



5.0

IMPLEMENTATION

5.0 IMPLEMENTATION & RECOMMENDATIONS

Bird friendly design practices should become part of the building culture for developers and residents within Markham. Buildings can be made safer for birds through a combination of primary and secondary treatments for new and existing buildings, and use of lighting practices that are designed to reduce the attractiveness of buildings to migratory birds. The combination of all practices is recommended to reduce the cumulative hazard to birds that depend on Markham as a migration route, rest stop, foraging ground, winter refuge and nesting area.

Appropriate implementation mechanisms for Bird Friendly Guidelines should be integrated with City practices and protocols. A comprehensive approach is recommended which includes not only the application of window treatments but other measures to reduce Bird-Window Collisions in Markham. The following section provides recommendations that the City may consider in the implementation of bird friendly treatments.

5.1 Endorse Bird Friendly Guidelines

It is recommended that the Bird Friendly Guidelines be adopted by Council and be made available to all residents, landowners, developers, planning and urban design professionals.

The Bird Friendly Guidelines should be treated as a living document and updated to reflect new best management practices research and technology. The focus of the update would be Section 4: Treatments and Section 5: Implementation and Recommendations, though new advances in research would be incorporated into other sections as underpinnings for any revised recommendations. It is recommended that the document be reviewed every five years, though new research that provides new insights into the problem of Bird-Window Collisions should be incorporated sooner. For example, the use of ultraviolet treated glass, which can be seen by birds but not by humans, should continue to be investigated to determine if it can be made more consistently effective.

5.2 Site Plan Approval Process

Section 41 of the *Planning Act* provides for the consideration of matters relating to exterior design of buildings through Site Plan Approval, including the character, scale, appearance and design features of buildings and their sustainable design. Markham's New Official Plan contains policies requiring the application of sustainable design practices in site planning and building design, including window applications to reduce Bird-Window Collisions, and minimizing the impact of building lighting on the night sky. In order to effectively utilize this authority, it is recommended that the Site Plan Approval process be revised to update the Pre-Consultation and Site Plan Approval application documents to include a Bird Friendly Specifications Checklist that will be used by municipal staff to guide applicants on Bird Friendly implementation requirements.

5.3 Voluntary Monitoring Program

Monitoring is highly recommended, specifically where glass facades are proposed and particularly if the proposed bird friendly treatments/measures are selected based on site design or on secondary window treatments where permitted by the Bird Friendly Guidelines, and for untreated windows less than 2m². Staff may recommend a Voluntary Monitoring Program to be included as part of the Site Plan Approval process administered by a third party at the time of development to ensure that appropriate bird friendly treatments are implemented and inspected. The collection of information before and after the treatment of buildings is extremely important in order to refine and enhance future treatments for buildings in Markham. It should be understood that the guidelines are designed to reduce collisions, but that it is impossible to eliminate all possibility of collisions. The likelihood of collisions at any one window is a result of a combination of factors that can be extremely site-specific, such that collisions may not always be predictable. There are financial implications to any monitoring program and the applicant will need to determine how best to address these matters as they move forward to implement the strategy.

5.4 Retrofit and Audit of Existing Buildings

These guidelines are produced to address the application of Bird Friendly Guidelines for new buildings subject to Site Plan Control. However, given the due diligence aspect arising from recent legal decision regarding direct harm to birds, it is recommended that commercial, retail, residential and municipal buildings be retrofitted wherever possible and feasible. FLAP Canada has developed a Bird Safe Building Standard and Audit which can be used in determining potential building impacts of BWCs and determine high to low risk priority sites. Homeowners, building owners and municipal staff can use this auditing tool to determine high risk buildings and plan appropriately for priority retrofit projects. FLAP Canada Bird Safe Building Standard and Audit can be used to identify high risk buildings and determine priority sites. Contact FLAP @ flap.org for more information.

If opportunities arise to explore partnerships with universities, FLAP Canada, Environment Canada or other research institutions, a monitoring study should be considered in order to further the understanding of approaches to treatment.

5.5 Education and Outreach/Lights Out Program

Education and outreach is an important component of Markham's bird friendly initiatives. Window treatments should become a familiar part of window design through treatment of appropriate windows on all buildings. Public acceptance of bird friendly patterns on glass may be increased by making window treatments a familiar part of building design.

It is recommended that bird friendly communication materials be prepared to guide the development industry and residents on bird friendly implementation matters. For instance, a Lights Out Program similar to the City of Toronto's education and awareness program on bird protection and energy conservation could be considered. For the development community, an education brochure can encourage the need for retrofit of buildings and provide information on available

treatments. The understanding of the reasons behind BWCs should be clearly laid out so that developers can design more sensitively to avoid situations that create a higher risk for collisions.

For residential homeowners, an education brochure can describe to the homeowners the impacts glazed and reflective windows have on birds and explore the benefits of the window treatments. Residents can also be encouraged to cover their own windows and turn off unneeded lights. Residents could be given the incentive to monitor birds near their windows. If collisions occur, they should be provided advice on measures that can be used to reduce numbers of collisions such as treating windows, relocating bird feeders and modifying vegetation, if necessary, in order to reduce small scale impacts.



GLOSSARY