-2010, there was a decrease of 0.79 percent in the land area and a decrease of 5.56 percent in the number of buildings held by the DND/CF (see Table 3).

Fiscal Years	Land Area (Hectares)	Buildings
2004/05	2,175,743	22,009
2005/06	2,222,591	20,259
2006/07	2,260,025	20,202
2007/08	2,235,000	20,395
2008/09	2,228,541	20,521
2009/10	2,175,385	20,563
2010/11	2,158,455	20,785

Table 3. Land and Buildings Held by the DND/CF.²⁸ This table shows the amount of land (in hectares) and the number of buildings held by the DND/CF.

²⁸ Infrastructure and Environment Functional Planning Guidance FY 2009/10.

Findings and Recommendations

Relevance

Issue 1. Continued Need for Program

There is a continued need for the RP Acquisition, Maintenance and Disposal Program to realize the vision for infrastructure outlined in the CFDS.

The CFDS (issued June 2008) specifies the GC's perspective for Defence over the next 20 years. In order to accomplish the vision of modernizing the DND/CF, infrastructure has been identified as one of the four pillars upon which military capabilities are built.

In the CFDS, eight percent of the total defence spending are earmarked for infrastructure over the next 20 years.²⁹ Since the DND/CF currently spends approximately 6.28 percent of its overall budget on infrastructure, the extra will require moving from spending an average of 2.5 percent on RRCs (annual average expenditure 2000 to 2006) to an average level of 3.9 percent over the next 20 years. Furthermore, as per the CFDS, DND aims to replace 25 percent of the existing defence infrastructure in the next 10 years and 50 percent over the next 20 years.³⁰

Two funds (those monies spent on acquisition; and those monies spent on M&R) use RRCs to set investment targets. The 3.9 percent RRC target is split as 2.5 percent for RP acquisition, and 1.4 percent for M&R. In FY 2010/11, although the 2.5 percent of RRC spending target was met, ADM(IE) underspent its budget of \$950 million for RP acquisition by \$361 million. For M&R, the DND/CF is underachieving the 1.4 percent RRC target. In FY 2010/11, the DND/CF spent approximately \$600 million of \$950 million that was funded for RP acquisition and spent 1.04 percent of RRC on M&R.

Issue 2. Alignment with Government Priorities

The RP Acquisition, Maintenance and Disposal Program is aligned with three of the outcome areas identified in the Whole-of-government framework and with the departmental strategic outcome of acquisition of resources.

In 2002, the federal government adopted a whole-of-government framework for reporting to parliament. This framework³¹ consists of 16 high-level GC outcomes within the four areas of economic, social, international and government affairs. As infrastructure is one of the four pillars upon which military capabilities are built, it is aligned with the following GC outcomes:

²⁹ *Canada First Defence Strategy – 1 Year Later*, Canadian Defence and Foreign Affairs Institute, October 2009.

³⁰ Government of Canada, *Canada First Defence Strategy*, June 2008.

³¹ The Government of Canada Planning and Performance Gateway, TBS (<http://www.tbs-sct.gc.ca/ppg-cpr/home-accueil-eng.aspx>).

GC Outcome

1. Economic Affairs—Strong Economic Growth

DND/CF Input

- Over the five-year period from FY 2006/07 to FY 2010/11 the DND/CF issued contracts worth \$2.3 billion to build and strengthen physical infrastructure.

GC Outcome

2. Social Affairs—A Safe and Secure Canada

DND/CF Input

- The DND/CF is responsible for securing Canada's airspace, land, and marine borders, and other points of entry and for building capacity to respond to security threats. Infrastructure is an essential component in meeting these responsibilities.

GC Outcome

3. International Affairs—A Safe and Secure World through International Engagement

DND/CF Input

- It is a priority of the federal government to promote freedom, democracy, human rights, and the rule of law throughout the world. The DND/CF provide military forces for combat and peace support operations and provide support to other countries in building capacity for counter-terrorism. Infrastructure is an essential component in supporting these operations.

Departmental Strategic Outcomes

In DND's PAA, acquisition and disposal of RP falls under the strategic outcome Resources are acquired to meet Government Defence Expectations, in the sub-activity RP Acquisition, Maintenance and Disposal. RP is also part of the Department's Internal Services.

The DND/CF RP Acquisition, Maintenance and Disposal Program aims to ensure that the right property is acquired and/or disposed of, and is available where and when needed, while providing value for money, advancing objectives for the greening of government land and buildings, and adhering to best practices for asset life cycle management.

Issue 3. Alignment with Federal Roles and Responsibilities

The roles of the MND, DM, and ADM(IE) align with and follow appropriate GC legislation and policies to deliver the RP Acquisition, Maintenance and Disposal Program within the DND/CF.

The *National Defence Act* states that “The Minister...is responsible for the construction and maintenance of all defence establishments and works for the defence of Canada.”

TB policy holds DMs and departments/agencies responsible for ensuring that their RP management frameworks include policies, practices, and procedures that comply with federal legislation. In addition, departments/agencies are required to have systems that provide relevant program, financial, and RP performance information. The evaluation found that detailed financial information was difficult to capture in prior year,³² and that performance management information was not collected in a consistent manner across Canada.³³ Although M&R financial visibility has improved, the overall quality of financial information is still poor due to the continued use of RP legacy information technology (IT) systems. The Infrastructure and Environment Business Modernization (IEBM) program is designed to address these problems with the RP legacy IT systems.

The FRPFIA sets out legal requirements related to the acquisition, administration, and disposition of RP and immovables by the GC. The Act also describes the authorities of custodian departments (e.g., DND) in discharging their federal realty transactions. The evaluation found that ADM(IE) operates in accordance with the requirements of the Act.

The evaluation determined that management of RP by the DND/CF is aligned with the requirements of the FRPFIA and the RP policies of the TB, that RP work conducted by the DND/CF follows the Act, and, with the exception of the notes provided in the MAF, is generally done in accordance with TB policies.³⁴

³² Prior to 2010 the amount of money spent on RP M&R was captured in the Financial Managerial Accounting System (FMAS) as a lump sum. Only in 2010 did the data to identify the environment for which the RP M&R was being spent begin to be collected in FMAS.

³³ RP performance measurement information for the DND/CF is collected haphazardly across Canada.

³⁴ MAF Rounds VI, VII and VIII gave DND an Opportunity for Improvement rating “primarily because of the lack of progress in updating its internal RP policies,” MAF Round VIII (2010/11).

Performance (Effectiveness, Economy, and Efficiency)

Issue 4. Achievement of Expected Outcomes

- The expected outcome for the RP program to support the DND/CF requirements and operations has been met.
- The expected outcome for acquisition of effective, efficient, modern, and sustainable RP that meets the requirements of the DND/CF is improving but has not yet met its optimal efficiency and effectiveness.
- For reasons beyond the control of ADM(IE), some RP disposals have exceeded the three-year time frame for disposal.

Effectiveness

Functional Authority

The departmental functional authority for the delivery of guidance and direction on acquisition, disposal, and corporate level administration of RP rests with ADM(IE), as directed by the DM and the CDS, in DAOD 1000-0, issued on 26 September 1997 (most recently updated on 23 October 2006).

Definitions for functional guidance and direction as provided for in DAOD 1000-0 have their genesis from “Principles of Functional Direction,” tabled at the Defence Management Committee on 20 October 2000. Functional Direction is defined as, “...direction that cuts across normal lines of authority in an organization. It can take the form of formal directives, operating memoranda, instructions, written guidelines, or advice. Often functional direction is seen in the form of one unit with a policy responsibility providing guidance to another that delivers the corresponding program ...”³⁵

As the functional authority, ADM(IE) is accountable for the provision of functional direction, advice, guidance, and oversight based on risk and sound management practices. L1 custodians are accountable for the management of assigned RP in accordance with legislation, regulation, and government policies.

Accordingly, working within DND’s current management framework, the challenge before the ADM(IE) is to exercise both line authority over ADM(IE) staff and to provide sufficient functional direction for the L1 custodians and their respective staffs to ensure that corporate goals established for the infrastructure pillar of the CFDS are achieved. Specifically, the CFDS calls for the Department to increase spending from 2.5 percent of RRC to an average of 3.9 percent of RRC annually over the next 20 years. This figure of 3.9 percent represents the sum of 2.5 percent on RP acquisition and 1.4 percent³⁶ on M&R.³⁷

In support of building and developing the infrastructure pillar through the role of functional authority, the ADM(IE) has administrative processes that staffs at bases and wings are to follow, but has no line authority over these personnel. The ADM(IE) provides the tools and can ensure that the directors general, directors, and staff use the tools, but has no authoritative levers to cause the L1 custodian’s staff at bases and wings to do the same. The L1 custodians have established their own processes, which vary in effectiveness from one organization to the next, and have sometimes been slow to accept new standards established by the ADM(IE).³⁸

³⁵ RAMM—Glossary.

³⁶ This number of 1.4 percent is net of military salaries and benefits, and civilian salary wage envelope (SWE).

³⁷ Private industry standard for M&R is an average of two percent annually. The 1.4 percent represents the lower limit.

³⁸ A draft DAOD 4000-0, once promulgated, will establish ADM(IE)’s authority in this matter and clarify the accountabilities of L1 custodians for RP management.

However, ADM(IE) has put forth a proposal that, starting in April 2012, funding will be provided for RP acquisition and then that funding will be apportioned to the L1 custodians and CFHA.

Finding

Functional control over funds for RP acquisition will be demonstrated through the apportionment of funds by ADM(IE) to the L1 custodians and CFHA.

Construction (Recapitalization and CISOE)

RP construction (RP acquisition and CISOE) is achieved through a combination of corporate and L1 custodian construction programs. Funding for the L1 custodian programs is allocated through the business planning process based on availability and the RRC of the L1 custodian's portfolio. ADM(IE) also administers a corporate program for small RP custodians.

The following are the three main components to capital investment:

- identification and prioritization of capital requirements for RP acquisition;
- project approval; and
- project realization.

Identification and Prioritization of Capital Requirements for Infrastructure Recapitalization

ADM(IE) establishes the Capital Investment Plan Infrastructure (CIP Infra) component of the departmental 20-year Investment Plan with input from L1 custodians and RP managers. The CIP Infra is produced annually and updated monthly to ensure that the allocation of resources is aligned with Defence priorities. CIP Infra uses Vote 5 funding.

The process follows an annual life cycle with call letters early in the fiscal year sent to L1 custodians and RP managers for their addition of new RP construction projects, changes to existing RP projects, or deletion of RP projects.

The responses from the L1 custodians and RP managers are reviewed by ADM(IE) staff for completeness and feasibility. The RP capital projects are then consolidated and prioritized into the CIP Infra. The CIP Infra is presented to the Program Management Board (PMB) for prioritization approval and the Defence Finance Committee for fiscal approval.

During the fiscal year the CIP Infra is updated monthly with input from the L1 custodians.

Although the ADM(IE)'s Campaign Plan item DP 5—Improving the DND/CF Construction Program Stewardship—has begun to address the issue of managing the RP acquisition program effectively and efficiently, the Campaign Plan by itself does not solve the timeliness of construction project approvals.

For FY 2010/11 the DND/CF underspent its program funding by \$361 million.³⁹

Moreover, although the DND/CF has been funded for RP acquisition at the level recommended in by the CFDS, it has not been able to spend those funds at an adequate rate (see Table 4).

	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	FY 2010/11
RP acquisition	2.06%	2.35%	2.71%	2.41%	2.58%

Table 4. Annual Departmental RP Recapitalization or Replacement Construction Spending as a Percentage of RRC by Fiscal Year. For three of the past five fiscal years, the DND/CF has not met its objective of spending 2.5 percent of RRC on RP acquisition.

The main issue is the RP project approval process. An assessment of this project approval process⁴⁰ by CRS found that while the construction acquisition process is efficient and innovative, a number of systemic issues persist in regards to strategic planning, authorities, and responsibilities with respect to the approval of the construction program.

Finding

Although there is a process for the identification and prioritization of RP capital requirements for RP acquisition, the ADM(IE) group did not meet its commitment of spending 2.5 percent of RRC in RP acquisition in three of the past five years. For FY 2010/11, although the 2.5 percent of RRC spending target was met, ADM(IE) underspent its budget by \$361 million of \$950 million for RP acquisition. The principal reason for this under-spending was the lack of timeliness in gaining project approval to commence construction.

Project Approval

RP capital projects valued at \$1 million or more are included in the CIP Infra. RP capital projects of \$1 million or less are approved by the base/wing Comds and are not included in the CIP Infra. RP capital projects valued between \$1 million and \$5 million are approved by ADM(IE). RP capital projects valued between \$5 million and \$60 million, with a Project Complexity Risk Assessment can be approved by the MND. RP Capital projects valued greater than \$60 million are approved by the MND or TB⁴¹ based on TBS decision after the review of the risk assessment.

As a follow-on to its assessment of the construction acquisition process in 2007, in 2009 CRS conducted a review of the project submission process for the DND/CF.⁴² The review determined that within the DND/CF, the project approval process was as follows:

- had limited capacity for handling the project submission process;

³⁹ Of this amount, approximately \$200 million was for RP acquisition and \$150 million was for CISOE.

⁴⁰ Construction Acquisition Process Assessment, 1258-146 (CRS), February 2007.

⁴¹ Delegation of Authorities, MND to DND officers.

⁴² TB/MND Submission Process Review, 7050-47 (CRS), July 2009.

- had roles and responsibilities that were not in alignment with core competencies, expertise, and functions and thus created duplication of effort; and
- had expenditure delegation thresholds that were too low and that should be increased based on project value and risk.

In response to this review, the ADM(IE) modified the submission approval process by creating a “streamlined RP project approval process” for projects at Effective Project Approval of between \$5-30 million and projects at Preliminary Project Approval of \$5-60 million. Although this new process increased departmental capacity, this evaluation found that the current “streamlined RP project approval process” remains cumbersome and lengthy, especially when used to construct/acquire buildings. Due to the low expenditure delegation thresholds, and the time delays incurred through the various approval steps, the long approval process leads to cost escalations and non-delivery of projects.

A large number of RP construction projects are rated at risk level 1 or 2 as per TBS guidelines. That would indicate that the risk to the DND/CF in undertaking these projects is quite low. If that is the case, then RP construction projects with a low risk factor should follow a simplified project approval process in order to ensure they are undertaken with minimal delay. However, that is not what this evaluation found. Although a “streamlined” approach has been implemented for some RP approved construction projects, the gains that were expected have not materialized.

The evaluation noted that the approval level for RP acquisition of \$1 million or less by a base/wing Comd and CEO CFHA has become restrictive over time. Due to the increased cost of steel, concrete, and labour, the cost of RP acquisition has increased substantially. Therefore, the base/wing Comd and CEO CFHA must now refer almost all RP acquisition projects to their L1 custodian and ADM(IE), or the DM, or the MND for approval, depending on the value of the construction project.

Finding

Notwithstanding the changes made to the RP project approval process over the past few years, the current streamlined RP project approval process remains cumbersome and lengthy.

The RP construction project approval process does not use “risk” as a critical value in determining project management oversight. All RP construction projects, no matter their risk level, are treated with the same degree of oversight.

The base/wing Comd and CEO CFHA expenditure authority approval level for RP acquisition is too low and causes further delays in getting approval for RP acquisition projects.

Under-spending of RP acquisition funds could impact the ability of the DND/CF to meet the targets of 25 percent and 50 percent of RP acquisition in the next 10 and 20 years as set out in the CFDS.

Recommendations

1. Review the streamlined RP project approval process to propose a new approach by using a risk-based analysis of RP construction projects. As such, those RP construction projects rated at low risk do not follow the same level of oversight as high-risk RP construction projects.
OPI: ADM(IE)
2. Review the dollar value approval limits of RP acquisition projects with the L1 custodians and the CEO/CFHA and make recommendations to the MND to increase the expenditure delegation thresholds to mitigate further under-spending.
OPI: ADM(IE)
3. Prepare an impact statement on the effect that under-spending in RP acquisition will have on the ability of the DND/CF to meet the aim set out in the CFDS of 25-percent RP acquisition in the next 10 years, and 50 percent in the next 20 years.
OPI: ADM(IE)

CISOE

The identification, definition, and visibility of infrastructure costs attributable to the acquisition of new equipment is not clear, especially regarding the distinction between recapitalization and those costs that are incremental; that is, driven by equipment acquisition. This lack of clarity affects the determination of how the RP requirements will be funded. Moreover, the true costs are not always apparent to departmental approval authorities since other elements of the equipment acquisition budget may be reduced or RP acquisition resources may be diverted.

ADM(IE) staff are sometimes consulted very late in the development of an equipment project. At other times, ADM(IE) staff need to “inject” their presence when they become aware of a procurement that likely requires the building of infrastructure.

Generally, equipment projects identify key operation-specific RP infrastructure that needs to be built (e.g., hangars in Trenton for C-17 aircraft). Sometimes, however, they do not include supporting RP infrastructure, such as utility line extensions, lodging, and messing facilities that can be directly linked to the new capability. These additional construction expenses are often funded by the L1 construction program, or the capital construction program, on an ad hoc basis instead of by the equipment project.

There should be early involvement by ADM(IE) expertise, as well as a consistent approach to attributing and reporting infrastructure costs associated with equipment purchases. RP costs may often represent a relatively small part of an equipment acquisition budget; however, unforeseen costs can loom large relative to RP acquisition budgets.

Prior to project implementation, sufficient planning activities are generally not undertaken by equipment acquisition projects to fully identify, assess, cost, and budget RP requirements. The four principal factors that contribute to this situation are as follows:

- Planning for RP requirements and budgets is often perceived as secondary to planning for equipment requirements and budgets.
- There is insufficient involvement of key RP staff early in the capital project life cycle.
- Insufficient challenge is applied to the RP assumptions and plans as part of the equipment project.
- There is ambiguous direction regarding who budgets and who pays for RP requirements for capital equipment projects.

Another key CISOE issue is the inability to have visibility of the CISOE planned and actual expenditures. Currently, CISOE is set up as a cost element of an equipment project and often these costs are often extremely difficult to identify and retrieve. Equipment project managers (PM) should be accounting for the equipment expenditures and not the CISOE expenditures. ADM(IE) is currently pursuing an approach with ADM(Mat) whereby all construction projects, including CISOE, would be funded, accounted for, and reported as part of the DND/CF Construction Program—not as an element of an equipment buy. This may provide visibility of the total project cost. At the time of the evaluation, ADM(IE) could not properly capture, report, and manage the construction costs of an equipment project.

Findings

Projects can be compliant with existing controls (i.e., the departmental Project Approval Guide (PAG)), yet still incur unplanned RP costs. The PAG does not specifically encourage the assessment of RP assumptions throughout the project planning and implementation cycle. The existing management processes and controls do not mandate the appropriate involvement of key RP staff in the determination/challenge of RP requirements early in the project planning life cycle. This contributes to the incomplete identification of RP requirements prior to project implementation.

ADM(IE) expertise is not involved at an early stage for CISOE projects.

A consistent approach is needed for attributing and reporting infrastructure costs associated with equipment purchases. RP costs may often represent a relatively small part of an equipment acquisition budget. However, unforeseen costs can loom large relative to RP acquisition budgets.

ADM(IE) lacks visibility of the CISOE planned and actual expenditures. At the current time, ADM(IE) cannot properly capture, report, and manage the construction costs when those costs are part of an equipment project.

Recommendation

4. Continue development of an approach with ADM(Mat) whereby CISOE would be integrated into the construction program, including its funding priorities, governance, and performance measures, and reported as part of the DND/CF Construction Program.

OPI: ADM(IE)

Disposal

In accordance with the long-term operational requirements defined in approved RP Development Plans, L1 custodians are responsible for the identification of infrastructure that is surplus to their requirements. Surplus RP is either demolished or disposed of through routine or strategic disposals.⁴³ Routine disposals typically involve selling the RP on the open market (only after priority interest is sought from the federal/provincial/municipal levels of government), either through PWGSC or by base/wing staff under the Comd's authority. Some routine disposals of a more complex nature are done through ADM(IE)/DRPM).

Due to their complexity, strategic disposals are managed by the ADM(IE). Strategic disposals are properties, or a portfolio of properties, with potential for significantly enhanced value, ones that are highly sensitive, or a combination of these factors. Because of the complexity associated with these properties, they may require innovative efforts and a comprehensive management approach to move them into the market. Canada Lands Company (CLC),⁴⁴ as the government's disposal agent, disposes of these selected surplus properties through the strategic disposal process. Any strategic disposal with a market value greater than \$6 million requires TB approval.

Disposals of RP, particularly strategic disposals, tend not to realize immediate savings, often require upfront expenditures, and are subject to external influences such as heritage designation requirements and environmental assessments. In the long term, reducing the overall size of the RP portfolio benefits DND/CF operations because RP maintenance and support costs are reduced. However, in the short-term, disposals have a negative impact since significantly more resources are required to realize a disposal than to leave the RP vacant or underutilized.

The performance target for strategic disposals (prescribed by TB policy) is for them to occur within a three-year time frame. As shown in Table 5, this time frame is not always met due to factors such as complexity of the project, location, the existence of Aboriginal land claims, and environmental contamination.

⁴³ Surplus RP is sold or transferred following an established process tailored to the characteristics of the surplus property (i.e., whether it is routine or strategic). In general, routine surplus real properties are properties or portfolios of properties with lesser value that can be easily sold without any substantial investment. These properties are normally sold in their "as is" state on the open market by the custodian, its agent (PWGSC), or a private sector firm. Strategic surplus real properties are properties or portfolios of properties with potential for significantly enhanced value, those that are highly sensitive, or a combination of these factors. Because of the complexity associated with these properties, they may require innovative efforts and a comprehensive management approach to move them into the market. CLC Limited, as the government's disposal agent, disposes of these selected surplus properties through a strategic disposal process (Policy Framework for the Management of Assets and Acquired Services (November 1, 2006); Directive on the Sale or Transfer of Surplus RP (1 November 2006)).

⁴⁴ CLC is an arm's-length, self-financing Crown corporation that reports to Parliament through the minister of PWGSC. It manages, redevelops, and/or sells strategic GC properties across Canada that are no longer required for program purposes.

Number of Strategic Disposals Completed (by Fiscal Year)				
Time Frame from Commencement	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10
Within three years	4	5	4	4
Three to five years	4	1	2	1
More than five years	1	3	4	5

Table 5. Disposals of Strategic Property—DND/CF. This table shows the number of strategic RP disposals by fiscal year and by length of time required to dispose of the property.

Some disposals could not take place immediately because the RP was required to support programs until a replacement solution was defined and implemented (Kapyong Barracks and Jericho, for example).

Where First Nations claims are involved, the disposal project may go on for many years. A current listing of major RP disposals is provided in Table 6.

Site	Status	Disposal Agency
Toronto—Downsview Military Accommodations Area	Final negotiations with Parc Downsview Park under way	Parc Downsview Park
Ottawa—Rockcliffe	Sold 28 March 2011	CLC
Winnipeg—Kapyong Barracks	Negotiations with CLC on hold pending resolution of a judicial review in the Federal Court of Canada	CLC
Oakville—Military Accommodations Area	Sold 17 June 2010	CLC
Halifax—Shannon Park	To be determined	CLC
St-Maurice de Terrebonne Firing Range	UXO clearance under way	CLC
Ottawa—Former National Defence Medical Centre	To be determined	CLC
London—Highbury Complex	Disposal strategy pending environmental clean-up	CLC
Winnipeg—Disposal of Housing Lands on South Site	Disposal strategy dependent on resolution of litigation issues and accommodation strategy to meet CF requirements	CLC
Richmond, BC—Excess Armoury Lands	Disposal strategy under development	To be determined
Vancouver—Jericho Beach	Aboriginal consultations ongoing	CLC
Ipperwash	Disposal time frame dependent on final Aboriginal consultations and UXO/environmental clean-up	Indian and Northern Affairs Canada

Table 6. Current RP Strategic Disposals for the DND/CF. This table shows the current listing of major RP strategic disposals.

Finding

Routine RP disposals generally occur within the time frame approved by TB. Strategic disposals outside the control of the DND usually take longer than the TB standard time for completion.

RP M&R

RP M&R includes all planned or unplanned work completed to maintain or preserve the service potential of a capital/non-capital asset including cyclical maintenance, reactive repair, and engineered maintenance. In addition to traditional maintenance activities, it includes all activities associated with condition assessment and monitoring along with legislated and compliance inspections (such as elevators, emergency exits, and fire suppression).

Funding of RP M&R at the National Level

The CFDS includes an infrastructure investment objective of 1.4 percent of the RRC (net of military pay and SWE) to cover annual RP M&R. Based on the current RRC of the Defence infrastructure portfolio, the budget for M&R should be approximately \$311 million annually. M&R expenditures typically fall below this target. The proposed budget for RP M&R in FY 2010/11 was \$208 million. The actual amount spent on RP M&R for FY 2010/11 was \$237 million, an amount 24 percent less than that called for by CFDS (see Figure 2).

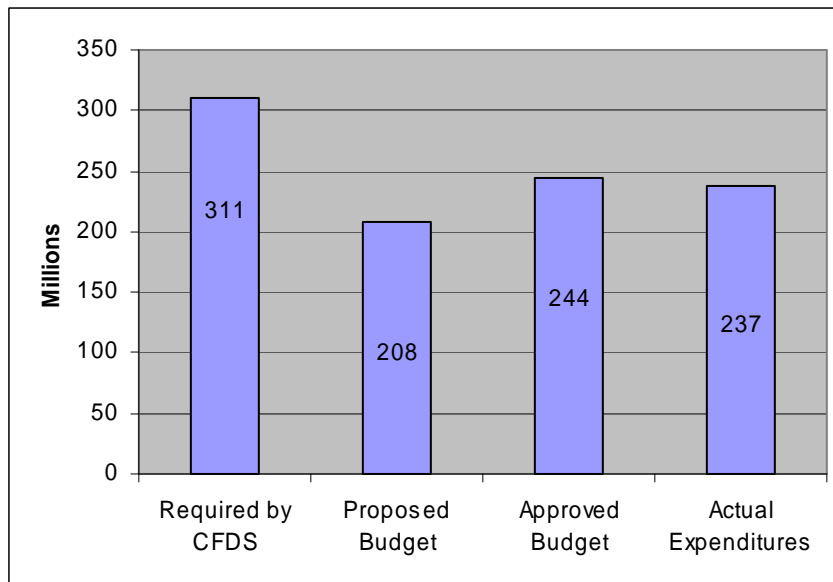


Figure 2. Investment in M&R of Infrastructure—FY 2010/11.⁴⁵ M&R spending as required by the CFDS typically falls below the 1.4 percent target. The data is provided in Table 7.

⁴⁵ Dollar values for previous fiscal years are not available. Prior to FY 2010/11, the financial accounts for ADM(IE) did not keep track of the detailed changes to the RP M&R budget as they are shown in this chart.

M&R	FY 2010/11 (\$M)
Required by CFDS	\$311
Proposed Budget	\$208
Approved Budget	\$244
Actual Expenditure	\$237

Table 7. Investment in M&R of Infrastructure—FY 2010/11.

M&R Spending as a Percentage of RRC

Up to the period FY 2008/09, the target M&R spending was two percent of RRC, including military pay and civilian SWE. For the DND/CF as a whole, M&R spending was consistently under the two percent of RRC target.

Beginning in FY 2009/10 the target for M&R spending as a percentage of RRC changed, and now does not include military pay and civilian SWE since these are included in the “Personnel” pillar of the CFDS. The CFDS target for M&R spending is now 1.4 percent of RRC. For FY 2010/11, the amount spent on M&R represented 1.04 percent of the RRC.

Establishing what was being spent on the Department’s RP M&R program was problematic. The L1 custodians received a budget for RP M&R, but base Comds did not necessarily spend those funds on RP M&R. Instead, funds intended for RP M&R were sometimes spent on operationally related items. The base Comds were able to move funds between votes (spending Vote 1 O&M money in Vote 5 capital and vice versa), which further contributed to the decrease in viability of RP infrastructure. The VCDS addressed this issue by “fencing”⁴⁶ the amount of money to be spent by L1 custodians on RP M&R to ensure that resources allocated for RP M&R were not directed to other activities, such as readiness. For FY 2011/12, the targeted investment is 1.0 percent of RRC. For FY 2012/13, the targeted investment is 1.2 percent of RRC and for FY 2013/14, it is 1.4 percent of RRC.

The M&R information in Figure 3 is not reliable for fiscal years prior to FY 2010/11 as the database from which the data was extracted contains discrepancies with other data sources.⁴⁷

⁴⁶ “Fencing” is the restriction of monies to specific FMAS accounts. In this instance monies allocated to L1s have been restricted to M&R.

⁴⁷ Source: ADM(IE) staff.

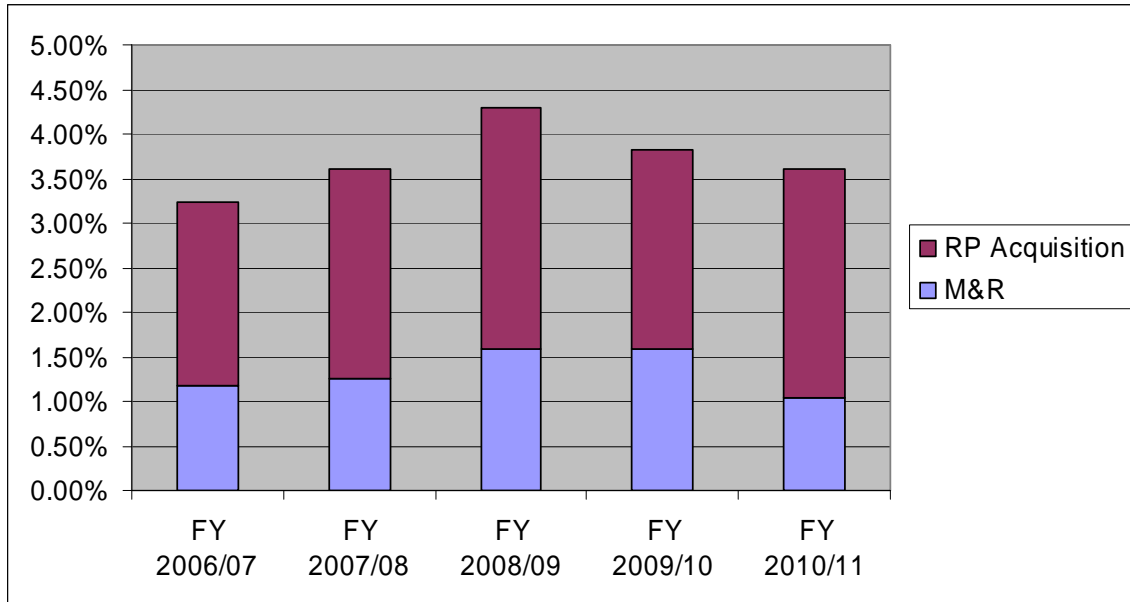


Figure 3. RP M&R Spending as a Percentage of RRC.⁴⁸ Spending by fiscal year on RP acquisition and M&R expressed as a percentage of RRC.

RP	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	FY 2010/11
RP Acquisition	2.06%	2.35%	2.71%	2.24%	2.58%
M&R	1.17%	1.25%	1.59%	1.58%	1.04%

Table 8. RP M&R Spending as a Percentage of RRC for the Period FY 2006/07 to FY 2010/11.

Findings

The amount spent on RP M&R does not meet the target of 1.4 percent of RRC as identified in the CFDS.

The actions of the VCDS to fence the RP M&R monies and provide supplemental M&R funding to the LIs will allow RP M&R to meet the CFDS target of 1.4 percent of RRC by FY 2013/14.

State of Realty Assets (SORA) Report

The SORA Report for FY 2009/10 indicated that the overall assessment of RP assets in terms of suitability for DND/CF missions and asset conditions has been declining steadily. As shown in Table 9, the overall assessment of RP assets uses the following scale to assess RP condition.

⁴⁸ Source: ADM(IE).

Rating Scale ⁴⁹		
Rating	Lower	Upper
Good	3.75	5
Fair	3.25	3.75
Low/Fair	2.75	3.25
Poor	1	2.75

Table 9. Rating Scale for RP Condition and Habitability. Indicators of RP condition based on a rating scale of 1.0 to 5.0.

As referenced in the CFDS, following budget cuts in the 1990s the resources earmarked by L1 custodians for infrastructure maintenance and replacement were reduced significantly. The SORA for FY 2009/10 reported that “much of National Defence’s infrastructure is ageing and in poor repair, and will require refurbishing or replacement over the coming years.”⁵⁰

The under-investment in infrastructure maintenance contributes to the deterioration of the RP portfolio, and the lack of M&R spending may contribute to non-compliance with building habitation and occupation standards.⁵¹ From January 1999 to August 2008 (the latest year for which detailed RP condition information is available), the condition of the RP portfolio deteriorated by eight percent (see Table 10 and Table 9 for the rating).

	January 1999	August 2008	Change
DND	3.34 (Fair)	3.07 (Fair)	-8.1%
Maritime	3.30 (Fair)	2.88 (Low/Fair)	-12.7%
Land	3.50 (Fair)	3.10 (Low/Fair)	-11.4%
Air	3.15 (Low/Fair)	3.14 (Low/Fair)	-0.3%
Chief of Military Personnel	3.48 (Fair)	2.76 (Low/Fair)	-20.7%

Table 10. RP Infrastructure Condition.⁵² This table shows the change in RP condition over time from the period January 1999 to August 2008.

A limited update to the RP condition information base was conducted in FY 2009/10. It reported that the overall trend was a continued deterioration in the RP portfolio, as seen in Table 11. (For rating see Table 9).

⁴⁹ Source: ADM(IE).

⁵⁰ State of Realty Assets Report, FY 2009/10.

⁵¹ Interviews.

⁵² Annex J RP Functional Review, 27 April 2010.

Overall Infrastructure Condition			
Environment	Infrastructure Trend	Infrastructure Condition	RP Recapitalization
Maritime Command	Deteriorating	Low/Fair	Low/Fair
Land Force Command	Deteriorating	Low/Fair	Low/Fair
Air Command	Deteriorating	Low/Fair	Low/Fair
Military Personnel Command	Deteriorating	Low/Fair	Poor

Table 11. Summary of DND/CF Infrastructure Condition. This table uses the rating valuation from Table 9. Information taken from Annex J, RP Functional Review, 27 April 2010.

Findings

Information concerning SORA is out of date.

RP infrastructure continues to deteriorate and may affect compliance with the CFDS strategic direction, as well as building habitation and occupation standards.

Recommendation

5. Prepare an impact statement on the effect that under-spending in M&R will have on the ability of the DND/CF to meet its mission and objectives and to be in compliance with occupational standards.

OPI: ADM(IE)

Identification, Prioritization, and Approval of RP M&R Requirements

The RP M&R plan is prepared by each of the L1 custodians in the army, navy or air force using input from the Comds of the bases/wings. RP M&R uses Vote 1 funding and is reported by each L1 custodian against their O&M budget. Although ADM(IE) and the VCDS try to influence investment decisions (ADM(IE) through the publishing of the annual Functional Planning Guidance), there is no involvement of ADM(IE) staff in the creation of the RP M&R budgets. For FY 2011/12, VCDS has directed that RP M&R funding in L119 be “fenced” and only used for M&R activity and L1 custodians must invest at least 1.0 percent of RRC in RP M&R. In FY 2012/13, the investment must rise to 1.2 percent and increase yet again to 1.4 percent in FY 2013/14.

The evaluation noted differences in process by the various commands and the base/wing Comds with the identification and prioritization of RP M&R projects. However, now that VCDS has fenced the RP M&R, these differences may be inconsequential.

Issue 5. Demonstration of Economy and Efficiency

- Resources allocated to the acquisition and maintenance of RP within the DND/CF are underused and have resulted in an RP portfolio that continues to deteriorate.
- Performance measurement of the RP portfolio is inconsistent across the country.

The lines of evidence utilized in the evaluation concluded that, since the budget cuts of the 1990s, resources allocated to the acquisition, maintenance, and disposal of RP have been insufficient and have resulted in an RP portfolio that continues to deteriorate, requiring either refurbishment or replacement. Funding for RP acquisition and M&R increased during the period FY 2006/07 to FY 2008/09, decreased in FY 2009/10, and decreased again in FY 2010/11. While more than sufficient construction funding for the portfolio has been planned and allocated, the problem remains that the funding cannot be spent.

An assessment of economy and efficiency in a more traditional financial sense is focused on minimizing the cost of inputs. The Policy on Evaluation outlines an assessment of economy and efficiency as an examination of the mix of characteristics of a program's inputs and outputs. These are the cost, quality, quantity, timeliness, and appropriateness, as well as the degree to which the program has been successful in achieving a suitable balance between these (given the program's context, risks, and assumptions).

Economy

Background

The TBS defines economy in the following manner in its evaluation policy:

Economy: minimizing the use of resources. Economy is achieved when the cost of resources used approximates the minimum amount of resources needed to achieve expected outcomes.

MAF

In the TBS MAF Round VII FY 2009/10, and again in Round VIII FY 2010/11, the TBS assessment downgraded asset management at the DND/CF to “opportunity for improvement.” This change was mainly attributed to weak RP management practices that were identified during the previous year’s assessment and not adequately addressed. In particular, the RP management framework was identified as requiring attention in the areas of policy, information management, and performance information.

RP Functional Review

The RP Functional Review⁵³ conducted by ADM(IE) included an analysis of DND/CF locations based on operational value, economic impact, condition, and expenditures. The findings of that analysis indicated that not all sites contribute equally to the enablement of DND programs and DND/CF missions. Further, it identified that there is a potential opportunity for reduction and consolidation. The report proposed that, through the existing business planning process, L1 custodians be required to demonstrate how they will achieve sustainability through a combination of portfolio reductions and reallocation of resources towards the RP acquisition and RP M&R.

Financial

From the point of view of economy as it is defined by the TBS, the cost of resources used has not met the expected outcomes. For RP acquisition, ADM(IE) and L1 custodians have not spent what funds were given to them. For M&R, the L1 custodians have not allocated the 1.4 percent of RRC necessary to maintain their RP infrastructure.

The ability of ADM(IE) to spend funding for RP acquisition remains constrained by the project approval process.

⁵³ ADM(IE) RP Functional Review, 27 April 2010 (conducted as part of the Strategic Review).

For RP M&R, budget allocations have been insufficient. This chronic lack of M&R funding meant that RP M&R rarely achieved all its necessary outputs to ensure that life cycle management was economical because long-term planning for the asset was often disrupted. This lack of continuity in asset maintenance resulted in expenditure plans that kept assets from their baseline capacity. The implementation of fenced funding by the VCDS for RP M&R should alleviate this issue by FY 2013/14.

From a financial perspective the stability of funding used to fund RP M&R is crucial in determining the RP life cycle asset management strategy. According to the latest RP Functional Review, “planned and actual RP expenditures typically fall below targets established in the IE Functional Planning Guidance and the CFDS.”⁵⁴ For instance, the approved L1 custodian M&R budget for FY 2010/11 was well below what was required. Furthermore, M&R funding is often targeted to absorb overall operating budget cuts. In 2010, “a five-percent cut to all operating budgets resulted in a 20-percent reduction in planned spending of the four major custodians.”⁵⁵ Consequently, RP managers and base/wing staffs use available M&R funding to perform immediately required corrective actions instead of spending money on preventive measures aimed at reducing future corrective actions, which in turn simply increases the future demand for corrective maintenance. The net result is a continuous deterioration of the asset portfolio, which eventually could raise compliance issues.

Finding

The breadth of an economic analysis that would determine how much more expensive “correct and refurbish” would be compared to “preventive investment” was beyond the scope of this evaluation. However, there is the danger that as RP assets age the longer term achievement of “lowest cost possible” might be at risk. Although the present capital funds available for RP infrastructure are sufficient to allow for a critical mass of RP assets to be at a baseline operational condition to ensure the outputs necessary for the delivery of services to which the DND/CF has committed, the fundamental issue remains that ADM(IE) and L1s cannot spend what they are given. The funds are available, but ADM(IE) and L1s cannot get construction projects approved and executed in a timely manner (see Recommendation 1).

HR

During the conduct of this evaluation, a common recurring theme from various staffs at headquarters and at base/wing levels corroborated the findings of the RP Functional Review that the HR needed to optimize the life cycle costs of RP assets are not being used with optimal efficiency and effectiveness.

⁵⁴ RP Functional Review, page 27.

⁵⁵ Ibid., page 28.

There are two issues. Although ADM(IE) and the L1 custodians have enough staff positions, at the places where the work occurs, i.e., the wings and bases, more contract management personnel, civilian engineers, and managers are needed and fewer labourers, technicians, carpenters, and electricians. Trades people can be contracted with relative ease and flexibility. Managers and engineers are less available, and require a long familiarization period before they become effective. For example, there are approximately 60 construction PMs in DGME, 1 Canadian Air Division and other L1 custodian managers. These PMs manage about 550 active RP projects, an average of eight to 10 projects per PM at any one time. As a comparison, the Canadian construction industry believes that the maximum number of construction projects an expert construction PM may be involved in at any one time is three.⁵⁶

The evaluation determined that the number of construction projects undertaken by ADM(IE) has increased due to the following:

- more money allocated for infrastructure through the CFDS;
- the construction requirements for operations in Afghanistan; and
- infrastructure decay (e.g., most infrastructure (buildings, sewers, roads, etc.) on bases/wings is more than 60 years old).

Notwithstanding the availability of expert construction PMs, the increase in the number of construction projects, coupled with the time required for a project to receive approval, created a situation where RP acquisition targets were not met, especially in FY 2010/11. In order to address these concerns, ADM(IE) is redefining the RP acquisition process, especially in terms of the way large construction projects are managed. It is thought that the recently approved ADM(IE) Campaign Plan⁵⁷ would assist in correcting the impediments to timely and economical construction. This is assuming that the other recommendations in this evaluation report are implemented and that the RP project approval time is reduced.

The second issue is that a number of those interviewed believe there are too many vacancies at the bases/wings for RP civilian staff. Almost all the base/wing staff who were interviewed said these vacancies are due to positions being classified at the wrong level and employees being unwilling to accept these positions at that level. Moreover, the ADM(IE) Functional Review concluded that L1s and base/wing staffs do not have the HR necessary to undertake systematic life cycle planning activities due to the number of

⁵⁶ The Canadian construction industry believes that the maximum number of construction projects an expert construction PM may be involved with at any one time is three: one beginning, one ending, and one under way. The actual number of projects will depend on the project size and value, its location, the level of expertise of the individual, the amount of delegation to other PMs, and where in the process each project is. (Hedley Roy, MS, PhD, Past President, Parkin Consultants Ltd., Toronto, ON – Chief Stress Engineer, Toronto City Hall, 1963. Interview, May 2010).

⁵⁷ The Campaign Plan is a multi-year transformation plan designed to address the key government and departmental IE priorities.

vacant positions, both military and civilian.⁵⁸ The evaluation also found that civilian positions with similar tasks and responsibilities were classified differently across the country.

Findings

The number of persons within certain skill sets in the defence IE community shows a large number of people and not enough construction PMs. The defence IE community needs more contract management personnel, civilian engineers, and managers and fewer labourers, technicians, carpenters, and electricians.

L1s and base/wing staffs do not have the HR necessary to undertake systematic life cycle planning activities due to the number of vacant positions both military and civilian.

Civilian positions are classified differently across the country for RP positions with similar tasks and responsibilities.

Civilian positions are sometimes not classified at the appropriate level.

Recommendations

6. Conduct an HR review to determine the appropriate skill sets required to meet the needs of modern RP asset management.

OPI: ADM(IE)

7. Review the classification of civilian RP positions at the command/formation/base/wing level to ensure that there is consistency across the country and that the classifications are at the appropriate level.

OPI: ADM(IE)

⁵⁸ Annex J.

Efficiency

Background

Efficiency is defined in the 2009 TB Policy on Evaluation as follows:

“The extent to which resources are used such that a greater level of output is produced with the same level of input or, a lower level of input is used to produce the same level of output. The level of input and output could be increases or decreases in quantity, quality, or both.”

Asset Management System

A key problem is the lack of accurate and complete RP non-financial and financial information for decision making at all levels.

ADM(IE) is responsible for the identification and prioritization of information system requirements, and ADM(IM) is responsible for the delivery of solutions. The RP community is currently supported by over 20 different IT systems, the management of which is the responsibility of the IM Group. The current applications were developed to address specific needs within a functional area and there is limited integration of material, financial, and HR information. The findings were as follows:

- Of the over 20 IM systems, RAIS, ECONET, the Canadian Forces Engineering Management System (CFEMS) and R3A are the principal sources of RP information.
- RAIS is the system of record for RP information (land, buildings, agreements, and works), capturing master data, financial information, and RRCs for RP assets.
- ECONET is an application used to manage information related to fuel storage tanks, contaminated sites, and solid waste landfills.
- CFEMS is a work order management system used to facilitate the management of the RP assets through their life cycle. CFEMS captures the costs for each RP asset (it records, tracks, and reports on all expenditures related to the management of realty assets) and contains information related to construction engineering resources—human, financial, material, contracts, and other work order-related data (work in progress, backlogs, projects).
- R3A maintains RP asset accounting information, including net book value, capital costs, and amortization on RP assets with a value in excess of \$30,000. Input to this system comes from new RP assets constructed and betterments completed for existing RP assets. Inputs are entered manually or automatically from CFEMS. Automatic entries from CFEMS into R3A are not verified for completeness, accuracy, or reasonability by R3A users.

Some of the information issues identified recently in the ADM(IE) Functional Review included:

- RP managers and base/wing staffs do not have the resources available to undertake systematic life cycle planning activities. This is in part due to the number of vacant positions, both military and civilian.
- Due in part to a lack of personnel, RP development plans have not been established and maintained for all locations.
- Integrated information systems are not available and the RP information management processes do not have the necessary controls.
- RP information that is available is frequently inconsistent, incomplete, inaccurate, and outdated.
- Non-financial information is used to populate financial systems (e.g., CFEMS supplying information to R3A).
- Capital planning and condition assessment tools are not readily available to enable the RP information management processes.

Non-financial Information

The principal RP Asset Management System (AMS) for the DND/CF is RAIS. This system is used to track the location of RP assets and their state of repair; however, due to lack of data input by staff and poor training of new staff, the usage of the system is inconsistent and the data is unreliable. To mitigate this situation, the Maritime Command implemented its own RP AMS, but the Maritime Command AMS does not integrate with RAIS. RAIS is an incomplete and inaccurate database for RP assets and is being replaced by the SAP Enterprise Resource Planning system over the next 18 months.

There is limited use of Geographic Information Systems (GIS) by the DND/CF RP community. GIS systems are commonly used within Canada by municipalities and other large RP holders to identify, plan, design, store information about, and provide graphic representations of their realty holdings. However, DND has not used this capability to provide an integrated view of its RP.

Financial Information

Although the Defence Resource Management Information System (DRMIS) is the financial accounting system of record for the DND/CF, the principal RP financial systems used by the ADM(IE) are CFEMS, R3A and RAIS.

The R3A system tracks realty assets with a value greater than \$30,000 for all DND/CF bases, wings, and formations. Updating of R3A occurs through manual entries or through automated polling of CFEMS—an RP construction work order management system.

Updates to both CFEMS and R3A are not made in a timely manner, nor are they consistently applied across all bases/wings/formations. This causes the information held in R3A to be unreliable. As with RAIS, R3A is being replaced by the SAP Enterprise Resource Planning system over the next 18 months.

Fidelity of Information

Those interviewed stated that the lack of an integrated corporate IT system constrained availability of reliable data on the current conditions and trends of RP, thus delaying timely decision-making processes. In this regard, most RP specialists interviewed were cognizant of the current backlogs in RAIS. Interviewees stated that the backlog stemmed from an ongoing lack of personnel qualified to enter data into the RAIS. They also believed that personnel with the appropriate qualifications are needed to enter technical data into the various geomatics information systems.

In the absence of up-to-date life cycle RP information/performance data, decision-making processes have been reactive and focused on imminent or actual failures of infrastructure. Thus, insufficient capacity to address data collection issues may adversely affect long-term strategic planning initiatives by impeding the collection of RP-related performance data.

As per the TB directive, DND must be ready to state, by FY 2015/16, that its financial processes and internal controls will allow its financial statements to be auditable. This will require full knowledge of asset holdings, confirmed asset values, and effective control and oversight of assets. Some interviewees believed this will be difficult to achieve given the lack of fidelity in the raw data.

Findings

The evaluation found no integrated IM system for RP. RAIS and R3A systems provide a view of RP, but this information is a “picture in time”—it is neither current nor up to date. In several instances, the evaluation team was informed that the RAIS had not been updated due to lack of available staff to enter the data. Further, the evaluation team found several independent IM systems built to respond to the RP management needs of the various organizations, but no example of a single IM system meeting the requirements of all RP staff within the DND/CF. The risk of having independent systems is far-reaching. This includes duplication of effort errors and inconsistency of data entry, as well as the inability to identify a source of error and apply appropriate error correction. Lastly, inconsistency and timeliness of reporting are also issues.

There is limited use of GIS systems by the DND/CF to provide an integrated map of all RP holdings.

Information in the RP IM systems is not consistently up to date. The reports generated from the RP IM systems do not accurately reflect the physical condition of the RP infrastructure, nor do they justly reflect the financial values of RP assets. The IEBM program led by ADM(IE) is taking steps to cease the use of RAIS and R3A and all other legacy IE systems as soon as an integrated IM solution is in place and working appropriately. The non-integrated RP IM systems, and the lack of fidelity in the raw data contained in their databases, do not allow ADM(IE) to have full knowledge of asset holdings or confirmed asset values. Consequently, the DND/CF is unable to attest to the auditability of the financial statements until the raw data is valid and the RP systems are integrated.

Recommendations

8. Continue with the implementation of a single IM system (SAP) RP solution for RP management and accounting to meet the requirements of all RP staff within the DND/CF.

OPI: ADM(IE), ADM(IM)

9. Report on the ability of the DND/CF to meet TB policy. This requires that, by FY 2015/16, the DND/CF demonstrate a process and internal controls that allow for full knowledge of asset holdings to confirm asset values, as well as effective control and oversight of RP assets.

OPI: ADM(IE), ADM(Fin CS)

Procurement and Contracting for the M&R of RP Infrastructure

The procurement and contracting process with respect to the M&R of RP infrastructure is affecting productivity. Although there is a standard procurement and contracting process for RP (revised since the fieldwork for this evaluation was done), interviewees across the country said that they used ad hoc processes for the procurement of RP M&R services. For example, the evaluation team was told that if the person doing the procurement could not find a policy or process to follow, he or she would call another RP staff officer and ask what they would do. In most RP M&R contracting situations, depending on the capabilities and knowledge of the local staff, the DND/CF did not always receive its products or services in a timely manner because delays were caused by the local RP staff not having a good knowledge of RP M&R processes or of how they might engage DCC or PWGSC.

Finding

The effectiveness and efficiency of RP M&R procurement processes vary between the bases/wings due to lack of appropriate training across the DND/CF.

Training

In 2008, the Defence RP Strategy and National Portfolio Management Plan, approved by the Defence Management Committee, identified a significant gap in RP training for both military and civilian personnel.

Subsequently, in 2009, a review was conducted by ADM(IE) to develop a strategy and implementation plan to address the deficiencies in learning, training, and development (LTD) within the DND/CF RP community.⁵⁹ The needs assessment consisted of three components: civilian, military, and combined LTD. As part of the needs assessment, it was determined that four functional competencies are required as a RP specialist: plan, acquire, use (including operating and maintaining), and dispose.

⁵⁹ Report on DND/CF RP Learning, Training and Development Requirements, ADM(IE), 2010, unpublished.

The LTD review reported the following current level of performance within the DND/CF:

- lack of a DAOD to define the responsibilities for ADM(IE) direction and oversight of RP LTD in the broader DND/RP community;
- lack of a formal structure in place within ADM(IE) or the RP manager organizations to support civilian RP LTD;
- lack of a finalized learning roadmap for RP within the RP community;
- lack of a centrally coordinated civilian/combined training;
- lack of internal RP specialist training is offered;
- lack of coordinated delivery of DND civilian RP training and lack of established curricula by which LTD to teach/deliver and evaluated; and
- while the military RP community has an established LTD delivery mechanism, there are some associated issues:
 - lack of up-to-date training plans for RP officers performing transactions;
 - lack of qualified staff and candidates to run courses; and
 - limited ability to instruct in French.

Those interviewed during the evaluation supported the findings of the ADM(IE) Functional Review. ADM(IE) staff and base/wing staff stated that a major issue is the lack of civilian construction engineering leadership positions at the bases/wings. ADM(IE) staff in particular noted that military officers typically change every two to three years and during their tenure may be absent for long periods of time due to career courses or deployment. Therefore, there is a need for civilian base construction engineering officers and RP requirement officers to provide continuity and leadership to develop and execute plans. Specifically, it is necessary to ensure that the RP positions are staffed and that training is provided.

Finding

Training in RP for military and civilian positions is inconsistent across the country. There are no national standards to which RP personnel are trained.

Recommendation

10. Establish a national training program in RP for military and civilian positions with common standards for equivalent positions across the DND/CF.
OPI: ADM(IE)

Performance Measurement

Performance measurement within the RP role at ADM(IE) is inconsistent. There is a high-level outcome reporting at headquarters and weak and fractionated performance measurement of activities and outcomes at the base/wing level.

The evaluation found that performance measurement at the base/wing level is developmental in nature and inconsistent from one base/wing to another. This creates challenges in measuring performance at the activity and output levels. The evaluation found that there is a sense within the RP staff at the bases/wings that performance measurement is in its very early stages: some RP staff at the bases/wings said that performance measurement was weak; some said that it was existent but only on an informal basis; others said that it was in a developmental stage; and still others said that performance measurement is happening in a very piecemeal manner. For example, for some RP infrastructure assets, some regional staff tracked the performance of their RP assets on an Excel worksheet, others used RAIS, and others used the maritime AMS.

Two undertakings would help build a more robust results chain. First, identifying performance measurement indicators that stem from RP primary activities and aligning these performance indicators with service level agreements. Second, implementing a common methodology for RP performance measurement across all bases/wings and ensuring that this methodology is properly communicated to all bases/wings and headquarters. These initiatives should allow the linkage of high-level outcome indicators to the indicators that will capture the operational activities and outputs of RP and therefore aid decision making.

Finding

There is no systematic and consistent performance measurement or reporting system in place for RP activities and outcomes.

Recommendation

11. Develop a national performance measurement strategy that measures how well the RP program is being delivered and that will result in monitoring the performance of its entire RP asset base consistently.

OPI: ADM(IE)

Benchmarking

A literature review was conducted of the RP function for the US Army, the Australian Defence Force, and the UK MoD. The review determined that other countries are struggling with RP issues similar to that of the DND/CF: processes, project management, effectiveness, and efficiency. The review did not find anything that indicated a substantive model for Canada to follow.

For the US Army, the evaluation team performed a document review of strategic RP plans conducted by the RAND Corporation. The RAND review⁶⁰ indicated that installation sustainability was too short-sighted and needed additional higher-level guidance in the form of infrastructure planning. Moreover, multiple data sources needed

⁶⁰ *Ensuring That Army Infrastructure Meets Strategic Needs*, Ellen M. Pint, Beth E. Lachman, Justin L. Adams, W. Michael Hix, RAND Corp, Santa Monica, CA, USA, 2008.

to be reconciled to assist in planning. The study also analyzed implications for installations based on future operational requirements and an assortment of guidance and initiatives. The conclusions of the RAND report on the US Army are in alignment with the findings of this evaluation.

The Australian Defence Force is the largest owner of RP in the Commonwealth, with approximately 3.3 million hectares of land under its ownership or control. From a document review of the Australian Defence Force, the evaluation team determined that RP is owned in accordance with the Australian Government Property Owners Framework and must meet at least one of several criteria (e.g., security, national heritage, environment, etc.). Management responsibility for RP is regulated by the *Commonwealth Lands Acquisition Act* and the Commonwealth Property Disposals Policy with almost all accountability delegated to government agencies that may engage in their own actions. Major capital works are managed by the Property and Construction Division of the armed forces; however, a Public Works Committee must approve any project exceeding \$15 million (which may be bypassed for emergency or defence purposes). A comprehensive property management plan exists, together with performance indicators. Disposal of land rests with the Minister for Finance; however, some surplus properties are not sold on the open market but are retained in alignment with government objectives. A telephone discussion with the Australian authorities determined that they have examined the RP policies of the UK and Canada and have endeavoured to use the best practices of both.

The evaluation team conducted a document review of the UK MoD and its RP portfolio. The defence estate in the UK exists primarily to support defence capabilities, with the MoD aiming to have an estate of the right size, location and quality in the UK and overseas in order to deliver efficiencies and provide a better fit with operational needs. The MoD uses approximately 220,000 hectares of land, which, in comparison, represents about one tenth of the land area used by the DND/CF in Canada. The issues faced by the MoD are similar to those of the DND/CF: disposing of unused RP; improving strategic planning to articulate what RP is necessary to meet operational needs; lack of data in order to influence decision making; and lack of high-level performance metrics. As in Canada, the MoD is also faced with a Strategic Defence and Security Review and this will further influence whether the model of estate management remains appropriate.

Findings

The review determined that other countries are struggling with RP issues similar to that of the DND/CF: processes, project management, effectiveness, and efficiency.

The review did not find anything that indicated a substantive model for Canada to follow, except perhaps for the Australian property management plan with its performance indicators.

Conclusion

The RP Acquisition, Maintenance and Disposal Program is relevant. There is a continued need for the RP program to realize the vision for infrastructure outlined in the CFDS. RP infrastructure is a critical component of the DND/CF and its ability to deliver its programs. The RP program is aligned with government priorities and federal roles and responsibilities.

To evaluate the performance of the RP Acquisition, Maintenance and Disposal Program, it is necessary to differentiate between RP acquisition, disposal, and M&R.

At the strategic level, ADM(IE) exercises good governance and effective planning of the RP Acquisition, Maintenance and Disposal Program through the IEOC and its supporting committees. Acquisition of new infrastructure and renewal of existing infrastructure is impaired, however, because the RP project approval process requires too much time. The project approval process for RP is complex and involved. This has created a backlog of construction engineering projects and a serious underutilization of RP acquisition program allocated funding (\$950 million was available in FY 2010/11 but only \$589 million was spent). If this under-spending continues, the strategic CFDS targets of 25 percent and 50 percent renewal of RP assets in the next 10 and 20 years, respectively, may not be met.

RP disposal generally occurs within the time frame approved by TB. However, strategic disposals usually take longer than the TB standard time for completion because of the due diligence required for environmental remediation and Aboriginal consultation.

The M&R portion of the RP program had some serious issues that may compromise the effectiveness, efficiency, and economy of the handling of RP within the DND/CF. Chronic under-investment in RP M&R has resulted in the deterioration of the RP infrastructure over time. If this situation is not reversed, it may eventually impact on the ability of the DND/CF to meet its mission and objectives. However, now that the VCDS has fenced and supplemented RP M&R funding so that by FY 2013/14 the target of 1.4 percent of RRC will be met, the deterioration of RP infrastructure should be corrected over time, but compliance and safety issues remain.

There is no national training program in RP with common standards for equivalent positions. Training for RP staff has been on how to enter the data in the IM systems rather than how to perform RP procedures and practices. Training for RP staff on the management of RP has neither been consistent nor consistently applied across the country. Functional specialist courses are mandatory and offered through the Canada School of Public Service but provide only a high-level overview of the departmental responsibility for recorded accurate RP information.

There are several IM systems, none of which meet the requirements of all RP staff within the DND/CF. There is a lack of standardized IE processes and the absence of an integrated information system to support sound, timely, cost-effective management decisions concerning the DND/CF RP portfolio. Existing legacy systems like RAIS, R3A and CFEMS were internally developed and lack any form of system controls. They are un-integrated and inaccurate systems that require excessive user inputs and that are being replaced now. Serious deficiencies in these systems have been documented in OAG audits and annual Departmental Financial Management attestations. This situation may result in the DND/CF being unable to produce auditable financial systems by FY 2015/16.

Finally, performance measurement is inconsistent. There is no national performance measurement strategy to measure how well RP is being delivered or to monitor the performance of the entire RP asset base consistently.

Annex A—Management Action Plan

Effectiveness

CRS Recommendation

1. Review the streamlined RP project approval process to propose a new approach by using a risk-based analysis of RP construction projects, so that those RP construction projects rated at low risk do not follow the same level of oversight as high-risk RP construction projects.

Management Action

ADM(IE) input to the new Project Approval Directive (PAD), which supersedes the PAG, included project approval, project management, and project oversight structures based on project risks and complexities. The PAD was endorsed by the PMB at its meeting of 15 September 2011. The potential benefits of a more risk-based approach to the approval process (i.e., accelerated approvals and therefore increased ability to spend available project funding) would be facilitated by the proposed increase in project expenditure authorities for the L1 custodians and the ADM(IE), which is conditional upon ministerial approval of the recently revised “Delegation of Authorities for Financial Administration Instrument (Matrix).” The risk-based approach for project oversight is consistent with the TB policy and TB’s assignment of a Class 3 Organizational Project Management Capability Assessment to the Department.

OPI: ADM(IE)

Target Date: April 2012



CRS Recommendation

2. Review with the L1 custodians and the CEO/CFHA the dollar value approval limits of RP acquisition projects and make recommendations to the MND to increase the expenditure delegation thresholds to mitigate further under-spending.

Management Action

In June 2011, ADM(IE) recommended increases to L1 custodian and ADM(IE) delegations of construction project expenditure authority. These recommendations are included in the “Delegation of Authorities for Financial Administration Instrument (Matrix)” for consideration and approval by the MND.

Changes to the delegations of project expenditure authority for construction projects were also included in the PAD which was endorsed by PMB at its meeting of 15 September 2011. Adoption of the revised project expenditure authorities in the PAD is conditional upon ministerial approval of the “Delegation of Authorities for Financial Administration Instrument (Matrix).”

OPI: ADM(IE)

Target Date: April 2012

CRS Recommendation

3. Prepare an impact statement on the effect that under-spending in RP acquisition will have on the ability of the DND/CF to meet the aim set out in the CFDS of 25 percent RP acquisition in the next 10 years and 50 percent in the next 20 years.

Management Action

Underutilization of RP acquisition funding will eventually result in the decline of infrastructure condition and suitability. Now that there is three years of post-CFDS capital expenditure data (FY 2008/09 to FY 2010/11) available, ADM(IE) has initiated a study to assess the RP portfolio, and these results, once available, can be compared to the previous studies to provide a comprehensive impact statement by April 2012.

OPI: ADM(IE)

Target Date: April 2012

CRS Recommendation

4. Continue development with ADM(Mat) of an approach whereby CISOE would be integrated into the construction program including its funding priorities, governance and performance measures, and reported as part of the DND/CF Construction Program.

Management Action

A CISOE working group was established in June 2011 and is co-chaired by ADM(Mat) and ADM(IE) representatives to identify possible solutions in order to improve funding, accounting and reporting. A new funding, accounting, and reporting approach for CISOE projects is scheduled to be tabled for L1 review by December 2011 and implementation in FY 2012/13.

OPI: ADM(IE), ADM(Mat)

Target Date: June 2012

CRS Recommendation

5. Prepare an impact statement on the effect that under-spending in M&R will have on the ability of the DND/CF to meet their mission and objectives and to be in compliance with occupational standards.

Management Action

As RP acquisition and M&R investments are closely tied to the impact on the suitability and condition of RP, the management action for this recommendation is the same as for Recommendation #3.

OPI: ADM(IE)

Target Date: April 2012

Economy

CRS Recommendation

6. Conduct an HR review to determine the appropriate skill sets required to meet the needs of modern RP asset management.

Management Action

Work has already commenced to determine the skills required to address RP asset management. A workshop was conducted in January 2010 to identify the competency gaps in the DND/CF RP asset management personnel, and was followed by a gap/needs analysis report. This report called “Report on DND/CF RP Learning, Training and Development Needs” mapped the sub-competencies against the RP functions performed at all levels within DND/CF (from NDHQ to base level). In parallel, we worked with the TBS Procurement, Material Management and RP Communities Management Office to finalize the Federal Government RP Functional Competencies, which were promulgated by the Canada General Standards Board in December 2010. The next step is for ADM(IE) to conduct a mapping exercise to link RP sub-competencies to the Canada General Standards Board’s RP functional competencies and behaviour indicators. This is linked to Recommendation #7.

OPI: ADM(IE)

Target Date: April 2013

CRS Recommendation

7. Review the classification of civilian RP positions at the command/formation/base/wing level to ensure that there is consistency across the country, and that the classifications are at the appropriate level.

Management Action

ADM(IE), with the assistance of the Assistant Deputy Minister (Human Resources – Civilian) will gather the RP job descriptions and conduct an analysis and comparison against the Canada General Standards Board’s Functional Competencies and the sub-competencies identified in the DND/CF RP Learning, Training and Development Requirements report. This analysis will identify any gaps that may exist both from an individual and from an organizational point of view. It will also reveal any inconsistencies that may exist between similar jobs. Once the analysis and comparison are completed, ADM(IE) will develop an action plan with Assistant Deputy Minister (Human Resources – Civilian) and the L1s to address inconsistencies from an individual and/or from an organizational stand point.

OPI: ADM(IE)

Target Date: April 2014

Efficiency

CRS Recommendation

8. Continue with the implementation of a single IM system (SAP) RP solution for RP management and accounting to meet the requirements of all RP staff within the DND/CF.

Management Action

The IEBM program has been established to modernize the governance, processes, and supporting IT tools that enable the IE function. The program approach, comprised of four streams of work, was presented to the PMB on 15 September 2011 and will deliver a single IE management solution that is fully integrated with the departmental financial solution. Stream 1 will migrate the RP and Environmental Portfolio and the project management activities to the departmental SAP solution (DRMIS). Stream 2 will leverage the GC licensing to expand DRMIS in order to enable the base/wing transactional activities. Stream 3 will deliver spatial capability that is integrated with DRMIS. Finally, in Stream 4 a comprehensive data collection program will ensure that the information is available to enable informed decision making at all levels.

OPI: ADM(IE), ADM(IM)

Target Date:

Stream 1: October 2012

Streams 2 and 3: April 2014

Stream 4: April 2015

CRS Recommendation

9. Report on the ability of the DND/CF to meet TB policy which requires that by FY 2015/16 the DND/CF, demonstrate a process and internal controls that allows for full knowledge of asset holdings to confirm asset values and effective control and oversight of RP assets.

Management Action

The IEBM program currently under way will deliver a modernized IE function following a phased approach. The first stream will result in updated policies and processes and in the replacement of R3A and RAIS, both of which receive data from CFEMS. It will be completed by September 2012, and will enable the Department to transition RP and environment asset accounting, reporting, and capitalization into the new integrated solution.

In preparation, DIEC is performing an asset validation exercise for the data held in the R3A and RAIS systems. This will be completed by 31 January 2012. In addition, a financial control framework for RP assets is being developed to ensure that the necessary internal controls are embedded in the processes that will be required to support the modernized IE program. A fully documented financial control framework will be completed by 31 January 2012.

OPI: ADM(IE), ADM(Fin CS)

Target Date: April 2013

CRS Recommendation

10. ADM(IE) establish a national training program in RP for military and civilian positions with common standards for equivalent positions across the DND/CF.

Management Action

It is important that recommendations 6 and 7 precede the establishment of a national training program because the training must be directly linked to required skills and knowledge to be effective. The current Infrastructure and Environment Training Framework (IETF) project will establish the necessary foundation for LTD governance, planning, delivery, monitoring and reporting that will enable the potential building of a national training program. The IETF will be established by April 2014. Based upon a learning needs assessment in 2010, DGRP is developing courses that will form part of the national training program. The initial introductory course to managing RP in DND/CF for property officers will be completed by March 2012. This will be followed by an introductory course for base/wing construction engineer officers, to be completed by December 2012. The effort towards a national RP training program will be ongoing. It should also be noted that to establish and maintain this scope of training program, additional resources with specific skills and experience in the LTD field will be required.

OPI: ADM(IE)

Target Date:

Introductory course to managing RP – March 2012

Introductory course for base/wing construction engineer officers – December 2012

IETF – April 2014

CRS Recommendation

11. Develop a national performance measurement strategy that measures how well the RP program is being delivered and that will result in monitoring the performance of its entire RP asset base consistently.

Management Action

Although there is no specific national performance measurement strategy, there are many performance measures that show how the RP program is being delivered. The existing performance measurements are based on targets, which stem from plans, policies, and directives, such as the IE Campaign Plan and the PAA. Many of the RP program performance measures are incorporated in the Corporate IE Dashboard and are updated on a cyclical basis with cycles based on the type of data measured. As the overarching documents evolve, so do the performance measures. Indicators continue to be developed and refined. Some of the indicators have targets with thresholds used to measure performance, whereas other indicators have trends and outcomes. It is expected that performance measurement will continue to be a dynamic process due to the ongoing revision and updating of foundational RP documents.

To date, no work has been done to develop a performance measurement strategy. However, such a strategy would provide a framework for the overall evaluation of the RP program. It would build upon work completed to date that continues to draw together the RP measurement requirements for various plans, policies, and directives, thus enabling a better picture of overall performance. A formal strategy will cement performance measurement as a key piece of the RP.

OPI: ADM(IE)

Target Date: March 2013

Annex B—Logic Model

Activities

- Establishment and maintenance of management and development plans
- Range of approvals obtained
- Policy alignment with TBS
- Training and development of base property officers
- Identifying and eliminating excess infrastructure (de-construction, sale, or transfer via CAP)

RP Acquisition

- Stakeholder requirements determined
- Market surveys conducted/obtained
- Options analyses conducted
- Environmental analyses conducted
- Aboriginal risk assessments conducted/obtained
- Valuation appraisals conducted
- Heritage assessments conducted
- Land title surveys conducted/obtained
- Range of negotiations have taken place among stakeholders
- Range of approvals obtained departmentally and interdepartmentally

RP Disposal

- TB determination if transaction is “strategic” or “routine”
- Stakeholder determination if RP is surplus
- Due diligence processes followed
- Environmental assessments conducted
- Aboriginal risk assessments conducted
- Heritage assessments completed
- Land title surveys completed
- If land is “strategic,” negotiation of disposal transaction amount



Outputs

- RP Management Plan
- RP Development Plan
- Stakeholder consultation and engagement
- RP purchase and lease agreements
- RP licensure
- Reporting as appropriate
- RP sales
- Termination of RP lease agreements
- Departmental policies and guidelines aligned
- Training manual
- Training programs developed and delivered through a range of training venues
- Availability and appropriate expenditure/usage of CAP funding

Outcomes

- Increase or decrease of RP inventory
- Decreased risk of environmental and Aboriginal claims
- Use of market value in RP transactions
- Meet stakeholder requirements
- Open and transparent RP transactions
- Comply with national/provincial heritage designations

Long-Term Outcomes

- RP to support DND/CF requirements and operations
- RP is administered appropriately by DND/CF in accordance with the FRPFIA and TB policies
- Excess RP is not held, administered or maintained by the Department

Annex C—Evaluation Matrix

Relevance

Continued Need

- **Evaluation Questions**
 - Is there a continued need for a RP function within the DND/CF?
 - Do the Maritime, Land, Air, and Joint staffs have relevant RP portfolios?
 - To what extent do the specific needs, which a RP function was intended to address, persist?
 - Is there a need for this program in the future?
 - How does this need compare to that of the government?

- **Performance Indicators**
 - Evidence that the specific need (s), which a RP function was intended to address, still exist
 - Evidence that the Maritime, Land, Air and Joint staffs have relevant RP portfolios
 - Rate of annual acquisition, reinvestment/disposals completed within the past 20-year time frame
 - Legislative frameworks of the government
 - Socio-political trends (those that are affecting the disposition of RP; i.e., First Nations land claims, heritage, and environment)
 - Best practices

- **Data Sources**
 - Key stakeholder interviews
 - Interviews with other Canadian federal government departments (e.g., PWGSC)
 - Document/file review
 - Departmental reports (e.g., PAA, Performance Management Framework (PMF), departmental performance reports, bulletins/newsletters, Report on Plans and Priorities)
 - Benchmarking (other Canadian federal government departments and foreign governments)
 - Literature review (RP related literature)

Alignment with Government Priorities

- **Evaluation Questions**
 - Is the DND/CF role of providing RP acquisition and disposition consistent with government policies and priorities?
 - Have the government's priorities and the Department's strategic outcomes changed since the creation of the RP function and is it supportive of them?
 - Is the DND/CF role aligned with the federal government priorities and the departmental strategic outcomes?
- **Performance Indicators**
 - Evidence of program objectives closely linked with federal government priorities and departmental strategic objectives (e.g., DND's Report on Plans and Priorities)
- **Data Sources**
 - Key stakeholder interviews
 - Review and comparison of program objectives
 - Document review
 - Report on Plans and Priorities
 - TB Policy on Management of RP

Alignment with Federal Roles and Responsibilities

- **Performance Indicators**
 - Assessment of the roles and responsibilities of the federal government in delivering the program

Achievement of Expected Outcomes

- **Evaluation Questions**
 - Does the DND/CF meet its expected outcomes in the provision of the RP function?
 - Do the Maritime, Land, Air, and Joint staffs have responsive RP portfolios?
 - Does the program adhere to best practices for asset life cycle management?
 - Do land, works, and buildings enable the DND/CF to perform operations (e.g., suitable and sustainable)?
 - Does the DND/CF comply with the requirements of the FRPFIA and other relevant legislation, policies, and procedures?

- **Performance Indicators**
 - Evidence that program outputs produce the intended outcomes (i.e., support the delivery of defence operations with an extensive portfolio of land, works, and buildings)
 - Evidence that an RP management framework supports timely and informed RP management decisions (i.e., governance, departmental policy instruments, performance measurements, information systems, contaminated sites management, etc.)
 - Evidence of adherence to best practices and due diligence for asset life cycle management (e.g., decisions aligned with the Strategic Capability Road Map, principles of life cycle management, and sustainable development)
 - Evidence of compliance with existing policies and procedures (e.g., TB Policy on Management of RP, FRPFIA, DAODs, etc.)
 - Evidence that standards are observed for sustainable RP

- **Data Sources**
 - Key informant interviews
 - Document review
 - FRPFIA
 - TB Policy on Management of RP
 - DAOD 4001-0/4001-1
 - Program's PMF
 - Departmental Investment Plan/A RP Strategy
 - RAMM
 - Infrastructure and Environment Functional Planning Guidance
 - Functional Standards for Sustainable Realty Assets
 - Pertinent program files

Demonstration of Efficiency and Economy

- **Evaluation Questions**
 - Are the most appropriate and efficient means being used by the DND/CF in the provision of RP acquisition and disposal?
 - Are there alternatives for delivering these services?
 - Are the processes and procedures (e.g., approval process) used by the DND/CF appropriate for the acquisition and disposal of RP?
 - Does the RP function within the DND/CF duplicate or overlap with other RP programs, policies, or initiatives delivered by other stakeholders?

Annex C

- **Performance Indicators**
 - Evidence of due diligence in the process used for delivering the services (i.e., integrity of data on expenditures)
 - Evidence that funds are spent responsibly
 - Evidence that CAP funding was used for good use (provide assistance in the RP acquisition, reinvestment, and disposal strategy)
 - Similarities and differences (e.g., selected outcomes) between other RP programs
 - Identified overlap/duplication

- **Data Sources**
 - Key informant interviews
 - Document review
 - DAOD 4001-0/4001-1
 - Review of evaluation and audit reports on CAP Grants and Contribution Programs
 - Program PMF
 - Annual reports

