



Defence Construction Canada
Construction de Défense Canada

Maintaining Environmental Stewardship

An Environmental Management Framework for Defence Construction Canada

May 2002

Canada

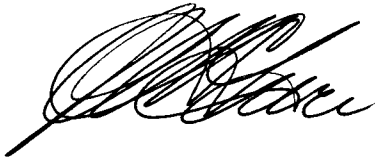
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Defence Construction Canada Environmental Management Policy

The mission of Defence Construction Canada is to support the Canadian Forces (CF) and the Department of National Defence (DND) in the management of its facilities infrastructure. DCC will therefore respect all CF/DND environmental policies and directives, and the DCC Corporate Plan and all subordinate business and operational plans will incorporate the principles of sustainable development, pollution prevention, environmental protection and enhancement. These sound environmental management practices are integral elements of good business management, responsible stewardship and global sustainability.

Defence Construction Canada will comply with the spirit and intent all applicable environmental legislation, regulations and guidelines while carrying out its operations and activities. The corporation will integrate responsible environmental management practices in all its business systems by continued development and maintenance of an Environmental Management System. Furthermore, DCC will take the appropriate measures to ensure that all employees are provided the direction, training and authority required to carry out business in accordance with the principle of due diligence. In turn, all DCC employees are expected to work proactively to achieve or surpass the corporation's environmental performance measures.



John McLure
Chairman, Defence Construction Canada



Ross Nicholls
President and CEO, Defence Construction Canada

A Message from the President and CEO



May, 2002

As outlined in our corporate policy on environmental management, Defence Construction Canada remains committed to the principles of sound environmental stewardship, including sustainable development and the practice of due diligence. Demonstrating this commitment, however, must go beyond simply putting our policy on the boardroom wall. It means integrating environmental considerations into our business practices. This includes, but is certainly not limited to, strengthening our management framework throughout the corporation to help ensure that our goals related to environmental management are met.

“Environmental stewardship” and “due diligence” are more than buzz words. They are the only manner in which our business should be conducted. The *conduct of operations in a way that contributes to the protection of the natural environment* is one of the six key operating principles of Defence Construction Canada. As such, I would ask all employees to incorporate environmental ethics into their day-to-day activities and to meet or exceed the expectations laid out in this framework. I encourage all of you to take a leadership role at your work location. In doing so, we all contribute to maintaining a work environment that minimizes corporate risks and provides for safe and clean surroundings for current and future generations.

This framework is not a prescriptive document. It serves as a means to *identify the specific actions required over the next couple of years to fully integrate environmental issues into our day-to-day management.* In time, specific environmental goals and measures will be developed and incorporated into our emerging performance management system. Through the effective allocation of resources we will take a leading role in ensuring DCC’s environmental activities and decisions are managed effectively.

On behalf of the Board of Directors, I wish to thank all employees of DCC for their past, present and future contributions to “*Maintaining Environmental Stewardship*” within the corporation.

Ross Nicholls

About this Framework

The aim of this framework is to provide all DCC employees with strategic direction related to the management of environmental aspects of our day-to-day business activities. This framework lays the foundation for the establishment of an environmental management system.

The environmental management system forms a part of our corporate governance process. It provides for key **long-term objectives** and **strategic priorities** regarding environmental aspects of our operations. From this framework we must develop our key objectives and strategic goals that are outlined in the corporate strategic plan. This, in turn, leads to specific actions in the business plans at the division, regional and site level. Business planning processes at all levels must develop annual objectives and targets related to environmental stewardship. In order to be effective, resources and specific performance goals and measures must be assigned. Finally, the corporate monitoring and reporting process, which ends with the tabling of the Annual Report, will report on our progress towards meeting the expectations outlined in the framework.

Relationship of Environmental with Corporate Management

In developing our system, it is important to ensure that its requirements are resident within our existing management structures. The framework therefore serves simply to integrate the management of environmental issues and aspects affecting DCC into our key day-to-day management goals. As such, this framework will:

- Ensure a strong environmental **leadership and management** is at the centerpiece of our environmental management framework, ensuring that all of these management functions are capable of meeting our environmental goals.
- Ensure DCC remains **protected** from outside factors that could impact our ability to undertake

our business activities consistent with our mission, goals and values;

- Place the corporation in a position to rapidly **adapt to change** to environmental issues;
- Ensure that administrative activities that serve to **sustain DCC operations** are done with the consideration of environmental impact;
- Receive and communicate pertinent **information** related to the management of our environmental issues;
- Ensure that **productivity in our service delivery** is maintained with due regard for minimizing or eliminating environmental impacts; and

From these functions must arise our environmental policies and procedures, implementation of which becomes the responsibility of the appropriate member(s) of the Management Group. Specific actions to meet our environmental goals, objectives and targets are identified in annual corporate and business unit plans and associated budgets. Measurement is a key component of the leadership and management function

Framework Elements

The DCC Environmental Management Framework consists of several key elements related to our day to day management regime, including:

- **Corporate Management and leadership**
 - Element 1 - Environmental Management and Leadership
 - Element 2 - Environmental Incident Reporting and Investigation
 - Element 3 - Measurement Review and Reporting
 - Element 4 - Follow up and continual improvement
- **Protection from outside factors**
 - Element 5 - Risk management
 - Element 6 - Environmental legal requirements

- **Maintaining Productivity**
 - Element 7 - Environmental management related to DCC Operations
 - Element 8 - Environmental aspects of contracted services
- **Information Services and Communications**
 - Element 9 - Environmental Communications and awareness
- **Sustainment**
 - Element 10 - Environmental Training

Each of these elements is discussed in this framework. Within each element, several action items are highlighted. In turn, coordinated operating procedures must be developed. In some cases, this will be done at a certain level of management within the corporation (i.e. site offices, regional offices or Head Office). In other cases it will be a combination of these. Primary responsibility for implementation rests with senior management. Each division (operations, contract services and corporate services) must work towards implementing a strategy for addressing these corporate expectations. In turn, sites and other offices will work towards meeting these goals.

One of the most important aspects of this framework is monitoring and continual improvement. Although specific procedures are not outlined in this plan, they will be developed in the short term, based on the expectations outlined in this book. The National Environmental Coordinator will take the lead role in this regard. The monitoring and continual improvement of the environmental management system will be a crucial component of the system.

Review of this Framework

As DCC develops experience, both in risk management and its environmental aspects, the elements of the framework, or the whole framework itself, will be examined and, where appropriate, changes will be made. The maintenance of this framework therefore becomes one of the key roles of the Environmental, Health and Safety committee,

described later in this book. Changes will be communicated quickly throughout the corporation.

The Framework and the Greening of Government

It is important to note that, in issuing this framework, DCC is cognizant of other federal government initiatives related to environmental management. In developing this book, references such as *A Guide to Green Government*, *Directions on Greening Government Operations* and the International Organization for Standardization (ISO) 14000 series of standards were consulted. While DCC is not seeking formal ISO 14001 certification at this time, the principles of these standards, as well as the guides, have proved useful for developing these expectations. Divisions, regions and sites should consult these references while developing their successive action plans.

The DCC Framework and the DND Sustainable Development Strategy

DCC is committed to assisting, where possible, DND in meeting its sustainable development goals. While the DND Sustainable Development Strategy encompasses a number of environmental aspects that do not pertain to DCC directly, there are indeed a number that we directly support. These aspects, as a result, form part of the baseline for our environmental aspects as well.

DCC Corporate Environmental, Health and Safety Committee

In 1999, DCC initiated a corporate committee mandated to review environmental and safety risk issues within the corporation.

The primary role of the DCC EHS Committee is to serve in an advisory role to the President of DCC. The committee serves to assist in the identification of potential problem areas associated with environmental, health and safety issues and advises on practices that lead to improved due diligence within DCC.

Membership

The DCC EHS committee is composed of representatives from throughout DCC. Membership will consist of the following:

- Manager of Human Resources (permanent)
- A minimum of one representative from each of the Western, Central and Atlantic Regions (nominated by each Regional Director) (normally serve for a period of up to 3 years, which is renewable)
- National Safety Coordinator and National Environmental Coordinator (permanent)
- Others, as required

The National Safety Coordinator and National Environmental Coordinator will act as co-chairs of this committee.

Terms of Reference*

In providing such advice, the Committee shall undertake the following activities related to this environmental framework:

- Make recommendations on the development and implementation of the DCC Environmental Management System and the environmental aspects of the corporate ERM framework;
- Undertake specific reviews of legislative requirements and province specific requirements

that should be considered for incorporation in the DCC framework;

- Maintain a continual improvement program for the overall environmental programs and responsibility for the roll up of performance measures;
- Review, discuss and make recommendations on corporate environmental, health and safety risks and liabilities; and
- Review, discuss and make recommendations on corporate environmental, health and safety communications.

Meetings

The committee shall normally meet 4 times per year.

Communications

Committee agendas and summaries of meetings will be posted on the DCC Intranet. Key issues will be communicated to the President and Management Group as required.

Budget

The Chair(s) of this committee shall establish an annual budget, to support its activities, and submit to the President for approval. Pay and travel costs for committee members shall be the responsibility of each DCC Business Unit providing representation. Information to assist Business Unit managers in budgeting for this activity will be provided annually.

*Note that these are not the complete terms of reference for the EHS committee but excerpts relating directly to environmental management.

Element 1 - Management and Leadership

This environmental framework will serve to **balance** three themes that serve to describe DCC's overall goals related to maintaining environmental stewardship:

- **Managing risk** – ensuring that our activities are conducted in a manner that minimizes both corporate and individual financial and operational risks and liabilities.
- **Allowing for sustainable growth** – that our activities must not limit the continued growth of the corporation, without causing irreparable environmental impacts. Sound environmental practices will contribute to our goals in this area.
- **Establishing a role within the greater community** – as a public company, our operations must act to serve the greater public good, including government objectives and values related to clean water, clean air and the conservation of natural spaces outlined in the January 2001 Speech from the Throne.

The DCC Board of Directors and members of the management group are committed to ensuring that our environmental management framework contributes equally to each of these themes. More so, they remain committed to the principles of sustainable development and to meeting the performance expectations outlined throughout this framework. The bases for these commitments start with the corporate environmental policy on page 1.

Senior management is ultimately responsible to set policies, establish performance goals and measures and provide sufficient resources for the implementation of this framework. Nonetheless, leadership is required by all employees to realize these goals. It must be recognized that environmental stewardship touches all facets of our operations and responsibility does not simply

rest with our environmental professionals. When all employees accept this shared responsibility, the conditions are established to meet both our legislated and policy requirements. This leadership must be combined, however, with the assignment of clear accountabilities within our existing delegated authority matrix.

Steps Towards Integration

- Management at all levels of the corporation shall establish and support an environmental management system for meeting the expectations outlined in this framework. This shall include the establishing of specific goals, objectives and programs relevant to our environmental responsibilities.
- Support for this framework shall be demonstrated through management participation in the established review and continual improvement processes.
- Environmental management roles and responsibilities are to be assigned through job profiles and performance objectives
- Specific authorities and accountabilities related to environmental aspects are to be assigned throughout the corporation in accordance with our existing management structures
- Environmental performance management measures are to be established and maintained to assess the status and effectiveness of each expectation in the framework and their associated objectives and targets

Element 2 - Incident Reporting and Investigation

Environmental incidents are defined as any specific or recurring event(s) that lead to an undesired potential or actual impact on the biophysical environment, the atmosphere or on human health or safety. Such incidents can arise from DCC or contractor's activities in offices or work sites or through third party activities that impact on these sites. Incidents include any legal or regulatory non-compliance, regardless of a physical incident having taken place.

Examples of such incidents include the spilling or emission of hazardous materials or destruction of wildlife habitat, among others.

The effective and timely reporting of environmental incidents assures that a proper level of effort is applied to mitigation. Concurrent investigations should be designed with a view to learning from reported incidents and towards preventing recurrence.

The reporting of environmental incidents does not preclude any other required reporting under any legislation, guideline, policy or procedures (i.e. DND), including those outlined in the DCC Health and Safety Manual.

Steps Towards Integration

- A centralized system for the reporting and investigation of environmental incidents developed
- All environmental reports are investigated promptly with the results communicated to appropriate management
- Legal assistance is available to support the reporting and investigations phases of environmental incidents
- All lessons learned from environmental incidents are to be reflected in amended operational or administrative procedures or standards

- Where appropriate, lessons learned shall be shared with our clients or relevant professional associations

Element 3 - Measurement Review and Reporting

To ensure that the expectations of this framework are met, a management review and reporting methodology must be established. To do so, a common program of evaluation has been established that allows DCC to examine progress towards meeting corporate performance objectives and measures at the appropriate level(s) within the organization. This section of the framework includes two key components – *Framework Verification* and *Rating Our Implementation*.

This measurement review will form the basis for an annual environmental performance report promulgated by the Head Office. In turn, the key aspects of this report will be highlighted in the Annual Report.

Framework Verification

This component of the review and reporting system is designed to ensure that this environmental management framework is meeting corporate strategic goals within both our ERM and corporate governance objectives. This verification element is used to ensure that (a) the design and implementation meets current corporate environmental framework objectives and (b) to assess its overall effectiveness.

Evaluation of Framework Design and Implementation

- Reviews this framework in terms of objectives, scope, processes/procedures, allocation of resources, and measurement and reporting
- Examines the effectiveness in addressing and mitigating corporate risks related to environmental issues
- Evaluate the extent of implementation including framework awareness, communications and corporate-wide input into a continual improvement feedback loop

Evaluation of System Effectiveness

- Examine the quality of framework implementation and the meeting of stated objectives.

Rating Our Implementation

The state of implementation of this framework will be periodically evaluated at the site, regional and national level.

The evaluation template outlined in Appendix 2 of this framework provides a consistent means for reporting on the status and effectiveness of meeting the performance measures outlined throughout this framework.

Although most reviews will be internally conducted, external reviews will be undertaken by the Audit Committee of the Board of Directors in the context of the Corporations Long Term Audit Plan.

Steps Towards Integration

- Specific performance measures for environmental management are integrated into our performance measurement system
- DCC operational and administrative activities are regularly assessed to establish the state of compliance with the performance expectations outlined in this framework
- The review and reporting process and frequency is reflective of the level of corporate risk, the maturity of the element being reviewed and previous performance
- A periodic review of this measurement review and measurement process is undertaken

Element 4 - Follow Up and Continual Improvement

Within this framework, continual improvement consists of two elements:

- Improved effectiveness as demonstrated in successive reviews. This is measured through implementation and improved effectiveness ratings outlined in the Management Review and Reporting section
- The updating of this framework and associated performance measures

A key element in ensuring continual improvement is follow up. Key findings shall be documented and reporting on follow up shall be provided to the Management Group and EHS Committee on a semi-annual basis.

Those elements of the framework rated at Level 1 require a specific continual improvement plan, approved by the appropriate member of the Management Group. Specific actions and milestones will be outlined in these plans.

While management of continual improvement and follow up will be the responsibility of line managers and the Management Group, the Corporate Environmental, Health and Safety Committee will serve to monitor its effectiveness.

Steps Towards Integration

- A methodology for tracking all identified shortfalls is established and maintained

Element 5 - Risk Management

A key aspect of DCC's corporate governance process is our ability to manage all forms of risk and liability. While it is certain that DCC has environmental liabilities, these can be controlled through the adoption of sound management practices.

In response to this increasing number and complexity of corporate risks faced by DCC, the corporation is implementing an Enterprise Risk Management (ERM) system. Environmental risk management is a constituent part of this system. This environmental management framework serves to identify, analyze and mitigate risks that could impact on the integrity of our overall operations. This includes undertaking an active, corporation wide role in reducing the magnitude or number of environmental risks, remove environmental issues as a barrier to business objectives, reduce the need to allocate resources to addressing environmental incidents, improve decision making and enhance our overall corporate governance framework.

Steps Towards Integration

- Environmental risks form a component of the DCC ERM framework. This includes processes for early risk identification.
- The identification and analysis of environmental risks are undertaken centrally and communicated throughout the corporation
- Lessons learned from environmental risks are incorporated into the DCC risk management life cycle.
- Specific risk assessments are conducted for larger scale ongoing operations or projects in order to identify potential environmental hazards to personnel and the surrounding biophysical environment. These assessments should use existing environmental risk management processes, including environmental impact assessments.

- Environmental risk assessments are updated a specific intervals or as conditions are changed.
- Develop an improved system to ensure that all regulatory requirements are fulfilled prior to project start-up.

Element 6 - Environmental Legal Requirements

As a federal Crown Corporation, DCC management must ultimately ensure compliance with all applicable federal and provincial/territorial environmental legislation as well as a number of codes of practice and guidelines. Given the complexity of Canada's environmental legislation and associated practices, it is important that the impact of legislation on the operations of both our clients and us be managed.

Legislation can impact several aspects of our day-to-day operations, including:

- The requirement to obtain permits for specific activities, and
- The placing of specific limitations on the provision of our services and those of our industry and government partners.

Employees of DCC must be cognizant of our compliance requirements.

Steps Towards Integration

- A registry of existing environmental legislation applicable to our operations and services will be maintained and be available to all employees
- A registry of sources of environmental information is maintained and available to all employees
- A system is established to monitor new or changing legislation
- An analysis of new or upcoming environmental legislation or codes of practices is undertaken and applicable updates to the registry and procedures are undertaken.
- A process is established to ensure that permitting requirements are captured early in the project planning process.

Element 7 - Environmental Aspects Related to DCC Operations

Environmental aspects are defined as those components of DCC's activities or services that can interact with the environment. This differs from impacts, which are positive or negative changes to a baseline condition.

As part of our environmental management framework, DCC must actively seek to identify and assess the environmental aspects of our operational (i.e. client services) and internal administrative undertakings. This can include activities undertaken by third party contractors. An example of an environmental aspect is waste management.

Aspect identification may also include the identification of specific objectives and targets, which are, in effect, specific environmental commitments being made by DCC. These objectives and targets form a key basis for the communications and awareness aspects of this framework. Objectives must be specific and measurable.

Steps Towards Integration

- In conjunction with the Corporate EHS Committee, a process is established to identify and evaluate potential environmental aspects
- Where required, specific management actions will be identified. This can include the development of environmental management programmes specific to meeting management objectives and targets.
- A programmed review of all aspects and associated management programmes is established which includes an amendment process.

The management requirements for each identified aspect should be reflected in DCC policies and procedures.

Element 8 - Environmental Management of Contracted Services

Defence Construction Canada contracts third party services, either on our own behalf or for the Department of National Defence. In either case, it is imperative that these contracted services are structured in a manner that maintains the integrity of both DCC's and DND's corporate values and policies, particularly as they relate to environmental stewardship. Although work is contracted out, *DCC and DND continue to retain some liability for environmental incidents. Concurrently, environmental incidents impact on both our and DND's corporate reputation.*

While the provision and responsibility for environmental controls and procedures on work sites primarily rests with our third party contractors, our client expects DCC to maintain a monitoring system to assess performance of contracted services and to ensure that immediate action is taken to correct deficiencies. We will continue to work with industry partners and associations to examine areas where environmental performance can be improved.

Steps Towards Integration

- DCC personnel and organizations involved in the contracting process must ensure that third party services and activities are capable of performing work in a manner consistent with environmentally safe practices and with a priority placed on due diligence.
- All DCC personnel and organizations involved with contract management shall ensure that environmental provisions of contracts are understood and standards are maintained throughout a project
- Contracted services, in particular those involving physical activities (construction, environmental site investigations, etc) are to include specific performance requirements that are outlined and

communicated to contractors. Such performance requirements must include:

- That specific environmental protection procedures and systems applicable to the work being performed are followed.
- Those environmental considerations for a project are communicated to the contractors' workforce.
- The provision of properly trained and qualified personnel to ensure environmental requirements are being undertaken.
- The provision of a review/ monitoring process inherent to the contractors' management regime.

Element 9 – Environmental Communications and Awareness

The continuous internal and external communication of environmental issues and progress are important factors in ensuring the integrity of, and employee confidence in, this framework.

Our environmental communications and awareness program ensures that procedures exist within DCC for receiving, documenting and disseminating environmental related information.

Steps Towards Integration

- Appropriate environmental communications and awareness program is adopted within DCC.
- Head Office shall establish a baseline level of communications with external agencies, particularly related to our capacities for environmental emergency response
- Head Office shall maintain an environmental awareness program that will include, but is not limited to, maintenance of an environmental awareness intranet site

Element 10 – Environmental Training

The success of this environmental framework is very much dependent on the availability of a workforce trained to recognize and promote opportunities to improve environmental stewardship.

By training our personnel in environmental issues, we ensure that a sufficient level of environmental knowledge to mitigate impacts is resident throughout the corporation.

Training can take place in many forms, including self-study, internal training, external (outsourced) courses or simple awareness briefings.

DCC will ensure that all employees that can impact the environmental performance of the corporation receive appropriate training.

Steps Towards Integration

- A method to provide initial, ongoing and periodic refresher training to meet employment and legal requirements related to environmental aspects of our operations is in place.
- All employees shall receive general environmental awareness briefings annually. Head Office will be responsible for promulgating the content for these briefings. At a minimum, these briefings will make personnel aware of environmental legislation, due diligence/ individual responsibility, this environmental framework and issues specific to a particular base/office
- Where required, specific project/programme environmental training for personnel will be identified and be reflected in annual professional development plans
- Maintain a baseline knowledge of liquid and solid spill response requirements

Appendix 1

Performance Evaluation Matrix

Each element of this framework will be evaluated using a common evaluation matrix. Each element will be evaluated in each of two factors:

- the status of implementation; and
- the effectiveness of meeting the performance measures outlined throughout this framework.

Each factor will be assigned a score of between 1 and 4 in accordance with the following table:

Score	Status of Implementation	Effectiveness of meeting performance measures
1	Program to address this element of the framework is under development.	Management of this element is not normally in accordance with the performance measures to the expected standard.
2	Program to address this element of the framework has been developed and program details documented.	Important objectives are being met to an adequate standard of implementation.
3	Program elements have been developed and incorporated into the corporation's procedures. Elements have been communicated throughout the organization. Management review has not occurred.	Majority of an element's objectives are being met to an acceptable standard of quality.
4	Program to address this element of the framework is fully developed and has undergone a management review. Lessons learned have been incorporated into the element.	Management of this element is in accordance with the performance measures outlined in the framework. Execution is of a high standard. Program intent is being met. Due diligence can be demonstrated.