



Sustainable Development Strategy 2015-2018



To reduce the ecological impacts of
Correctional Service of Canada operations.



Front cover photographs:

Top – Wind turbine at Dorchester Penitentiary, Atlantic Region

Left – William Head Institution, Pacific Region

Right – Wastewater lagoons at Cowansville Institution, Quebec Region



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Message from the Commissioner

Recognizing that the implementation of Sustainable Development practices in our organizational culture implies a long term endeavor, the Correctional Service of Canada (CSC) is proud to present its sixth Sustainable Development Strategy (SDS) since 1997. As you know, Sustainable Development is about continually considering the social, economic and environmental implications of our choices, decisions and actions. Consequently, environmental sustainability remains on the forefront of the federal governance model as it is an important expectation shared by all Canadians.



Although not legally bound by the Federal Sustainable Development Act (FSDA) and the Federal Sustainable Development Strategy (FSDS), CSC has been actively contributing to the Canadian sustainability agenda. Our organization accomplished noticeable progress during the 2012-2015 SDS cycle and is well positioned to build on its achievements. CSC has demonstrated significant leadership and will continue to be a “green pioneer” to further the improvements on its environmental performance.

Our 2015-2018 SDS bridges new realistic commitments with those made in our previous SDS, namely in the area of energy conservation (greenhouse gases reduction). For this SDS cycle, our ecological pledges are shared among many Offices of Primary Interest. Accordingly, I strongly believe that the ownership of our Sustainable Development investments should reside primarily at the institutional level, while the accumulated gains will continue to radiate throughout our organization.

In these times of change, let our new SDS embrace the true benefits of strong partnerships and shared accountabilities. It is imperative that we all contribute to the advancement and evolution of our corporate Sustainable Development initiatives. Working together, we will diminish CSC's environmental footprint and inspire future generations to pursue the same path.

Don Head
Commissioner



Executive Summary

Environmental Protection Programs (NHQ-EPP) has been preparing and publishing a corporate Sustainable Development Strategy (SDS) every three years since its first edition in 1997. Each strategy had its successes and lessons learned which were used and adapted in subsequent editions. In the last SDS, for the 2012-15 cycle, 18 targets were established of which 16 targets were met or surpassed and two targets were partially achieved.

For this SDS, CSC's sixth edition, we have aimed to maintain a large degree of consistency with goals from previous strategies in order to capitalize on achievements. The commitments/targets are in line with the institutional water and energy conservation plans and the optimized recycling programs established and implemented in the 2012-15 SDS cycle. In addition, emphasis and priority has been placed on energy saving initiatives in an effort to lower greenhouse gas emissions and to reduce consumption costs.

The approach adopted for SDS 2015-18 is different from those previous in that the commitments are based on specific and realistic targets at the institutional level, rather than being corporately developed and implemented. We believe that each site can contribute in its own way to CSC's environmental sustainability agenda.

The current SDS overarching main goal is "To reduce the ecological impacts of Correctional Service of Canada operations". In addition, the strategy is subdivided into two goals:

- 1) Contribute to the protection of the atmosphere and to reduce gaseous emissions that are responsible for global warming/climate change.
- 2) Contribute to the protection of natural habitats and reduce pollution to aquatic ecosystems.

Though CSC is not legally bound by the Federal Sustainable Development Act, the department has agreed to report on the implementation strategy 3.11.1 of the Federal Sustainable Development Strategy 2013-16 - "Federal custodians complete remediation/risk management activities at federal contaminated sites for which they are responsible in order to reduce human health and ecological risks at higher priority sites". Each year through the Federal Contaminated Sites Action Plan (FSCAP) CSC will provide a status report on the contaminated sites located on CSC properties undergoing remediation or those being risk managed.



Introduction

CSC has made a significant effort towards sustainable development and environmental performance since its first corporate SDS voluntarily developed and published in 1997. At that time, CSC focused primarily on increasing human resources in the regions to help bring forward the environmental agenda and developing environmental management tools to help meet the commitments that were pledged.

The lessons learned from the first SDS, resulted in a more modest approach for the SDS 2000-03. The number of targets considerably decreased from a demanding 42 in the first SDS to just 12 in the second reiteration. Despite the strong efforts made to achieve SDS 2000-03, CSC was unable to conclusively report on whether significant progress was made.

Commitments were further defined in the third edition of the SDS for 2003-06. Priorities were established and nine targets were proposed. CSC was able to better define the scope of its capacity and bring about changes that would help in the achievement of the fourth SDS.

SDS 2007-10 resulted in the highest success for CSC in achieving its commitments. There were 14 targets established and 13 were met or exceeded. The reason for this incredible success rate was due to better balancing of resources and needs.

Based on this great achievement, SDS 2012-15 largely duplicated the notion of finding the equilibrium between resources and commitments. There were 18 targets under five main goals. The final analysis determined 16 targets were met or surpassed and two targets were partially achieved. One of the two targets that were partially achieved was reducing the use of polystyrene and single serving food packing. This target was both challenging to report on and to reach due to the introduction of the food services modernization initiative after the publishing of the SDS, which took precedence over finding innovative ways to reduce polystyrene. The second target that had been identified as partially achieved was the reduction of energy consumption by 3%, intensity based. As this document was being written, it was not yet fully known the results of CSC's energy consumption for 2014-15. Therefore, we could not conclusively report until the end of that year, however, the evidence gathered thus far indicates that this target will be met.

For SDS 2015-18, the essence of the goals has been for the most part persevered from previous SDS's. Contributions are in line with institutional water and energy conservation plans that were developed and implemented over the 2012-15 cycle and the optimization of recycling programs over the same period. Priority has been placed on energy saving initiatives in order to reduce greenhouse gas emissions. Of the 40 targets developed, 32 are focussed on conserving energy by implementing alternative energy projects and by converting to LED lighting. In addition, there are substantial inputs to conserving water by installing water saving devices.



Risk Analysis

CSC Environment and SDS Programs are fundamentally composed of two main portfolios: Environmental Compliance and Environmental Performance. Both environmental portfolios fall under the strategic corporate priority "*Efficient and effective management practices that reflect values-based leadership*".

Environmental Compliance

The Environmental Compliance portfolio relates to aspects that are federally legislated and where the most significant risk level is situated. Risk level is evaluated based on the likelihood of non-compliance events and the potential environmental impacts associated with such events. In order to assess the level of risk from an environmental compliance perspective, the following environmental acts/regulations that impact CSC's operations were considered:

- *Canadian Environmental Protection Act, 1999 (CEPA)*
 - *Petroleum and Allied Petroleum Products Storage Tanks Regulations, 2008*
 - *Federal Halocarbon Regulations, 2003*
- *Canadian Environmental Assessment Act, 2012 (CEAA)*
- *Fisheries Act, 1985 (Section 36)*
 - *Wastewater Systems Effluent Regulations, 2012*
- *Species at Risk Act, 2002 (SARA)*

It should be noted that the potential environmental impacts (and potential violations of the CEPA and/or the Fisheries Act) associated with the presence of contaminated sites, potentially contaminated areas or areas of environmental concerns on CSC sites, are risk managed separately, case by case, as per the approach established by the Federal Contaminated Site Action Plan (FCSAP).

Environmental Performance

The Environmental Performance portfolio relates to aspects that are not legislated and consequently, the risk level is typically less significant. In CSC, environmental performance generally refers to SDS commitments/targets that mostly involve objectives in the area of energy efficiency (greenhouse gases reduction), water conservation and solid waste reduction. Risk level is evaluated based on the likelihood of not meeting corporate commitments and the potential environmental impact associated with such results.

The following chart evaluates the risk ranking for each environmental compliance and performance aspect, in terms of likelihood and impact.



Risk Analysis of Environmental Compliance & Performance Aspects



Description of Environmental Impacts

Based on the above risk assessment, the impacts relating to the environmental compliance aspects (regulated issues) are typically more significant than those linked to environmental performance aspects (SDS commitments). In particular, the operation of petroleum storage tanks and wastewater treatment systems on CSC sites represent the highest level of risks in terms of likelihood (highly possible to certainty) and impacts (medium to significant).

Depending on the volume and the type of product involved (diesel, heating oil, used oil, gasoline, ethanol 85), the environmental risks associated with leaks, spills or overflows from petroleum storage tanks can be significant in terms of potential negative impacts on surface or underground water bodies, soil, real property assets (land use) and infrastructures such as water/sewage distribution networks and wastewater treatment plants. Accordingly, contamination incurred from uncontained hydrocarbon spills will generate most likely an environmental liability (contaminated site) that will need to be remediated or risk managed at one point in time. In the worst case scenarios, petroleum products may directly contaminate a water source (lake, river, aquifer, etc.) that is used for drinking water purposes, or end up at a wastewater treatment plant and affect the biological processes involved which could result in the discharge of untreated sewage into water bodies (fish habitat). However, the risk interactions between petroleum storage tanks and wastewater treatment facilities or water sources are overall relatively low, and even less when considering the mitigation strategies that are described below.

Regarding the environmental impacts associated with the other regulated aspects (Halocarbons, CEAA, SARA), they are considered to be “negligible to low”. Halocarbon releases are rated as “low” because today’s halocarbons have little to no impact on the ozone layer (although these are considered greenhouse gases) compared to the previous and more potent chemical compounds that were used as refrigerants. As for the physical repercussions linked with non adherence to CEAA and SARA, they are generally negligible given that CSC (often via PWGSC) conducts as required, Environmental Effect Evaluations (EEE) of its major construction/renovation projects which include provisions regarding Species at Risk.

As for the ecological impacts relating to the environmental performance aspects (SDS commitments), typically these are significantly less impactful than those associated with compliance aspects. Accordingly, the likelihood and potential environmental impacts of SDS aspects (energy efficiency, water conservation, solid waste reduction) range from “unlikely to occur” to “somewhat possible”, and in all cases, represent a low impact.



The rationale behind this assessment is based on the risks attributed to environmental performance issues consist namely of the possibility of not meeting some corporate engagements (SDS targets) or not achieving these as per the committed timelines. The reasons for under achievements in this area are usually because of insufficient resources (namely human), lack of available funding (competing priorities) and/or contingencies that were not forecasted.

Consequently, in the worst case scenarios, the environmental impacts associated with performance issues, would translate into more solid waste being sent to landfills, or more water and/or energy being used, i.e. more greenhouse gases emitted. Nevertheless, besides the budgetary consequences associated with inefficient use of utilities (energy, water, and waste diversion), these types of environmental impacts are typically linked to normal operating practices in an organization such as CSC.

Furthermore, given that CSC is not bound by the *Federal Sustainable Development Act* (FSDA) and the *Federal Sustainable Development Strategy* (FSDS), all of its SDS commitments/targets should be considered as “self-imposed” under a “volunteered approach”. Consequently, the risk level for not meeting SDS commitments is evaluated as being not significant.



Wastewater Treatment Plant
Sainte-Anne-des-Plaines – Quebec Region



Petroleum Storage Tank Replacement
Drummond Institution, Quebec Region



Controls to Mitigate Environmental Risks and Impacts

To manage and mitigate the environmental compliance risk aspects of its operations and facilities, CSC has published and enforced Guidelines and Internal Services Directives (ISDs) per regulated aspect under the CD 318 on Environmental Programs (2003). The Environmental Policy documents currently in place are:

- ISD 318-4 – Environmental Management of Halocarbons
- Guidelines 318-6 – Management of Wastewater Treatment Systems¹
- ISD 318-8 – Environmental Management of Petroleum Storage Tank Systems
- ISD 318-11 – Federal Environmental Assessment of Projects

In addition, regular inspections, capital investments (upgrade/replacement projects), monitoring and internal compliance review activities (such as the Compliance & Operational Risk Report, i.e. CORR) are regularly conducted on site in an effort to constantly control and maintain the risk at an acceptable level. These mitigation measures have been relatively efficient to alleviate direct ecological impacts associated with the environmental compliance aspects of CSC's operations. However, there are still some challenges to be addressed regarding administrative issues (such as record keeping and preventive maintenance practices) linked to the environmental compliance aspects.

As for the risks interactions between petroleum storage tanks and wastewater treatment plants or water sources that may result in direct environmental repercussions (namely negative impacts on fish habitats or contamination of a water source) as well as violations of federal environmental Acts and Regulations (CEPA and Fisheries Act), specific risk factors have been included in the petroleum storage tank risk analysis template so that all storage tank emergency plans have appropriate measures and controls in place to mitigate any potential impacts.

To manage and mitigate the risks and impacts of the environmental performance aspects of its operations and facilities, CSC has published Environmental Guidelines and ISDs for its main performance aspects under the CD 318 on Environmental Programs (2003). The Environmental Policy documents currently in place are:

- Guidelines 318-1 – Environmental Management System²
- Guidelines 318-2 – Energy Measurement and Conservation³
- Guidelines 318-3 – Environmental Emergency Plan
- ISD 318-7 – Environmental Management of Waste⁴
- Guidelines 318-9 – Water Measurement and Conservation³

¹ 318-6 is a Guideline currently being revised. Once completed, it will be an ISD.

² 318-1 is a Guideline that will be revised. Once completed, its main requirements may be directly integrated in the CD 318 itself.

³ 318-2 and 318-9 are currently being revised. Once completed, it will be an ISD that combines energy and water conservation requirements.

⁴ 318-7 PCBs are federally regulated; however all other aspects are performance based.



Finally, in order to mitigate risks associated with the SDS, CSC conducts regular internal consultations to identify needs, plans for the required funding (based on a 3-year cycle) and schedules timelines for the implementation of approved environmental initiatives/projects. Over the last decade, this process has proven to be efficient to reduce the risk of not meeting SDS commitments while enhancing the possibilities of achieving or surpassing CSC's environmental performance objectives in line with its strategic corporate priority "*Efficient and effective management practices that reflect values-based leadership*".



Petroleum Storage Tank for Emergency Generator, Kwikwexwelhp Healing Village, Pacific Region



CSC's Profile and Mandate

Correctional Service Canada is the federal government agency responsible for administering sentences of a term of two years or more, as imposed by the courts. CSC is responsible for managing institutions of various security levels and supervising offenders under conditional release in the community.

CSC manages over 2000 buildings, with a total building area of 1,400,000 m² including:

- 43 Institutions (4 Aboriginal Healing Lodges)
- 16 Community Correctional Centres
- 92 Parole offices

In addition, CSC has partnerships with non-government organizations. These partner agencies operate approximately 200 community residential facilities across the country, providing accommodation, 24-hour supervision, counseling and programming to help offenders who have been released under supervision to successfully reintegrate into the community.

CSC is investing in new infrastructure to better manage a complex and diverse offender population. These investments will lead to safer, more secure penitentiaries and ultimately enhance public safety.

Over the past three years, CSC has been building new living units in many of its existing institutions to add more accommodation spaces at penitentiaries across the country.



Okimaw Ochi Healing Lodge,
Prairie Region

Mission

CSC, as part of the criminal justice system and respecting the rule of law, contributes to public safety by actively encouraging and assisting offenders to become law-abiding citizens, while exercising reasonable, safe, secure and humane control.



Values

Respect

Respectful behaviours honour the rationality and dignity of persons — their ability to choose their own path, within lawful order, to a meaningful life. A good test of respectful behaviour is treating others as we would like to be treated.

Fairness

A complex value in both theory and practice, fairness involves balancing conflicting interests, and exercising impartiality, objectivity, equality, and equity in interpersonal relationships. Similar to respect, a good test for fairness is to treat others as you would like to be treated.

Professionalism

Professionalism is a commitment to abide by high ethical standards of behaviour as well as relevant group standards, and to develop and apply specialized knowledge for the public good. Professionalism is anchored in a commitment to integrity — a commitment to uphold our values in even the most difficult circumstances.

Inclusiveness

Inclusiveness is a commitment to welcoming, proactively accommodating and learning from cultural, spiritual, and generational differences, individual challenges, and novel points of view.

Accountability

Accountability involves the notion of being willing and able to explain, answer to and justify the appropriateness of actions and decisions. Accountability is applicable to everyone within CSC. Accountability is also about accepting and ensuring responsibility — providing necessary support, feedback, and oversight.



Matsqui Complex, Pacific Region



Summary Results of SDS 2012-2015

This chapter summarizes CSC's performance against the 18 targets established in the departmental SDS 2012-15. As shown in the following table, of the 18 SDS targets set, CSC has achieved or surpassed 16 and two have been partially achieved. The results of the 3% energy reduction, intensity based target, will not be known until the end of 2015, when CSC's annual energy consumption report will be published. Currently, for the two years already accounted for, the corporate energy consumption has decreased by nearly 7%. The other partially achieved target was to reduce the use of polystyrene food containers and single serving food packaging from its institutional waste stream. This target was challenging since after the publishing of the SDS 2012-15, a significant change occurred in the food services provided at institutions. This change is a significant reorganization of the system from production kitchens in every institution to centralized food services at strategic locations. However, it was reported that several institutions use reusable trays instead of polystyrene, except during emergency situations, such as at Bowden institution, Grand Cache institution and Saskatchewan Penitentiary.

The following pages describe and evaluate the goals, objectives, commitments and targets implemented in the SDS 2012-15 in greater detail.

Goals, Objectives, Commitments and Targets

The main goal of the SDS 2012-15 was "To contribute to the protection of the environment and the conservation of natural resources by minimizing the ecological impacts of government operations".



Port-Cartier Institution,
Quebec Region



Target #	SDS Target	OPI	Result
1.1	By September 30, 2012, develop and implement an internal checklist on green buildings, to be applied to regional and national construction & renovation projects.	DGTSF	↑
2.1	By March 31, 2013, an internal environmental directive will be developed to provide direction on the disposal/reuse of EEE-waste.	Dir.-Env	↑
2.2	By September 30, 2014, CSC will achieve (where building occupancy levels, security considerations, and space configuration allow) an 8:1 average ratio of office employees to printing units.	DG-IT	↑
2.3	By March 31, 2014, CSC will develop and communicate to all operational units, a paper reduction awareness program.	Dir.-Env	↑
2.4	By March 31, 2014, where recycling markets are available, all institutions will optimize their recycling program to divert paper, cardboard, metal, plastic, glass and wood materials from landfills.	Wardens	↑
2.5	By March 31, 2014, CSC will reduce the use of polystyrene (plastic based) food containers and single serving food packaging from its institutional waste stream.	Dir.-Food Services	↔
2.6	By September 30, 2012 CSC will implement an internal guideline on Green Procurement.	Comptroller	↑
3.1	By March 31, 2014, convert the only remaining CHP at Dorchester Penitentiary that still consumes heavy oil no.6 (bunker fuel) as primary fuel source to natural gas.	Dir.-Capital	↑
3.2	Optimize boiler operation, including NO _x emissions measurements, by maintaining in all regions, the annual tune-up of large boilers located in Central Heating Plants over 2012-2015.	Dir.-Env	↑
3.3	By March 31, 2015, replace three large cooling systems that represent a high risk of halocarbon leaks.	RA, Technical Services	↑



Target #	SDS Target	OPI	Result
4.1	By March 31, 2015, reduce the energy consumption per square meter per year (intensity basis) of all institutions, adjusted for equal heating degree-days annually, by 3% relative to 2009-2010.	DGTSF	
4.2	By March 31, 2015, implement three new renewable energy demonstration projects (geothermal, solar, wind) to reduce GHG emissions and promote environmental leadership.	Dir.-Env	
4.3	By March 31, 2014, energy audits will be performed on the five institutions which use the most energy in terms of MJ/m ² /year (based on CSC's energy use report for 2010-2011).	Dir.-Env	
4.4	By March 31, 2014, all institutions will assess their energy consumption, set their specific energy reduction target and implement their customized energy conservation plan.	Wardens	
5.1	By March 31, 2014, CSC will have an improvement strategy in place for the wastewater treatment system at Ste-Anne-des-Plaines complex (Quebec Region).	Dir. – Capital Projects	
6.1	By March 31, 2014, all institutions will prepare and implement an institutional water conservation plan including a customized water reduction target.	Wardens	
7.1	By March 31, 2015, CSC will conduct a minimum of 12 Environmental Site Assessments of potentially contaminated sites.	Dir.-Env	
7.2	By March 31, 2015, CSC will remediate a minimum of three priority contaminated sites.	Dir.-Env	

Legend:



Target has been achieved



Target has been partially achieved



Target has not been achieved



Goal 1 – Contribute to the sustainable use of natural resources.

Objective 1 – Achieve a high level of environmental performance at selected institutions.

Commitment 1 – Improve design and construction practices by applying, where cost-effective, green building criteria.

Target 1.1 – By September 30, 2012, develop and implement an internal checklist on green buildings to be applied to regional and national construction & renovation projects.

Result – Target Achieved

The target was met in September 2012 when the internal Green Building Design Checklist and accompanied memo were sent from the Director General, Technical Services and Facilities office to design coordinators and project leaders at all regional headquarters, as well as national headquarters. The main purpose of this checklist was to promote the development of an environmentally responsible design.



Green Building,
Grande Cache, Prairie Region



Objective 2 – Support responsible and efficient use of natural resources that preserve and protect the quality of the environment.

Commitment 2.1 – Dispose, reuse or recycle all surplus electronic and electrical equipment (EEE) in an environmentally sound and secure manner.

Target 2.1 – By March 31, 2013, an internal environmental directive will be developed to provide direction on the disposal/reuse of EEE waste.

Result – Target Achieved

The target has been met with the Internal Services Directive (ISD) 318-7: Environmental Management of Waste, which included electronic and electrical equipment (EEE) in January 2014. The main objectives of the ISD were to contribute to the conservation of natural resources and to reduce pollution through EEE waste recycling and reusing initiatives, as well as prevent environmental contamination and negative ecological impacts on landfills.



Hazardous waste recycling of fluorescent tubes,
Federal Training Centre, Quebec Region



Commitment 2.2 – Reduce paper consumption by limiting the number of printing units across CSC.

Target 2.2 – By September 30, 2014, CSC will achieve (where building occupancy levels, security considerations and space configuration allow) an 8:1 average ratio of office employees to printing units.

Result – Target Achieved

The target was met by the proposed date and Information Management Services has the intent to reach a 10:1 printing ratio in the future.

Commitment 2.3 – Increase awareness of paper reduction initiatives at CSC.

Target 2.3 – By March 31, 2014, CSC will develop and communicate to all operational units, a paper reduction awareness program.

Result – Target Achieved

NHQ-EPP, in collaboration with Communications, has published two articles in CSC's - Let's Talk Express to promote awareness on paper saving initiatives. The articles focussed on ways to reduce reliance on paper at work with simple and easy to apply initiatives.

Commitment 2.4 – Ensure that solid waste recycling programs are effective at all institutions.

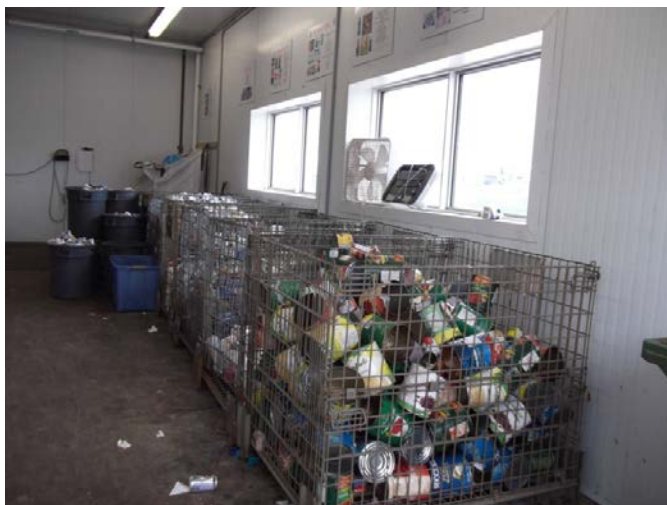
Target 2.4 – By March 31, 2014, where recycling markets are available, all institutions will optimize their recycling program to divert paper, cardboard, metal, plastic, glass and wood materials from landfills.

Result – Target Achieved

NHQ-EPP published an Internal Services Directive: Management of Waste (ISD 318-7) to facilitate with the implementation of recycling programs. In addition, there were several sites that implemented initiatives for recycling of wooden pallets, electronic and electrical equipment waste and used batteries within the three SDS cycle.



Recycling program at Westmorland
Institution, Atlantic Region



Commitment 2.5 – Reduce non-reusable/non-recyclable materials from institutional waste stream.

Target 2.5 – By March 31, 2014, CSC will reduce the use of polystyrene (plastic based) food containers and single serving food packaging from its institutional waste stream.

Result – Target Partially Achieved

CSC continues to make an effort towards reducing its reliance on non-recyclable or non-reusable plastics in its operations. Although alternatives to the use of polystyrene food containers were implemented by some institutional food services, additional waste reduction initiatives are required in order to fully meet the spirit of this commitment. Of the institutions that reported on their use of polystyrene, it was noted that in many instances, reusable trays are employed unless emergency situations arise.

Commitment 2.6 – Adopt an internal guideline on Green Procurement

Target 2.6 – By September 30, 2012, CSC will implement an internal guideline on Green Procurement.

Result – Target Achieved

The Financial Directive (350-3) was updated and published in August 2012 which included an appendix on Green Procurement. In addition, a set of instructions were sent to procurement officers to help with the implementation of the guideline. Green procurement is the process of including environmental requirements in contracts and the purchase of goods and services that are considered “environmentally friendly”.



Goal 2 – Contribute to the protection of the atmosphere.

Objective 3 – Reduce the negative environmental impacts of air pollution on ecosystems.

Commitment 3.1 – Reduce nitrogen oxides (NO_x) and sulphur oxides (SO_x) emissions from the Central Heating Plant (CHP) boilers, which contribute to smog and acid rain.

Target 3.1 – By March 31, 2014, convert the only remaining CHP at Dorchester Penitentiary, that still consumes heavy oil no.6 (bunker fuel), as a primary fuel source to natural gas.

Result – Target Achieved

The project was completed by fiscal year 2012-13. The conversion allowed for a significant decrease in emissions of nitrogen oxides, by 60%, and dropped sulphur oxide emissions to zero, since natural gas burns cleaner than heavy oil no.6.



Green roof on infirmary,
La Macaza, Quebec Region

Commitment 3.2 – Maintain annual monitoring practices of NO_x from Central Heating Plants, which contribute to smog and acid rain.

Target 3.2 – Optimize boiler operation, including NO_x emission measurements, by maintaining in all regions, the annual tune-up of large boilers located in Central Heating Plants over 2012-2015.



Result – Target Achieved

The emission measurements were conducted and the annual tune-ups of large boilers were performed every year, over the three year period by Natural Resources Canada via a memorandum of understanding. The emission testing results and the data on the burner combustion tuning is used in a customized form to calculate the combustion efficiency and emissions for each institution with a central heating plant. CSC owns and operates 20 central heating plants across Canada.

Commitment 3.3 – Reduce the risk of halocarbon releases from large refrigeration and/or air-conditioning systems, which contribute to stratospheric ozone layer depletion.

Target 3.3 – By March 31, 2015, replace three large cooling systems that represent a high risk of halocarbon leaks.

Result – Target Achieved

Quebec region reported three large halocarbon system replacements and Ontario two systems in 2012-13.

Goal 3 – Contribute to the reduction of gaseous emissions that are responsible for global warming/climate change.

Objective 4 – Reduce corporate greenhouse gas (GHG) emissions, in particular, carbon dioxide.

Commitment 4.1 – Reduce CSC's energy consumption (intensity-basis) to decrease related carbon dioxide (CO₂) emissions.

Target 4.1 – By March 31, 2015, reduce the energy consumption per square meter, per year (intensity-basis), for all institutions and adjust for equal heating degree-days annually, by 3% relative to 2009-10.

Result – Target partially achieved

Based on the CSC report for energy use and GHG emissions for 2013-14, it appears that CSC will meet (and most likely surpass) the energy reduction target relative to the reference year 2009-10. However, the validation of this result will not be possible until the report for energy use and GHG emissions for 2014-15 is completed. Therefore, the final result for the target 4.1 will only be available by December 2015.

Commitment 4.2 – Reduce indirect carbon dioxide emissions attributable to CSC's consumption of electricity.

Target 4.2 – By March 31, 2015, CSC implemented three new renewable energy demonstration projects (e.g. geothermal, solar, wind) to reduce GHG emissions and promote environmental leadership.



Result – Target achieved

Two solar hot water projects were completed at Dorchester Penitentiary and Bath Institution and five geothermal projects for heating new units at Nova, Atlantic and Springhill Institutions were implemented.



Solar hot water project on a Private Family Visit building, Bath Institution, Ontario Region.

Commitment 4.3 – Improve energy performance of targeted institutions.

Target 4.3 – By March 31, 2014, energy audits will be performed on the five institutions which use the most energy in terms of MJ/m²/year (based on CSC's energy use report for 2010-11).

Result – Target achieved

CSC has completed five institutional energy audits at Cowansville, Bath, Millhaven, Drumheller and Joyceville. Some of the proposed recommendations for reducing energy consumption, resulting from the audits, have been implemented at the above institutions and applied at other institutions across Canada.

Commitment 4.4 – Support energy conservation measures at institutions.

Target 4.4 – By March 31, 2014, all institutions will assess their energy consumption, set specific energy reduction targets and implement their customized energy conservation plan.

Result – Target achieved

NHQ – EPP prepared an energy consumption template to assist the institutions in the development of their customized energy conservation plans. The templates include guides on how to: i) form a planning team ii) characterize the current



energy use iii) set a customized energy reduction target iv) identify energy conservation opportunities and v) develop a schedule for monitoring and evaluation processes. All institutions have completed their customized energy conservation plan.

Goal 4 – Contribute to the protection of the hydrosphere.

Objective 5 – Reduce pollution to aquatic ecosystems.

Commitment 5.1 – Improve CSC's targeted (highest flow rate) wastewater treatment system.

Target 5.1 – By March 31, 2014, CSC will have an improvement strategy in place for the wastewater treatment system at Ste-Anne-des-Plaines (SADP) complex (Québec Region).

Result – Target achieved

The improvement options have been analysed and the preferred design has been selected. The final design plans/drawings are nearly completed and it is anticipated that construction will begin in 2015-16.

Hydroseeding of the shoreline,
Federal Training Centre, Quebec Region



Objective 6 – Reduce corporate water consumption.

Commitment 6.1 – Implement best management practices to improve water conservations at institutions.

Target 6.1 – By March 31, 2014, all institutions will prepare and implement an institutional water conservation plan including a customized water reduction target.



Result – Target achieved

NHQ –EPP prepared a water consumption template to assist the institutions in the development of their customized water conservation plans. The templates include guides on how to: i) develop primary goals ii) characterize the current and forecasted water use iii) set a customized water reduction target iv) identify water conservation opportunities and v) develop a schedule for monitoring and evaluation processes. All institutions have completed their customized water conservation plan.

Goal 5 – Contribute to the protection of the lithosphere.

Objective 7 – Reduce environmental liabilities and improve soil quality on CSC properties.

Commitment 7.1 – Continuation of Environmental Site Assessments (ESA) of potentially contaminated areas, based on ecotoxicological risks.

Target 7.1 – By March 31, 2015, CSC will conduct a minimum of 12 Environmental Site Assessments of potentially contaminated sites.

Result – Target achieved

Since April 2012, at least 12 assessments had been conducted on CSC properties, including but not limited to the following:

- Mountain Institution (British Columbia)
- Warkworth Institution (Ontario)
- Two sites at Pittsburgh Institution (Ontario)
- Three sites at Kingston Penitentiary (Ontario)
- Archambault Institution (Quebec)
- Montée St-François (Quebec)
- Leclerc Institution (Quebec)
- Montague Research Facility (closed in 2013-14) (P.E.I.)
- Springhill Institution (Nova Scotia)



Contaminated sites remediation project, Mountain Institution, Pacific Region



Commitment 7.2 – Remediation of contaminated sites based on environmental risk assessments.

Target 7.2 – By March 31, 2015, CSC will remediate a minimum of three priority contaminated sites.

Result – Target achieved

One remediation project of a contaminated site was completed in 2012-13 at Drumheller and two more were completed at Pittsburgh and Leclerc Institutions in 2013-14. A remediation project has been completed in 2014-15 at Collins Bay Institution because of a previous landfill site.



Contaminated site remediation project,
Collins Bay Institution, Ontario Region



Commitments/Targets for SDS 2015-18

The approach adopted for this SDS is different from earlier editions. The commitments/targets are shared among many Offices of Primary Interest (OPIs) and are based on specific and realistic targets at the institutional and/or regional level; rather than corporately developed and implemented targets. We believe that each site can contribute in its own way to CSC's environmental sustainability agenda. This approach promotes and supports a strong sense of ownership for all CSC employees.

The overarching main goal is "to reduce the ecological impacts of Correctional Service of Canada operations". In addition, the strategy is subdivided into two goals:

- 1) Contribute to the protection of the atmosphere and to reduce gaseous emissions that are responsible for global warming/climate change.
- 2) Contribute to the protection of natural habitats and reduce pollution to aquatic ecosystems.

The following are summary tables grouped by the two goals stated above. There are four main sections included in the tables and they are:

- Goal – sets a general direction and parameters for each action;
- Objective – the general purpose of each goal;
- Region – specifies what region the commitment/target represents; and
- Commitment/Target – the action/activity/project that the organization plans to implement within three years to contribute to Sustainable Development.

Sustainable Development suggests a long term planning process, all of the commitments/targets set out in the SDS 2015-18 have a proposed timeline of **March 31, 2018**.



Summary of Consultations

Consultations for this SDS began in the fall of 2014 with a preliminary and meaningful dialogue with one of the primary stakeholders. A memorandum was sent from the Director, Environmental Protection Programs (EPP) to the Regional Coordinators, Environmental Programs (RCEP) to consult with their respective OPIs at the institutions. The proposed targets were to reflect corporate goals and objectives. A template was developed and provided with a memo to help with setting specific and realistic targets at the institutional and/or regional levels. In addition, it was suggested that the SDS contributions be aligned with the findings of the institutional energy audits, the institutional water and energy conservation plans, and the optimization of recycling programs, in order to capitalize on previous SDS achievements. Several teleconferences were made for follow-up discussions on the proposed targets. These proposals were reviewed in detail and a set of targets were developed, one per institution, to ensure a shared ownership of this national initiative.

The second round of consultations began in December 2014 with the NHQ – Directors of Technical Services and Facilities. The Directors met individually and as a group, to review the proposed targets, ensuring consistency with their agendas and the national investment/prioritization plans.

Finally, the SDS 2015-2018 commitments/targets were presented to EXCOM members for approval in spring 2015.



Collins Bay Institution,
Ontario Region

SDS 2015-2018 Summary Tables

Goal #1

Contribute to the protection of the atmosphere and to reduce gaseous emissions that are responsible for global warming and climate change.

Objective #1

Reduce the negative environmental impacts of pollutants and conserve energy.

Atlantic Region				
Commitment/Target 1.1	Commitment/Target 1.2	Commitment/Target 1.3	Commitment/Target 1.4	
Complete the design phase to convert buildings 18 & 25 from electric heat to district hot water heating system (central heating plant) at Springhill Institution.	Connect the Structured Living Environment (SLE) to the Building Management System at Nova Institution.	Replace all masts and fence lights with LEDs at Atlantic Institution.	Replace flood lights with LEDs in the medium sector at Dorchester Penitentiary.	

Quebec Region				
Commitment/Target 1.5	Commitment/Target 1.6	Commitment/Target 1.7	Commitment/Target 1.8	Commitment/Target 1.9
Establish a regional automation program to optimize energy consuming systems for all institutions in Quebec Region.	Initiate a project to upgrade the centralized heating system at Cowansville Institution.	Reduce electrical consumption by gradually replacing the perimeter lighting at Drummond Institution.	Replace the perimeter lighting systems with LEDs at La Macaza Institution.	Implement a renewable energy project at the Federal Training Centre.

Ontario Region				
Commitment/Target 1.10	Commitment/Target 1.11	Commitment/Target 1.12	Commitment/Target 1.13	Commitment/Target 1.14
Implement a solar energy project at Collins Bay Institution.	Replace all street lighting with LEDs at Bath Institution.	Install motion detection sensors and LED lighting in the tunnels at Millhaven Institution.	Install LEDs on all lighting fixtures inside the compound at Grand Valley Institution.	Install new building automation systems at Regional Headquarters and Joyceville Institution.

Note: Timeline for all targets is March 31, 2018.

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Prairie Region				
Commitment/Target 1.15	Commitment/Target 1.16	Commitment/Target 1.17	Commitment/Target 1.18	Commitment/Target 1.19
Install solar panels to existing buildings at Willow Cree Healing Lodge.	Install ozone system in the main laundry at Drumheller Institution.	Replace all street lighting with LEDs at Okimaw Ochi Healing Lodge.	Retrofit existing infrastructure to increase energy efficiency in the administration building at Bowden Institution.	Replace all street lighting with LEDs at Stony Mountain Institution.

Prairie Region					
Commitment/Target 1.20	Commitment/Target 1.21	Commitment/Target 1.22	Commitment/Target 1.23	Commitment/Target 1.24	Commitment/Target 1.25
Replace a boiler unit to a higher energy efficiency system at Grierson Institution.	Upgrade an energy inefficient air conditioning system at Edmonton Institution.	Replace all perimeter lighting to LEDs at Pê Sâkâstêw Centre.	Replace all outdoor lighting on housing units with LEDs at Edmonton Institution for Women.	Implement a solar array system at Saskatchewan Penitentiary.	Install a heat recovery system on an existing unit at the Regional Psychiatric Center.

Pacific Region						
Commitment/Target 1.26	Commitment/Target 1.27	Commitment/Target 1.28	Commitment/Target 1.29	Commitment/Target 1.30	Commitment/Target 1.31	Commitment/Target 1.32
Integrate meters into DDC controls and set up digital energy recording at Mission Institution.	Convert existing lighting systems to LEDs at William Head Institution.	Integrate electrical and gas meters into DDC controls and set up digital energy recording at Mountain Institution.	Install occupancy sensors in all boardrooms and Staff washrooms at Kwikwëxwelhp Healing Village.	Replace all road lighting to LEDs at Matsqui Institution.	Replace all perimeter and road access lighting to LEDs at Fraser Valley Institution.	Replace all road and parking lot lighting to LEDs at Pacific Institution.

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Goal #2

Contribute to the protection of natural habitats and reduce pollution to aquatic ecosystems.

Objective #2

Preserve the quality of the natural environment and conserve water.

Atlantic Region	Québec Region			Ontario Region			Pacific Region
Commitment /Target 2.1	Commitment /Target 2.2	Commitment/ Target 2.3	Commitment/ Target 2.4	Commitment/Target 2.5	Commitment/Target 2.6	Commitment/ Target 2.7	Commitment/ Target 2.8
Improve waste sorting capabilities at Dorchester Institution.	Reforest the access road at Donnacona Institution.	Replace water-cooled air conditioning systems at Port-Cartier Institution.	Replace water-cooled air conditioning systems at SADP complex.	Install automatic shower shut-off in three living units at Beaver Creek Institution.	Install low-flush toilets and urinals in the administration building at Joyceville Institution.	Establish an effluent reuse system at the wastewater treatment plant at Warkworth Institution.	Conduct a kitchen water use study following the cook chill implementation at Mission Institution.



Other Environmental Initiatives

Above and beyond the targets formally retained for the 2015-2018 SDS cycle, other environmental initiatives will also be considered and communicated. As described below, among the main environmental aspects toward which efforts will be invested, it may be noted, the reduction of CSC's liability on contaminated sites, the use of alternative fuels for vehicle fleet, the implementation of energy and water conservation measures and the improvement to wastewater treatment plants.

Contaminated Sites

Each year through the Federal Contaminated Sites Action Plan (FSCAP), CSC will provide a status report on the contaminated sites located on our properties undergoing a remediation project or those being risk managed as per the implementation strategy 3.11.1 of the Federal Sustainable Development Strategy 2013 to 2016- "Federal custodians complete remediation/risk management activities at federal contaminated sites for which they are responsible in order to reduce human health and ecological risks at higher priority sites". In addition, NHQ-EPP will continue to assess any potentially contaminated sites by conducting Environmental Site Assessments (ESA) as required.

Vehicle Fleet

During the SDS cycle 2015-2018, CSC will explore the opportunities relating to alternative fuels for its vehicle fleet. CSC intends to implement at least one electric vehicle pilot-project. This initiative will involve the acquisition of several electric and pluggable hybrid vehicles (to replace conventional cars) as well as the installation of electric charging stations at selected sites. Based on the results of this demonstration project, expansion to other institutions will be evaluated and considered. Nevertheless, CSC will continue to assess the possibilities relating to alternative fuels for its vehicles and capitalize on the best options based on operational needs and budget availabilities.

Natural Resources Conservation

In addition to the environmental commitments listed in the previous section, CSC will also continue to further the conservation of natural resources by implementing more sustainable practices in the area of energy and water conservation measures, solid waste reduction initiatives (enhancement to recycling programs), renewable energy applications (namely solar), and wastewater treatment improvements.

With the completion of SDS 2012-2015 achievements, CSC is now in a position to capitalize on its previous accomplishments. Based on the findings (that have been shared with all regions/sites) from the energy audits, each institution has developed a customized energy conservation plan as well as a water conservation plan. Specific energy and water efficiency measures, and additional energy audits at targeted sites, will continue to be supported as per budget availabilities and implementation capacities. Some of these capital investments may be in the area of



renewable/clean energy projects, such as solar walls, solar hot water and/or photovoltaic (PV) panels.

Wastewater Treatment

To further improve the quality of its wastewater effluents over the forthcoming years and to efficiently address the additional flow requirements, CSC will also invest significant capital funding in the upgrading of its wastewater treatment plants (WWTP), namely at the following sites:

- New lagoons at Sainte-Anne-des-Plaines complex, Quebec
- Improvements to the WWTP at Springhill institution, Nova Scotia
- Improvements to the WWTP at Atlantic institution, New Brunswick
- New lagoon system at Stony Mountain institution, Manitoba
- New WWTP at Mountain/Kent complex, British Columbia.

In Closing

NHQ Environmental Protection Programs will gather information from all of the institutions on an annual basis. With the collated information, the progress made against the SDS commitments/targets will be analysed and the results will be reported and presented to senior management on an ongoing basis.

Finally, CSC will continue the path towards reaching sustainable and ecological operations in its day to day activities. The SDS 2015-2018 commitments will have positive environmental benefits for the nation and cost savings for the department. Furthermore, by voluntarily implementing a SDS, CSC will continue to demonstrate leadership to the government of Canada and to all Canadians.



Dorchester Penitentiary, Atlantic Region



List of Acronyms

CD: Commissioner's Directive

CEAA: Canadian Environmental Assessment Act

CEPA: Canadian Environmental Protection Act

CHP: Central Heating Plant

CSC: Correctional Service of Canada

CORR: Compliance Operational Risk Report

DDC: Direct Digital Controls

DGTSF: Director General, Technical Services and Facilities

EEE: Environmental Effects Evaluation

EPP: Environmental Protection Programs

ESA: Environmental Site Assessment

EXCOM: Executive Committee

FSCAP: Federal Contaminated Sites Action Plan

FSDA: Federal Sustainable Development Act

FSDS: Federal Sustainable Development Strategy

ISD: Internal Services Directive

NHQ-EPP: National Headquarters Environmental Protection Programs

OPI: Office of Primary Interest

PWGSC: Public Works and Government Services Canada

RA, Technical Services: Regional Administrator, Technical Services

RCEP: Regional Coordinators, Environmental Programs

SADP: Ste-Anne-des-Plaines

SARA: Species At Risk Act

SLE: Structured Living Environment

SDS: Sustainable Development Strategy



Technical Abbreviations

CO₂: carbon dioxide

EEE: Electrical and Electronic Equipment

GHG: Greenhouse Gas

LED: Light-Emitting Diode

m²: Square Meters

MJ: Megajoule

NO_x: Nitrogen Oxides

PCBs: Polychlorinated Biphenyls

PV: Photovoltaic

SO_x: Sulphur Oxides