Toronto and Region Conservation Authority

Tommy Thompson Park Double-crested Cormorant Management Report 2025

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Background

Tommy Thompson Park (TTP) is located on the Leslie Street Spit, a constructed landform that extends five kilometres into Lake Ontario in Toronto, Ontario (Figure 1). Originally intended for port-related infrastructure, construction of the peninsula began in the 1950s, but through natural succession and habitat enhancement efforts by Toronto and Region Conservation Authority (TRCA), it has become the largest area of natural habitat on the central Toronto waterfront.

The final size of the Spit is approximately 500 hectares, including the associated water lots. The Spit was designated as an Important Bird Area (IBA) in 2000 based on the globally significant populations of nesting colonial waterbirds, the continentally significant numbers of overwintering waterfowl, and nationally significant numbers of migratory birds (Wilson & Cheskey, 2001); this designation was upgraded to Key Biodiversity Area in 2022.

FIGURE 1. TOMMY THOMPSON PARK/LESLIE STREET SPIT

Four species of colonial waterbirds currently breed at Tommy Thompson Park: Double-crested Cormorant (*Phalacrocorax auritus*, hereafter cormorant), Ring-billed Gull (*Larus delawarensis*), Herring Gull (*Larus argentatus*) and Common Tern (*Sterna hirundo*), with varying degrees of success. Three additional species nested in the park over the last 30 years but have been limited or absent in recent years: Black-crowned Night-Heron (*Nycticorax nycticorax*), Great Egret (*Ardea alba*), and Caspian Tern (*Hydroprogne caspia*).

Until 2012, cormorants were predominantly a tree-nesting species at TTP, however, since 2013 most nests have been on the ground. Increased mammalian predation within the tree and ground nesting colonies has impacted recent nest success and nest attempts for most colonial waterbird species.

Cormorants began nesting on Peninsula B in 1990 (Wilson & Cheskey, 2001) and expanded to Peninsula A the following year. The population steadily increased and expanded onto Peninsula C in 2000, followed by ground-nesting on Peninsula B in 2002, likely in response to fallen trees (due to the negative health implications of their tree-nesting behavior) as well as an increase in the overall Great Lakes population (Weseloh, et al., 1995). Today, cormorants nest on three of the four peninsulas at the park, Peninsulas A, B and C (Figure 2).

In 2022, cormorants initiated a new tree-nesting colony at Toronto Island Park (TIP). Toronto Island Park forms the southeastern extent of the Toronto Inner Harbour; it is a small archipelago designated as an Environmentally Significant Area, a Provincially Significant Wetland Complex, and a Life Science Candidate Area of Natural and Scientific Interest (ANSI). Black-crowned Night-Heron and Great Egret also tree-nest within the same area as cormorants at TIP (Figure 3).

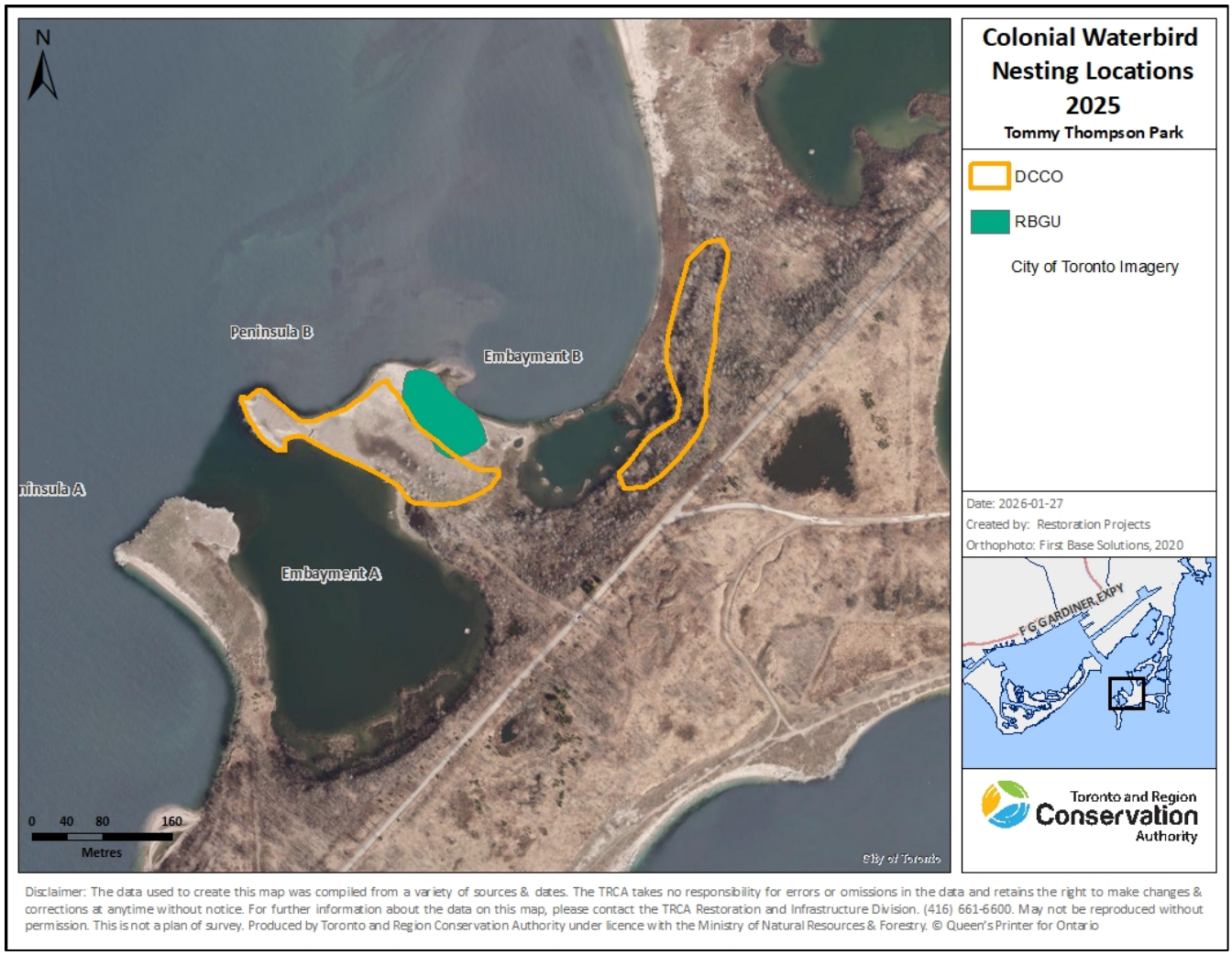

FIGURE 2. COLONIAL WATERBIRD NESTING LOCATIONS, TOMMY THOMPSON PARK, 2025

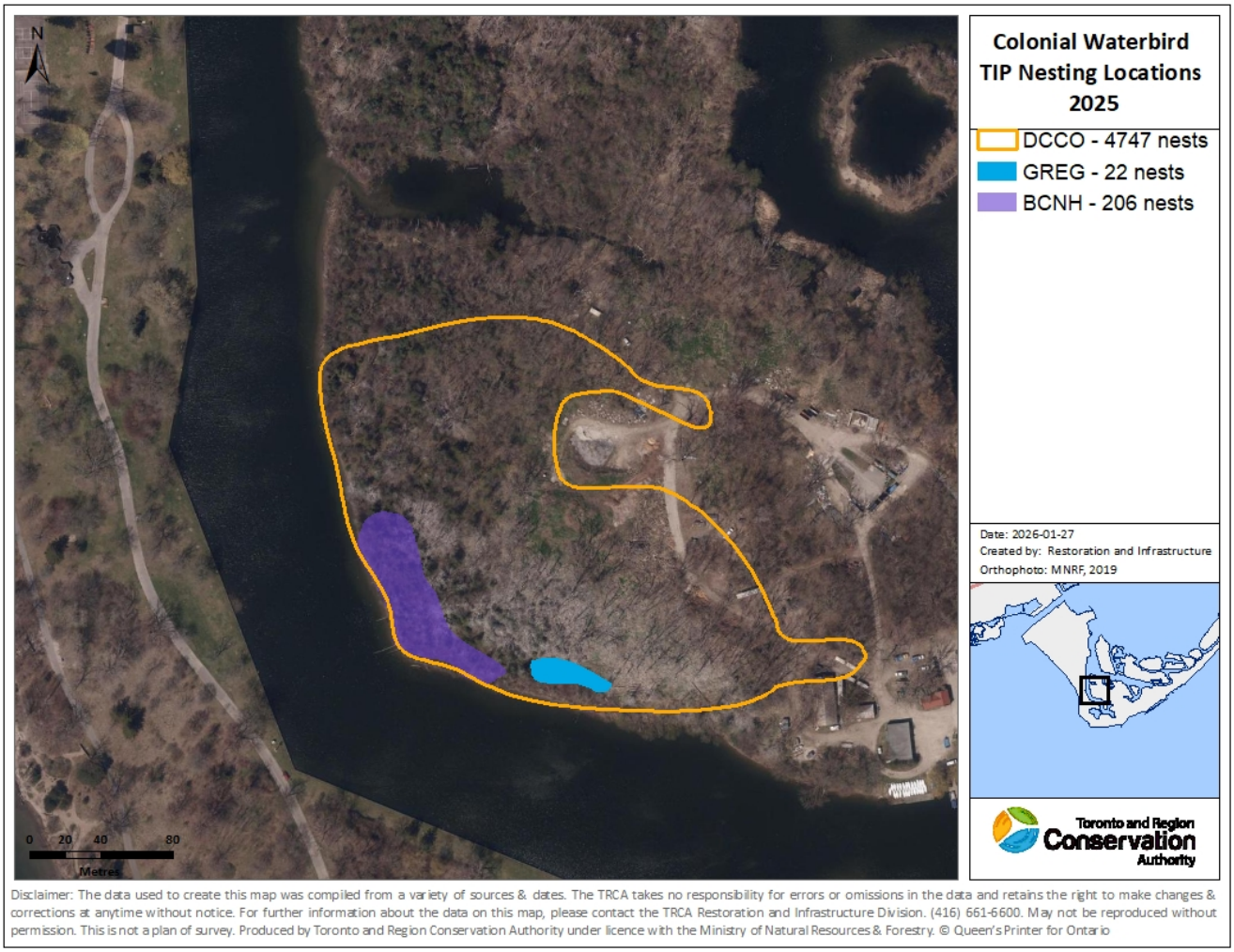

FIGURE 3. COLONIAL WATERBIRD NESTING LOCATIONS, TORONTO ISLAND PARK, 2025

Cormorant Management Strategy

In 2008, TRCA developed the Tommy Thompson Park Double-crested Cormorant Management Strategy in response to the significant decline and public concern for the loss of forest habitat on the peninsulas (Toronto and Region Conservation Authority, 2008, 2009, 2010, 2012, 2013, 2014, 2016, 2018, 2020). The development of the strategy involved founding a Cormorant Advisory Group of stakeholders and experts, including conservationists, academics, and interest groups from across the spectrum to provide advice and input on the management plan. The inaugural meeting was in late 2007 and the group continued to meet annually to review management results and provide input on proposed management scenarios until 2016 (Toronto and Region Conservation Authority, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2016).

The overall goal of the Double-crested Cormorant Management Strategy, as established by the Cormorant Advisory Group in 2008, 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:

1. Increase public knowledge, awareness, and appreciation of colonial waterbirds;
2. Deter cormorant expansion to Peninsula D;
3. Limit further loss of tree canopy on Peninsulas A, B and C; and
4. Continue research on colonial waterbirds in an urban wilderness context (Toronto and Region Conservation Authority, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2016, 2018, 2020).

To achieve the goals and objectives of the Double-crested Cormorant Management Strategy, TRCA employed a suite of management techniques between 2009 and 2011 which included inactive nest removals, pre-nesting deterrents, active nest removals, habitat enhancements and post-nesting deterrents. Results from annual population counts during this time showed an increase in the ground-nesting colony and a leveling off in the tree-nesting colonies. These data suggested that the techniques had been successful in changing the nesting behaviour of cormorants.

In 2012, TRCA slightly modified the strategy to reduce pre-nesting deterrents to assess whether a reduced level of intensity would be effective. Results from the 2012 season confirmed reduced pre-nesting deterrents remained as effective. However, since 2014 there has been an annual increase in the pre-nesting deterrents required to prevent cormorants from expanding their tree nesting range into new areas.

Toronto Island Park

Since 2022, TRCA has been contracted by the City of Toronto to manage cormorants at Toronto Island Park. The goal is to achieve zero nesting at TIP and encourage cormorants to return to the TTP ground-nest colony. Management is conducted following the strategic approach and integrated deterrent techniques of the Tommy Thompson Park Cormorant Management Strategy.

Current Status

Cormorant nesting on the central Toronto waterfront includes four sub-colonies. Three sub-colonies are located at Tommy Thompson Park: Peninsula A (ground-nesting), Peninsula B (tree- and ground-nesting), and Peninsula C (tree-nesting); and one sub-colony at Toronto Island Park (tree-nesting).

At Tommy Thompson Park, ground-nesting colonies are classified as Cormorant Conservation Zones (Figure 4), where cormorant nesting and roosting is encouraged and enhanced. The tree-nesting colonies are classified as Deterrent Areas, where cormorant nesting is discouraged through management activities. Peninsula D is the only remaining forested peninsula at TTP and is not occupied by nesting colonial waterbirds. The entirety of Toronto Island Park is classified as a Deterrent Area, where cormorant nesting and roosting are discouraged.

TRCA takes precautions across all deterrent areas to ensure management efforts do not adversely impact non-target species.

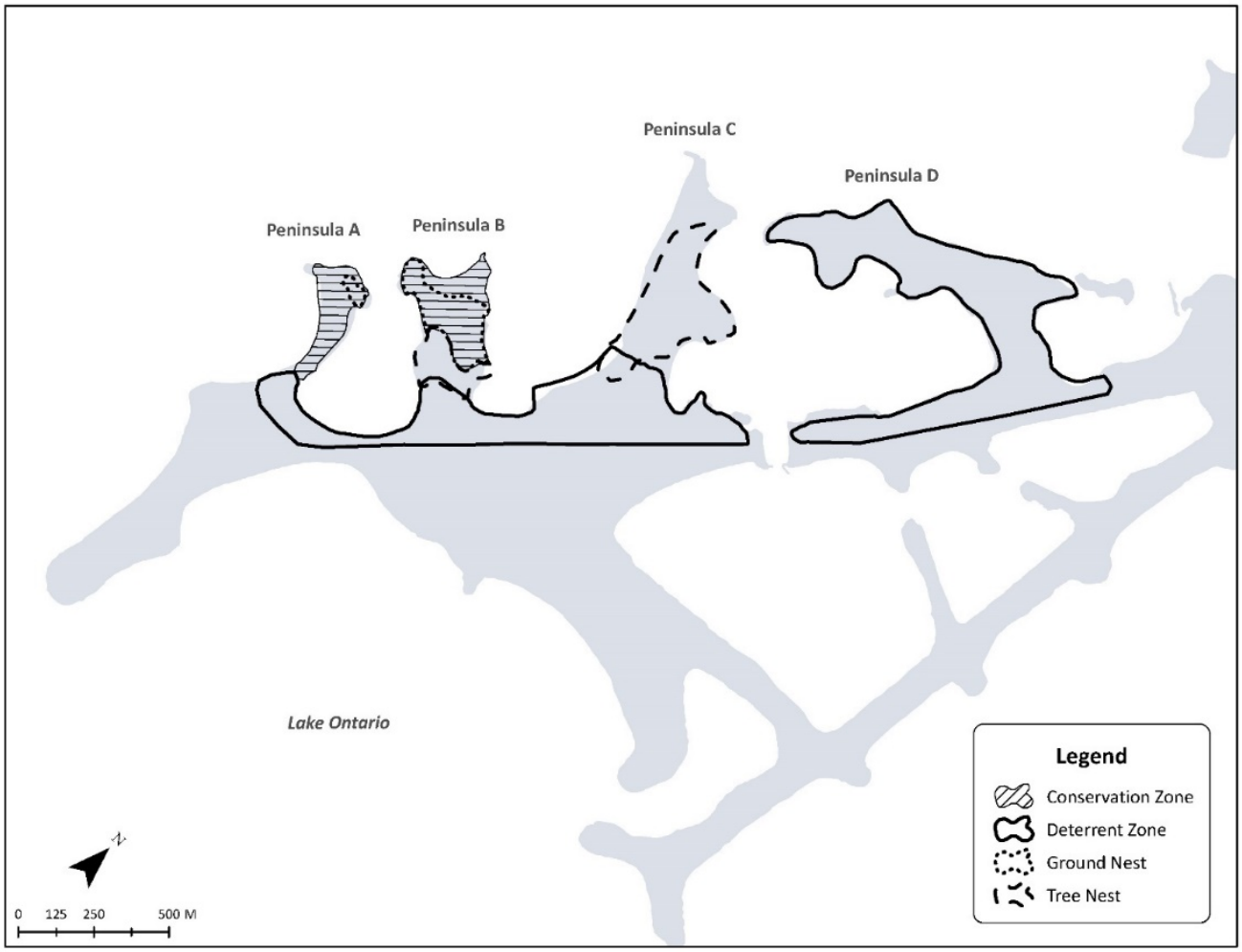

FIGURE 4. CORMORANT MANAGEMENT ZONES AT TOMMY THOMPSON PARK

2025 Population Data

Breeding Census

First of season cormorants were observed on the central Toronto waterfront on 18 March 2025. The peak-season breeding cormorant population increased by 22% with 10,971 nests counted in late June at Tommy Thompson Park and Toronto Island Park (Table 1, Figure 5). 93% of the colony at TTP was ground-nesting on Peninsula B (Figure 6), and the total tree-nests decreased by 38% with a record low 217 nests restricted to a small area on Peninsula C. An artificial nesting platform was introduced in the TTP ground nest colony in spring 2024 to provide an alternative option to obligate tree nesters. 244 nests were recorded on the structure, representing 53% of the non-ground nesting population at TTP.

Tree-nesting increased by 275% at Toronto Island Park compared to 2024 due to unrestricted cormorant nesting within a 50 m buffer zone around a Bald Eagle nest, increased cormorant abundance, and eagle sensitivity to cormorant management along the 100 m buffer in late April when there was a large cormorant nesting push. Cormorant nesting was prevented outside of these areas.

TABLE 1. CENTRAL TORONTO WATERFRONT CORMORANT NEST COUNT 2015 TO 2025

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pen A	14	4	0	0	53	474	20	0	647	0	0
Pen A Ground	541	1525	1821	1445	2354	741	590	372	0	0	825
Pen B	1184	1007	2474	1815	1962	1215	568	96	539	24	0
Pen B Ground	7608	8555	5836	9061	6327	5982	7820	7410	8450	6993	4938
Pen B Structure										150	244
Pen C	2561	2184	2710	2194	2918	3034	1739	982	1205	572	217
TIP	0	0	0	0	0	0	0	1667	902	1267	4747
Total	**11908**	**13275**	**12841**	**14515**	**13614**	**11446**	**10737**	**10527**	**11743**	**9006**	**10971**

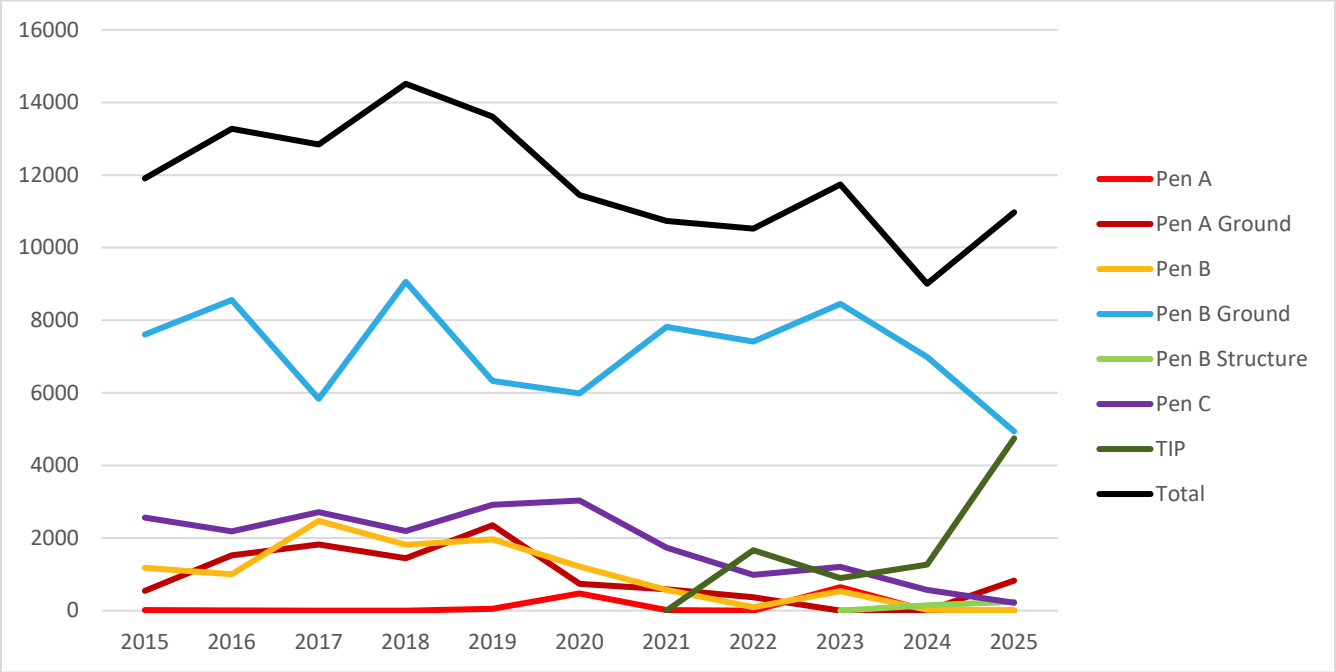

FIGURE 5. CENTRAL TORONTO WATERFRONT CORMORANT NEST COUNT 2015 TO 2025

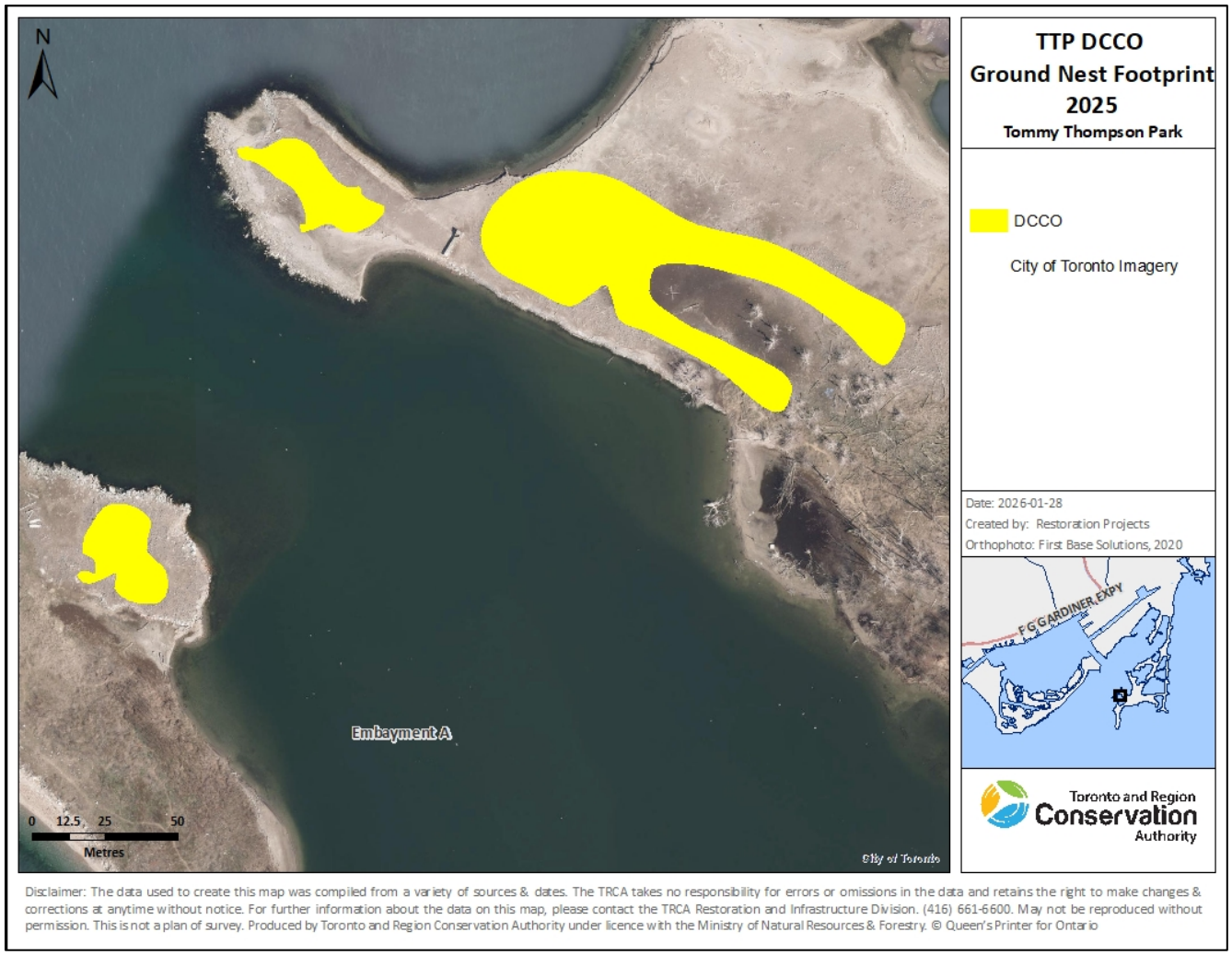

FIGURE 6. 2025 CORMORANT GROUND-NEST COLONIES ON PENINSULA B

Chick Banding

Cormorant chick banding was not conducted in 2025.

Two band recoveries/sightings were reported in 2025. Both cormorants were banded in 2023. The first was simply a band found in the TTP ground nest colony in 2024 (report was sent to the bander in 2025), and the other was observed alive on 12 August 2025, in Everett, Ontario. This same cormorant was previously reported alive in Everett, Ontario in September 2024.

2025 Management Review

Cormorant management followed the adaptive Strategic Approach (Table 2). This included inactive nest removals, pre-nesting deterrents, active nest removals, habitat enhancements and post-nesting deterrents, all implemented as required within target areas in the cormorant colonies.

TABLE 2. 2025 STRATEGIC APPROACH MATRIX

	Peninsula A	Peninsula B	Peninsula C	Peninsula D	TIP
Inactive Nest Removal (post 2024 breeding season)	*	*	*		*
Enhanced Ground Nesting		*			
Pre-Nesting Deterrents	*	*	*	*	*
Active Nest Removals	*	*	*	*	*
Post-Breeding Deterrents	*	*	*	*	*

Increasing Public Knowledge, Awareness and Appreciation

Increasing public knowledge and fostering appreciation for cormorants is an important aspect of the Tommy Thompson Park Management Strategy. Staff engaged Tommy Thompson Park visitors in informal interpretation as part of the weekend nature interpretation program, and the management strategy was presented to post-secondary academic groups, conference participants, and local interest groups throughout the year. Furthermore, the TTP Cormorant Management Strategy was highlighted in seven news articles and radio segments:

- Local, 17 June 2025: Cormorant Wars
- biographic, 8 July 2025: A Wild Home on the Bones of the City
- Toronto Star, 20 July 2025: 'Cormorants are winning.' These destructive birds are multiplying, resisting relocation and putting the Toronto Islands' future at risk
- NOW Toronto, 23 July 2025: 'It's not very pleasant,' Cormorant birds are causing foul odours, dying trees on the Toronto Islands
- Toronto Star, 14 August 2025: We shouldn't cull the Toronto Island cormorants. We should give them their own island instead
- CBC Radio-Canada, 19 August 2025: Les cormorans, ces voisins encombrants
- CBC Radio One, The Sunday Magazine, 14 November 2025: The Cormorant Conundrum

Inactive Nest Removal

Tommy Thompson Park

Inactive nest removal was not conducted at TTP in winter 2024-2025, as the focus was to remove nests from Toronto Island Park and eliminate nesting cues ahead of the spring 2025 breeding season.

Toronto Island Park

Between November 2024 and February 2025, 1,032 inactive nests were removed from Toronto Island Park, successfully clearing all 2024 cormorant nest material from the previous breeding season ahead of spring 2025.

Enhanced Ground Nesting

The cormorant nest structure built in winter 2024 was expanded and enhanced in winter 2025, ahead of the spring breeding season. The expansion and enhancement doubled the footprint and further increased nest opportunities on the original structure. The structure was monitored throughout the breeding season by Dr. Gail Fraser (York

University) from the secrecy of her research blind and was otherwise undisturbed by humans during the breeding season. 244 nests were recorded on the structure.

Based field observations and trail camera photos, Dr. Fraser has reported significant raccoon predation activity in the ground nest colony. The regular predation events also cause stress and disturbance to non-predated cormorants in the vicinity, including those nesting on the structure. TRCA is investigating predator protection options for the ground nest colony ahead of the 2026 breeding season to improve the attractiveness of the ground and structure.

Pre-nesting and Active Deterrents and Nest Removals

Tommy Thompson Park

Pre-nesting nest removals started on 10 April 2025, with cormorants starting to investigate trees in the deterrent zone on 18 April. Nesting pressure was low early in the breeding season and management activities focused on nest removals within Embayment B during regular work hours, Monday to Friday, 5:45 a.m. to 2:15 p.m. Cormorant pressure was high at Toronto Island Park by the last week of April, so the Tommy Thomspon Park team was sent to assist with management at the island starting 29 April. Between 14-28 April, 67 nests were removed, none containing eggs. Weekly monitoring and targeted deterrents continued throughout May, concluding 28 May.

Toronto Island Park

Similar to 2024, management activities at Toronto Island Park were modified to prevent disturbance to a nesting pair of Bald Eagles. Based on eagle behaviour and tolerance to cormorant management in 2024, an adaptive approach was taken. The adult eagles were habituated to cormorant deterrent techniques (Figure 7) from the start of their nesting season in February, the buffer zone was reduced to 50 m, and active cormorant management activities were modified in response to eagle behaviour cues. Overall, the eagles were not impacted by cormorant nesting or management, however, they were sensitive to cormorant nest removal activities in an area 70-120 m from the nest in late April, which provided cormorants the opportunity to get ahead of management. Two eaglets fledged around 1 July.

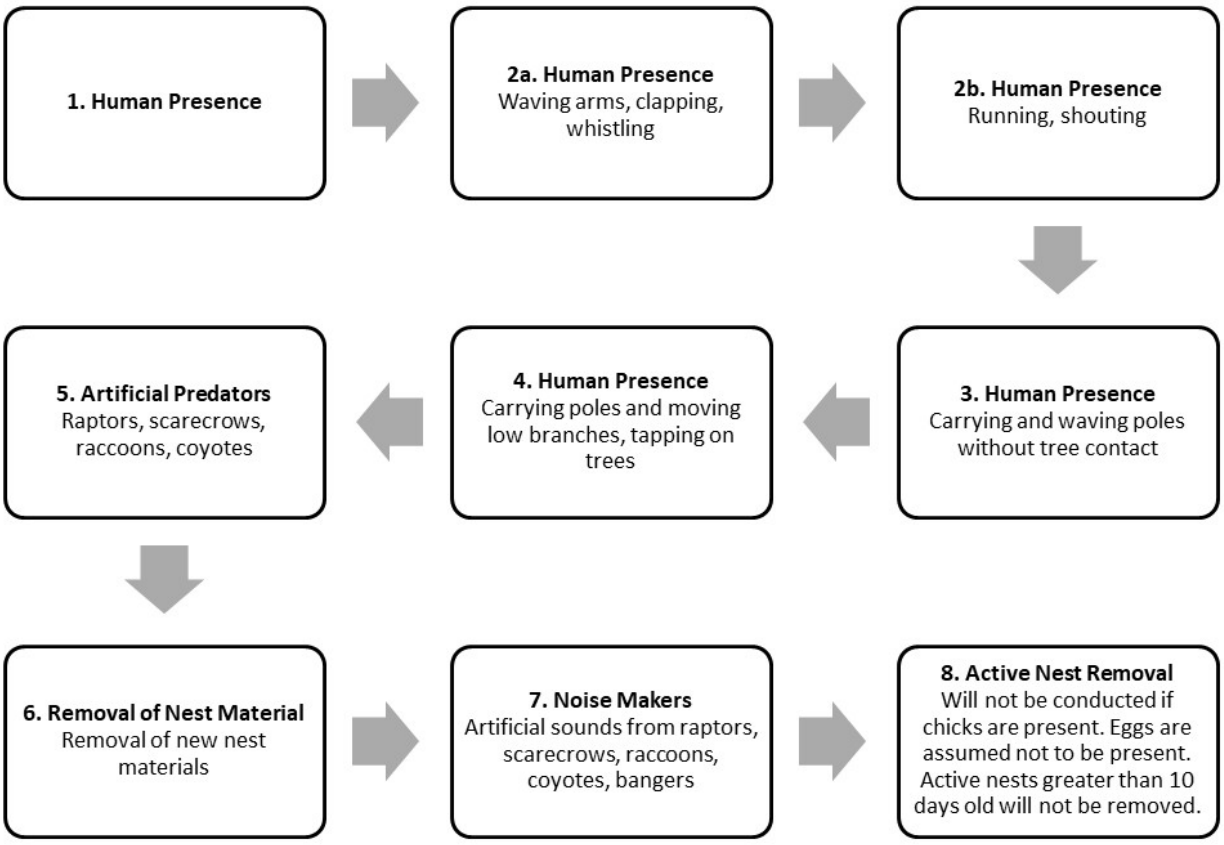

FIGURE 7: CORMORANT DETERRENT ESCALATION SCALE

The field team was on-site for the season starting 18 March 2025, before the first cormorants returned from wintering grounds, and deterrent techniques were implemented immediately upon cormorant return to the nesting area on 3 April. Dawn and dusk shifts started on 13 April and were implemented 7-days/week until 7 June. Monday to Friday deterrents continued until 10 June. Deterrents were conducted within all previous nesting colony areas, except for the 50 m buffer zone, and in key roosting areas throughout the park.

Cormorant nesting effort was minimal and manageable in early April, though they quickly desensitized to the progressing level of deterrent techniques. Cormorant abundance and nesting effort rapidly escalated in late April, at the same time as eagle sensitivity to cormorant nest removals in key areas along the edge of the original 100 m buffer. Trees in this area are primarily old Eastern Cottonwoods, which are up to 120 ft tall with significant branching. The structure of these trees provides ample cormorant nesting opportunities – several trees contained over 100 nests. Best efforts were made to keep up with nest removals, however, limiting access due to eagles and the nest abundance resulted in many management areas passing the 10-day maturity threshold thereby allowing the nests to progress.

While nesting attempts were made across the islands, deterrent activities and nest removals were successful in areas outside of 'Colony 2'. Between 14 April and 10 June, 1,612 nests containing 1,317 immature eggs were removed and approximately 53,000 cormorants were deterred; this does not represent a total number of

individuals, but total birds flushed (i.e. the same individual may have been flushed and reported multiple times during the season).

Active nests were carefully monitored to track the age of any eggs present, and a 10-day threshold was maintained to ensure any removed eggs were immature. The conservative 10-day threshold is based on current scientific literature of embryo development in altricial waterbirds (Humane Society of United States, 2009, Powell et al, 1998). If eggs older than 10 days were discovered, or a nest was known to be older than 10 days, deterrent activities on that nest, and the tree it was situated in were ceased (Figure 8).

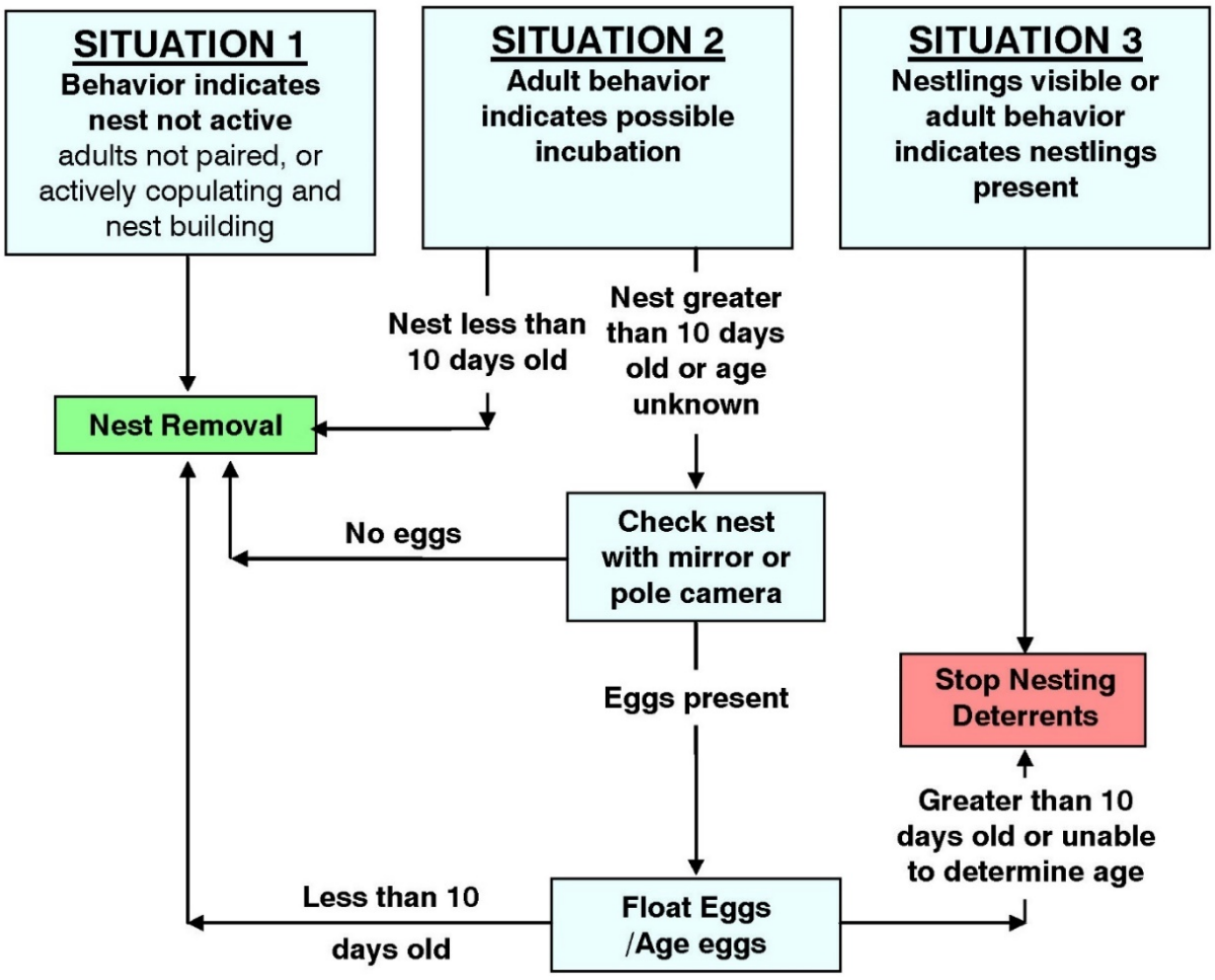

FIGURE 8. ACTIVE NEST REMOVAL DECISION MATRIX.

Post Breeding Deterrents

Post-breeding deterrents were not required at Tommy Thompson Park as cormorants were not loafing in any target areas.

Summer deterrents were implemented at Toronto Island Park from 16 June through 28 August to discourage roosting in healthy trees outside of the nesting colony. Deterrents were implemented by a team of two staff,

Monday to Friday 7 a.m. to 2 p.m., primarily by boat to visit all known roosting islands. The roosting cormorant population dramatically increased in late July and the approach was modified for August – the schedule reverted to dawn and dusk shifts, Monday to Friday, with teams of two working each shift. This resulted in reduced roosting, particularly overnight in the location of the last evening deterrent. The cormorant population decreased in August as migration started, and the split shifts ended 22 August. Approximately 15,000 cormorants were deterred from 16 June to 28 August.

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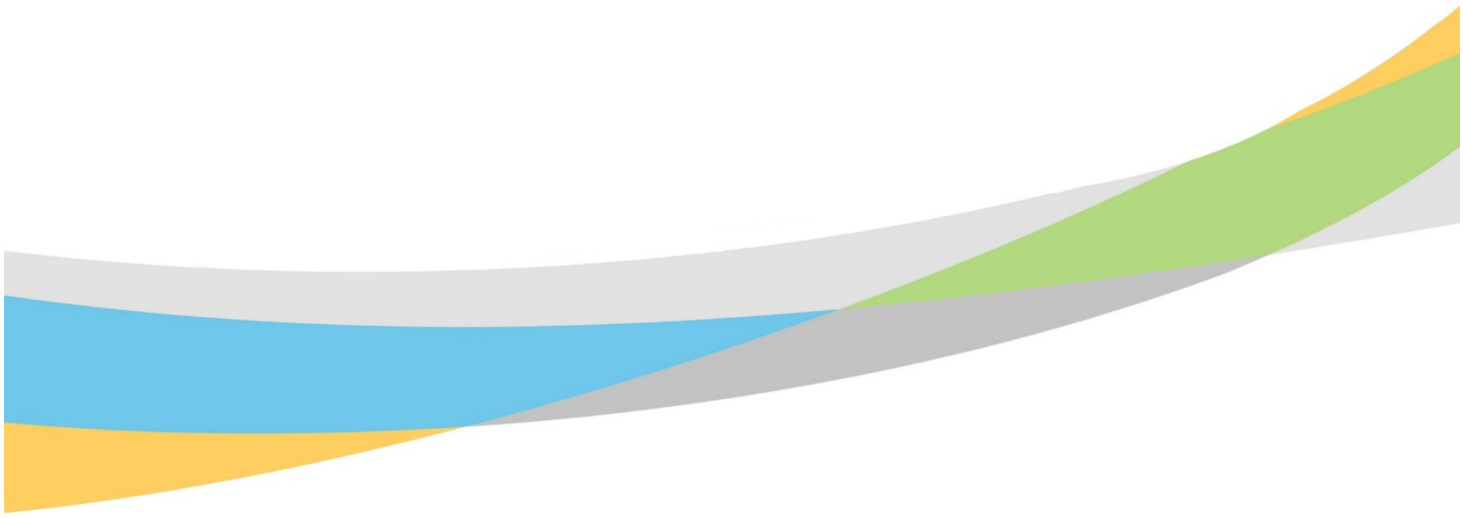

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