



THE NATIONAL DEFENCE SUSTAINABLE DEVELOPMENT STRATEGY: 4TH ITERATION

Environmentally Sustainable Defence Activities



http://www.admie.forces.gc.ca/dge/SDS/SDS2006_e.htm

Message from the Minister of National Defence



I am pleased to recommend this fourth iteration of Defence's sustainable development strategy to Parliament and to call upon all the members of National Defence and the Canadian Forces to adopt its undertakings as their own.

At a time when we are actively committed to helping people in regions of conflict to regain stability and lasting peace, this confirmation of our ongoing commitment to the principles of sustainability is both timely and opportune.

We are contributing proactively in an integrated, whole of government approach to sustainable development that recognises the need for individuals and organisations to think globally while acting locally. Thinking globally means understanding the impact that our individual actions have when multiplied by millions of similar actions. This strategy sets out the Defence plan to contribute to environmental stability as an organisation always bearing in mind that the organisation is made up of each of us contributing conscientiously to a bigger outcome.

We recognize the dangers inherent in an unchecked decline in environmental health worldwide. With this strategy we are contributing proactively to a vision of development that meets the needs of the present without compromising the ability of future generations to meet their own needs. We will concentrate our efforts on enhancing the sustainability of our land and infrastructure while integrating green procurement across the organisation. Furthermore, we will actively and innovatively prevent the negative environmental impacts of specific activities over which we can exercise a mitigating influence. Clear performance measures will ensure that we get an accurate picture of progress annually.

Let us ensure, by a personal commitment to the principles of environmental stewardship and sustainable development, that our troops will come home to a Canada that remains true to its image as a haven of social, economic and environmental stability.

A handwritten signature in black ink, appearing to read "Gordon J. O'Connor". The signature is written in a cursive, flowing style.

The Honourable Gordon J. O'Connor, PC, MP

Message from the Deputy Minister and the Chief of the Defence Staff



The fourth iteration of the Defence Sustainable Development Strategy, *Environmentally Sustainable Defence Activities*, continues to focus on environmental performance measurement as the prime indicator of support for the federal environmental and sustainable development agenda. The tabling of this iteration of our strategy comes at a historic time when the Canadian Forces are engaged once again in the business of defending Canada and Canadian interests and values while contributing to international peace and security.

On the domestic front, Canada's citizens are growing increasingly concerned by the signs of an overtaxed environment, whether it be the hurricane disaster in the southern United States or the catastrophic ice storm that ravaged central Canada in the not too distant past.

These signs of environmental degradation are infringing on the innate sense of pride in our rich natural heritage that has been a characteristic of the Canadian national identity historically.

In this context, perhaps the most important element of our national identity, our "can do" attitude, will serve us well. Taking control of our individual and collective destiny by taking responsibility for our individual and collective contributions to the well-being of our environment is key to meeting the challenge of sustainable development. Remember that, every day, at home, at work and on the road, each of you contributes directly to the success or failure of our efforts to support a sustainable future for Canada.



General R.J. Hillier, C.M.M., M.S.C., C.D
Chief of the Defence Staff



W.P.D. Elcock
Deputy Minister

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Introduction



In December 1997, the Department of National Defence and the Canadian Forces (referred to collectively as “Defence”) tabled a Sustainable Development Strategy (SDS) in Parliament. That strategy and its subsequent iterations have recognised that Defence’s contribution to the broader concept of sustainable development is anchored in its unique mandate to defend Canada and Canadian interests and values while contributing to international peace and security.

In the almost 10 years since that document was tabled, Canada has witnessed the troubling consequences of an increasingly unstable world with a weakened environment and economic uncertainty for hundreds of millions of people. As it has done in the past, through two world wars and numerous missions, Defence is adapting to the challenges of a changing world.

The Defence Sustainable Development Strategy reflects the challenges posed by this changing environment, and incorporates the lessons we have learned over our last decade of work on this issue. It remains a work in progress.

Defence is embarking on a long term and holistic approach to sustainability that recognises linkages between the causes and effects of environmental degradation. Defence will continue to make a significant contribution to the federal environmental agenda, and will keep exploring these linkages in the context of our mandate.

This fourth iteration of the Defence SDS reflects a logical progression in analytical thinking about our role and the nature of our enterprise.

Departmental Profile

The Defence Mission and Organization

The mission of the Department of National Defence and the Canadian Forces is to defend Canada and Canadian interests and values while contributing to international peace and security. More specifically, the CF are called upon to fulfil three major roles:

- Protecting Canada;
- Defending North America in co-operation with the U.S.; and
- Contributing to international peace and security.

To succeed in these tasks, Defence provides many services that benefit Canadians directly. We contribute to domestic defence and security in many ways, including the following:

- Surveillance and control of Canadian approaches and territory;
- Support to other government departments and agencies, such as Fisheries and Oceans Canada, Foreign Affairs Canada, Environment Canada and the Royal Canadian Mounted Police;
- National search and rescue services;
- Humanitarian assistance and disaster relief;

Did you know...

...that Defence is the only federal department to observe an annual Energy Awareness Week at which Defence personnel are given the opportunity to learn about energy-related issues and innovations and their impacts at home, on the road and at work? Defence is committed to raising awareness not only of the Department's role in sustainability, but of the ability of individuals to contribute to positive outcomes.



- Support to Civilian Authorities;
- Support to the federal response to terrorism and other asymmetric threats; and
- Support to major international events held in Canada.

The Defence Environmental Vision

A Defence organization where civilian and military members at every level incorporate environmental and sustainable development considerations

into responsible decision-making consistent with operational feasibility and cost effectiveness thereby sustaining the assets with which we are entrusted for our benefit and for the benefit of generations to come.

The environmental vision for the Defence organization is reflected in the logical progression in decision-making for sustainable development toward increasingly strategic and holistic commitments.

Building on lessons learned from previous iterations of its strategy, Defence is continually identifying linkages among activities to establish increasingly more holistic commitments with correspondingly longer term outcomes.



The Defence Organizational Footprint

As the largest federal organization, Defence is also the largest single consumer of federally procured goods and services to support its diverse activities. Some facts about the organizational profile are:

- **Annual Budget** (2006–2007): **\$15.8 billion (approx.)**
- **Military Members** (including Reserves): **95,006**
- **Civilian Members:** **25,099**
- **Landholdings:** approximately **7%** of the federal land inventory. **22,000 square kilometres** of land, including **25 land,**

naval and air bases and stations; 840 owned and leased properties, including weapons ranges, training areas, military training centres, cadet camps, and local armouries

- **Realty Assets:** the largest building owner by quantity (i.e., number of buildings) in the federal government, holding more than 43% of the federal inventory. Installations exist in every province and territory and are located in 217 cities/municipalities
- **Vehicle Fleet:** Defence has over **7,000 on-road, 4,000 off-road** (e.g., forklifts) vehicles in addition to its fleet of **11,000 military pattern vehicles, 100 ships** and **300 aircraft**

Protecting the Environment

Defence is committed to ensuring that its activities and operations are conducted in an environmentally sustainable manner. The Defence environmental policy (Defence Administrative Order and Directive 4003-0) recognises that the responsible stewardship of the assets with which we are entrusted is not only a moral but also an operational imperative. In support of this policy, Defence has a multi-faceted environmental protection and stewardship program that extends through every level of decision-making. The Defence environmental program is addressing legacy issues, but the focus for a number of years now has been the establishment of management

Did you know...

...that every year since 1992 Defence has produced an environmental calendar designed to raise awareness of specific environmental priorities?



Did you know...

...that Defence hosts activities, and displays every year for Environment Week.



processes to minimize the impact of our activities on the environment and to ensure the Department does not contribute to future legacy concerns; for example, in the areas of pollution prevention and range and training area management.

The program includes:

- environmental management programs to address the core environmental issues associated with the current and future activities of the Navy, Army and Air Force and other major Defence entities such as the Materiel Group and Defence Research and Development Canada;
- the Corporate Environmental Program, which addresses environmental pressures on orphan/legacy properties as well as certain active sites; and,
- other major environmental projects such as the Distant Early Warning Line Clean-Up Project and the decommissioning of military facilities.

In response to the recommendations of the Commissioner of Environment and Sustainable Development, the Department of National Defence has been working towards the integration of Strategic Environmental Assessment (SEA) into internal processes to conform with the requirements of the 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, which was subsequently amended in 2004.

To communicate the requirements of the Cabinet Directive, the Defence policy regarding environmental assessment was amended to include SEA. This requirement has also been re-iterated within Defence's procedural guidance document for environmental assessment. To further integrate SEA into the Defence decision-making process, additional guidance is being

developed to specifically aim at explaining in greater detail the SEA process and outlining a responsibility matrix for completion of the assessments.

The Defence Sustainable Development Strategy

This fourth iteration of the Defence SDS continues to provide strategic direction and priorities for furthering sustainable development through a focus on environmental protection and stewardship. As noted in the Introduction, the emphasis on the environmental dimension of sustainable development recognises the operational nature of the Defence mandate.

The strategic emphasis on minimizing the environmental footprint of Defence activities provides the greatest challenge and affords the greatest opportunity for Defence to effect significant change in support of sustainability.

In discharging its core responsibilities for contributing to national and international security, Defence makes a significant contribution to the social and economic dimensions of sustainable development; however, since Defence does not control the nature or extent of the ancillary socio-economic benefits flowing from the discharge of its mandate, it does not attempt to target them as it targets its environmental impacts.

Linkages and Connections to the Broader Defence Framework

Nonetheless, Defence continues to approach the sustainable development challenge by examining human well-being and environmental quality and the linkages between them. As a broader, more global example, Defence is engaged with our allies in positively addressing the environmental considerations flowing from the development of the Joint Strike Fighter, an aircraft designed for maximum versatility, precision engagement capability, the substitution of toxic materials with less toxic ones, and reduced life cycle costs.

These linkages are apparent throughout the Defence SDS and the Defence environmental program. For example, the emphasis on support for sustainable building techniques has obvious social, economic and health implications, as does the continuing clean up of contaminated sites. Similarly, the sustainable use of ranges and training areas ensures social and economic benefits to the community at large, by minimizing the negative impact of

Defence activities as well as those of other organizations operating on DND-held land. Effective training area management plans enhance the potential use of some areas for recreational or commercial activities and contribute to the protection of unique ecosystems.

The Defence strategic management and direction framework links the Defence SDS to other internal strategies and programs that further the principles of sustainable development. For example, Defence participation in the “Procurement Strategy for Aboriginal Business,” provides employment and economic opportunities related to aboriginal business development.

Integrating environmental principles with economic considerations in decision-making means that affordability is a continuing concern throughout the internal consultations from which consensus is achieved on these decisions. To this end, SDS planning was conducted concurrent with the business



planning process. Particular emphasis was placed on identifying and addressing the potential for proposed SDS targets to impose significant new costs on Defence.

**Linkages and Connections
to the Broader Federal Agenda**

Defence has been an active participant in, and supporter of, efforts to promote a coordinated approach to sustainable development with the goal of enabling the government to build coherence and strengthen accountability across individual organizational strategies in order to more effectively advance government-wide environmental and sustainable development priorities.

Indeed, this iteration of the Defence SDS demonstrates the depth of our commitment by the fact that virtually all the commitments contained herein are linked to one or more of the federal sustainable development goals. In particular, Defence has proactively (and appropriately) committed to the “Greening Government Operations” agenda.

To continue to demonstrate our commitment to the broader federal sustainability agenda, Defence will join with other government departments and the Canada School of Public Service to design and deliver new Government of Canada Sustainable Development training material. Delivery of the products is expected to begin by December 2007.

Consultations

The consultations for the fourth iteration of the Defence SDS followed a track that has been well proven since the original strategy was developed in 1997. Consultations were held internally with the Defence managers, technical experts, staff and personnel and externally with other federal departments and agencies. Through these consultations, Defence reinforced its awareness of current issues and concerns and ensured that the SDS is grounded in the realities of the Bases, Wings and other organizations through which it is implemented.

Internal

Internal consultations for the fourth iteration were both structured, with formal working groups and meetings, and unstructured, through the day-to-day interaction with the managers and staffs of the Commands, Bases and Wings dealing with ongoing environmental and operational matters. These consultations were essential in building a common understanding of evolving sustainable development issues, identifying lessons learned,

and finalizing the version of the Defence SDS that will be tabled in Parliament in December 2006.

At the same time, the increasingly broad understanding of linkages among various activities and their resulting environmental impacts has called for broader-based consultations with staff in specialised areas,



such as construction and property management, to ensure that we share a common appreciation of the issues that shape our environmental commitments.

External

Consultations with other federal Departments and Agencies provided a means for coordination on horizontal issues, such as sustainable buildings. Participation in the *Greening Government Operations* committees and working

groups, the Treasury Board's *Results-based Management Accountability Framework* exercise, the consultations on Environment Canada's guidance document, *Coordinating the Fourth Round of Departmental Sustainable development Strategies*, and the *Interdepartmental Network on Sustainable Development Strategies (INSDS)* were key instruments in this regard, and fostered a common understanding of government policies and priorities.

From 1997 to 2006: Lessons Learned

The assessment process

This document builds on the achievements and the lessons of the previous iterations of our strategy. In the spirit of continual improvement, the planning process for Defence SDS 2003 included a critical analysis. The framework for this analysis was provided by the reports and recommendations of the Commissioner of the Environment and Sustainable Development and the participation by Defence in inter-departmental committees and working groups.

This multi-faceted analysis, reflected a broad spectrum of managerial and technical input and involvement, and considered the full range of issues and activities from sources such as the annual *Departmental Performance Reports* (DPR) and the discussions at annual Environmental and Hazardous Material Officers' Workshops.

Review of SDS 2003 Goals, Objectives, and Targets

Defence SDS 2003 committed to 11 targets in support of the following goals:

- protection of the health of our ecosystems;
- pollution prevention;

- climate change, ozone depletion and air quality; and,
- managing for sustainable development.

The Defence SDS targets have “made a difference” in integrating sustainable development principles into the corporate culture. For example, the target to ‘Integrate the “green building” concept into the design process’ (Target D.1) stimulated such a degree of interest in the associated processes and methodologies that Defence is committing in this strategy to providing leadership through sharing its “lessons learned” with other departments and agencies.

The number of targets proved to be manageable, and the targets were, by and large, measurable, affordable, and achievable. For example, a new and proactive approach to contaminated sites remediation has produced gratifying results in the first two years of reporting on the target.

The challenges identified throughout the course of SDS 2003 continue to be brought to the attention of senior management as they are identified.

Influence on Other Planning Documents and Strategies

Defence continues its efforts to better situate the principles of sustainable development with other Defence programs and plans. This is being accomplished by a continuing effort

to more closely integrate the SDS implementation with strategic direction and business planning at all levels in order to facilitate balancing environmental commitments against other priorities facing the Department and to reinforce the responsibility and accountability of the chain of command.



Steps taken to address this need include:

- ensuring a high level of visibility for the SDS via the *Report on Plans and Priorities* and the annual *Departmental Performance Reports*;
- the provision of functional planning guidance to Defence, in line with respective functional authorities, by the Assistant Deputy Minister (Infrastructure and Environment); and,
- an intradepartmental Infrastructure and Environment Oversight Committee, chaired by the Assistant Deputy Minister

(Infrastructure and Environment), to review and consider realty asset and environment management matters affecting the strategic direction of the Department and the Canadian Forces.

Other Findings

High Risk Hazardous Materials (HazMat)

The High Risk HazMat project was initiated with SDS 1997 to reduce the risk associated with products that contain specific high risk hazardous ingredients. The criteria for selecting products that may be ranked as high risk is reviewed periodically and is based on a derivation of the risk of emissions to the health and safety of personnel handling, using, and disposing of these products and to the environment.

Initially, the products targeted were selected on a total risk basis that included products from all commodity groups*. This has since evolved into targeting specific commodity groups with the goal of reducing or eliminating the highest risk products within them. This approach has resulted in a rationalization of the products maintained within the national inventory, and a greater degree of product elimination than would otherwise have been obtained. From these results, the potential effectiveness and relevancy of the High Risk

* Commodity group management teams are part of the Way Forward Initiative. For more information, visit: <http://www.pwgsc.gc.ca/transformation/text/index-e.html>



Did you know...

...that Defence holds a yearly Photography Contest. The 2006 winner of the Environment Category shown here is one of 314 submissions, which represented more than 30% of all contest submissions in 2006.

HazMat project are being realized, and this will continue as the project targets other commodity groups into the future.

Environmental Management Systems (EMS)

In the third (i.e. 2003) iteration of the Defence SDS, we noted that, “as part of the national Environmental Management Systems (EMS) process, regular environmental compliance and oversight reviews of the Command and Group Principal environmental management systems” would be conducted and that, “with the successful implementation of EMS across the organization, an increased capability to conduct regular internal environmental audits and reviews at the appropriate levels and sites” will be available.

While EMS is well over 90% implemented across the organization, commitments made in previous iterations of the Defence SDS (including the commitment to have fully functioning EMSs in place across the organization) continue to be binding. Such outstanding issues will be addressed in DPR reporting until they have been satisfactorily resolved.

At the same time Defence efforts will continue to focus on:

- harmonizing performance indicators as closely as possible with operational practices;
- issuing national technical guidance for implementing and reporting on targets as early as possible in the SDS planning cycle;
- linking performance measurement and reporting to change and corrective action;
- integrating SDS reporting with business planning performance measurement and reporting at all levels to the greatest possible extent;
- fostering corrective action through the chain of command rather than through technical channels where appropriate; and,
- promoting better communications and feedback, through the chain of command, on progress made towards meeting SDS commitments.

Changing Circumstances

As noted in the Introduction, Defence is undergoing a transformation, that is, a change process designed to make Canada’s military more relevant and responsive to the emerging challenges with which we are confronted in a post 9/11 world.

In the words of the Chief of the Defence Staff, General Hillier, “CF Transformation is based on meeting the threats of a new security environment, therefore, operational effectiveness is at its heart. [...] It is built on lessons learned by CF members who have cut their teeth on operations. Their collective, integrated efforts will have considerably more operational impact.”

The transformation of the Canadian Forces (CF) will undoubtedly have an impact on the organizational profile of the Department of National Defence as well, although the nature and extent of that impact will not be clear until the transformed CF is stood up completely.

Nonetheless, the re-organization of Defence will directly affect only the responsibilities for discharging the environmental commitments, not the commitments themselves.

Is SDS 2003 a Good Basis for the Fourth Iteration?

The previous iterations of the Defence SDS have promoted the idea that sustainable development can be successfully integrated into day-to-day Defence activities by turning talk into action with targets that are meaningful, measurable, and achievable. With very few

exceptions, the SDS targets were chosen to stimulate change in areas that are not currently governed by regulation. Several areas continue to be targeted in this iteration of the Defence SDS either because they require the profile afforded by inclusion in the document to promote their ultimate integration into “business as usual” or because they are priority areas of continuing interest to the government.

At the same time, lessons learned in the course of SDS 2003 have indicated areas in which Defence can embark on a focused strategic approach to sustainability, designed to change the way decisions are made within

the organization and complemented by a series of ongoing commitments designed to mitigate the negative impacts of current Defence operations. Accordingly, this iteration of the Defence Sustainable Development Strategy contains two classes of commitments; strategic and monitoring. The *Static Issues, Changing Focus* section of this document provides a rationale for this modified approach.

Overall, we conclude that SDS 2003 is in fact a sound basis on which to build this fourth iteration of the Defence SDS. Our strategy remains an iterative approach that builds on the past while looking forward to the future.

Issue Scan

The Defence environmental footprint, while unique domestically, is similar to that of other military organizations around the world. As a result, our focus when addressing specific elements of our mandate (including environmental aspects) takes into account international trends and concerns.



The NATO Committee on the Challenges of Modern Society (CCMS) Pilot Study on *Forms of Environmental Education in the Armed Forces and their Impact on the Creation of Pro-environmental Attitudes (2004)*, co-chaired by Defence and Warsaw (Poland) University, noted in its final report that, “[...] human society has evolved and expanded more in the 100 years of the last century than in the rest of recorded history combined [...]. With this fundamental shift

in the human condition comes the recognition that the military forms an integral element of the society it serves.” The report adds:

“Added to this, the military employs as part of its daily activities, a wide range of unique technologies and operations with significant potential for severe negative environmental impacts.

New technologies are researched, developed and, promulgated at a lightning pace. As a result, the [...] military sector as a whole is often faced with virtually the same range of challenges and opportunities at the same time. This is particularly true of environmental challenges and opportunities. The acquisition, use, and disposal of hazardous materials, [...] and the sustainable use of land for training are but a few of the environment-related issues for which virtually every military organization is seeking timely, cost-beneficial, and environmentally sound solutions.”

Defence has always considered the environmental, social, and economic dimensions of sustainable development in defining the Department’s contribution to the sustainability legacy. This process required that Defence identify those aspects in which it could – and

should – make measurable progress consistent with its mandate. Invariably, the conclusion has been that the emphasis of the Defence SDS be on the environmental dimension.

In discharging its mission to defend Canada and Canadian interests and values while contributing to international peace and security, Defence helps to provide for a world in which sustainable development principles and values can be nurtured and grow. Of course, consistent with the limits of its mandate, Defence can only affect those aspects of its activities that it controls directly. In emphasizing the environmental dimension, by ensuring the health of the natural environment, Defence can have the greatest direct and positive impact on the sustainability legacy.



The environmental dimension of the Defence footprint has historically been captured under four “issue” categories or broad areas of interest:

- Ecosystems;
- Pollution Prevention;
- Climate Change, Ozone Depletion, and Air Quality; and,
- Managing for Sustainable Development.

Ecosystems

Defence is entrusted with the management of approximately two million hectares of land. Navy, Army and Air operations and training routinely take place over large areas of land, sea, and airspace within Canada and beyond.

Acknowledging the potential impact of its activities on these areas, Defence strives to protect the health of our ecosystems by:

- developing and implementing the concept of sustainable use of military training areas;
- planning and conducting military and non-military activities on Defence land and marine training areas such that adverse impacts are minimized and military training can occur without compromising the capacity for future training; and
- preserving biodiversity, in particular for species at risk.

These are long-term objectives that will almost certainly be reflected in the Defence SDS for many years to come.

For example, developing and implementing the concept of sustainable use of military training areas is a major challenge, a challenge with almost as many dimensions as there are training areas, each with its unique environmental characteristics. Given that training is key to the Defence mandate and that sustainable military training areas are indispensable to

training, Defence must develop practical and affordable measures to ensure the sustainable use of these assets both from operational and ecosystem perspectives.

Pollution Prevention

Pollution prevention is a cornerstone of Defence’s Code of Environmental Stewardship. To discharge this commitment, Defence seeks opportunities to:

- Manage hazardous materials responsibly;
- Minimize the creation of pollutants;
- Ensure appropriate management of potential pollutants;
- Minimize the consumption of non-renewable resources;
- Maximize opportunities to reduce, reuse or recycle consumable materials and packaging;
- Maximize pollution prevention opportunities; and,
- Minimize the discharge or accidental release of pollutants into the natural environment.

Although these objectives are ongoing from previous strategies, this iteration of the Defence strategy introduces several changes in the commitments (formerly referred to as “targets”) and action plans. These modifications are probably most readily evident in Strategic Commitment 3, Green Procurement.

Of course, reduction of the Department’s contaminated sites liability over the long-term remains a Defence priority.

Similarly, ensuring that petroleum fuel storage tanks conform with best practices is also a continuing commitment. Defence will “get ahead of the regulatory curve” by using anticipated legislation as a springboard for a comprehensive and truly strategic optimization of its storage and distribution systems and assets.

Climate Change, Ozone Depletion, and Air Quality

As the largest federal department, Defence efforts with regard to ozone depletion and climate change are key components demonstrating federal leadership in protecting the atmosphere. Specifically, Defence actively seeks to:

- Reduce the impact of releases and emissions on air quality; and,
- Minimize the introduction of Greenhouse Gases and Ozone Depleting Substances into the environment.

While there are obvious limitations on the environmental expectations that can be placed on aircraft, ships and vehicles comprising the national security fleet, Defence maintains a large fleet of commercial type vehicles. As part of Strategic Commitment 3, Defence will continue its efforts on improving or “greening” the use of its commercial vehicle fleet to support ozone depletion, air quality and climate change objectives. Given the extensive supporting infrastructure, the scope and nature of its training, and the wide range and volume of energy and materials that it consumes, Defence has a major role to play in contributing to the federal government’s actions to meet this challenge.

Managing for Sustainable Development

Defence places great importance on the integration of environmental considerations into Defence management systems not least in the area of procurement, specifically “green” procurement.

The objective of green procurement is to ensure procurement of goods and services that meets not only functional, technical and financial requirements, but also addresses environmental considerations. Defence efforts to integrate environmental considerations into those activities are showcased in Strategic Commitment 3, which proposes

a comprehensive and holistic approach to managing the procurement activities of the government's largest consumer of goods and services.

Static Issues, Changing Focus

Since the Defence environmental program was first established in the mid 1970s, the priority issues have remained constant at some level. Previous iterations of the Defence SDS underscore this fact. In SDS '97, our targets (22 in total), addressed the issues of ecosystems, pollution prevention, hazardous materials, climate change, and cultural resources. In the Defence SDS tabled in 2000, the issues addressed were ecosystems, pollution, climate change, ozone depletion and air quality, and stewardship. Twenty-one targets were addressed in that iteration. The definition of the issues in SDS 2000 reflected a growing understanding of the linkages among seemingly distinct activities. For example, the hazardous materials issue addressed in SDS '97 was recognized as a factor contributing to pollution and supporting targets were regrouped accordingly.

In SDS 2003, the issues addressed were ecosystems, pollution prevention, climate

change, ozone depletion and air quality, and managing for sustainable development. This minor evolution recognized that "managing for sustainable development" required a conscious and proactive effort to integrate environmental considerations into management systems, processes and activities. In the intervening time, however, as linkages among activities become evident, it is equally evident that virtually all of Defence's environmental commitments are linked at some level to one or more of the federal environmental quality (i.e., clean water, clean air and climate change) and sustainable development management goals. For this reason, Defence has aligned this strategy with the guidance set out in Environment Canada's document, *Coordinating the Fourth Round of Departmental Sustainable Development Strategies*. In particular, our commitments and associated initiatives (formerly "targets") have been grouped as strategic or monitoring rather than as seen in previous iterations as "ecosystems" or "pollution prevention", for example. For ease of reference, the tables containing the initiatives include a "cross walk" table (See Table 4), which aligns our initiatives with the federal objectives set out in that document.

Defence Commitments: Strategic and Monitoring

As noted above, the Defence working group charged with developing this Sustainable Development Strategy has concluded that our commitments may be classified as strategic and monitoring. Strategic commitments aim for long term changes in the way we do business to minimize the negative environmental impacts of Defence. Monitoring commitments provide feedback on issues targeted in previous SDSs that have been integrated into the day-to-day business of Defence, but on which we want to exercise a continuing oversight.

Strategic

The strategic commitments are long term (i.e., to be achieved in 3 year increments over a period of 10 or more years). Each commitment has linked initiatives to support and meet the strategic commitment. An example of an initiative is the initiative (initially addressed in SDS 2003 as Target B.5) to “Minimize the environmental liability associated with petroleum fuel storage infrastructure and distribution assets by 31 March 2007”. These initiatives are designed to re-shape the way business is conducted

by ensuring that the tools and processes to support informed decision making are available and integrated into the management framework. Strategic commitments address the three major elements of the Defence footprint: land use management, infrastructure, and procurement.



Monitoring

The monitoring commitments reflect Defence's concern with issues which, while they are integrated into the day-to-day business of Defence, are nonetheless elements of the broader federal sustainable development agenda. These commitments are not targeted; however,

the data reported is monitored so that, should circumstances warrant (i.e., should significant unexplained variances occur), the issue would be investigated or targeted again in a subsequent SDS. Potable water management is an example of a monitoring commitment.

Defence Commitments

Consistent with the *Guide to Green Government*, Environment Canada's *Coordinating the Fourth Round of Departmental Sustainable Development Strategies*, and the guidance promulgated by the Office of Greening Government Operations, the commitments set out in the following tables describe the specific, measurable outcomes that Defence proposes to achieve within stated time frames. They address the four "issue" areas of interest (elaborated previously) that make up the environmental dimension of the Defence mandate; however, in recognition of

the multi-faceted impacts of the commitments, they have not been grouped within a specific area of interest but rather cross-referenced to the broader federal desired outcomes.

DND's commitments for the period 1 April 2007 through 31 March 2010 are detailed in Table 1 (*Strategic Commitments*) and Table 2 (*Monitoring Commitments*). In addition, Table 3 provides information on Defence efforts to support implementation and common steps Defence is engaged in to achieve its SDS commitments.

Action Plan

As has always been the case, the action plan for the Defence SDS is based on the hierarchy of strategic and operational direction through the Defence chain of command.

At the highest level, broad strategic commitment to the development and implementation of the SDS is provided through the *Report on Plans and Priorities* and through the *Defence Plan*. This direction is complemented by horizontal planning guidance provided by the Assistant Deputy Minister (Infrastructure and Environment).

The Assistant Deputy Minister (Infrastructure and Environment) provides oversight and advice, establishes departmental performance measures, monitors the implementation of

the SDS, and acts as the focal point for coordinating efforts within Defence and with other Departments and stakeholders. In addition, the Assistant Deputy Minister (Infrastructure and Environment) ensures that detailed documents containing technical guidance and direction are prepared for each SDS target.

Implementation of the SDS is a function of the chain of command. Commanders and senior managers are responsible for ensuring that the necessary direction, resources, and action plans required to implement the SDS are reflected in all levels of business plans and for reporting on targets within their areas of responsibility.

Measurement, Analysis, and Reporting of Performance

The measurement, analysis, and reporting framework for the fourth iteration of the Defence SDS is an integral component of the Department's overall performance measurement process.

The commitments in Table 1 (Strategic) are the key indicators upon which the Department relies to measure and report its progress in meeting its sustainable development goals and objectives. The Monitoring Commitments set

out in Table 2 provide both Defence and the federal community with data on specific activities of broad government interest (e.g., water quality and consumption). As such, the data is examined to ensure that an acceptable "steady state" performance is evident. Serious fluctuations in reported performance would prompt corrective action up to and including targeting the activity in a future iteration of the Defence SDS.



Measurement

Performance indicators have been identified for each of the commitments in Table 1 (Strategic). The Monitoring Commitments (Table 2) do not have performance indicators because these activities are merely monitored as opposed to being targeted.

Analysis

The Assistant Deputy Minister (Infrastructure and Environment) is responsible for the consolidated national analysis of the data reported through the chain of command. This analysis is used to:

- assess the capacity and readiness to meet commitments to sustainable development;
- assess the extent to which the SDS targets and objectives are being met;

- evaluate the ongoing effectiveness of the environmental management system;
- identify whether the needs and expectations of Defence stakeholders are being met; and,
- provide early warning of emerging problems or deficiencies in certain areas in the interest of ensuring corrective action to support continual improvement.

It is essential that the chain of command at all levels within Defence undertake the appropriate level of analysis of their data as it is reported up the chain of command.

Reporting

The Department's progress on meeting its SDS commitments is reported to Government as an integral part of the annual *Departmental Performance Report*.



Table 1 – Strategic Commitments

Strategic Commitment 1: 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 by:

Initiative	Indicators	Supporting Action(s)
<p>Measuring the sustainability of military training areas and managing them accordingly (S.C.1.1.)</p>	<ul style="list-style-type: none"> • Validate indicator model (a diagnostic tool for assessing the environmental health of a given training area) for maritime training areas by 31 March 2007 • Develop sustainability indicators for 20% of affected land-based properties by 31 March 2007 • Develop sustainability indicators for remaining affected properties by 31 March 2009 • Report on the measure of sustainability for all affected properties by 31 March 2010 • Develop a comprehensive Ranges and Training Areas Management Framework by 31 March 2010 	<ul style="list-style-type: none"> • ADM(Infrastructure and Environment) to lead • Continue to develop criteria to establish the list of affected properties • Continue to develop and validate indicator model and associated indicators • Implement indicator model on affected properties • Report on sustainability
<p>Developing urban forest policies, and implement Urban Forest plans at all bases (and other innovative programs such as the “Grow Clean Air” program) (S.C.1.2.)</p>	<ul style="list-style-type: none"> • Develop policy and guidelines to protect and promote urban forest on DND lands to be developed by 31 March 2008 • “Grow Clean Air” Program† established by 31 March 2009 to include: <ul style="list-style-type: none"> ▪ Communications and awareness module ▪ Establish Clean Air tree planting program ▪ Carbon Offset reports ▪ Recognition awards and Public affairs opportunities • Establishing urban forest plans at all bases by 2018: <ul style="list-style-type: none"> ▪ 2 plans per year established by 31 March 2009 and 31 March 2010 (total of 4 plans for this reporting period) 	<ul style="list-style-type: none"> • ADM(Infrastructure and Environment) to lead • To be developed under a multi-year agreement with Tree Canada Foundation • Consultation with Level 1s to establish urban forest plan implementation strategy

† This is an incentive program to help offset the amount of carbon generated through heating, lights, etc., by planting trees at CF Bases/Wings. The DND “Grow Clean Air” Program will encourage organizations to contribute credits to plant trees on their bases. A ‘carbon neutral event’ logo will be issued and a communications plan implemented to recognize participation in the program.

Table 1 – Strategic Commitments (cont'd)

Strategic Commitment 2: Actively promote the application of innovative sustainable infrastructure principles and concepts and share “lessons learned” with the broader federal community by:

Initiative	Indicators	Supporting Action(s)
<p>Expanding the integration of the Green Building concept into the total design process (SC.2.1.)</p>	<ul style="list-style-type: none"> • Percentage of new construction projects incorporating the “Green Building” concept: <ul style="list-style-type: none"> ▪ To the LEED silver standard or better for projects valued at \$10 million and over (Preliminary Project Approval) ▪ To the Green Globe 3 out of 5 standard or better for projects under \$10 million (Preliminary Project Approval) 	<ul style="list-style-type: none"> • ADM(Infrastructure and Environment) to lead • Expand the SDS 2003 target (D.1) to embrace all new construction by: <ul style="list-style-type: none"> ▪ Eliminating the word “eligible” from the performance indicator contained in SDS 2003 ▪ Including a question in the Preliminary Project Approval synopsis sheet as to whether Green Building concepts will be included in the design and if not why not
<p>Improving our understanding of the feasibility of “bundled” Energy Performance Contracts and sharing the lessons learned with our federal colleagues by 31 March 2010 (SC.2.2.)</p>	<ul style="list-style-type: none"> • Pilot test the concept of “bundling” Energy Performance Contracts • Produce a report analyzing the benefits and drawbacks of adopting a “bundling” approach to EPC using a group of 4 or more Defence-owned properties in an appropriate geographical area as the subject • Share the report with smaller departments who might benefit by bundling EPCs 	<ul style="list-style-type: none"> • ADM(Infrastructure and Environment) to lead • Collaborate intradepartmentally to determine appropriate pilot test subject

Strategic Commitment 3: Implement a proactive and comprehensive “Green Procurement” programme across Defence, meeting the recently promulgated Federal Government Policy on Green Procurement by:

Initiative	Indicators	Supporting Action(s)
Supporting the federal green procurement agenda (SC.3.1.)	<ul style="list-style-type: none"> • Number of Commodity Groups relevant to Defence • Number in which Defence participates 	<ul style="list-style-type: none"> • ADM(Materiel) to lead • Collaborate interdepartmentally • Participate in all of the federal interdepartmental commodity group management teams relevant to Defence’s operational requirements
Developing and integrating where appropriate Green Procurement modules and messages into all existing training (SC.3.2.)	<ul style="list-style-type: none"> • A green procurement training module is developed by 30 June 2007 • Number of existing and relevant courses in which a Green Procurement Module is integrated by 30 June 2008 • Number of eligible participants as of 1 April 2007 • Number trained as a percentage of the total by 31 March 2008, 31 March 2009 and 31 March 2010 • Deliver a green procurement course to 100% of acquisition cardholders, material managers and procurement personnel by 31 March 2010 	<ul style="list-style-type: none"> • ADM(Materiel) to lead in coordination with ADM(HR Civ) and Chief Military Personnel • Develop a short green procurement training module that is in line with Defence’s operational requirements • Integrate the green procurement training module into all existing and relevant procurement, materiel and project management courses by 31 March 2008

Commodity group management teams are part of the Way Forward Initiative. For more information, visit: <http://www.pwgsd.gc.ca/transformation/text/index-e.html>

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Table 1 – Strategic Commitments (cont'd)

Initiative	Indicators	Supporting Action(s)
<p>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 (SC.3.3.)</p>	<ul style="list-style-type: none"> • Eliminate or reduce 30% of specified nationally procured high-risk hazardous materials (HRHM) from use by 31 March 2010 from a baseline of 31 March 2007: <ul style="list-style-type: none"> ▪ Percentage of specified nationally procured high risk hazardous materials reduced or eliminated from use ▪ Completion of a feasibility study on inclusion of locally-procured HRHM by 31 March 2010 	<ul style="list-style-type: none"> • ADM (Materiel) to lead • Identify the highest risk products included in the solvents, and cleaners/degreasers commodity groups • Publish the list • Undertake the elimination/substitution process • Publish the list of eliminated or substituted materials by 31 March annually based on the fiscal year
<p>Acquiring, using and maintaining greener vehicles (SC.3.4.)</p>	<ul style="list-style-type: none"> • Increase vehicle productivity (passenger load, tonnage and freight transported) by 10%, from a baseline of October 2006, by 31 March 2008, 31 March 2009 and 31 March 2010 • Decrease vehicle downtime (vehicle on repair (VOR)) by 5%, from a baseline of October 2006, by 31 March 2008, 31 March 2009 and 31 March 2010 • Number of "404" licence holders who have taken the defensive driving course (DDC) that includes the green driving module by 31 March 2008, 31 March 2009 and 31 March 2010 • Percentage of drivers who had taken the old DDC (not containing the green driving module) and who have since taken the new green driving module by 31 March 2008, 31 March 2009 and 31 March 2010 • Engage other departments to establish a forum for knowledge and technology transfer to interested parties by 31 March 2008 	<ul style="list-style-type: none"> • ADM (Materiel) to lead • Exercise professional fleet management • Provide green defensive driving training to 70% of Defence's "404" driver's license holders • Share best practices and lessons on "green driving" with interested federal departments and agencies

Initiative	Indicators	Supporting Action(s)
<p>Reducing vehicle GHG emissions by 15% within the commercial pattern on road vehicle departmental fleet by 31 March 2010 (SC.3.5.)</p>	<ul style="list-style-type: none"> • Reduce GHG emissions per vehicle kilometre by 15% from 2002/2003 within the commercial pattern on road vehicle departmental fleet by 31 March 2010: <ul style="list-style-type: none"> ▪ GHG emissions from vehicles 	<ul style="list-style-type: none"> • Affected Commands and Group Principals will develop GHG emission reduction plans • Follow the Treasury Board direction from the Directive on Fleet Management: Executive Vehicles (effective 1 Nov 2006) as well as the Alternative Fuels Act and Regulations; and the Federal Vehicles initiative • Reduce fuel consumption • Follow No Unnecessary Idling Policy • Purchase alternative fuel vehicles where it is cost-effective and operationally feasible • Optimize intervals between lubricant, oil, and filter changes, air cleaner inspections/cleaning, etc. • Promote car-pooling and adopt public transit transportation where practical • Rationalize fleet size
<p>Piloting a managed print solution (SC.3.6.)</p>	<ul style="list-style-type: none"> • Engage the services of a consultant to undertake a Pilot Test that includes waste and paper reduction, energy efficiencies, rationalization of equipment and cost savings by 31 March 2008 • Pilot test study completed and report prepared by 31 March 2009 • Implementation of all acceptable aspects of the study's recommendations to be under way by 31 March 2010 	<ul style="list-style-type: none"> • ADM(Material) and ADM(Information Management) to lead • Work with PWGSC to compete the requirement for the pilot • Manage execution and transition of pilot • Execute the managed print solution if results from the pilot are positive

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Table 1 – Strategic Commitments (cont'd)

Initiative	Indicators	Supporting Action(s)
<p>Minimizing the environmental liability associated with petroleum Fuel Storage infrastructure and distribution assets (SC.3.7.)</p>	<ul style="list-style-type: none"> • Optimized DND/CF fuel storage footprint to meet operational requirements for the long term sustainability of DND/CF fuel storage tank systems through: <ul style="list-style-type: none"> ▪ Initiate the Joint Materiel/ Infrastructure and Environment Defence Fuels Storage Tank Review Project ▪ Completion of Phase 1 Data Collection and Verification activities by 30 June 2007 ▪ Initiate Phase 2 implementation activities (will depend on Phase 1 data collection / data evaluation activities) 	<ul style="list-style-type: none"> • ADM(Materiel) and ADM(Infrastructure and Environment) will create policies, standards and procedures to construct, operate, and maintain safe, environmentally responsible, fuel storage systems • ADM(Materiel) will lead analyses and forecasting for the future fuel 'footprint' in Phase 2 • ADM(Infrastructure and Environment) will be responsible for reviewing funding options to complete Phase 2 activities

Strategic Commitment 4: Actively and innovatively prevent negative environmental impacts of specific activities over which Defence can exercise a mitigating influence by:

Initiative	Indicators	Supporting Action(s)
<p>Reducing disposal of waste fuel by 31 March 2010 (SC.4.1.)</p>	<ul style="list-style-type: none"> Reduce the quantity of waste fuel disposed of by 10% by 31 March 2010 from 2003/2004 	<ul style="list-style-type: none"> Rotate inventory regularly through better inventory management Avoid large purchases before end of season or fuel formulation changes Consider recycling or reconditioning waste fuel on site for less demanding applications and adopt industry best practices
<p>Reducing the long-term impact of releases to the environment § (SC.4.2.)</p>	<ul style="list-style-type: none"> Increase the recovery of lead by 5% from 2003/2004 	<ul style="list-style-type: none"> ADM (Infrastructure and Environment) to lead Screen backstop material on small arms ranges to recover metal fragments Investigate the use of alternate backstop/bullet stop designs that facilitate metal recovery
<p>Reducing contaminated sites liability (SC.4.3.)</p>	<ul style="list-style-type: none"> Reduce the contaminated sites liability by 7% per year from a baseline of 31 March 2006 	<ul style="list-style-type: none"> ADM (Infrastructure and Environment) to lead Update departmental management plans and departmental database (ECONET) including associated liabilities annually

§ The use and releases of ethylene glycol for aircraft de-icing have declined significantly due to product and process changes. Only one base recently met the NPRI reporting threshold, so it is no longer valuable as a department-wide indicator.

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Table 1 – Strategic Commitments (cont'd)

Initiative	Indicators	Supporting Action(s)
<p>Reducing the Ozone Depleting Potential of in-service systems and equipment (SC.4.4.)</p>	<ul style="list-style-type: none"> • Reduction in the weight of halocarbons by 5% in in-service systems and equipment as expressed by their Ozone Depletion Potential per year by 31 March 2010 from a baseline of 31 March 2004 	<ul style="list-style-type: none"> • ADM(Infrastructure and Environment) to lead • Select refrigerants or refrigerant technologies that have minimal potential to damage the ozone layer if there is an accidental release
<p>Reducing Greenhouse Gas (GHG) emissions by 134.9 kilotonne carbon dioxide equivalent by 2010 from 1998 baseline ** (SC.4.5.)</p>	<ul style="list-style-type: none"> • Reduce Greenhouse Gas (GHG) emissions by 134.9 kilotonne carbon dioxide equivalent: <ul style="list-style-type: none"> ▪ GHG emissions from infrastructure ▪ GHG emissions from married quarters 	<ul style="list-style-type: none"> • ADM(Infrastructure and Environment) to lead • Use green power where economically feasible • Promote energy conservation by reducing electricity and heating fuel consumption • Adopt the latest American Society of Heating, Refrigerating and Air-Conditioning Engineers and Illuminating Engineering Society guidelines; employ best practices • Rationalize building space, particularly in the amount of space requiring heating/cooling and lighting

** Includes vehicle GHG emissions of SC.3.5.

Table 2 – Monitoring Commitments

Monitoring Commitments: Defence will monitor activities of continuing interest to the Federal House and which have been targeted in previous Defence SDSs by:

Note: These commitments are not targeted; however, the data reported is monitored so that, should circumstances warrant (i.e., should significant unexplained variances occur), the issue would be investigated or targeted again in a subsequent SDS.

Monitoring Commitments	Data to be Reported
Managing liquid effluents (MC.1.)	<ul style="list-style-type: none"> Management Plans in place at all affected sites? Yes/No
Managing treated water (MC.2.)	<ul style="list-style-type: none"> Quantity of annual total treated water consumed/produced Annual number of DND adverse drinking water quality incidents from WATERNET reports (WATERNET is an interface for Department of National Defence (DND) and Canadian Forces (CF) Water Managers to report confirmed Adverse Drinking Water Quality (ADWQ) Incidents as they occur at DND/CF sites across Canada)
Managing solid wastes (MC.3.)	<ul style="list-style-type: none"> Participation in local 3R (Reduce/Recycle/Reuse) initiatives? Yes/No
Managing spills (MC.4.)	<ul style="list-style-type: none"> Spills are to continue to be reported in Spillnet as per DND's Environmental Directive 4003-1/2003. ADM (Infrastructure and Environment) staff will extract the necessary data from Spillnet, process it and report it with a breakdown by major spill types, volume of material spilled per year, and number of reportable spills per year

Table 3 – Supporting Implementation and Common Steps

Supporting implementation...

To support the implementation of sustainable development, Defence must:

- build upon the use of environmental assessment, including the assessment of policy, plan and program proposals, to ensure that environmental considerations are integrated with planning and decision-making;
- ensure that personnel have the appropriate training and tools;
- foster a common environmental policy and doctrine framework;
- promote the exchange of environmental management information and good practices;
- foster an open and transparent communications strategy with all our stakeholders, both within and external to government;
- promote the demonstration of responsiveness to and respect for the environment;
- integrate pollution prevention into all aspects of day-to-day operations;
- use green practices, processes and procurement;
- encourage a consultative approach to community and aboriginal relations;
- protect cultural and heritage resources; and,
- work with our military partners on common environmental concerns.

Common steps...

Successful achievement of the individual targets requires all levels within the chain of command to develop appropriate action plans.

These plans include most or all of the following common steps:

- assign responsibilities and resources;
- establish and confirm the baseline;
- survey the market;
- research and test alternative products, processes and practices;
- assess the environmental impact of the alternatives, throughout their lifecycle;
- develop and validate resource implications using business case analysis;
- select the preferred/logical alternative;
- if required, mitigate the impacts of the selected alternative and associated processes;
- develop an implementation plan and required contingency plans;
- establish and confirm resource requirements;
- measure, analyze, and report performance; and,
- follow up with a view of continuously improving the environmental performance of the processes involved.

Table 4 – Defence Commitments: Linkages to the Federal Sustainable Development Agenda

Defence Commitments: Linkages to the Federal Sustainable Development Agenda*

Defence Commitment	Defence Desired Outcome(s)	Federal Outcome(s)*
<p>SC.1.1. Measuring the sustainability of military training areas and managing them accordingly</p>	<ul style="list-style-type: none"> • Protect ecosystem health • Manage for sustainable development 	<ul style="list-style-type: none"> • 5.2.1 Environmentally sustainable consumption and production of natural resources is promoted • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.1.2. Developing urban forest policies, and implement Urban Forest plans at all bases (and other innovative programs such as the “Grow Clean Air” program)</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Protect health, environment and the atmosphere 	<ul style="list-style-type: none"> • 2.3.1 Air pollution threats to ecosystems, natural and built heritage are reduced and mitigated • 5.2.1 Sustainable consumption and production of natural resources is promoted • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.2.1. Expanding the integration of the Green Building concept into the total design process</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Incorporate environmental considerations into management systems, processes and activities • Promote procurement of environmentally responsible goods and services • Promote environmentally responsible design, commissioning, operation and maintenance, de-commissioning and demolition of infrastructure 	<ul style="list-style-type: none"> • 3.2.2 Renewable and clean energy is promoted • 3.3.1 Emissions are reduced • 6.1.1 SDS commitments are integrated into key planning and reporting processes

*As set out in “Coordinating the Fourth Round of Departmental Sustainable Development Strategies: June 2006”

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Table 4 – Defence Commitments: Linkages to the Federal Sustainable Development Agenda (cont'd)

Defence Commitment	Defence Desired Outcome(s)	Federal Outcome(s) *
<p>SC.2.2. Improving our understanding of the feasibility of “bundled” Energy Performance Contracts and sharing the lessons learned with our federal colleagues by 31 March 2010</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Incorporate environmental considerations into management systems, processes and activities • Promote procurement of environmentally responsible goods and services • Reduce the impact of releases and emissions on air quality • Promote environmentally responsible design, commissioning, operation and maintenance, de-commissioning commissioning and demolition of infrastructure 	<ul style="list-style-type: none"> • 3.2.2 Renewable and clean energy is promoted • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.3.1. Supporting the federal green procurement agenda</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Incorporate environmental considerations into life cycle management processes • Promote the procurement of environmentally responsible goods and services 	<ul style="list-style-type: none"> • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.3.2. Developing and integrating where appropriate Green Procurement modules and messages into all existing training</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Incorporate environmental considerations into life cycle management processes • Promote the procurement of environmentally responsible goods and services 	<ul style="list-style-type: none"> • 6.1.1 SDS commitments are integrated into key planning and reporting processes • 6.1.2 Clear and Effective governance mechanisms to integrate SD into decision-making

*As set out in “Coordinating the Fourth Round of Departmental Sustainable Development Strategies: June 2006”

Defence Commitment	Defence Desired Outcome(s)	Federal Outcome(s) *
<p>SC.3.3. 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</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Incorporate environmental considerations into life cycle management processes • Promote the procurement of environmentally responsible goods and services • Minimize pollutant introduction into the environment • Ensure appropriate management of potential pollutants 	<ul style="list-style-type: none"> • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.3.4. Acquiring, using and maintaining greener vehicles</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Incorporate environmental considerations into life cycle management processes • Promote the procurement of environmentally responsible goods and services • Minimize pollutant introduction into the environment • Reduce the impact of emissions and releases on air quality • Minimize greenhouse gas and ozone depleting substance introduction into the environment 	<ul style="list-style-type: none"> • 3.2.2 Renewable and clean energy is promoted • 3.3.1 Emissions are reduced • 6.1.1 SDS commitments are integrated into key planning and reporting processes

*As set out in "Coordinating the Fourth Round of Departmental Sustainable Development Strategies: June 2006"

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Table 4 – Defence Commitments: Linkages to the Federal Sustainable Development Agenda (cont'd)

Defence Commitment	Defence Desired Outcome(s)	Federal Outcome(s)*
<p>SC.3.5. Reducing vehicle GHG emissions by 15% within the commercial pattern on road vehicle departmental fleet by 31 March 2010</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Incorporate environmental considerations into life cycle management processes • Minimize pollutant introduction into the environment • Reduce the impact of emissions and releases on air quality • Minimize greenhouse gas and ozone depleting substance introduction into the environment 	<ul style="list-style-type: none"> • 3.2.2 Renewable and clean energy is promoted • 3.3.1 Emissions are reduced • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.3.6. Piloting a managed print solution</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Incorporate environmental considerations into life cycle management processes • Promote the procurement of environmentally responsible goods and services 	<ul style="list-style-type: none"> • 5.2.1 Sustainable consumption and production of natural resources is promoted • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.3.7. Minimizing the environmental liability associated with petroleum Fuel Storage infrastructure and distribution assets</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Maximize opportunities to reduce, re-use and recycle consumable materials • Maximize pollution prevention opportunities • Ensure appropriate management of potential pollutants • Minimize sources of pollutant release • Ensure appropriate management of potential pollutants 	<ul style="list-style-type: none"> • 4.3.2 Risks to human and ecosystem health from harmful substances are reduced (including contaminated sites clean-up) • 6.1.1 SDS commitments are integrated into key planning and reporting processes

*As set out in "Coordinating the Fourth Round of Departmental Sustainable Development Strategies: June 2006"

Defence Commitment	Defence Desired Outcome(s)	Federal Outcome(s) *
<p>SC.4.1. Reducing disposal of waste fuel by 31 March 2010</p>	<ul style="list-style-type: none"> • Maximize opportunities to reduce, re-use and recycle consumable materials • Maximize pollution prevention opportunities • Ensure appropriate management of potential pollutants 	<ul style="list-style-type: none"> • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.4.2. Reducing the long-term impact of releases to the environment</p>	<ul style="list-style-type: none"> • Maximize opportunities to reduce, re-use and recycle consumable materials • Maximize pollution prevention opportunities • Ensure appropriate management of potential pollutants 	<ul style="list-style-type: none"> • 4.3.2 Risks to human and ecosystem health from harmful substances are reduced (including contaminated sites clean-up) • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.4.3. Reducing contaminated sites liability</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Integrate environmental considerations into management systems, processes and activities • Minimize pollutant introduction into the environment 	<ul style="list-style-type: none"> • 4.3.2 Risks to human and ecosystem health from harmful substances are reduced (including contaminated sites clean-up) • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>SC.4.4. Reducing the Ozone Depleting Potential of in-service systems and equipment</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Reduce the impact of releases and emissions on air quality • Minimize the introduction of greenhouse gases and ozone depleting substances into the environment 	<ul style="list-style-type: none"> • 3.3.1 Emissions are reduced • 6.1.1 SDS commitments are integrated into key planning and reporting processes

*As set out in "Coordinating the Fourth Round of Departmental Sustainable Development Strategies: June 2006"

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Table 4 – Defence Commitments: Linkages to the Federal Sustainable Development Agenda (cont'd)

Defence Commitment	Defence Desired Outcome(s)	Federal Outcome(s) *
<p>SC.4.5. Reducing Greenhouse Gas (GHG) emissions by 134.9 kilotonne carbon dioxide equivalent by 2010 from 1998 baseline</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Reduce the impact of releases and emissions on air quality • Minimize the introduction of greenhouse gases and ozone depleting substances into the environment 	<ul style="list-style-type: none"> • 3.3.1 Emissions are reduced • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>MC.1. Manage liquid effluents</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Protect human health and the environment • Ensure appropriate management of potential pollutants • Minimize sources for introducing pollutants into the environment 	<ul style="list-style-type: none"> • 1.1.1 Water pollution is reduced • 1.1.2 Wastewater management is improved on federal lands • 6.1.1 SDS commitments are integrated into key planning and reporting processes
<p>MC.2. Manage treated water</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Protect human health and the environment 	<ul style="list-style-type: none"> • 1.1.1 Water pollution is reduced • 1.2.1 Water efficiency and sustainable water use is improved • 1.3.2 Knowledge of water resources is increased
<p>MC.3. Manage solid wastes</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Protect ecosystem health 	<ul style="list-style-type: none"> • 5.3.1 Environmentally sustainable use of natural resources is promoted
<p>MC.4. Manage spills</p>	<ul style="list-style-type: none"> • Manage for sustainable development • Minimize pollutant introduction into the environment 	<ul style="list-style-type: none"> • 1.3.1 Marine and freshwater resources are protected and continue to support ecosystems and biodiversity • 4.3.2 Risks to human and ecosystem health from harmful substances are reduced (including clean up of federal contaminated sites)

*As set out in “Coordinating the Fourth Round of Departmental Sustainable Development Strategies: June 2006”