

RES.#A226/13 -

DOUBLE-CRESTED CORMORANTS

2013 Management Summary and 2014 Management Strategy. Summary of 2013 management activities and 2014 management strategy for Double-crested Cormorants at Tommy Thompson Park.

Moved by: Glenn De Baeremaeker
Seconded by: Mike Mattos

THAT staff be directed to continue to work with the Cormorant Advisory Group to assist Toronto and Region Conservation Authority (TRCA) in addressing management concerns regarding colonial waterbirds at Tommy Thompson Park (TTP);

THAT staff be directed to work with the Ontario Ministry of Natural Resources, Canadian Wildlife Service and any other required regulatory agency to seek approval for the 2014 management strategy for colonial waterbirds at TTP;

THAT staff be directed to implement the proposed management strategy for 2014;

THAT staff be directed to continue to actively participate in local, regional and binational committees/working groups addressing the management and protection of colonial waterbirds;

AND FURTHER THAT staff report back to the Authority bi-annually regarding the management of Double-crested Cormorants at Tommy Thompson Park or more frequently should the Strategic Approach be significantly changed.

AMENDMENT
RES.#A227/13

Moved by: Glenn De Baeremaeker
Seconded by: Mike Mattos

THAT the following be inserted after the main motion:

AND FURTHER THAT staff make a presentation at the March Authority meeting on the double-crested cormorants management strategy.

THE AMENDMENT WAS CARRIED

THE MAIN MOTION, AS AMENDED, WAS CARRIED

THE RESULTANT MOTION READS AS FOLLOWS:

THAT staff be directed to continue to work with the Cormorant Advisory Group to assist Toronto and Region Conservation Authority (TRCA) in addressing management concerns regarding colonial waterbirds at Tommy Thompson Park (TTP);

THAT staff be directed to work with the Ontario Ministry of Natural Resources, Canadian Wildlife Service and any other required regulatory agency to seek approval for the 2014 management strategy for colonial waterbirds at TTP;

THAT staff be directed to implement the proposed management strategy for 2014;

THAT staff be directed to continue to actively participate in local, regional and binational committees/working groups addressing the management and protection of colonial waterbirds;

THAT staff report back to the Authority bi-annually regarding the management of Double-crested Cormorants at Tommy Thompson Park or more frequently should the Strategic Approach be significantly changed;

AND FURTHER THAT staff make a presentation at the March Authority meeting on the double-crested cormorants management strategy.

BACKGROUND

Tommy Thompson Park is an urban wilderness park located at the foot of Leslie Street in the City of Toronto. It supports the largest colony of Double-crested Cormorants (DCCO) in the Great Lakes Region, plus diverse communities of bird, fish, reptile, amphibian, mammal, and vegetation species. It has been formally designated as a globally significant Important Bird Area (IBA) and an Environmentally Significant Area (ESA #120). The Master Plan that guides the development of TTP includes the goal of conserving and managing the natural resources and environmentally significant areas of the park. While the DCCO colony adds to the diversity of the park and is environmentally significant, there are concerns about the impacts of DCCO on tree health and biodiversity in other areas at TTP.

TRCA began a process to ensure the TTP Master Plan goals and objectives were upheld and the concerns are addressed. TRCA initiated the involvement of stakeholders and the public to create a management strategy for DCCO at TTP. The process started in November 2007 with the establishment of the Cormorant Advisory Group, and led to the development of the 2008 Cormorant Management Strategy which was approved by the Authority in 2008 as per Resolution #A110/08 as follows:

THAT staff be directed to continue to work with the Cormorant Advisory Group to assist Toronto and Region Conservation Authority (TRCA) in addressing management concerns regarding colonial waterbirds at Tommy Thompson Park (TTP);

THAT staff be directed to work with the Ontario Ministry of Natural Resources, Canadian Wildlife Service and any other required regulatory agency to seek approval for the 2008 management strategy for colonial waterbirds at TTP;

THAT staff be directed to implement the proposed management strategy for 2008;

THAT staff be directed to continue to actively participate in local, regional and binational committees/working groups addressing the management and protection of colonial waterbirds;

AND FURTHER THAT staff report back to the Authority next year regarding the management of Double-crested Cormorants at Tommy Thompson Park.

Since 2008 TRCA staff has annually sought approval from the Authority to adopt the management strategy and has subsequently reported back on the Strategic Approach at the end of the breeding season:

- 2009 as per Resolution #A22/09,
- 2010 as per Resolution #A23/10,
- 2011 as per Resolution #A49/11, and
- 2012 as per Resolution #A19/12.
- 2013 as per Resolution #A259/12

The overall goal of the Double-crested Cormorant Strategic Approach, as established by the Cormorant Advisory Group in 2007, is to achieve a balance between the continued existence of a healthy, thriving cormorant colony and the other ecological, educational, scientific and recreational values of TTP. The objectives of the Strategic Approach are to:

- increase public knowledge, awareness, and appreciation of colonial waterbirds;
- deter cormorant expansion to Peninsula D;
- limit further loss of tree canopy on Peninsulas A, B and C; and
- continue research on colonial waterbirds in an urban wilderness context.

To achieve the goals and objectives of the Strategic Approach, TRCA employed a suite of management techniques between 2009 and 2013 that included inactive nest removals, pre-nesting deterrents, active nest removals and post-nesting deterrents. Along with deterrents, TRCA also worked to attract DCCO to nest on the ground by enhancing the ground nesting areas, providing straw for nesting materials, installing DCCO decoys, playing audio of DCCO courtship calls and limiting disturbance of the ground nesting areas. The “Management of Double-crested Cormorants at Tommy Thompson Park 2013 Summary Report” provides details on management actions and is available upon request.

Results from annual population counts show an increase in the ground nesting colony and an overall decrease in the tree nesting colonies. This data suggested that the management techniques appear to be effective in meeting the goal and objectives of the Strategic Approach. Pre-nesting deterrents and active nest removal in the targeted areas continued in 2013 as per the 2012 Strategic Approach, and as per the Strategic Approach, the active nest removal followed the conservative protocol for estimating nest age, to avoid removal of nests with eggs older than 10 days.

Although identified as a management technique in the 2013 Strategic Approach for Peninsulas B, C and D, the post-breeding deterrents were not undertaken as DCCO did not roost in trees in these areas.

Public knowledge, awareness and appreciation for DCCO at TTP continued with a remote webcam in the Peninsula B ground nest colony; a viewing blind on Peninsula C; and staff interpretation of the colony at various public events, including a Colonial Waterbird Hike at the TTP Spring Bird Festival, presentations and park tours.

In 2013 a total of 11,990 DCCO nests were counted on three of four peninsulas. This represents a slight increase of 249 nests over the 2012 nest count. The increase in nest numbers was due mainly to ground nesting on Peninsula B which increased 20 percent from 2012, while the tree nesting populations on Peninsulas A and C decreased by 62 and 25 percent respectively. Tree nesting on Peninsula B increased by 33 percent or 328 tree nests, which is likely due to increased efforts to keep the public away from the colony (trail barricade and signage). Overall, the ground nest population has increased 592 percent since management efforts began in 2008. This is a positive trend showing that ground nest enhancements are working to help achieve the goal of the continued existence of a healthy, thriving cormorant colony. The significant increase in the number of ground nests means that 58 percent of the TTP cormorant colony now nests on the ground, so their nests are not impacting the tree health.

Despite the increase of tree nesting on Peninsula B, overall tree nesting is declining, with the DCCO population nesting in trees decreasing by 16 percent in 2013. Also in 2013 the number of trees nested in decreased by 21 percent, thereby resulting in no further loss to the forest canopy.

Overall, the 2013 Management Strategy was successful in meeting the objectives of the Strategic Approach.

- while the overall nest numbers have increased by two percent in 2013, DCCO were effectively deterred from expanding their nesting areas beyond the existing colonies, including onto Peninsula D;
- ground nesting continued to increase and now represents 58 percent of the entire TTP DCCO population;
- overall tree nesting decreased by 16 percent;
- colonial waterbird research continued through the work of York University; and
- public knowledge, awareness and appreciation of colonial waterbirds was upheld through targeted site interpretation by staff at various park events, formal hikes and tours, as well ground nest colony interpretation using webcam images on the website and a viewing blind on Peninsula C.

RATIONALE

An extremely high level of concern has been expressed regarding DCCO populations and their management. Concerns have been raised from both sides, on the one hand calling for management and the preservation of forest canopy, and on the other hand for protection of the birds and their nesting colonies. TRCA has an obligation to manage Tommy Thompson Park as directed by the Master Plan for Tommy Thompson Park as approved under the *Environmental Assessment Act*. To meet the intent of the Master Plan, TRCA staff feels that there is a strong rationale for undertaking a strategic approach to the management of Double-crested Cormorants at Tommy Thompson Park.

Since November 2007, TRCA has involved stakeholders and the public in assessing the need for management and developing a strategy for DCCO at TTP. Generally, throughout the process there has been agreement that some form of management is appropriate, providing that the methods are humane to cormorants and do not affect other wildlife.

Based on the annual data from the nest counts, adaptive management techniques appear to be effective in meeting the goal and objectives of the Strategic Approach. TRCA's strategy continues to receive a high level of support from the Cormorant Advisory Group, the public and TRCA partners. Both the Advisory Group and partners are promoting TRCA's management approach at other sites throughout the Province of Ontario. As such, TRCA will carry out the Strategic Approach developed in 2013 (Attachment 1 - Table 1) for the 2014 season (Attachment 1 – Table 2).

DETAILS OF WORK TO BE DONE

A suite of techniques will be utilized in an integrated and adaptive approach to achieve the goal and objectives of the 2014 Strategic Approach, which maintains the original goal and objectives from 2007. Attachment 1 – Table 2 provides an overview of the 2014 Strategic Approach.

Increase Public Knowledge, Awareness and Appreciation

- TRCA website, including images from the remote camera. TRCA continues to work on improvements to the remote camera set-up, and will supplement with images taken from the remote camera with images and photo interpretation taken by York University researchers for the TRCA website.
- Conduct interpretive tours for school and interest groups, and at TTP special events.
- Maintain opportunities to view colonial waterbirds with viewing blinds.
- Present information at conferences and forums.
- Participate in working groups on colonial waterbirds.

Inactive Nest Removal

- Remove nests from trees on Peninsulas B and C during the winter, prior to the breeding season.

Enhanced Ground Nesting

- Place natural nests collected during inactive nest removal in ground nesting areas on Peninsulas A and B.
- Play auditory breeding calls to attract DCCO to ground nest areas on Peninsula A.
- Deploy DCCO decoys on Peninsula A later in the breeding season to attract late, inexperienced DCCO to nest in the ground nest area.
- Erect predator exclosures to improve ground nesting success and colony establishment.

Pre-nesting Deterrents

- The expansion of tree nesting DCCO beyond the existing colonies on Peninsulas B and C will be prevented. Deterrents will continue on Peninsula B and C to prevent expansion.
- The location of the trail barricades on Peninsulas B and C may be moved closer to the colony to act as a DCCO tree nesting deterrent, however if Black-crowned Night Herons nest in the area the trail barricades will not be moved to prevent disturbance to their nests.
- DCCO will be prevented from nesting on Peninsula D.
- Deterrent techniques will remain the same as 2013 and employed on an increasing scale of activity to ensure expansion of the tree nesting area does not occur.
- Staff will monitor the effects deterrent activities have on the DCCO colony as well as on non-target species.

Post-breeding Deterrents

- Deterrent activities will take place as needed on Peninsula C and D to reduce loafing in trees.
- Techniques will be the same as in previous years and will be employed on an increasing scale of activity.

Monitoring, Research and Reporting

- Undertake annual nest census for colonial waterbirds in late May.
- Conduct modified annual tree health surveys on Peninsulas A, B, C and D in late August.
- Continue to collaborate with York University on DCCO research.
- Complete annual summary report.
- Meet with Cormorant Advisory Group to review data and discuss the Strategic Approach for 2015.

FINANCIAL DETAILS

Funds are identified in the Tommy Thompson Park Interim Management account 210-19 in the Preliminary 2014 Capital Budget from the City of Toronto.

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Attachments: 1

Attachment 1

Table 1: 2013 Strategic Approach Matrix

	Peninsula A	Peninsula B	Peninsula C	Peninsula D
Inactive Nest Removal (prior to 2012 breeding season)		*	*	
Enhanced Ground Nesting	*	*		
Pre-nesting Deterrents		*	*	*
Post-breeding Deterrents			*	*

Table 2: 2014 Proposed Strategic Approach Matrix

	Peninsula A	Peninsula B	Peninsula C	Peninsula D
Inactive Nest Removal (prior to 2013 breeding season)		*	*	
Enhanced Ground Nesting	*	*		
Pre-nesting Deterrents		*	*	*
Post-breeding Deterrents			*	*