

Fall 2013



Report of the Commissioner of the Environment and Sustainable Development

CHAPTER 4

Protected Areas for Wildlife



Office of the Auditor General of Canada

OAG

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CHAPTER 4

Protected Areas for Wildlife

Performance audit reports

This report presents the results of a performance audit conducted by the Office of the Auditor General of Canada under the authority of the *Auditor General Act*.

A performance audit is an independent, objective, and systematic assessment of how well government is managing its activities, responsibilities, and resources. Audit topics are selected based on their significance. While the Office may comment on policy implementation in a performance audit, it does not comment on the merits of a policy.

Performance audits are planned, performed, and reported in accordance with professional auditing standards and Office policies. They are conducted by qualified auditors who

- establish audit objectives and criteria for the assessment of performance,
- gather the evidence necessary to assess performance against the criteria,
- report both positive and negative findings,
- conclude against the established audit objectives, and
- make recommendations for improvement when there are significant differences between criteria and assessed performance.

Performance audits contribute to a public service that is ethical and effective and a government that is accountable to Parliament and Canadians.

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Protected Areas for Wildlife

Main Points

What we examined

Under the *Canada Wildlife Act*, national wildlife areas are federal sites created for the purposes of wildlife conservation, research, and interpretation. These areas are meant to protect nationally significant habitat for wildlife, including migratory birds and species at risk.

Migratory bird sanctuaries are designated under the *Migratory Bird Sanctuary Regulations* and are located on federal and non-federal lands.

Environment Canada manages a network of 54 national wildlife areas and 92 migratory bird sanctuaries. These sites cover an area of over 12.4 million hectares, roughly the size of New Brunswick and Nova Scotia combined.

In this audit, we examined how Environment Canada has fulfilled selected responsibilities regarding its protected areas, including national wildlife areas and migratory bird sanctuaries. Specifically, the audit focused on the Department's management plans and monitoring activities for the areas.

Audit work for this chapter was completed on 30 July 2013. More details on the conduct of the audit are in **About the Audit** at the end of this chapter.

Why it's important

To ensure their survival, species require adequate habitat in which to live, breed, and migrate. Habitat loss and degradation are recognized as the single greatest threat to plants and animals in Canada.

A habitat does not have to be totally destroyed to make it unsuitable for some species. The presence of people and associated disturbances can cause some species to abandon habitats or prevent them from breeding successfully. A majority of species at risk are affected by habitat problems. Environment Canada's protected areas are unique because they are specifically designated and managed to protect wildlife and their habitat. Effectively managed protected areas provide places where ecological processes can evolve, and act as refuges for migratory birds and species at risk.

What we found

- According to Environment Canada's own analysis, more than 70 percent of national wildlife areas and about 55 percent of migratory bird sanctuaries are considered to have less than adequate ecological integrity. As such, the Department is not meeting the purpose of its protected areas, which is to maintain the ecological integrity of the site for the benefit of wildlife, including migratory birds and species at risk. Without action to address threats to their ecological integrity, Environment Canada's protected areas may deteriorate.
- Environment Canada has made little progress in monitoring activities, conditions, and threats for the protected areas it manages. The Department's own assessments show a lack of proper inventories and insufficient information on species at risk. Monitoring of sites is done sporadically. Without regular monitoring, the Department cannot track whether the ecological integrity in protected areas is changing, nor can it identify any new or potential threats to local species so that it can react in an appropriate and timely manner.
- The Department is still operating with outdated management plans for most of its 54 national wildlife areas. On average, management plans date from 1992. Thirty-one were drafted before the *Species at Risk Act* came into force in 2003, while eight areas have never had a management plan. In 2011, Environment Canada assessed that 90 percent of national wildlife areas did not have adequate management plans. Without such plans to support decision making to achieve specific goals and objectives, it is difficult to effectively manage or assess progress in its protected areas.

The Department has responded. The Department agrees with our recommendation. Its detailed response follows the recommendation in the chapter.

Introduction

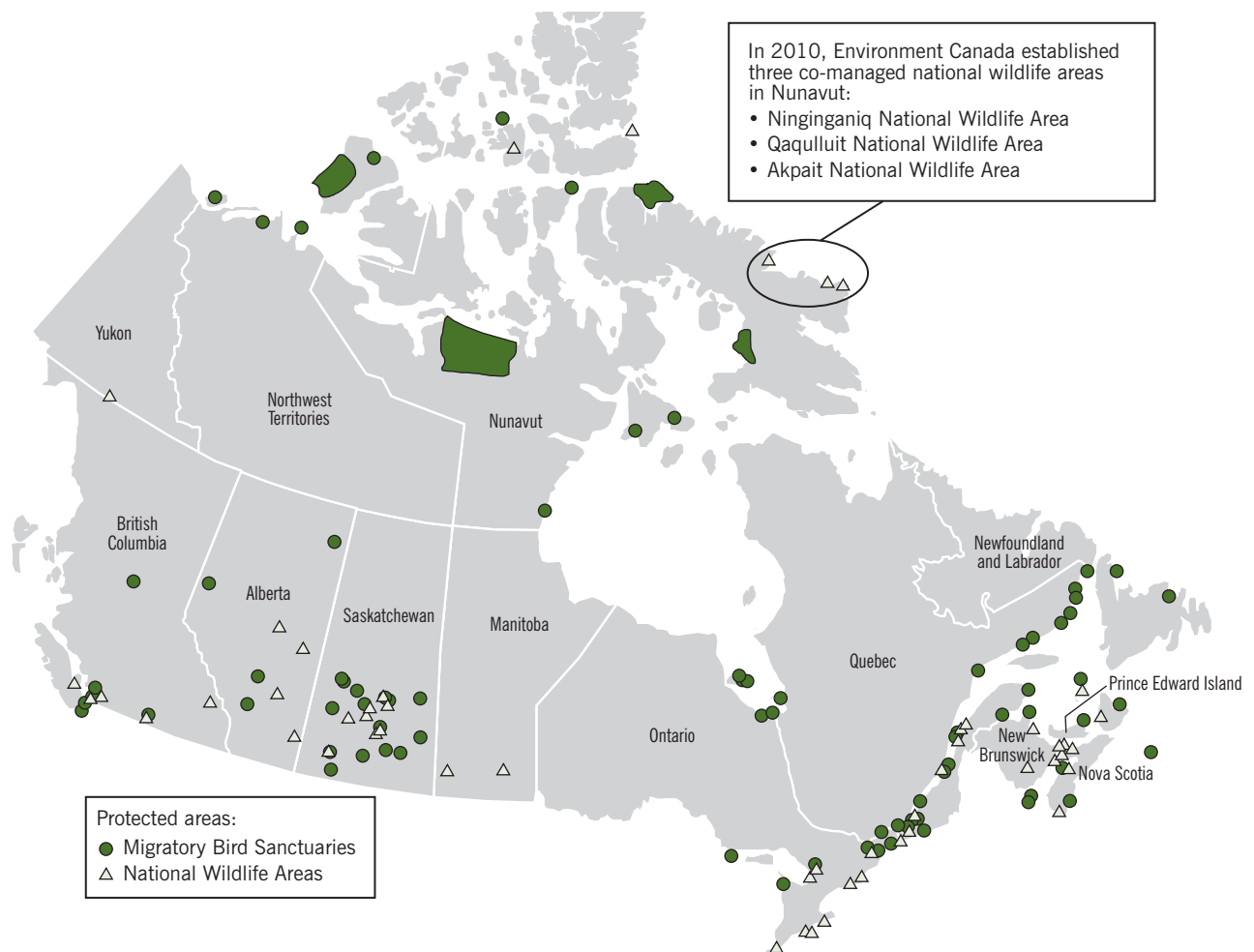
Protection of areas for wildlife

4.1 Protected areas are internationally recognized as an effective tool for the conservation of biodiversity. Environment Canada manages a network of 54 national wildlife areas and 92 migratory bird sanctuaries. Next to Canada’s 32 million hectares of national park land, this is the largest network of protected areas in Canada, at over 12.4 million hectares of land (Exhibit 4.1). This network is approximately the size of the combined areas of New Brunswick and Nova Scotia. The primary purpose of these sites is to conserve and protect habitat for wildlife, including migratory birds, species at risk, and other species of national interest.

Chapter 1, *Backgrounder on Biological Diversity*, provides a more comprehensive consideration of the topic of conserving biodiversity.

Chapter 3, *Conservation of Migratory Birds*, examines the government’s plans and activities for the conservation of migratory birds.

Exhibit 4.1 Environment Canada has established a network of protected areas



Source: Environment Canada, 2013

4.2 The *Canada Wildlife Act* designates national wildlife areas on lands owned by the federal government. The areas are created and managed for the purposes of wildlife conservation, research, and interpretation. They protect nationally significant habitat for migratory birds, support species or ecosystems at risk, or protect rare or unusual habitat. Environment Canada may authorize some activities on a site, provided they do not interfere with wildlife conservation and are consistent with the site's management plan goals.

4.3 Migratory bird sanctuaries are established under the *Migratory Bird Sanctuary Regulations* to provide and protect the habitat necessary for the conservation of migratory birds. Sanctuaries are located on federal and non-federal lands, where cooperation with other landowners is essential.

Previous audit work

4.4 In 2001, we found that Environment Canada lacked up-to-date management plans and species inventories for its protected areas in the Great Lakes and St. Lawrence River basin. We also found that the **ecological integrity** of these protected areas was at risk, because Environment Canada lacked the human and financial resources to manage them effectively.

Ecological integrity—A protected area has ecological integrity when its natural components (plants, animals, and other organisms) and processes (such as growth and reproduction) are intact.

4.5 In the 2008 March Status Report of the Commissioner of the Environment and Sustainable Development, Chapter 4, Ecosystems—Federal Protected Areas for Wildlife, we noted a number of weaknesses:

- insufficient data to assess the ecological integrity of protected areas,
- limited monitoring of the species in most protected areas,
- badly outdated management plans for the protected areas,
- at least 10 sanctuaries that no longer met the criteria of a protected area, and
- insufficient resources to effectively manage the protected areas.

Environment Canada's role

4.6 Environment Canada plays an important role in the conservation of biodiversity in Canada and is one of three federal departments mandated to protect habitat. In this regard, the Department identifies, designates, and manages national wildlife areas and migratory bird sanctuaries.

4.7 The Department is responsible for enforcing regulations, including the *Wildlife Area Regulations* and *Migratory Bird Sanctuary Regulations* that control activities in its protected areas. However, certain activities may be authorized by a permit.

Focus of the audit

4.8 This audit examined Environment Canada's management of protected areas, including national wildlife areas and migratory bird sanctuaries. Specifically, the audit focused on the Department's responsibilities regarding management plans and monitoring activities.

4.9 More details about the audit objective, scope, approach, and criteria are in **About the Audit** at the end of this chapter.

Observations and Recommendation

Protecting habitat for wildlife

4.10 To ensure their survival, species require adequate habitat within which to live, breed, and migrate. Habitat loss and degradation is recognized as the single greatest threat to plants and animals in Canada. A habitat does not have to be totally destroyed to make it unsuitable for some species. The presence of people and associated disturbances can cause some species to abandon habitats or prevent them from breeding successfully. A majority of species at risk are affected by habitat problems. Environment Canada's protected areas are unique because they are specifically designated and managed to protect wildlife and their habitat.

4.11 We examined Environment Canada's monitoring of activities, conditions, and threats for the protected areas it manages and the management plans for these sites. We examined documentation related to the Department's protected areas program, interviewed program staff, and visited selected sites in the western and Quebec regions.

The Department has assessed the ecological integrity of its protected areas as inadequate

4.12 Following our 2008 audit, Environment Canada conducted an assessment of its protected areas in the same year. The Department's site managers and staff based these assessments on their own knowledge and judgment. Sites were assessed against the overall guidance and policy set out in the Department's Protected Areas Manual, which included monitoring of the area's conditions, its wildlife species, and the ecological integrity of their habitats and site management (Exhibit 4.2). The Department updated the assessment in 2011.

Exhibit 4.2 Environment Canada conducted two assessments of its protected areas (in 2008 and 2011), using a scale of poor to excellent

The Department used the following scores when assessing its protected areas. Scores went from 1 to 5, where 1 was poor and 5 was excellent.

Score	Description
1: Poor	Site managers see emergencies or imperatives for these areas, or categorize them as severely deteriorated.
2: Insufficient	A failing grade, with significant shortcomings—most of the requirements are not met.
3: Fair	Comparable to a passing mark of 60 percent. Without action, the site may rate as a 2 in the near future.
4: Adequate	Means the site has no significant shortcomings, and information is available to make decisions.
5: Excellent	No formal description.

Not all sites were assessed in terms of ecological integrity for reasons such as the high cost of accessing some of them due to their remote location. The three national wildlife areas established in 2010 (Ninginganiq, Qaulluit, and Akpait) were not part of the assessments.

4.13 The Department’s assessments of protected areas indicated that the ecological integrity of national wildlife areas is a concern. In both 2008 and 2011, the ecological integrity of about 20 percent of wildlife areas was rated as “poor” or “insufficient,” including Ontario’s Eleanor Island National Wildlife Area (Exhibit 4.3). Ecological integrity for more than 70 percent of sites rated no higher than “fair” (Exhibit 4.4). In general, results for migratory bird sanctuaries are comparable to those for national wildlife areas. Only about a quarter of national wildlife areas and less than one third of migratory bird sanctuaries were assessed as having adequate or excellent ecological integrity. According to its own assessment, the Department is not meeting the purpose of its protected areas, which is to maintain the ecological integrity of the site for the benefit of wildlife, including migratory birds and species at risk.

4.14 Environment Canada developed its Protected Areas Manual to deliver a comprehensive set of national policies and procedures for establishing and managing its protected areas. The manual states that adequate monitoring should be conducted to assess the quality of a range of habitats and the state of wildlife, as well as changes to species populations and habitat resulting from on- and off-site natural and human-caused events. The Department’s own assessments highlighted, among other issues, the lack of proper inventories and monitoring, including the lack of crucial information on species at risk.

Exhibit 4.3 Environment Canada rated the ecological integrity of the Eleanor Island National Wildlife Area as insufficient

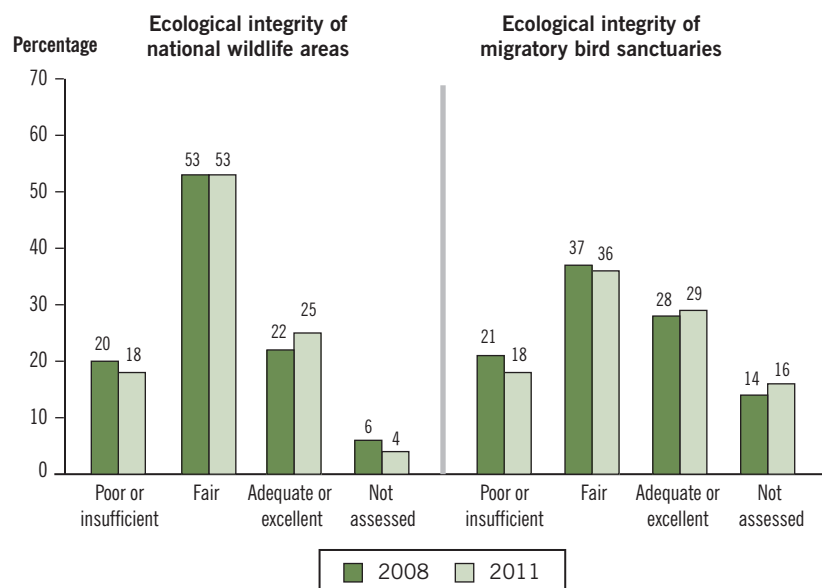
Eleanor Island was designated as a migratory bird sanctuary in 1971 and as a national wildlife area (NWA) in 1978 to provide greater protection to waterbirds and their habitat. This small Lake Muskoka island is an important nesting site for colonial waterbirds. It provides young nestlings protection from predators and access to prey in nearby waters. Despite its small size, the island is visited by large numbers of waterbirds: 30 Great Blue Heron and over 500 gull and cormorant nests were observed on the island in 2009.

The Eleanor Island NWA faces a number of threats and challenges to its ecological integrity, including invasive species, pollution, toxics, development, and human disturbance, which can all significantly affect colonial waterbirds. During the nesting season, which lasts from March to July, boats, jet skis, and other human disturbances are a significant concern. Population growth in the area has increased since the NWA was established, and tourism and boat traffic are predicted to increase as well.

Environment Canada faces management challenges such as a lack of public understanding of prohibited activities and protection provisions for wildlife in NWAs. In addition, the island is remote and difficult to access. There are no full-time departmental officials on site, so it can be difficult to promote compliance and enforce regulations. A management plan was initially developed in 1985; it was updated in 2011 but is still in draft form.

Source: Adapted from Eleanor Island National Wildlife Area Management Plan (Canadian Wildlife Service, 2011 Draft).

Exhibit 4.4 More than 70 percent of national wildlife areas and about 55 percent of migratory bird sanctuaries are considered to have less than adequate ecological integrity



Source: Analyses from Environment Canada's 2008 and 2011 assessments of its protected areas.

4.15 In this audit, we found that the Department is not conducting systematic monitoring of its national wildlife areas and migratory bird sanctuaries. Instead, monitoring is done sporadically or as the opportunity arises. Without regular monitoring, the Department cannot properly track whether the ecological integrity of its areas is improving and has to rely on assessments based on the judgment of staff. Nor can it identify early on any new or potential threats to local species so that it can react in an appropriate and timely manner. Environment Canada has not followed its policy to monitor these sites, which is a part of the site's management as stated in its Protected Areas Manual.

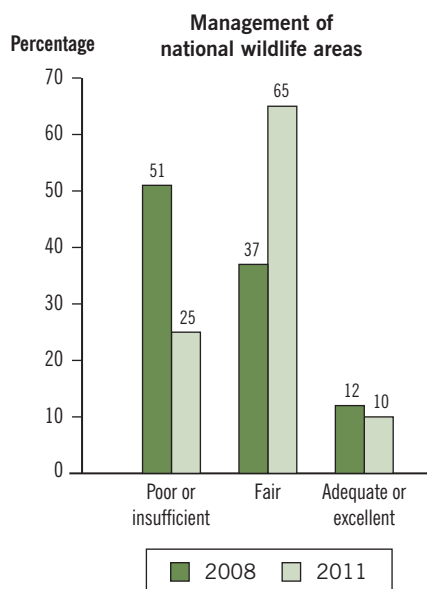
The Department is still operating with outdated management plans

4.16 According to Environment Canada, management plans are necessary to make informed management decisions. Environment Canada's management plans for protected areas serve as a framework to guide decision making on monitoring wildlife, maintaining and improving wildlife habitat, enforcing regulations, maintaining facilities (such as observation towers), and issuing permits (for example, for research).

4.17 As per Environment Canada's Protected Areas Manual, management plans are to be developed and implemented to guide the achievement of specific goals and objectives. Plans need to be revisited 5 years after the initial development and every 10 years following that, and updated as necessary.

4.18 The Department's 2008 and 2011 assessments rated whether the management plans were based on ecological principles, such as to maintain the ecological integrity of habitats for migratory birds and species at risk and whether they were being implemented. Both assessments reported that the majority of Environment Canada national wildlife areas did not have adequate management plans (Exhibit 4.5). The Department estimates that there was an improvement from 2008 to 2011, with 25 percent of sites moving from ratings of "poor" or "insufficient" to "fair." However, the Department rated the majority of sites (90 percent) as not having adequate management plans in 2011. The plans either were not based on ecological principles or were not being implemented.

Exhibit 4.5 Environment Canada considers 90 percent of the management plans for national wildlife areas to be less than adequate



Source: Analyses from Environment Canada's 2008 and 2011 assessments of its protected areas.

4.19 In our 2008 Status Report, we found that, on average, existing management plans for national wildlife areas dated from 1987. Our findings were similar for this audit, five years later; on average, management plans dated from 1992. Thirty-one management plans had been drafted before the *Species at Risk Act* came into force in 2003, and eight areas have never had a management plan. The Department told us that management plans for national wildlife areas are being updated. We found that 15 plans were in draft form at the time of this audit and had not yet been approved, including the management plan for the Lac Saint-François National Wildlife Area (Exhibit 4.6).

4.20 During the current audit, we found that Environment Canada repeatedly extended the timelines for updating management plans. The target for updating all management plans is now 2017; the previous one was 2013. The Department explained that the delay was due mainly to the lengthy approval process, which includes 5 production steps for developing the management plan and supporting products (which include developing a website, consultation form, pamphlet, and letter); 26 decisions or operational steps; and 29 review, comment, and update steps.

Exhibit 4.6 The draft management plan for the Lac Saint-François National Wildlife Area was updated after 25 years but has not yet been approved

Established in 1978 to protect migratory birds and important wetlands, the Lac Saint-François National Wildlife Area is considered to be one of the most remarkable wildlife areas in Quebec. Its 1,447 hectares are home to more than 287 animal species and 547 plant species, many of which are at risk. This wildlife area is exposed to significant threats such as pollution, poaching, and invasive alien species. The conservation of wildlife, including species at risk, can be a challenge at this site.

Environment Canada first developed a management plan for the site in 1986. In 2011, 25 years later, the plan was updated, but it was still awaiting approval at the time of this audit. The new draft plan identified the lack of scientific data as a major shortcoming, noting that “the current data does not adequately measure the ecological integrity of the area or always support good decision making on the management of certain habitat and species present.” According to the draft plan, the Department should

- identify priority gaps in knowledge, and conduct needed inventories by 2017, and
- assess the main indicators and implement a monitoring program of the site’s ecological integrity by 2021 (10 years after the 2011 draft plan).

Meanwhile, the Department’s presence at the site is minimal. Through contracts, Environment Canada has been providing funds to Les Amis de la réserve nationale de faune du Lac Saint-François, an association involved in education to foster public awareness of the site. The contracts give the association responsibility for maintaining infrastructure and monitoring the site, including for the presence of wildlife species, species at risk, or migratory birds. The association is not using the management plan. In fact, the association was made aware of the site management plan only recently, when Environment Canada started to consult with the association, the Aboriginal communities, and relevant stakeholders on the 2011 draft plan.

4.21 Although Environment Canada’s Protected Areas Manual states that management plans are required for migratory bird sanctuaries, the Department has recognized that there is very little active management within migratory bird sanctuaries. There are few management plans for these sites; Department officials told us that site descriptions are to be prepared and posted on the Department’s website in 2013. None were posted at the time of our audit. We note that in Nunavut, where co-management committees are in place, site managers have started drafting management plans for some migratory bird sanctuary sites in the territory.

4.22 Since our last audit in 2008, we found that Environment Canada has made limited progress in updating its management plans and applying them, including ensuring that monitoring and inventories of its protected areas are conducted to assess the overall quality of its habitats and state of its wildlife. This information would be useful for site planning and management activities.

4.23 Recommendation. Considering that management plans are essential for decision making and for managing national wildlife areas, Environment Canada should review its process for updating the plans and consider how best to streamline this exercise so plans are kept up to date and relevant. In addition, the Department should develop relevant management plans for migratory bird sanctuaries in accordance with the policy and guidance of its own Protected Areas Manual.

The Department's response. Environment Canada agrees with the recommendation respecting management plans for National Wildlife Areas. Environment Canada agrees, in part, with the recommendation respecting management plans for Migratory Bird Sanctuaries. The Department plans to complete management plans for those Migratory Bird Sanctuaries that are located on federal land and/or those for which it has the primary responsibility for the management of habitat and the conservation and protection of migratory birds and their eggs and nests. Management plans will not be prepared by Environment Canada for sanctuaries located on provincial, municipal, or private land, as this is beyond the scope of Environment Canada's responsibilities.

Once management plans for all National Wildlife Areas are complete, the Department will review the process and consider options for streamlining the update and revision process.

The Department will update its Protected Areas Manual with respect to the planning process and plans for Migratory Bird Sanctuaries accordingly.

The Department has been slow to delist sites that no longer qualify as protected areas

4.24 In our 2008 March Status Report, Chapter 4, Ecosystems—Federal Protected Areas for Wildlife, we reported that Environment Canada needs to systematically assess its national wildlife areas and migratory bird sanctuaries to determine whether they meet the Department's criteria for protected areas and fulfill their intended purpose.

4.25 During the course of the audit, we found the delisting process has been slow. Since our 2008 audit, the Department has identified 6 national wildlife areas and 22 migratory bird sanctuaries that no longer meet the criteria for protected areas (for example, sites that are located in urban areas and have little value for wildlife). However, no action has been taken to delist them.

Conclusion

4.26 We concluded that Environment Canada is not meeting its responsibilities for preparing management plans and monitoring the activities and conditions of the protected areas it manages. The Department's own assessments indicate the lack of proper inventories, including information gaps on species at risk. Consequently, the Department lacks detailed knowledge of the species and habitats in most protected areas. The ecological integrity of the majority of its protected areas is less than adequate, which is not meeting the purpose of its protected areas, namely, to maintain the ecological integrity of the site for the benefit of wildlife, including migratory birds and species at risk. Without action to address threats to their ecological integrity, Environment Canada's protected areas may deteriorate.

4.27 Management plans continue to be out of date—an issue we noted in our 2008 audit. Management plans guide the achievement of specific goals and objectives. They need to be updated periodically and implemented in order to direct the use of resources and respond to emerging issues.

About the Audit

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by The Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

As part of our regular audit process, we obtained management's confirmation that the findings reported in this chapter are factually based.

Objective

This audit sought to determine whether Environment Canada has fulfilled selected responsibilities regarding protected areas.

Specifically, the audit focused on the Department's responsibilities regarding management plans and monitoring activities.

Scope and approach

This audit examined Environment Canada's management of national wildlife areas and migratory bird sanctuaries. Specifically, the audit focused on the Department's management plans and monitoring activities, but did not address its enforcement responsibilities.

In carrying out the audit, we interviewed Environment Canada officials and relevant stakeholders, and reviewed the Department's files, reports, and other supporting documentation. We also visited two regions, the Quebec and western regions, with the aim of better understanding the Department's conservation responsibilities.

Criteria

Criteria	Sources
To determine whether Environment Canada has fulfilled selected responsibilities regarding protected areas, we used the following criteria:	
<p>Environment Canada has up-to-date management plans for the protected areas that it manages.</p> <p>Environment Canada monitors activities, conditions, and threats for the protected areas that it manages.</p>	<ul style="list-style-type: none"> • <i>Canada Wildlife Act</i> and associated regulations • <i>Migratory Birds Convention Act, 1994</i> and associated regulations • 2012–13 Report on Plans and Priorities, Environment Canada • Protected Areas Strategy, Environment Canada

Management reviewed and accepted the suitability of the criteria used in the audit.

Period covered by the audit

The audit covered the period from April 2008 to April 2013. Audit work for this chapter was completed on 30 July 2013.

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Appendix Recommendation

The following recommendation is found in Chapter 4. The number in front of the recommendation indicates the paragraph number where it appears in the chapter. The numbers in parentheses indicate the paragraph numbers where the topic is discussed.

Recommendation	Response
<p>Protecting habitat for wildlife</p> <p>4.23 Considering that management plans are essential for decision making and for managing national wildlife areas, Environment Canada should review its process for updating the plans and consider how best to streamline this exercise so plans are kept up to date and relevant. In addition, the Department should develop relevant management plans for migratory bird sanctuaries in accordance with the policy and guidance of its own Protected Areas Manual. (4.10–4.22)</p>	<p>Environment Canada agrees with the recommendation respecting management plans for National Wildlife Areas. Environment Canada agrees, in part, with the recommendation respecting management plans for Migratory Bird Sanctuaries. The Department plans to complete management plans for those Migratory Bird Sanctuaries that are located on federal land and/or those for which it has the primary responsibility for the management of habitat and the conservation and protection of migratory birds and their eggs and nests. Management plans will not be prepared by Environment Canada for sanctuaries located on provincial, municipal, or private land, as this is beyond the scope of Environment Canada’s responsibilities.</p> <p>Once management plans for all National Wildlife Areas are complete, the Department will review the process and consider options for streamlining the update and revision process.</p> <p>The Department will update its Protected Areas Manual with respect to the planning process and plans for Migratory Bird Sanctuaries accordingly.</p>