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Chief Review Services Chef - Service d'examen

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## Audit of the Defence Sustainable Development Strategy

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7053-70 (CRS)



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## Table of Contents

<b>Acronyms and Abbreviations</b> .....	<b>i</b>
<b>Results in Brief</b> .....	<b>ii</b>
<b>Introduction</b> .....	<b>1</b>
Background .....	1
Objective .....	1
Scope .....	2
Methodology.....	2
Description of Program.....	3
<b>Findings</b> .....	<b>4</b>
SDS Governance .....	4
Initiative Measurement .....	7
<b>Recommendation</b> .....	<b>11</b>
<b>Annex A—Management Action Plan</b> .....	<b>A-1</b>
<b>Annex B—Audit Criteria</b> .....	<b>B-1</b>
<b>Annex C—SDS 2006 Commitments and Initiatives</b> .....	<b>C-1</b>

## Acronyms and Abbreviations

ADM(IE)	Assistant Deputy Minister (Infrastructure and Environment)
ADM(Mat)	Assistant Deputy Minister (Materiel)
CFHA	Canadian Forces Housing Agency
CRS	Chief Review Services
D Tn	Director Transportation
DES	Defence Environmental Strategy
DGE	Director General Environment
DND	Department of National Defence
FSDS	Federal Sustainable Development Strategy
FY	Fiscal Year
GHG	Greenhouse Gas
HRHM	High-Risk Hazardous Materials
OPI	Office of Primary Interest
SDS	Sustainable Development Strategy
SS(PPA)	Synopsis Sheet (Preliminary Project Approval)



## Results in Brief

Chief Review Services (CRS) conducted an audit of the departmental sustainable development strategy (SDS). The requirement for such strategies initially arose from provisions of the *Auditor General Act*, which required that identified departments, including the Department of National Defence (DND), develop objectives and plans of actions to further sustainable development. The subsequent enactment of the *Federal Sustainable Development Act* led to the recent publication of an initial Federal Sustainable Development Strategy (FSDS) by Environment Canada. DND is now in the process of developing a new SDS that meets the requirements of the Act and the federal strategy. This audit seeks to provide input to this development through the assessment of related departmental governance, risk management and control processes as they presently exist.

### Overall Assessment

Clear accountabilities and improved initiative measurement and reporting are needed to facilitate the assessment of departmental progress against sustainable development targets.

The emphasis of this audit was on the Department's current iteration of its SDS, which was tabled in Parliament in 2006. The audit involved an assessment of the process through which environmental initiatives are established in the development of a multi-year strategy, the extent and coordination of efforts across the Department to achieve these commitments, and the annual measurement and reporting of progress and results.

## Findings and Recommendation

### Findings

**SDS Governance.** The lack of coordination between policy, command and operational areas of the Department has limited progress in support of SDS initiatives. SDS activities have not been incorporated into the business planning process in order to promote cohesive, cross-functional efforts geared towards accomplishing the Department's sustainable development goals.

**Initiative Measurement.** Areas of environmental concern targeted in the SDS related well to those areas of sustainable development identified as priorities by the federal government. However, the specific initiatives identified in the SDS did not always provide a clear means of improving the Department's impact on the environment. Ambiguities in performance indicator definitions and reporting criteria led to differing interpretations and inconsistent reporting of results. As well, benchmarks were not verifiable and not always comparable to current activity levels, thereby making it very difficult to assess results.

### Recommendation

In order for the Department's SDS to effect meaningful progress towards sustainable development, efforts must be made to incorporate SDS activities within business planning and reporting processes. The Assistant Deputy Minister (Infrastructure and Environment) (ADM(IE)), in partnership with departmental policy authorities and operational commands, should ensure the development of environmental initiatives that

target areas of sustainable development of greater risk from departmental activities, with meaningful and measurable performance indicators which clearly and accurately reflect the Department's progress. Responsibilities and accountabilities should be communicated and clear direction provided to support initiative targets with strategies for implementation and reporting.

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**Note:** For a more detailed list of CRS recommendations and management response, please refer to [Annex A](#)—Management Action Plan.

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## Introduction

### Background

“Sustainable development” refers to “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>1</sup> As part of its efforts to improve sustainable development in Canada, the Government of Canada has recognized the need to adopt a coordinated approach in addressing the sustainability of government operations. In 1995, the *Auditor General Act* was amended to require key federal departments to prepare sustainable development strategies, and to establish the Commissioner of the Environment and Sustainable Development. Environment Canada, with Public Works and Government Services Canada’s Office of Greening Government Operations, identified sustainable development priorities for the federal government, which departmental strategies were expected to address.

In 2008, the provisions of the *Auditor General Act* relating to SDS were replaced through enactment of the *Federal Sustainable Development Act*. This new legislation requires Environment Canada to develop a federal SDS, setting out federal sustainable development goals and targets, along with an implementation strategy. The current federal strategy was published in October 2010. Key federal departments, including DND, are in the process of preparing their own SDS which must comply with and contribute to the federal strategy, as appropriate to each department’s mandate.

Sustainable development strategies are to detail the department’s objectives and plans of action, in order to balance its program activities with its performance in economic, social, and environmental spheres. These strategies must be updated at least every three years, and plans and results are required to be reported to Parliament as supplementary information in the government estimates mechanism.

DND has prepared four iterations of the departmental SDS: 1997, 2000, 2003, 2006. Following the legislative changes and the publication of the 2010 federal strategy by Environment Canada, DND is now working to develop the next iteration of its SDS. This audit aims to provide input to the next iteration by assessing the existing processes involved in the development, implementation, and reporting on SDS in its most recent 2006 iteration.

### Objective

The objective of this audit was to assess the governance, risk management, and control processes in place to facilitate the development, implementation, and reporting of environmental initiatives outlined in the Defence Sustainable Development Strategy.

[Annex B](#) outlines the audit criteria assessed in this audit.

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<sup>1</sup> *Auditor General Act*, Section 2.

## Scope

The audit focused on the latest iteration of the departmental SDS, The National Defence Sustainable Development Strategy: 4<sup>th</sup> Iteration—Environmentally Sustainable Defence Activities. Produced in 2006, this strategy was intended to be in effect between fiscal years (FY) 2007/2008 and 2009/2010. Anticipating the publication of the initial Federal Sustainable Development Strategy by Environment Canada, the current SDS was extended through FY 2010/2011.

This fourth iteration of SDS consists of four strategic commitments aimed at improving sustainable land use management, sustainable infrastructure and green procurement, and preventing negative environmental impacts. These four commitments are addressed through a series of 16 initiatives, which are intended to reduce environmental impacts of departmental activities through changes to operations. The SDS also includes a monitoring commitment to track ongoing results in four areas targeted in previous SDS iterations. [Annex C](#) provides a listing of commitments and initiatives included in this iteration of SDS.

This audit aimed to assess the effectiveness of SDS by examining related operational processes. While this included examination of data collection and reporting processes, it is not intended to provide an audit opinion as to the accuracy of the annual reporting of results for the various environmental initiatives, or for the SDS as a whole.

Analysis for this audit focused on data for FY 2008/2009, though data from all periods covered by the current SDS were considered.

## Methodology

This audit focused on six of the 16 initiatives, which were selected based on a preliminary assessment of risk and the likelihood of inclusion in future SDS. They were also selected in order to provide a range in terms of involvement from organizations throughout the Department. The six initiatives are as follows:

- SC.2.1. Green Building;
- SC.3.3. High-Risk Hazardous Materials;
- SC.3.4. Acquiring & Maintaining Greener Vehicles;
- SC.3.5. Vehicle Greenhouse Gas Emissions;
- SC.4.4. Reducing Ozone Depleting Potential; and
- SC.4.5. Greenhouse Gas Emissions.

Notwithstanding the selection of these sampled initiatives, the results of this audit are intended to identify opportunities for improvement in the context of the development of the next iteration of the Department's SDS.

The audit results are based on:

- Interviews with key personnel within the ADM(IE) and Assistant Deputy Minister (Materiel) (ADM(Mat)) organizations;

- Interviews with environment functional personnel at branch, area, formation, base, and wing levels;
- Interviews with operational personnel in functional areas impacted by SDS initiatives, including construction engineering, supply, transportation and maintenance;
- Reviews of policies and guidance documents;
- Reviews of supporting source documents and analysis of various databases, including Hazardous Materials Reference Application, Canadian Forces Supply System, Fleet Management System, Halocarbon Management System; and
- Site visits to four major DND installations: Canadian Forces Base Petawawa, Canadian Forces Base Edmonton, 4 Wing Cold Lake, and Maritime Forces Atlantic.

### Description of Program

DND's SDS is coordinated and produced by the Director General Environment (DGE) organization within ADM(IE), with participation from numerous organizations throughout the Department. The SDS is approved by the Deputy Minister, the Chief of the Defence Staff, and the Minister of National Defence before it is tabled in Parliament.

At each update of the SDS, DGE forms a working group consisting of environment personnel representing organizations whose activities have significant environmental implications. The working group determines the environmental areas to be addressed through commitments in the SDS. In consultation with subject matter experts within ADM(IE) and ADM(Mat) acting as offices of primary interest (OPI), the working group develops specific initiatives to mitigate the impact of departmental activities on the targeted environmental areas. The development of these initiatives includes outlining performance metrics and selecting baseline years against which progress towards departmental targets is assessed.

Based on the approved SDS, DGE works with the OPI for each initiative to develop guidance sheets detailing the definition and scope of the initiative, action plans to achieve targets, associated performance measures, and criteria for annual reporting of progress.

The SDS is then disseminated to environment functional personnel throughout the Department in order that the environmental initiatives are implemented. On an annual basis, organizational results are provided to DGE, and the compiled results for the Department are used as input to the Department's Report on Plans and Priorities and Departmental Performance Report as appropriate.

## Findings

### SDS Governance

Unclear accountabilities, combined with policy and plans that are not sufficiently developed or communicated, contribute to a lack of awareness amongst organizations whose activities have a significant impact on the environment and the success of sustainable development initiatives.

While policy-oriented organizations within ADM(IE) and ADM(Mat) serve as the OPI for all SDS initiatives, the implementation of many initiatives is dependent on operational organizations whose activities directly impact the success or failure of the initiatives. In order to make progress towards the Department's sustainable development goals, it is necessary that these organizations produce detailed plans and procedures and identify and communicate clear accountabilities and responsibilities for the achievement of targeted results. Such policies, plans and accountabilities were not well developed or communicated for the initiatives and organizations examined.

### Accountability Framework

Generally, DGE communicates with operational organizations through command-level environment functions, who, in turn, communicate with local environment officers through the branch's chain of command. As policy advisors, DGE personnel do not normally have the authority or the mandate to communicate directly with local environment and hazardous materials officers. Similarly, environment functions at command and at local levels have expressed that they, too, act as policy advisors within their respective operational organizations. As a result, they have limited authority to provide direction to organizations such as engineering, supply, transportation and maintenance, whose activities directly impact SDS results, and who would be in the best position to implement any operational changes in support of SDS initiatives. The absence of a command-driven approach to the implementation of SDS initiatives was cited as a root cause in the inability of organizations to develop implementation plans.

Accountabilities throughout the Department for the achievement of SDS goals were found to be unclear. While DGE acts as the lead organization for the SDS, with various organizations within ADM(IE) and ADM(Mat) acting as initiative OPIs, these organizations are often not accountable for the achievement of initiatives in their roles as policy advisors. Furthermore, because SDS goals are articulated as global targets for the Department, individual operational organizations are not accountable for achieving any specific results. Consequently, individual organizations within the Department are provided limited motivation to demonstrate progress towards SDS initiatives, and SDS activities are not incorporated in business or resource planning.

Many reporting organizations also noted the lack of feedback provided regarding their submissions, or on initiative-wide data for SDS. Feedback to key organizations, including both environment personnel and groups responsible for implementation of initiatives, provides an indicator as to their progress towards SDS goals. In the absence of such feedback, many local organizations have expressed that the SDS is viewed more as a bureaucratic reporting exercise rather than as a strategy intended to drive improvements.

## Policies and Plans

In order to coordinate departmental efforts to achieve the goals set out in the SDS, commitments and associated initiatives should be supported by policies, guidance and implementation plans that promote the development of accurate and consistent results.

Some initiatives, such as those for green buildings and the reduction of commercial vehicle fleet greenhouse gas (GHG) emissions are supported by guidance such as the Green Building Directive and “No Unnecessary Idling” promotion. Yet, in some cases no national direction, other than through the SDS itself, has been developed to communicate most SDS initiatives to implementing organizations. For example, the initiative targeting the commercial vehicle fleet includes targets to improve vehicle productivity and vehicle downtime and to provide DND-licensed drivers with green driving training, but there was no indication that the Department was making any coordinated effort to achieve the targets, nor that the initiative had been communicated to any of the implementing organizations.

In spite of these findings, personnel often reported that environmental considerations were inherent in their work, even in the absence of formal policies or procedures. Some local initiatives were driven by project champions, or were motivated by other factors such as cost containment, which resulted in ancillary impacts on sustainable development. Some organizations have implemented governance structures within their environment programs that may be conducive to the coordination of implementation plans, though further work is needed.

**High-Risk Hazardous Materials.** The initiative to reduce the procurement of nationally managed high-risk hazardous materials is an example of where departmental plans and procedures were needed to ensure that the initiative could be effectively implemented at local levels. Director Land Equipment Program Staff within ADM(Mat) acts as OPI for this initiative, and is responsible for the review of hazardous material products to recommend their elimination, substitution, or restriction from the national supply system. These recommendations are communicated to national supply managers working in other areas across ADM(Mat), who are expected to implement them by making the necessary changes in the Canadian Forces Supply System. However, it was observed that these changes were not always performed by national supply managers, allowing procurement of high-risk hazardous materials to continue.

Furthermore, local procurement offices at bases, formations and wings were inconsistent in their use of the national supply system. Some local supply technicians interpreted procurement restrictions in the national supply system to mean that products can only be procured locally. Departmental direction did not appear to be followed to ensure that products which are required to be procured nationally are in fact requisitioned through the national supply system, and not locally procured through other means.

As a result, complete information is not available to assess local compliance with national procurement restrictions for high-risk hazardous materials, or the extent to which these products continued to be procured.

**Acquiring and Maintaining Greener Vehicles.** The Director Transportation (D Tn) serves as OPI for a series of initiatives related to the commercial vehicle fleet, which were found to lack the necessary plans and procedures to promote departmental implementation. The initiatives include improving vehicle productivity as measured by the average kilometres driven per vehicle, reducing vehicle downtime, and providing green driving training to DND-licensed drivers.

Data required for these initiatives is collected through existing fleet management processes. Locally, base transportation and maintenance organizations are responsible for fleet management and repairs, respectively, and data collected at base levels is compiled nationally for SDS reporting by D Tn. However, no specific plans or procedures were identified to demonstrate that the Department was working to meet the established targets for vehicle productivity and downtime.

Driving instructors at all locations were unaware of the initiative to increase green driving training, which was an optional module in the instruction curriculum. This contradicted the belief of the initiative OPI who understood that the green driving module was a mandatory requirement for drivers. D Tn has since responded and has advised that a directive will be issued to require the mandatory inclusion of green driving training for all drivers requiring a new issue or renewal of a DND driver's permit.

## Initiative Measurement

Issues with initiative measurement and reporting prevent the Department from reliably assessing progress against environmental targets and thus the effectiveness of departmental efforts to reduce the impact of its operations on sustainable development.

## Environmental Priorities

Federal sustainable development goals for the fourth round of departmental SDS were identified as clean air, clean water, reduction in GHG emissions, sustainable communities, sustainable development and use of natural resources, and governance for sustainable development. Key priorities specific to government operations were identified as building energy, vehicle fleets, and green procurement.<sup>2</sup>

SDS commitments for DND were found to relate well to these federal priorities, and to provide broad coverage of the Department's activities. Linkages between departmental and federal goals were clearly identified. In the course of the audit, Environment Canada also produced the initial Federal Sustainable Development Strategy, "Planning for a Sustainable Future: A Federal Sustainable Development Strategy for Canada," which will serve as guidance to the next update of SDS. It was noted that environmental priorities targeted in the current departmental SDS would also align with many of the priorities set out in this new document.

## Initiatives and Performance Measures

Within the four strategic commitment areas, DND has identified 16 initiatives to mitigate the Department's environmental impacts. However, some of the initiatives reviewed did not fully consider the related business processes, resulting in incomplete or inappropriate results. In some cases, the OPI explained that the scope of initiatives may have been limited in order to serve as initial steps in the development of longer-term goals. While this may be the case, the reported results do not accurately reflect the impact of DND/CF activities on the environment.

Furthermore, in some cases, performance measures did not provide a relevant indicator of actual progress achieved, did not capture the impact of departmental activities or were too generally defined. Ambiguous reporting criteria also led to inconsistencies in the compilation of data from one site to another, and over different reporting periods.

**Green Building.** One such example was the Department's initiative to incorporate green building concepts into the design process for major construction and renovation projects. The initiative was to support the issuance of the Green Building Directive issued by the Director General Military Engineering. This directive requires that the intention to build green be identified in the project synopsis sheet at the preliminary project approval (SS(PPA)) stage, or that proper justification be provided in the alternative.

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<sup>2</sup> Sustainable Development Strategy 2007-2009: Coordinating the Fourth Round of Departmental Sustainable Development Strategies, Environment Canada.

The initiative to include a statement of intention to build green makes limited contribution towards the commitment of sustainable infrastructure. All SS(PPA)s approved since FY 2007/2008 included a section on green building, which in most cases included a statement of intention to incorporate green building concepts. However, it was found that building plans and designs are not produced at this point in the process. As a result, the assertions made in SS(PPA)s represented statements of intention only, and were not predictive as to the extent of green building concepts that might be incorporated in the final building design. Statements in SS(PPA)s often indicated that green building concepts would be incorporated in projects where practicable, despite prior knowledge by project personnel that such concepts would largely be impractical given the nature of the project. There was also no supporting documentation maintained to substantiate statements of intention. Notwithstanding the requirements of the Green Building Directive, the initiative to include only a statement of intent to consider green building concepts provides no indication as to the Department's actual achievement in regards to green building designs.

Additionally, the performance measure requirement for this initiative was unclear. This initiative examines the percentage of new construction and major renovation projects incorporating green building concepts, as identified in SS(PPA)s. Project personnel reported confusion as to the definition of green building concepts to be applied for the purpose of this initiative. The Green Building Directive requires that projects meet certain industry standards for building design; however, project personnel noted that the selected building standards and specifications are primarily intended for office accommodation projects, which do not represent the wider range of industrial, residential, works, and other projects more typical of the Department's real property portfolio. In the absence of further guidance, project personnel have applied this performance measure inconsistently. Projects were reported as meeting the requirement despite not meeting the building standards specified, or arbitrary determinations were made to exclude projects as being not applicable to the initiative.

The reporting criteria for this initiative were also unclear, leading to differing interpretations of what was actually required. The initiative called for the reporting of major construction and renovation projects incorporating green building concepts as a proportion of the total projects reaching the preliminary approval stage. Each of the organizations examined described a different method of reporting for this initiative. In one organization, projects were reported at the completion of construction. A different organization reported its major projects repeatedly for each year that the projects remained under construction, while a third reported projects which did not meet the definition of major construction or renovation.

**High-Risk Hazardous Materials.** In the initiative to reduce the use of high-risk hazardous materials, ADM(Mat) set a goal to perform screening of hazardous materials in order to identify products containing chemical ingredients targeted by the federal government's Chemical Management Plan. The initiative focused on nationally procured items, which are purchased centrally by supply managers within ADM(Mat). Identified products were then reviewed to determine where they were being used and for what purpose, in order to eliminate or reduce usage through the substitution of less hazardous alternatives or by imposing restrictions on procurement.

This initiative did not include products procured directly by bases, because no central records are maintained to track such procurement. However, personnel at both the national headquarters level and at local base levels noted that the procurement of hazardous materials was increasingly decentralized to base supply functions. The availability of standing offer agreements, and the tendency of the Department to reduce the storage and handling of hazardous materials has resulted in fewer products procured through the national supply system. As a result, the effectiveness of this initiative is limited, as it does not directly measure department-wide use of high-risk hazardous materials, nor does it consider the full range of procurement options for hazardous materials entering the departmental supply chain. It was noted that this initiative was designed as a first step, with a view to incremental progress to be incorporated in future SDS iterations.

**Greenhouse Gas Emissions.** The SDS also includes an initiative to reduce GHG emissions, as measured through energy and fuel consumption in buildings, vehicles, and equipment. Issues with the definition of performance measures contributed to the reporting of results that were not always relevant, reliable or consistent.

Definitions for the measurement of military equipment fuel consumption were unclear, leading to inconsistent reporting. It was observed that fuel consumption was recorded for all marine fuel taken by Canadian naval equipment, regardless of whether the fuelling took place domestically or abroad. However, the converse was true for aviation fuel, where consumption was based on fuel issued to both Canadian and visiting foreign aircraft, but only from domestic sources. As well, fuel consumption of helicopter squadrons located at army installations was omitted entirely. It is recognized, however, that while fuel for military equipment is included in the reporting for this initiative, it is not included for the purpose of the reduction target for GHG emissions.

While energy consumption in buildings is determined primarily through measurement of utilities consumed or fuel purchased, such data was not available for housing units managed by the Canadian Forces Housing Agency (CFHA), because the vast majority of occupants are responsible for paying local suppliers for their utility usage. As such, energy consumption is estimated based on the type and number of occupied units, calculated using a statistical average for energy consumption for households by province. The use of this estimate is not appropriate, as it fails to consider any efforts by the Department to reduce energy consumption; using such an estimate, a reduction could only occur through a reduction in the number of housing units held by CFHA, as opposed to actual efficiency gains.

At some locations, including Goose Bay, Halifax, Suffield, and Valcartier, some housing units are provided utilities by base central heating plants. The use of estimates at these locations results in a duplication of measurement, because the GHG emissions produced by central heating plants is also accounted for as part of base operations.

Finally, the relevance of including CFHA housing units in the Department's initiative to reduce its GHG emissions is questioned. CFHA personnel have indicated that, apart from the construction or renovation of housing units to improve their energy efficiency, the Department's control over a tenant's energy consumption is limited. In fact, it is for this reason that tenant-owned appliances are excluded from a separate initiative to reduce

halocarbon systems such as air conditioning and refrigeration units. A similar exclusion was not adopted regarding housing unit energy consumption, despite the inability of the Department to influence tenant energy usage.

**Vehicle Fleets.** In two initiatives related to vehicle fleet management, inconsistencies were noted despite the fact that the initiatives involved a single reporting organization. Reporting criteria were found to have changed over time due to a change in personnel. The absence of documented reporting criteria resulted in differing interpretations of vehicle types to be included in these initiatives. D Tn since has advised that reporting for this initiative will be improved through the development of standard operating procedures.

**Reducing Ozone Depleting Potential.** Reporting on halocarbon systems was also found to be inconsistent due to inadequate specification in the reporting criteria. One organization took the position that small appliances were exempt from reporting for this initiative, while all other organizations examined included these as part of their inventories. Another organization included halocarbon systems installed in vehicles and equipment which were already reported by the national fleet and equipment manager. Conversely, another organization failed to fully report halocarbon inventories related to military equipment when the responsibility for reporting was transferred from the national equipment manager.

Again, minor omissions were noted in halocarbon reporting from offsite locations. However, there was also evidence to suggest that reporting of significant stores of halocarbon inventories may have been omitted from halon banks and strategic reserves.

### **Baseline Data**

In order to set targets and to measure progress over time, it is important that an appropriate benchmark be determined against which progress can be measured. In most of the initiatives examined, supporting documentation was not available to support the baselines used. Nevertheless, since record keeping practices have gradually improved, inaccuracies and inconsistencies in the baseline data have been identified.

Additionally, it was observed that baseline data for initiatives may have originated at a time of significant differences in operational tempo for the Canadian Forces, which would affect comparability to current data.

Accordingly, weaknesses in the reliability of baseline data have prevented an accurate assessment of progress made on initiatives, as well as leading to the establishment of irrelevant targets. Also, by using targets that do not take into consideration the activity level of the Department, such as increased operations during the period of the SDS, the recognition or lack of legitimate progress may be obscured.

## Recommendation

ADM(IE), in collaboration with Level 1 organizations, should develop a strategy that will eventually lead to the incorporation of SDS planning and reporting into the Department's planning and reporting process. In the short term:

- Accountabilities and responsibilities should be established and clear direction provided with regard to the implementation of the departmental SDS; and
- Meaningful and measurable performance indicators that clearly and accurately reflect the Department's progress with regard to SD targets should be developed and communicated, along with clear reporting requirements that promote the generation of consistent, complete and accurate information.

**OPI:** ADM(IE) with affected Level 1 organizations



## Annex A—Management Action Plan

### CRS Recommendation

ADM(IE), in collaboration with Level 1 organizations, should develop a strategy that will eventually lead to the incorporation of SDS planning and reporting into the Department's planning and reporting process. In the short term:

- Accountabilities and responsibilities should be established and clear direction provided with regard to the implementation of the departmental SDS; and
- Meaningful and measurable performance indicators that clearly and accurately reflect the Department's progress with regard to SD targets should be developed and communicated, along with clear reporting requirements that promote the generation of consistent, complete and accurate information.

### Management Action

ADM(IE) is developing a new Defence Environmental Strategy (DES), which will address the federal sustainability agenda through its inclusion of the FSIDS, while also reflecting the broader and unique Defence mandate and its attendant impacts on the environment. While the DES features a 20-year horizon, the Defence contribution to the FSIDS is under development for the one- to three-year threshold of the DES.

ADM(IE) is working with its Level 1 counterparts to develop specific performance measures with clear accountabilities, responsibilities, and direction with regard to implementation. The road map for the development of the DES will include the development of strategic plans, programs, and management plans, leading to work plans and business plans which provide details of projects, activities and tasks being undertaken, and which reflect the commitment of resources.

The development of the DES will be led by DGE over the coming year in collaboration with the other Level 1 organizations to help shape goals and targets. It will be completed concurrently with its Defence FSIDS requirements due October 2011 and will be implemented in FY 2012/13.

### Major developmental milestones for elements of the DES are as follows:

September 2011—Research / Consultation Phase

- Relevant existing L1 activities / programs
- Environment / Defence
- Past Reviews / Lessons Learned
- International / Allies – Best Practices
- OGDs – Horizontal Linkages

December 2011—Analysis Phase

- Key Issues / Priorities
- Gap analysis
- Range of Policy and Program Instruments

March 2012—Implementation Strategy

- Management Framework
- Performance – Key Milestones
- Governance / Accountability
- Resources
- Communications Plan

**OPI:** ADM(IE) with affected Level 1 organizations

**Target Date:** FY 2012/13

## Annex B—Audit Criteria

### Objective

1. SDS commitments are relevant to sustainable development and incorporate appropriate targets and performance measures.

### Criteria

- Environmental commitment areas addressed by the SDS are consistent with federal sustainable development priorities.
  - SDS initiatives address their underlying environmental commitments, considering the impacts of departmental activities on sustainable development.
  - Meaningful performance measures are selected, and are clearly defined.
  - Valid baselines allow for SDS progress measurement.
- 

### Objective

2. Implementation plans have been developed, communicated and executed to support the achievement of departmental SDS initiatives.

### Criteria

- SDS initiatives are supported by departmental policies and guidance.
  - Operational commands and organizations have formulated action plans and procedures to implement the SDS.
- 

### Objective

3. Reliable and comparable information is used to measure progress, and relevant feedback is generated to support corrective action.

### Criteria

- SDS progress between sites and over time is comparable through consistent reporting.
- Reliable information is compiled which represents SD progress.
- Verification and management review is undertaken to provide useful feedback.

## Annex C—SDS 2006 Commitments and Initiatives

### Strategic Commitment

1. **Sustainable Land Use Management.** Move toward a framework of land use management designed to encourage innovative approaches to the stewardship of those lands with the ultimate goal of putting the lands with which Defence is entrusted on a “steady state” footing of sustainability.

### Initiatives

- **Sustainability of Military Training Areas.** Measuring the sustainability of military training areas and managing them accordingly.
  - **Urban Forest Policies and Plans.** Developing urban forest policies, and implementing urban forest plans at all bases (and other innovative programs such as the “Grow Clean Air” program).
- 

### Strategic Commitment

2. **Sustainable Infrastructure.** Actively promote the application of innovative sustainable infrastructure principles and concepts and share “lessons learned” with the broader federal community.

### Initiatives

- **Green Building.** Expanding the integration of the Green Building concept into the total design process.
  - **Energy Performance Contracts.** Improving our understanding of the feasibility of “bundled” energy performance contracts and sharing the lessons learned with our federal colleagues by 31 March 2010.
-

## Strategic Commitment

- 3. Green Procurement.** Implement a proactive and comprehensive “Green Procurement” program across Defence, meeting the recently promulgated Federal Government Policy on Green Procurement.

### Initiatives

- **Federal Green Procurement Agenda.** Supporting the federal green procurement agenda.
  - **Green Procurement Training.** Developing and integrating where appropriate Green Procurement modules and messages into all existing training.
  - **High-Risk Hazardous Materials.** Eliminating or reducing specified nationally procured high-risk hazardous materials (HRHM) from use and examining the feasibility of expanding the scope of this initiative to include locally procured HRHM.
  - **Acquiring & Maintaining Greener Vehicles.** Acquiring, using and maintaining greener vehicles.
  - **Vehicle GHG Emissions.** Reducing vehicle GHG emissions by 15 percent within the commercial pattern on road vehicle departmental fleet by 31 March 2010.
  - **Managed Print Solution.** Piloting a managed print solution.
  - **Fuel Storage.** Minimizing the environmental liability associated with petroleum fuel storage infrastructure and distribution assets.
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## Strategic Commitment

- 4. Preventing Negative Environmental Impacts.** Actively and innovatively prevent negative environmental impacts of specific activities over which Defence can exercise a mitigating influence.

### Initiatives

- **Waste Fuel.** Reducing disposal of waste fuel by 31 March 2010.
- **Releases to the Environment.** Reducing the long-term impact of releases to the environment.
- **Contaminated Sites Liability.** Reducing contaminated sites liability.
- **Reducing Ozone Depletion Potential.** Reducing the ozone depleting potential of in-service systems and equipment.
- **Greenhouse Gas Emissions.** Reducing GHG emissions by 134.9 kilotonne carbon dioxide equivalent by 2010 from 1998 baseline.

## Monitoring Commitments

Defence will monitor activities of continuing interest to the Federal House and which have been targeted in previous Defence SDSs.

- Managing liquid effluents
- Managing treated water
- Managing solid wastes
- Managing spills

