

Reducing Bird Collisions with Buildings & Building Glass BMPs

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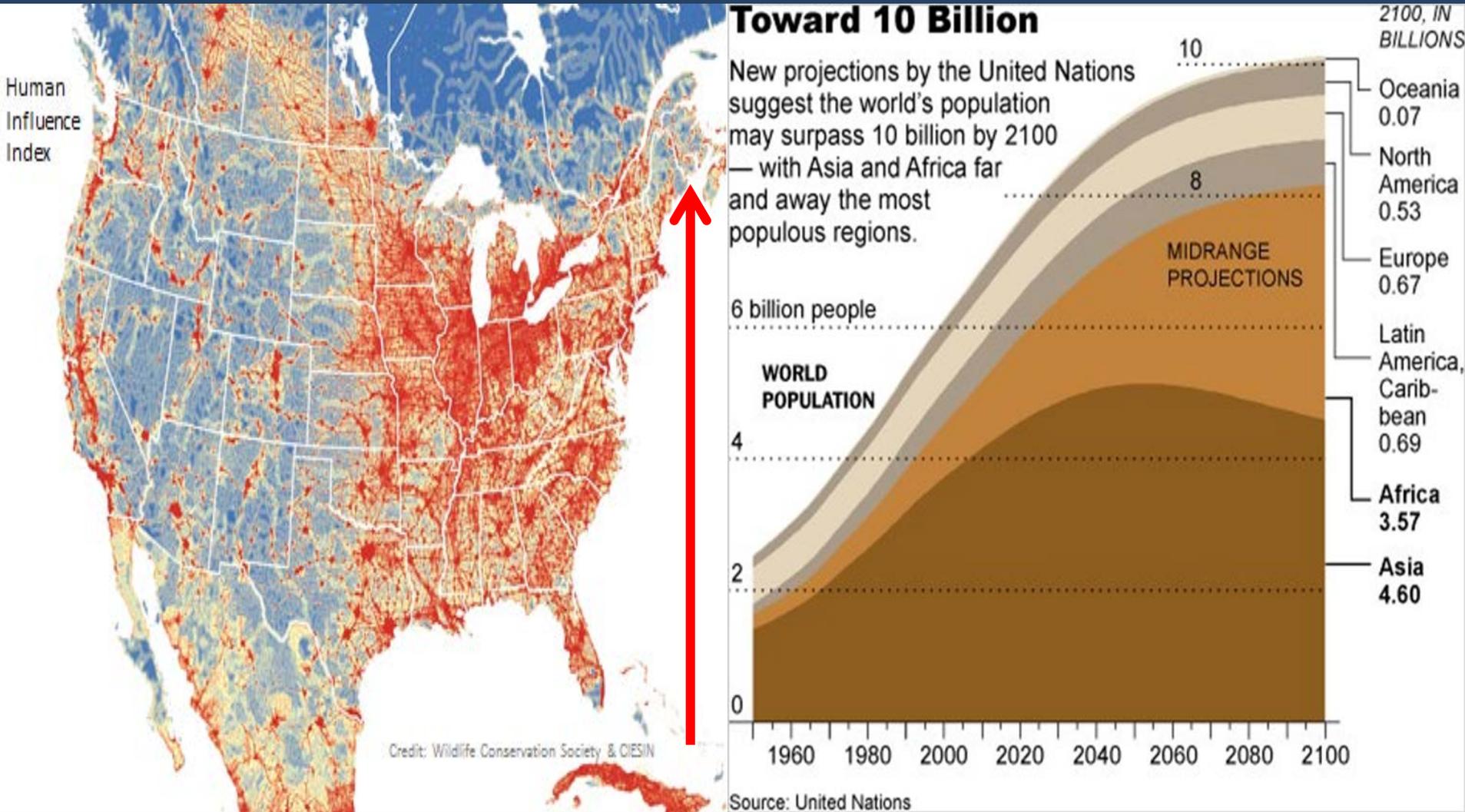


Brown Bag Topics

- What is the issue with birds and building glass?
- Why is there such a high mortality rate for glass collisions?
- Why do birds collide with glass?
- What are the solutions we can use at home and at work?



A Human Altered Landscape

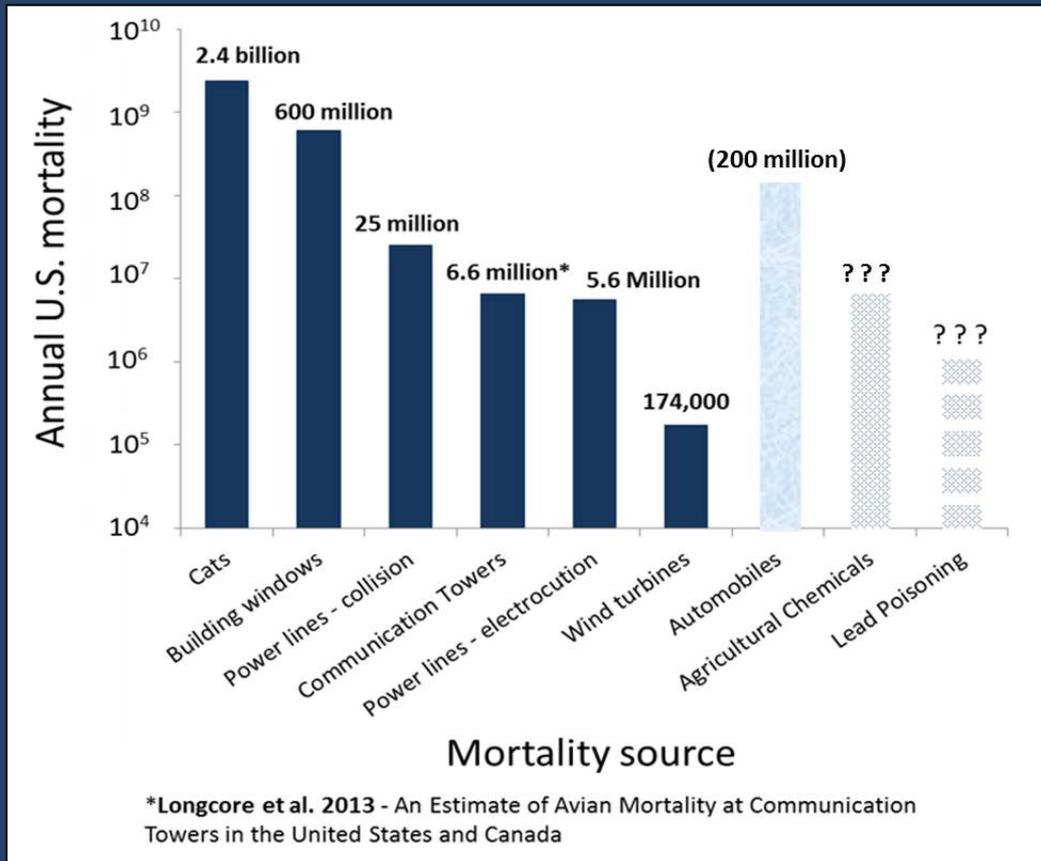


Urban Centers Grow



Bird Collisions with Glass

*Collisions with buildings kill an average of **600 million birds** each year.*



Why Birds Collide with Glass

- Birds do not see clear or reflective glass
 - Poor contrast sensitivity (compared to humans)
- Reflections create illusion of habitat or open sky



Day Vs Night

- Daytime collisions – reflections, attraction to interior plants, or escape routes
- Nighttime collisions – attracted to and disoriented by lights



Mortality At Multiple Scales

- High Rise – 508,000 birds/year (<1%)
- Residences – 253 Million birds/year (44%)
- Low Rise (1-3 stories) – 339 Million birds/year (56%)



Solutions

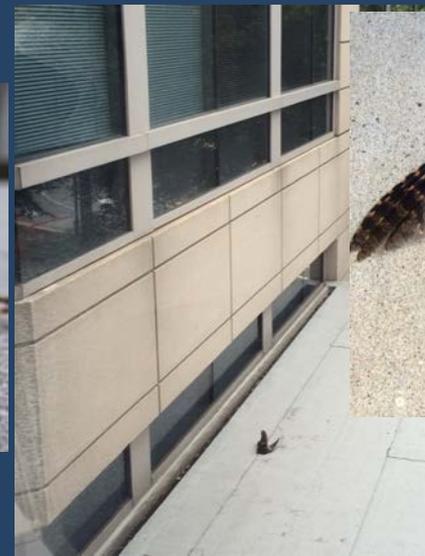
- Behavioral (*avoidance and minimization*)
- Immediate – low to no cost
- Long-term – glass structure and building architecture



But First!

Monitor to determine best solution

- Find out where collisions may be occurring
- How often are you finding dead birds?
- What species are you finding?
- In what season(s) are collisions occurring?





FWS HQ Monitoring Results

Mortality is Common At Skyline

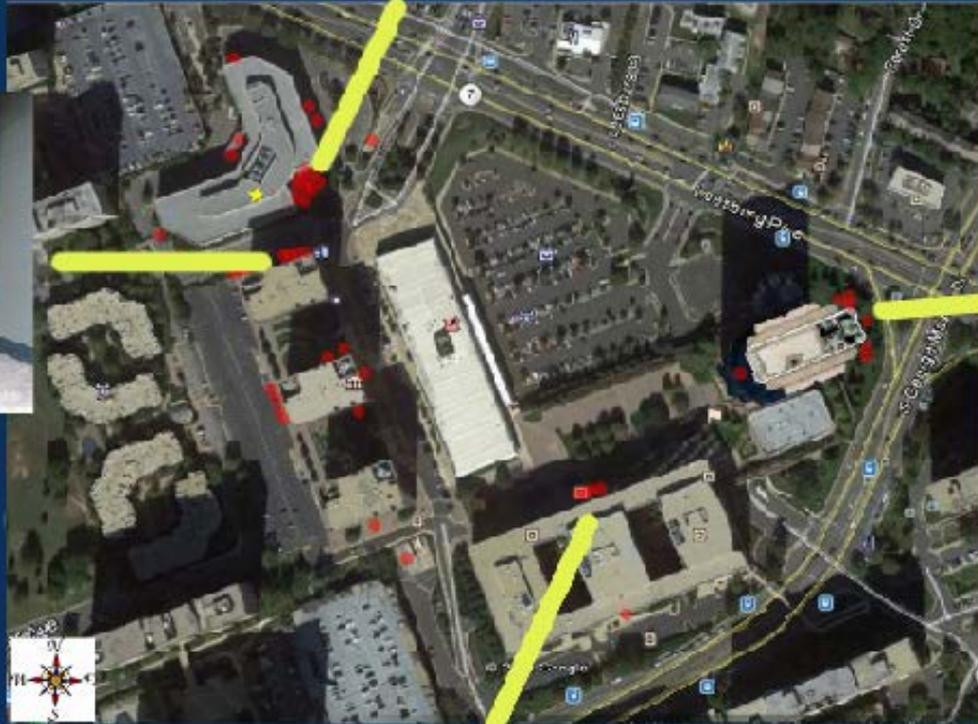
42 dead/injured birds found
25 Species
5 Birds of Conservation Concern



Why # found is probably much lower than actual:

- 26 days not surveyed
- Maintenance crews work early and clear birds
- Observers may only see birds in plain sight
- Scavenging by predators

Why are some areas worse than others



Behavioral Changes

- Turn off interior lights at night
- Use daytime cleaning services
- Close shades to max in day, pattern inside, closed at night
- Blinds down and partially opened during day, closed at night
- Move interior plants away from windows



Immediate – Low or no Cost

Exterior Modifications

- Timers on exterior lighting
- Replace steady burning exterior lighting
- Down-shield lighting
- Exterior landscape design
- Screens

Interior Modifications

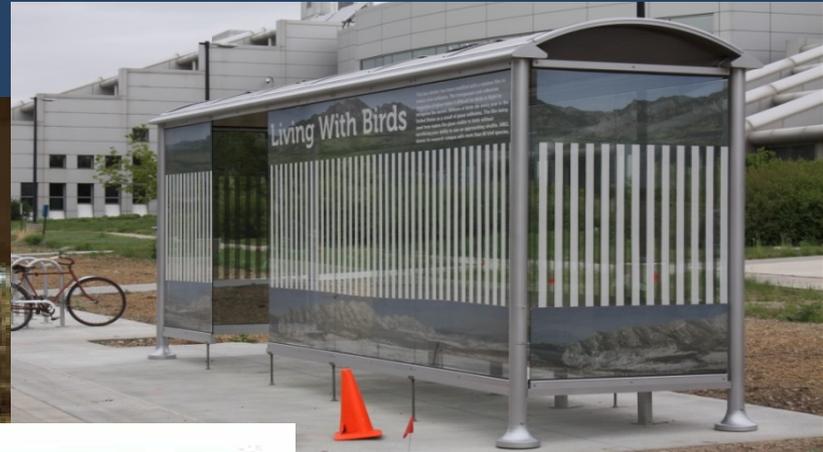
- Motion sensors
- Shades/blinds



Immediate – Low or no Cost

Glass Marking *See effectiveness ratings at birdsafeglassfoundation.org

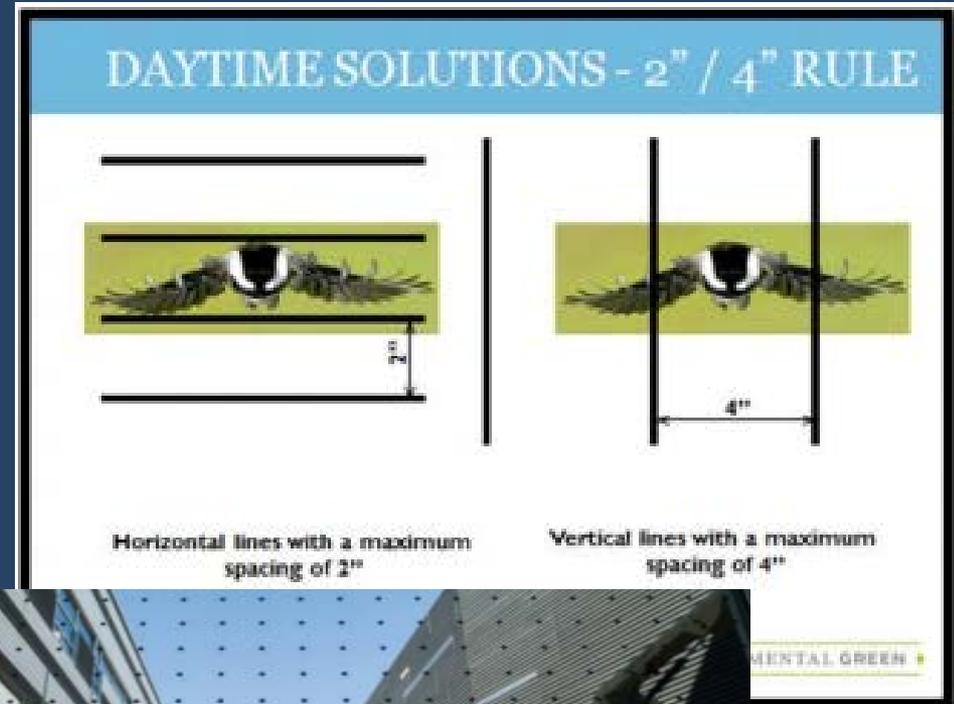
- Stickers, strips, and films
- Soap



Spacing of Markers: 2X4 spacing

Stripes...

- vertical stripes that are at least ¼ inch wide with a maximum spacing of 4 inches
- horizontal stripes that are at least ¼ inch wide with a maximum spacing of 2 inches
- Patterns should be close (closer for hummingbirds)



Long-Term

Glass Marking

- Screens and netting
- Etching and Fritting
- New Technologies and Glass types
 - Glazing, UV reflecting



How do solutions tie into Federal agency actions?

MBTA & Federal Agencies

- It is the government's duty to lead in the protection of this international resource



Executive Order 13186

- Council for the Conservation of Migratory Birds
- U.S agencies have obligations to implement the Treaties
- Federal Agencies that may have negative effects (*own actions and permitted actions*) must develop an MOU

Council's 2012-2015 Theme

Facilities Management

- Council agencies were given information and tools on how to make facilities “bird friendly”
- Many answered the call
- New Building, Glass, and Lighting Guidance



Council Presidential Award Winners

FAA and FCC

- FAA Advisory Circular 70/7460-1L
- Based on research, the FAA issued revised specifications for obstruction lighting to eliminate the non-flashing lights on towers thereby reducing its attraction to migratory birds without compromising pilot safety.
- New lighting configurations could reduce bird collisions and resulting fatalities by 70% each year.



Next Steps for Facilities Management

- Identify cost and energy savings that are directly associated with bird-safe measures
- Continue to incorporate these measures into MOUs with federal agencies
- Continue to do outreach within each agency (create fliers, send e-mails, do presentations)
- Update the BGL guidance



Other Questions?

