MANAGEMENT OF COLONIAL WATERBIRDS **AT TOMMY THOMPSON PARK**

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CORMORANT ADVISORY GROUP MEETING #2

Thursday, February 19 Mennonite New Life Centre, **1774 Queen Street East**

CONSERVATION for The Living City

Member of Conservation Ontario

Toronto and Region Conservation 🖉 for The Living City

TommyThompsonPark

Toronto's Urban Wilderness



CORMORANT ADVISORY GROUP MEETING #2 Tuesday February 19, 2008 5:30 p.m. to 9:00 p.m. Mennonite New Life Centre, 1774 Queen Street East, Toronto AGENDA

Suzanne Barrett

Welcome and Introductions 5:30 pm 5:40 pm **Review meeting #1 notes** All **Review of concerns** 6:00 pm Ralph Toninger 6:30 pm Working supper Gord MacPherson 6:50 pm Potential management approach Ralph Toninger 7:10 pm **Discussion of management approach** All 8:30 pm Public meeting plans All 8:50 pm Wrap-up Suzanne Barrett

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WILD IN THE CITY

- Wildness in Urban Setting *******
- Urban Natural Park****
- A wild place that developed despite obstacles
- Humans are part of biodiversity
- Hidden gem
- Out of city experience in the city

ECOLOGICAL VALUES

- Opportunity for North American biodiversity****
- Space for natural processes**
- Sanctuary for all wildlife**
- Ecological center of organization*
- Intrinsic value of nature
- Nature preservation
- Corridor
- Rich ecosystem taken over by nature
- Important Bird Area (IBA)
- Place where DCCO are not harassed
- Provincial biodiversity

RESEARCH

- Laboratory for ecological studies*
- Colonization laboratory
- Ecological research
- Train next generation of biologists
- Intellectual challenge
- Data on DCCO colony

CITY ENVIRONMENT

- Safe environment for planes
- Symbol of hope and regeneration
- Demonstrates re-use of waste material
- Place that won't be developed
- Identity for city

RECREATION & TOURISM

- Recreation opportunity**
- Views of City*
- Protection for Outer Harbour recreation activities*
- Share the love of wilderness
- Green
- Open
- Solutions to creating a green space model
- Exploration of evolving nature
- Part of chain of waterfront parks
- One of the largest natural parks in Toronto
- Exercise and health
- We should be 'lake people'
- A place to meet neighbors
- Public accessibility
- Solitude and quiet
- Tourism opportunity

EDUCATION

- Education****
- Experience natural processes
- Turn on kids to career interests
- International case study

Lake Ontario and Tommy Thompson Park Cormorant Colonies

Nests Numbers by Peninsula



Population Predictions



Tree Canopy at TTP Based on 2006 Ecological Land Classification Data



24% Forest Cover



Forest Cover Lost or in Decline

9.0 Ha

Assuming current rate of growth an additional 1 Ha of forest is required

Point Count Data 2005-2007



Location	2005 birds	2005 species	2006 birds	2006 species	2007 birds	2007 species	Average Number of Birds	Average Number of Species
Baselands	67	19	61	15	73	23	67	19
Peninsula D	124	19	101	20	92	19	106	19
Peninsula C	23	6	17	8	26	4	22	6
Peninsula B	39	10	45	12	34	14	39	12
Totals	741	34	608	39	804	38		

TTP Bird Research Station Data

	Mean % Mass Gain	Number of Birds
Spring	3.70	268
Fall	2.96	845



5% needed for a typical 6-8 hour flight (Approximately 270 km) Need for Further Data Collection and Analysis

Potential Objectives

- 1. Increase public awareness and knowledge of colonial waterbirds
- 2. Limit further forest canopy loss on the peninsulas
- 3. Prevent cormorant expansion to Peninsula D
- 4. Continue leading research around "urban wilderness"

Increase public awareness and knowledge of colonial waterbirds

- Public Meeting
- •TRCA Website
- Annual Spring Bird Festival
- Interpretive Signage
- Viewing Blinds and Platforms
- Tours and School Groups



Limit further forest canopy loss on the peninsulas

• Other species

City and Waterfront targets

- Migratory stop over
- Aesthetics

• Diversity of experience for users





Prevent Cormorant Expansion to Peninsula D

Protect Existing and Planned Uses

 Maintain and Enhance Research and Education Opportunities

 Provide Urban Wilderness Experience for Average Park Users

Park User Experience Embayment D





mmy Thompson Park Bird Research Station (TTPBRS)

•1 of 25 Canadian Migration Monitoring **Network (CMMN-RCSM) Stations**

Since 2003 over 30,000 birds have been banded

In 2007 staff and volunteers raised just under \$30,000

 Since 2003 over 100 volunteers have contributed more than 16,000 hours to TTP programs





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Winged Migration Education Program



"I loved watching the birds and learned the great things about nature. I took some pictures and I will never forget the memory of the beautiful birds." Grade 6 student

- Winged Migration is a teaches youth about bird migration and the natural world
- In 2007, 1363 students visited TTP
- Funding provided by the TD Friends of the Environment Foundation, and Imperial Oil Foundation.

Ecological Research Station

Support partnerships between TRCA and local naturalist groups, universities and government agencies

Support the existing Tommy Thompson Park Bird Research Station (TTPBRS)

Play a significant role in local and regional research





Continued Leading Research

Canadian Wildlife Service (Environment Canada):

- Embryonic Viability Dr. Craig Hebert. Egg testing, collection of dead eggs.
- Stress responses and Vitellogenin Production Dr. Laird Shutt. Blood sampling of Herring Gull chicks (stress) and adults (vitellogenin).

National Water Research Institute (Environment Canada):

• Microbial Source Tracking to Determine Fecal Pollution – Dr. Tom Edge Fecal samples of Ring-billed Gull, Herring Gull, Double-crested Cormorant, Common Tern.

Wright State University, Ohio

•Immune Function – Dr. Keith Grasman Injections and blood sampling of Herring Gull chicks.

University of Guelph:

- •West Nile virus, Avian Influenza virus, and Newcastle Disease Dr. Sharon Calvin. Blood sampling of Ring-billed Gull adults and chicks.
- Neurological Impairment in Herring Gull chicks Doug Crump.

University of New Brunswick:

 Insect biodiversity: perspectives from the study of goldenrod herbivores Graham Cox and

Stephen B. Heard Dept. of Biology, University of New Brunswick

Ministry of Natural Resources

• Coyote Distribution, Foraging, and Behavior in an Urban Context. John Pasapio and TRCA

Potential Objectives

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Possible Management Options

Do nothing

- Revegetation and habitat restoration in impacted areas
- Deterrents
 - Pre-nesting
 - Post Breeding
- Encourage ground nesting
- Nest removal inactive and active
- Egg oiling

Protection and enhancement of other species

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Do nothing

- Not a default, but a chosen management option
- Continue monitoring, research, and education activities
- Scale
 - Entire area
 - Targeted areas



Natural Area Enhancement Plan Achievements 2007

■ LEGEND

FOREST

MEADOW

COAST



Revegetation and Habitat Restoration in Impacted Areas

Planted nodes in strategic areas

Soil amendment and seeding completed in specific areas





Pre-nesting and Post Breeding

- •Human Presence Public use Staff activities
- Artificial Predators / technological devices
- Noisemakers
 - Staff controlled
 - Automatic devices









Encourage Ground Nesting

Create artificial structures that:

Are attractive for nesting pairs decoys recordings

Provide protection from the environment and predators





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Nest Removal Inactive and Active

Nests removed prior to breeding season

- Professional tree climbers removed old nests from peninsula C in 2001-2003
- In 2004 nest removal was done with forestry poles

Year	Nests Removed	Nests Built	
2001	31	281	
2002	281	647	
2003	647	612	
2004	400*	2459	
*Estimat			



Active nest removal is not currently being considered

Egg Oiling

Ground Nesting

Tree Nesting





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Protection and Enhancement of Other Species

 Undertake additional Raccoon Studies to address potential impact to Black-crowned Night Herons



Proposed Management Approach Chart

	Peninsula	Peninsula	Peninsula	Peninsula
	D	A	В	С
Pre-nesting Deterrents	*			*
Post-Breeding Deterrents	*	*	*	*
Enhanced Ground Nesting		*	*	
Egg Oiling		*	*	*
Restoration	*	*	*	*



