

Presqu'île Provincial Park Double-crested Cormorant Management:

Recommendations

January 2006

Presented to the Honourable David Ramsay,
Minister of Natural Resources by the
2005 Presqu'île Double-crested Cormorant
Management Scientific Review Committee

Executive Summary:

This report contains nine recommendations from the 2005 Presqu'île Double-crested Cormorant Scientific Review Committee related to management of Double-crested Cormorants (DCCOs) at Presqu'île Provincial Park. The Committee was initially formed in September of 2004 as a result of the Minister of Environment's requirements for the approval of proceeding with a cull of DCCO at the park in 2004, and re-established by the Ministry of Natural Resources in 2005. In 2005, we were asked to assess the impacts of DCCO management on cormorants, other bird species and vegetation and to make recommendations for management activities for 2006 to the Minister of Natural Resources. Additionally, the Committee was asked for perspectives or recommendations for the future, as the current strategy expires in 2006. The Committee considered the impacts of the cull on DCCOs, non-target species, and vegetation health. As in 2004, we determined that (1) management has reduced the number of DCCO nests in trees on High Bluff Island; (2) the cull had no significant adverse effects to the three main non-target species from management; and (3) it is too early to detect the response of vegetation to management. We accepted that non-lethal techniques alone cannot provide sufficient protection to woody vegetation on High Bluff Island before potentially irreversible loss occurs. Based on our analysis, we recommend the continuation of the full range of available DCCO management techniques at Presqu'île (oiling of eggs in ground nests, removal of tree nests, culling of tree-nesting adult DCCOs, and disturbance of roosting DCCOs) with specific modifications designed to enhance effectiveness, improve monitoring, and further reduce disturbance to non-target species. We also recommend additions to the strategy, including removal of some of the dead trees that are DCCO roosting sites, expanding DCCO and non-target species monitoring and research, continuing monitoring of all colonial waterbirds and their habitats, and continuing vegetation monitoring. We recommend that a long term strategy be in place before 2007, and that it include annual evaluation by a technical review committee. We have made three additional recommendations concerning public education, protection of the islands and public consultation and input.

Background:

The goal of the provincial parks system is *“To protect a variety of outdoor recreation opportunities and to protect provincially significant natural, cultural and recreational environments in a system of Provincial Parks.”* There are four objectives derived from the goal that provide specific direction for the management of the park system:

- Protection - *To protect provincially significant elements of the natural and cultural landscape of Ontario;*
- Recreation - *To provide Provincial Park outdoor recreation opportunities ranging from high-intensity day-use to low-intensity wilderness experiences;*
- Heritage Appreciation - *To provide opportunities for exploration and appreciation of the outdoor natural and cultural heritage of Ontario; and*
- Tourism - *To provide Ontario’s residents and out-of-province visitors with opportunities to discover and experience the distinctive regions of the Province.*

Park management plans are prepared for individual parks, primarily to identify the contribution that a park makes to the achievement of the four park system objectives and to identify management policies aimed at maintaining or enhancing that contribution. The management plan for Presqu’île Provincial Park was approved in 2000.

Presqu’île Provincial Park contributes to all four of the provincial parks system objectives, and has many significant values that are to be protected. The goal of the park is *“To protect Presqu’île Provincial Park’s outstanding natural and cultural heritage, and provide high quality recreational and educational experiences appropriate to and sustainable within the park’s environment.”* The protection objective in the management plan further states that *“Protection will not be limited to provincially significant features.” The entire park will be maintained as a healthy, diverse, and sustainable natural environment, consistent with achieving the park’s other objectives. The restoration of degraded environments will be given a high priority.”*

Tree nesting activity of Double-crested Cormorants (DCCO) has been identified as resulting in the loss of and damage to woodland vegetation on two islands within Presqu’île Provincial Park, Gull Island and High Bluff Island. The damaged area is judged to be a “degraded environment” (Carr and Koh, 2001; Koh and Carr, 2003). The woodland vegetation remaining on High Bluff Island is considered important to the values of the park because it has a species association and habitat not found elsewhere in the park, it provides habitat for significant tree-nesting colonial waterbird species, and it is a migratory stop-over for woodland birds and Monarch butterflies. This issue was recognized during the park management planning process, and the park management plan included enabling statements for the preparation of a DCCO management strategy for the park.

In accordance with direction in the *Presqu’île Provincial Park Management Plan (2000)*, a DCCO management strategy was developed for the park in 2002. The strategy was first implemented in 2003, following a minor amendment expanding egg oiling. In 2004 the MNR sought a major amendment to the strategy to add culling of tree-nesting adult cormorants as a management technique, and expand management to all wooded areas on High Bluff Island. This amended strategy was first implemented in 2004.

In the spring of 2004, the Ontario Ministry of the Environment (MOE) requested that MNR form a scientific committee to review management actions and make recommendations to the Minister of Natural Resources about management activities in 2005 and 2006. In accordance with the direction from MOE, a scientific committee was formed in the fall of 2004 to review and assess the impacts of 2004 DCCO management at the park and to provide recommendations to the Minister of Natural Resources. In November of 2004, the 2004 Cormorant Management

Scientific Review Committee (henceforth, "the 2004 Committee") submitted nine recommendations concerning DCCO management at Presqu'île for 2005 to the Minister. The recommendations included that DCCO management continue and include egg oiling, tree nest removal, culling and roost disturbance within specific operational modifications for each technique. The 2004 Committee's report was available to the public through the Ontario Parks website.

In May of 2005, the MNR posted an information notice on the Environmental Registry of the Environmental Bill of Rights to provide general notice to the public that DCCO management was scheduled to continue at Presqu'île in 2005. The notice stated that the decision was made through consideration of the 2004 Committee's report, the 2004 annual report on management, and other information.

The 2004 Committee had considerable discussion about the goal and objectives of the strategy, and the recommendation to clarify this direction was reflected in the 2005 operations plan.

The goal of cormorant management operations at Presqu'île Provincial Park is to protect representative woodland flora and fauna of High Bluff Island, Presqu'île Provincial Park, while retaining maximum diversity of nesting colonial bird species.

There are four objectives associated with the goal:

- to limit cormorant use of trees for nesting on High Bluff Island,
- to reduce cormorant use of trees for roosting on High Bluff Island,
- to reduce recruitment from ground nesting cormorants on Gull and High Bluff Islands, and
- to minimize impacts of cormorant management on other colonial waterbird species nesting on Gull and High Bluff Islands.

The DCCO management program, including operational modifications to address recommendations by the 2004 Committee, was implemented between April 4 and October 2, 2005. Management actions included removal of 1861 nests from trees using forestry poles; culling of 1867 adult DCCO (out of a potential 5500 recommended by the 2004 Committee); oiling of eggs in 2633 ground nests; and roost disturbance of DCCO (after personnel established that the area was not a regional roosting site for herons). Enhanced monitoring of the three non-target heron species occurred, including comparison to a control site.

A scientific committee, consisting of five members (four original and one new), was re-established in November of 2005 (henceforth "the 2005 Committee"). The 2005 Committee was asked to assess the impact of DCCO management and make recommendations for management for 2006. Additionally, while acknowledging that the current strategy expires in 2006, and in recognition of the significant experience and expertise of the committee members, the 2005 Committee was asked to provide perspectives or recommendations for beyond 2006.

The 2005 Committee was provided with copies of documents related to the planning and operational process for DCCO management, results and observations from implementation of the strategy in 2003, 2004 and 2005 (emphasis on 2005) and results of 2004 vegetation assessment research on High Bluff Island (see References section).

Review of the Issue:

The 2005 Committee held two face-to-face meetings, on November 28 and December 15, 2005. Notes were recorded for each meeting.

The November 28, 2005 meeting included presentations by park staff on the implementation details of the DCCO management program at Presqu'île in 2005, and specifically addressed actions related to the 2004 Committee's recommendations. Canadian Wildlife Service (CWS) contract staff presented results of non-target species monitoring at the park and a control site in 2005. During the December 15, 2005 meeting, the 2005 Committee discussed the need for continued management, and the effectiveness of actions that address the 2004 recommendations, and drafted nine recommendations for 2006 for further review and discussion. These recommendations were refined through email discussion and finalized via conference call on January 13, 2006.

Assessment of the Impacts of the Cull:

The 2005 Committee reviewed and discussed the results of DCCO management actions at Presqu'île from 2003 to 2005 (Table 1). The impacts of the cull were assessed from three perspectives: DCCO nesting, numbers and nesting success of non-target species, and vegetation health.

Table 1. DCCO Management Activities at Presqu'île

Activity	Year			
	2002	2003	2004	2005
eggs oiled	0	28648	26311	23732
nests removed	0	3980	2098	1861
adults culled	0	0	6030	1867*

* Recommendations of the 2004 Committee included a cull maximum of 5,500 adult DCCO for 2005. This recommendation was intended to provide park managers with enough flexibility to reduce tree-nesting DCCO numbers toward vegetation restoration goals. Interference with the cull by individuals opposing management resulted in a significantly lower take than would have otherwise occurred. Interference with the cull also had the effect of increasing overall disturbance to non-target waterbirds due to increased human presence and altered management sessions resulting from opposition activities.

Nesting of DCCOs

At Presqu'île, DCCOs nest both on the ground and in trees. The total number of DCCO nests in the park (ground and tree nests) was reduced from 12082 nests in 2002 to 4609 nests in 2005, a 62% reduction.

After management was completed in 2005, there were 1976 DCCO nests in trees on High Bluff Island, compared to 3656 nests in trees in 2004, 4631 nests in 2003 and 6893 nests in 2002 (Table 2). This is a 71% reduction in the total number of DCCO tree nests from 2002 to 2005.

Three consecutive years of oiling of eggs in all ground nests on both islands has successfully eliminated recruitment from ground nests, and the number of DCCO nests on the ground has declined. From 2002 to 2005, ground nests were reduced from 5189 to 2633, a 49% reduction.

Table 2. DCCO Nesting at Presqu'île

Site	Nest Location	Number of Nests by Year			
		2002	2003	2004	2005
High Bluff Island	tree	6893	4631	3656	1976
	ground	3491	2948	1683	1305
Gull Island	ground	1698	1117	1601	1328
Total	tree	6893	4631	3656	1976
	ground	5189	4065	3284	2633
	all	12082	8696	6940	4609

Numbers and Nesting Success of Non-target Species

MNR staff monitor the three main non-target species (Great Egret (GREG), Great Blue Heron (GBHE) and Black-crowned Night-Heron (BCNH)) annually. CWS contract staff also monitored GREGs and GBHEs in 2005 at Presqu'île Provincial Park and at Chantry Island, near Southampton, Ontario. Based on both quantitative data and qualitative observations, there did not appear to be any significant negative impacts from DCCO management on GBHE and GREG nest numbers (Table 3) or nesting success (Table 4) from 2003 to 2005 at Presqu'île Provincial Park. In 2005, GREGs nested on High Bluff Island in record numbers and both species produced record numbers of young. BCNH are difficult to monitor because they are sensitive to disturbance and their nests are well hidden. Based on a consistent monitoring technique, the BCNH nest count was equivalent to the average of the three previous years of monitoring (Table 3).

Table 3. Nest Count Data for three Non-target Species from 1998 to 2004*

Species	Number of Nests Observed							
	1998	1999	2000	2001	2002	2003	2004	2005
Great Blue Heron	1	5	14	NA	12	38	63	42
Great Egret	0	1	2	3	3	5	10	17
Black-crowned Night-Heron	NA**	NC***	NC	NA	73	80	59	71

* compilation of data from CWS and MNR

** Not available (NA)

*** Not counted (NC) to avoid disturbance to Great Blue Herons and Great Egrets

Incidental observations of other non-target species were made by MNR staff. A fourth non-target species, a Red-tailed Hawk, was observed nesting in the trees among the herons and DCCOs in 2003. It abandoned its nest midway through the season. Red-tailed Hawks were observed on the island in 2004 and 2005, but did not nest. There are some incidental records that indicate that this species was present in some previous years, but it was not actively monitored.

Table 4. Nesting Success of Non-Target Species

Species	Maximum Nest Count			Number of Successful Nests			Number of Fledged Young			Number of Fledged Young per Nest		
	2003	2004	2005	2003	2004	2005	2003	2004	2005	2003	2004	2005
Great Blue Heron	38	63	42	25	38	32	37	75	75	1.48	1.97	2.34
Great Egret	5	10	17	4	10	16	10	26	48	2.5	2.6	3.0
Black-crowned Night-Heron	80	59	71	Not known*			Not known*			Not known*		

*Black-crowned Night-Heron nest productivity is not known. This is due to the sensitivity of this species to disturbance. Nests were counted only three times during the breeding season. Nest contents were not closely examined - a nest was deemed active as soon as it was determined if it contained eggs or chicks.

Vegetation Health

Vegetation health in the western woodlot on High Bluff Island was assessed in 2000 and again in 2002 prior to DCCO management. In 2002, the western woodlot was highly degraded and continued DCCO activity has increased the damage since then. Vegetation was most recently assessed in 2004, post DCCO management. The 2004 assessment indicates that the canopy has been significantly reduced but the forest understory component remains intact (especially at the southern edge) and is a good structural base from which recovery could take place. Much of the interior portion of the eastern woodlot is in relatively good health and would probably not require any active efforts for a full recovery.

The High Bluff Island woodlands are highly disturbed from past agricultural use (80 years ago) and from the recent presence of two superabundant species, DCCOs and white-tailed deer. It is anticipated that recovery will take considerable time, owing to the level of damage and types of vegetation impacted. The process could be accelerated with active restoration techniques. An integrated program of DCCO and white-tailed deer management is required to ensure recovery of vegetation.

2005 Committee Recommendations:

The 2005 Committee reviewed the 2004 recommendations, their effectiveness in management in 2005, and whether they should be continued or modified in 2006. New recommendations were also considered. The Committee believes that, in general, the recommendations from 2004 were effective in permitting progress towards management goals. The 2005 Committee also considered future DCCO management needs. Committee members discussed the need for a committed effort to continue the program so that management techniques and results can be assessed in the long-term.

DCCO Management Recommendations

1. Continue management of DCCOs in 2006, with the following operational details.

Culling and Carcass Disposal

- Cull up to 3000 adult tree-nesting DCCOs (approx. number of tree nests in 2005 x 1.5) (*modified from 2005*).
- Start the cull approximately 1.5 to 2 weeks after the presence of full clutches in the nests (*as in 2005*).

- Investigate the impacts of culling in the early morning and late afternoon on the sex ratio of birds taken (**as in 2005**).
- Use non-toxic ammunition if it is available and / or explore other options for firearms and ammunition (**modified from 2005**).
- Continue composting of carcasses in accordance with the requirements of the Ministry of Environment's Provisional Certificate of Approval for a Waste Disposal Site (**as in 2005**).
- Provisions to prevent incidents of interruption by opponents to management should be in place. Disruptions to field implementation of the cull impede the management program and have the potential to compromise human safety (**new**).

Nest Removal

- Remove nests without live young throughout the season (**modified from 2005**).
- Explore ways to remove high-level nests (**as in 2005**).

Disturbance of Roosting DCCOs

- Disturbance of roosting DCCOs will not occur until mid August, and would not occur in the vicinity of a regional heron roost, if established (**modified from 2005**).
- Continue removal of dead, DCCO roost trees, but eliminate limbing due to safety concerns (**modified from 2005**).

Egg Oiling of DCCO Ground Nests:

- Oil eggs in ground nests, but leave approximately 10% of the nests (maximum of 260 nests) unmanaged (i.e., not oiled) to allow for banding of young and adults for research purposes (**modified from 2005**).

2. Continue and Expand Monitoring and Research:

- Band or mark a sample of ground nesting DCCOs (adults and chicks) to observe nest sites (trees vs. ground) and annual return rates (etc.) in future years (**new**).
- Identify and track any banded or marked DCCOs (**modified from 2005**).
- Monitor DCCOs and non-target species on management and non-management days (**as in 2005**).
- Monitor heron roosting during the breeding season and immediate post-breeding season (i.e., well before planned DCCO roost disturbance) to determine both the duration of occupancy of High Bluff Island by adult and young herons and if it is a regional heron roost (i.e., determine if the number of herons that congregate and roost there is larger than the number that is resident during the breeding season) (**as in 2005**).
- Monitor other habitats in the park for non-target species nesting (e.g., marsh areas) (**as in 2005**).

3. Continue the monitoring and study of all colonial waterbirds and their habitats and selected non-target species (as in 2005**).**

4. Continue the monitoring of woody and herbaceous vegetation on High Bluff Island as part of the evaluation of the effects of DCCO management actions (as in 2005**).**

5. The Committee recommends that the ministry consider the following:

- Band young GREGs to track future movements within the colony (**new**).
- Increase efforts of monitoring BCNHs (e.g., productivity and competition from DCCOs for nest sites) (**new**).
- Attempt to determine if disturbed DCCOs go to Scotch Bonnet Island (**new**).

- Investigate the possible use of other locations for control sites to compare nesting habits of non-target species (*as in 2005*).
- Be open to other research opportunities, especially those aimed at determining Great Lake metapopulation dynamics (*as in 2005*).

6. Prior to 2007, develop and implement a long-term management strategy for DCCOs at Presqu'île Provincial Park with evaluation annually by a technical review committee of researchers and specialists (e.g., scientists from government or universities) familiar with wildlife research, monitoring and management or colonial waterbird biology (*new*).

Additional Recommendations

7. Continue to actively educate park users and the local public about the islands, the bird colony and the effects of humans on the environment (*as in 2005*).

8. Continue to protect Gull Island and High Bluff Island from unauthorized visits and vandalism (*as in 2005*).

9. Continue public consultation and input and share information (*as in 2005*).

Closing Remarks:

The 2005 Committee recognizes the controversial nature of invoking management on traditionally non-game species. Balancing various mandates for perpetuation and protection of natural resources against legitimately held social values is not an easy task for public land managers, planners, or scientists. Invariably, the best available science will be interpreted differently by individuals who hold divergent core beliefs.

In 2004, special interest groups presented their case to the 2004 Committee, indicating that recent DCCO increases are part of a natural process, which should be allowed to continue without human intervention. Other sources have previously argued that Great Lakes DCCOs have benefited from drastic human alteration of natural systems. These differences in well reasoned opinion, backed in part by science which can never be perfect, illustrate the unavoidable blending of science and social value that is natural resource management.

Even within the 2005 Committee, no member wants to see DCCOs culled, but we accept that non-lethal techniques alone cannot provide protection to woody vegetation before potentially irreversible loss occurs. We accepted two "givens" in our deliberations. First, DCCOs remain as an abundant tree-nesting species on High Bluff Island. Second, further loss of woody vegetation cannot be avoided at present DCCO numbers. Analysis of the 2005 cull led us to conclude that significant adverse impacts of the cull to the viability of non-target waterbirds were not evident; numbers of tree-nesting DCCOs were reduced, but not eliminated; and the level of tree use by DCCOs was lowered by the 2005 management program. In consideration of the park goals and objectives, the 2005 DCCO management program at Presqu'île likely made substantial progress in the desired direction with minimal un-anticipated consequences.

We recommend that a similar program with the full range of available management techniques be delivered in 2006, with the inclusion of minor modifications designed to enhance effectiveness, improve monitoring, and further reduce non-target species disturbance.

As discussed previously, we believe that interruption of culling activities in 2005 by individuals opposed to the cull prevented management staff from achieving targets and resulted in unnecessary disturbance to the non-target species. The disruptions also may have resulted in a

higher target for culling in 2006 to compensate for the shortfall in 2005. This challenge should be adequately addressed before the 2006 management season, to prevent a similar occurrence this year.

We also recommend that a long-term strategy for DCCO management at Presqu'ile Provincial Park be prepared before the 2007 management season, and that it include annual review by a scientific committee as in 2004 and 2005.

References Reviewed by the Committee:

Carr, Laurie W. and Saewan Koh. 2001. Preliminary Assessment of Vegetative Damage by the Common Cormorant, Northwest Forest, High Bluff Island, Presqu'ile Provincial Park. Unpublished Report to Presqu'ile Provincial Park, Brighton, Ontario.

Koh, Saewan. 2005 (draft). Assessment of Tree Damage: Effect of Double-crested Cormorant on Woodlands, High Bluff Island, Presqu'ile Provincial Park. Unpublished Report to Presqu'ile Provincial Park, Brighton, Ontario.

Koh, Saewan and Laurie W. Carr. 2003. Follow-up Assessment of Tree Damage: Effect of Double-Crested Cormorant on the Western Forest, High Bluff Island, Presqu'ile Provincial Park. Unpublished Report to Presqu'ile Provincial Park, Brighton, Ontario.

Moore, David J., D.V. Chip Weseloh and Richard Joos. 2005 (draft). The management of Double-crested Cormorants (*Phalacrocorax auritus*) and its effect on Great Blue Herons (*Ardea herodias*) and Great Egrets (*Ardea albus*) at High Bluff Island (Lake Ontario) in 2005. Unpublished Report to Presqu'ile Provincial Park, Brighton, Ontario.

Ontario Parks. 2005 (draft). Annual Report on the Management of Double-crested Cormorants at Presqu'ile Provincial Park, 2005. Presqu'ile Provincial Park, Brighton, Ontario.

Ontario Parks. 2005. Annual Report on the Management of Double-crested Cormorants at Presqu'ile Provincial Park, 2004. http://www.ontarioparks.com/english/pres_planning.html

Ontario Parks. 2004. Amended Management Strategy for Double-crested Cormorants at Presqu'ile Provincial Park. http://www.ontarioparks.com/english/pres_planning.html .

Ontario Parks. 2000. Double-crested Cormorants at Presqu'ile Provincial Park: an analysis of their effects. Presqu'ile Provincial Park, Brighton, Ontario.

Note: Other relevant information was also reviewed, including the 2005 operations plan.

Recommended By:

The 2005 Presqu'île Double-crested Cormorant Management Scientific Review Committee.

For further information, please contact:

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**Presqu'île Provincial Park Double-crested Cormorant Management Strategy
2005 Scientific Review Committee**

Terms of Reference

1. Purpose

The Ontario Ministry of Natural Resources (MNR), Ontario Parks is re-establishing a scientific committee to review and assess the impacts of Double-crested Cormorant (DCCO) management at Presqu'île Provincial Park and prepare recommendations for the remaining year of the strategy. The purposes of these terms of reference are to:

- Provide background context;
- Outline the Committee's operation and membership; and
- Identify the Committee's schedule and deliverables.

2. Background

In accordance with direction in the *Presqu'île Provincial Park Management Plan (2000)*, a DCCO management strategy was developed for the park in 2002. The strategy was first implemented in 2003, following a minor amendment expanding egg oiling. In 2004 the MNR sought a major amendment to the strategy to add culling of tree nesting adult cormorants as a management technique, and expand management to all wooded areas on High Bluff Island. This amended strategy was implemented in 2004.

The Ontario Ministry of the Environment requested that MNR form a scientific committee to review management actions and make recommendations to the Minister about management activities in 2005 and 2006. In accordance with the direction from MOE, a six-member scientific committee was formed in the fall of 2004 to review and assess the impacts of 2004 DCCO management at the park and to provide recommendations to the Minister of Natural Resources. The Committee submitted nine recommendations to the Minister in November of 2004 concerning management activities in 2005. The Committee's report was available to the public through the Ontario Parks website.

In May of 2005, the MNR posted an information notice on the Environmental Registry of the Environmental Bill of Rights to provide general notice to the public that DCCO management was scheduled to continue at Presqu'île in 2005. The notice stated that the decision was made through consideration of the Committee's report, the 2004 annual report on management, and other information.

The MNR has decided to re-establish the scientific committee to develop recommendations for management activities in 2006. The Committee includes internal and external researchers and specialists familiar with wildlife research, monitoring and management and colonial waterbird biology.

3. Committee Operation and Membership

The role of the Committee is to assess the impacts of DCCO management on cormorants, other bird species and vegetation and to make recommendations for management activities for 2006.

The Committee shall consist of five (5) members. The 2005 Committee membership will be similar to that in 2004, with membership from Ontario and other government agencies, supplemented by technical expertise from academia.

Committee members are expected to attend each meeting, either in person or via conference call. Members may have alternate representatives if approved by the Committee.

The Committee will attempt to reach consensus on all recommendations. It is understood that there may be certain circumstances which require casting a vote. The quorum at meetings shall be a majority of members.

The MNR shall provide support and liaison to the Committee, including provision of a facilitator and secretariat function, and shall assign additional staff resources to support the Committee as required. Appropriate MNR staff persons shall be ex-officio members of the Committee and may participate in Committee discussions.

Notes shall be kept of all meetings and copies of Committee approved notes shall be sent to the South Eastern Zone Manager and Managing Director of Ontario Parks as soon as practical after each meeting. Notes of Committee meetings will not be shared with the public without Ministry review and approval.

Committee members shall be subject to ministry directives regarding confidentiality, conflict of interest, and workplace discrimination and harassment. External requests for information related to the Committee's mandate will be referred to the Committee facilitator or appropriate MNR staff for response.

Where necessary, the Committee may consult with other MNR staff, other ministry staff (e.g., Ministry of Environment), additional outside agencies, academics and other experts in the field.

4. Schedule and Deliverables

The Committee will review and assess management actions and formulate recommendations. There will be at least one face to face meeting (November 28, 2005) that will include the following:

- discussion of the role of the Committee; Committee deliverables; and ministry confidentiality, conflict of interest, and workplace discrimination and harassment prevention directives;
- presentations by ex-officio members on 2005 management actions and results;
- review of the draft 2005 annual report prepared by Ontario Parks staff;
- general discussion of results and impacts of 2005 management; and
- identification of any additional information required by the Committee.

The Committee will make recommendations for management for 2006. Additionally, while acknowledging that the current strategy expires in 2006, and in recognition of the significant experience and expertise of the Committee members, the ministry is interested in the Committee's perspectives or recommendations for the future.

Draft Committee recommendations will be provided in writing to the South Eastern Zone Manager and Manager, Planning and Research Section by early January, 2006.

Final Committee recommendations will be presented in writing to the Minister of Natural Resources by late January, 2006. The rationale for recommendations along with pros and cons, and any considerations, shall be noted.

The *Freedom of Information and Protection of Privacy Act* (FIPPA) provides the public with a right of access to government held information and to the protection of the privacy of individuals. The Committee and the ministry agree that these rights must be preserved and the Committee agrees that no personal information will be disclosed without proper authority. Recommendations of the Committee will become public information.

Applicable reference material will be made available to the Committee for review, including:

- 2004 Amended Management Strategy for Double-crested Cormorants at Presqu'île Provincial Park.
- 2005 Environmental Registry information notice regarding the strategy.
- Draft 2005 Annual Report on the Management of Double-crested Cormorants at Presqu'île Provincial Park.

- Annual Report on the Management of Double-crested Cormorants at Presqu'ile Provincial Park, 2004 (Ontario Parks, 2005).
- Double-crested Cormorants at Presqu'ile Provincial Park: an analysis of their effects (Ontario Parks, 2000).
- Preliminary Assessment of Vegetative Damage by the Common Cormorant, Northwest Forest, High Bluff Island, Presqu'ile Provincial Park. (Carr, Laurie W. and Saewan Koh, 2001).
- Follow-up Assessment of Tree Damage: Effect of Double-Crested Cormorant on the Western Forest, High Bluff Island, Presqu'ile Provincial Park. (Koh, Saewan and Laurie W. Carr, 2003).
- 2004 Follow-up Assessment of Vegetative Damage on High Bluff Island (Koh, Saewan) draft November 2005.
- The management of Double-crested Cormorants (*Phalacrocorax auritus*) and its effect on Great Blue Herons (*Ardea herodias*) and Great Egrets (*Ardea albus*) at High Bluff Island (Lake Ontario) in 2005 (David J. Moore, D. V. Chip Weseloh and Richard Joos) draft November 2005.

5. Remuneration and Expenses

Committee members shall be eligible for reimbursement of expenses incurred on Committee business. Eligible expenses include travel, meals, accommodation, and other out of pocket expenses:

- Reasonable hotel accommodation (the Government of Ontario rate should be requested).
- Mileage compensation for use of private automobile at current government rates (\$0.3375 / km; kilometre usage must be recorded).
- Meals up to a prorated maximum of \$34.00 per day supported by receipts, and above that limit if receipts and explanation are provided.
- Receipted out of pocket expenses for parking fees and long distance telephone calls.

Expenses must be submitted on a Travel Expense Invoice with relevant receipts and documentation attached, to the assigned Ministry staff person.

The Committee will not undertake any expenditure, contracts for service or financial commitments related to the mandate of the Committee without the express written approval of the appropriate authority within the Ministry.