

## What's the problem?

- Birds are dying - estimates suggest that about 25 million birds die each year from window collisions in Canada.
- There are many species, including some species at risk, that collide with buildings in Canada.
- In 2019, scientists reported a 29% decrease in birds since 1970.
- Increased use of glass in modern architecture has increased the incidences of bird collisions.
- Excessive use of artificial light - known as light pollution - may cause birds to wander off course and increase the likelihood of collisions.

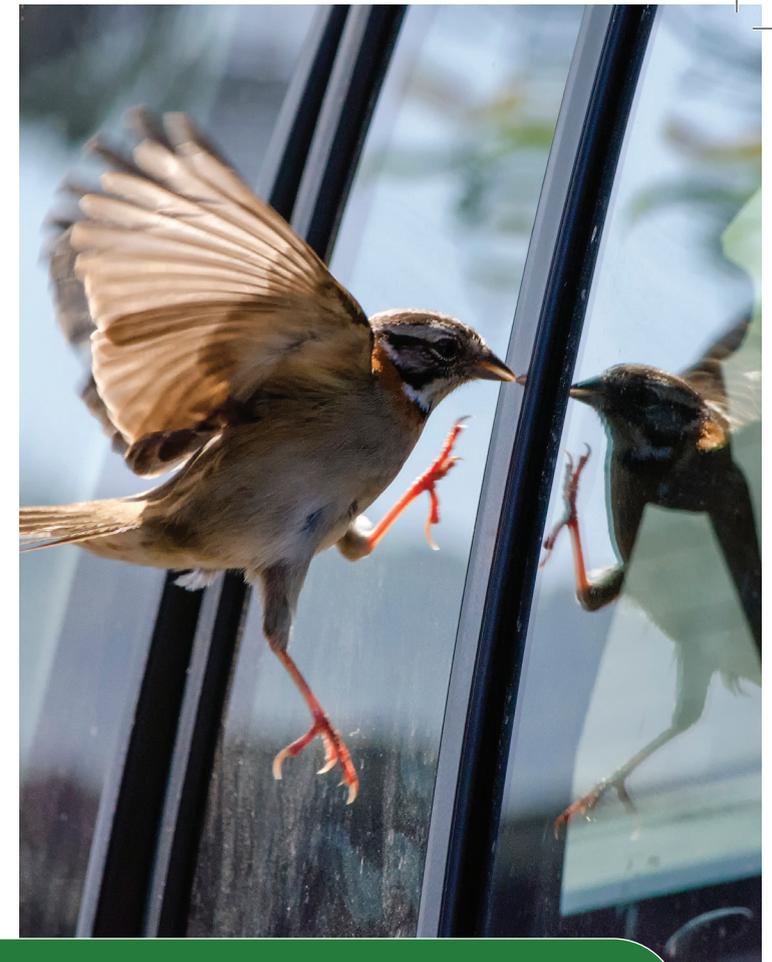
## What is the solution?

New and existing buildings should be made less harmful to migratory birds, with a focus on two key areas:

- making glass less dangerous
- reducing light pollution

These strategies can be incorporated into the design of new buildings and into retrofit projects of existing buildings.

The City of London has implemented lighting requirements for new site developments in an effort to preserve local bird species and migrating birds.



For questions on  
lighting criteria for  
new developments:

**Planning and Development**  
519-930-3500  
plandev@london.ca

**Preventing  
window  
collisions**

Saving our birds

Visit **flap.org** for tips to  
protect birds at your home  
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[london.ca](http://london.ca)



## Why do birds crash into windows?

Birds do not see window glass as a solid object and do not understand reflections.

Birds try to pass through glass to reach where they see open space or habitat.

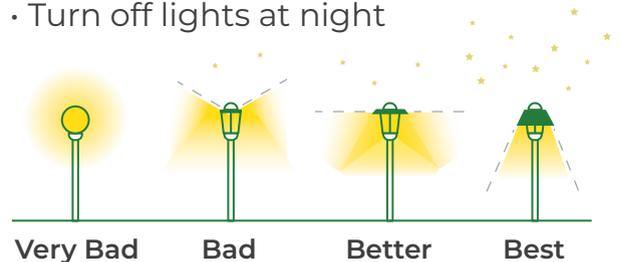
Light pollution, especially from poorly positioned exterior lighting, impacts migration patterns.

### Did you know?

Birds use the moon and stars to navigate. During peak bird migration periods—from March to May and from August to October—turn out all unnecessary lights and draw your blinds from 10 p.m. to 6 a.m.

## Ways to reduce light pollution

- Direct lighting towards the area requiring illumination
- Provide full cut-off (no light at or above 90 degrees from source) and have no up lighting
- Turn off lights at night



## Ways to make glass less dangerous to birds

### Modify glass to appear as a visible barrier rather than a potential fly-through area:

- Use visual markers by having an image or pattern screened, printed or applied to the glass surface. Spaced at a maximum of 5 cm apart\*, visual markers have proven to be the most effective way of deterring bird collisions with glass.

**The denser the pattern, the more effective it becomes. Must also be high contrast.**

- Opaque, etched, stained, frosted glass, as well as glass block are excellent bird-friendly options.

### Incorporate decorative facades to reduce the amount of visible glass.

- Screens, grilles, shutters and exterior shades are commonly used elements that can make glass safer for birds.

\* Source: CSA A460