

February 2021

Bird-Safe Buildings Act: Ready to Take Flight

Kerry Sean Cooney

Follow this and additional works at: <https://scholarship.law.wm.edu/wmelpr>



Part of the [Environmental Law Commons](#), [Legislation Commons](#), and the [Natural Resources and Conservation Commons](#)

Repository Citation

Kerry Sean Cooney, *Bird-Safe Buildings Act: Ready to Take Flight*, 45 Wm. & Mary Env'tl. L. & Pol'y Rev. 555 (2021), <https://scholarship.law.wm.edu/wmelpr/vol45/iss2/7>

Copyright c 2021 by the authors. This article is brought to you by the William & Mary Law School Scholarship Repository.

<https://scholarship.law.wm.edu/wmelpr>

BIRD-SAFE BUILDINGS ACT: READY TO TAKE FLIGHT

KERRY SEAN COONEY*

PREFACE

Early in the fall of 2019, I had my first cognizant encounter with *Parkesia noveboracensis*, or the Northern Waterthrush.¹ A common sighting of the dark-brown-above and pale-yellow-below warbler is “along edges of still ponds” in search of insects.² My encounter allowed me to see in fine detail the bird’s banana-yellow line just over his eye, his beautiful brown streaks against his pale breast, and his shiny brown bill. Instead of watching him enjoy a series of hors d’oeuvres, “constantly bobbing [his] backside up and down” at a reflective water’s base,³ however, I found him at the base of a building, motionless and silent. Only several feet beyond the cobblestoned spot on which the warbler laid was a large glass wall bearing the reflection of not only myself but the extensive wooded area behind me. A closer inspection of the glass revealed a small patch of pale yellow feathers that my warbler friend involuntarily left behind. Upon death, he joined the 2.9 billion birds that the United States and Canada have lost since 1970.⁴ On behalf of this bird and billions of others like it,

* JD Candidate, William & Mary Law School, 2021. I applaud the *William & Mary Environmental Law and Policy Review* staff for their stalwart commitment to Volume 45 amidst the COVID-19 pandemic. On top of the encouragement I received from faculty at William & Mary Law School, I also want to acknowledge and thank the Williamsburg Bird Club for taking me under their wings the past few years. Special thanks as well to Daniel Klem and Dan Lory for their unbridled support and guidance.

As a young boy, I spent most summer days in my grandfather’s backyard, where he and I would often whistle back-and-forth with the songbirds. My father’s enthusiasm for birds was likewise infectious as he pointed out to me bald eagles while commuting across Lake Washington. As luck would have it, my father-in-law is a passionate photographer in nature and wildlife. Birding aside, I am forever grateful for the loving support from each member of my family. A shout out to Riley: my best friend, lifelong mentor, and brother. Above all, I express my love and appreciation for my dear wife, Jennette, who sings the most inspiring and beautiful song.

¹ *Northern Waterthrush*, EBIRD, <https://ebird.org/species/norwat> [<https://perma.cc/A592-SN3B>] (last visited Nov. 24, 2020).

² *Id.*

³ *Id.*

⁴ See Gustave Axelson, *Nearly 30% of Birds in U.S., Canada Have Vanished Since 1970*,

this Note offers my own “loud, three-parted, chipping song” in support of a bill that begs attention.⁵

INTRODUCTION

The Bird-Safe Buildings Act of 2019, or 116 H.R. 919,⁶ is a bill that, like many birds, finds its way back home when the season agrees. First introduced in 2010 by Representative Mike Quigley, the bill is now in its sixth wave,⁷ with respect to the House,⁸ and has matured to the point of implementation. What has not changed is its overall purpose: “to direct the Administrator of General Services to incorporate bird-safe building materials and design features into public buildings.”⁹ But as it is with any bill being introduced, for there are many,¹⁰ it needs to be visible to stand a chance at becoming law. Elevated to a bird’s-eye view, this Note identifies three main reasons for why the Bird-Safe Buildings Act (“BSBA”) is ready to become law: the bill reflects the nation’s increasing avian interest and involvement, provides cost-effective guidelines, and sets out attainable standards.

The most fundamental implication of any federal law is that it may be applied across the entire nation. Thus, one would expect the law to reflect the needs or desires of the nation at large. The BSBA appeals to cities’ and states’ voluntary and legislative efforts, U.S. bird conservation organizations, an increasing number of state senators and representatives, and everyday citizens who have an interest in birds. Moreover, Millennials have earned a reputation for being considerate of conservation efforts, joining the flock of their predecessors.¹¹

CORNELL CHRON. (Sept. 19, 2019), <https://news.cornell.edu/stories/2019/09/nearly-30-birds-us-canada-have-vanished-1970> [<https://perma.cc/42ZW-B8RS>].

⁵ EBIRD, *supra* note 1.

⁶ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

⁷ Press Release, House.gov, Quigley Testifies Before Transportation and Infrastructure Committee (May 1, 2019), <https://quigley.house.gov/media-center/press-releases/quigley-testifies-transportation-and-infrastructure-committee> [<https://perma.cc/A5PJ-F5V9>]; James Crugnale, *There’s a Growing Political Push To Make More Buildings Bird-Safe*, AUDUBON (Aug. 30, 2019), <https://www.audubon.org/news/theres-growing-political-push-make-more-buildings-bird-safe> [<https://perma.cc/QL5P-M6WQ>].

⁸ The Senate has attempted one as well. Federal Bird-Safe Buildings Act of 2017, S. 1920, 115th Cong. (2017).

⁹ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

¹⁰ *T&I Committee by the Numbers Since January 2019*, JULY 2019 NEWSL. (House Comm. on Transp. & Infrastructure, Wash., D.C.) July 2019.

¹¹ *See infra* Part IV.

I. VOLUNTARY AND LEGISLATIVE EFFORTS

Voluntary efforts, as will be illustrated below, play a significant part in combating preventable bird fatalities. Research has also significantly contributed to the public's awareness of this issue. Indeed, as early as the nineteenth century, scholars have recognized the hostile impact that man-made structures have had on birds.¹² Having laws in place supplement and perhaps solidify these efforts by lending the structure and strength necessary to realize a community's goal. The following cities and states are not exhaustive, but represent a widespread effort to synthesize public interests into local laws and standards.

Interestingly enough, a vital community that has influenced the proposed American bill is Toronto. In 1993, the Fatal Light Awareness Program ("FLAP") Canada was founded with the simple goal of keeping birds safe.¹³ As the name suggests, the charity recognizes not only bird/building collisions that occur during daylight, but bird fatalities resulting from urban lighting at night. FLAP, through its volunteers, has "recovered over 84,000 birds."¹⁴ Unable to ignore FLAP, or perhaps unable to ignore the annual one million migratory bird fatalities—in Toronto alone—due to building collisions,¹⁵ Toronto took action. Since 2005, city-owned buildings have adhered to "a 'lights-out' policy for after work hours and on weekends" during migratory seasons.¹⁶ Following the Migratory Bird Policies adopted by its council in 2006, Toronto required all new construction to adhere to bird-friendly building guidelines that were developed in large part by FLAP.¹⁷ The City integrated the strategies into the Toronto "Green Development Standard," noting that "[a] 'bird-friendly' building is considered a component of a 'green development.'"¹⁸

Since then, the City has helped facilitate these policies through companion books and documents.¹⁹ Not long after, even the existing buildings

¹² See W.W. COOKE, U.S. DEP. AGRIC., REPORT ON BIRD MIGRATION IN THE MISSISSIPPI VALLEY IN THE YEARS 1884 AND 1885, 25, 87, 313 (1888); see also L. Kumlien, *Observations On Bird Migration In Milwaukee*, 5(3) AUK. 325, 325–28 (1888).

¹³ *About*, FLAP CAN., <https://flap.org/about/> [<https://perma.cc/DNR7-WLDD>] (last visited Nov. 24, 2020).

¹⁴ *Fact Sheet, Sept. 2019*, FLAP CAN., <https://flap.org/wp-content/uploads/2019/09/FC-Fact-Sheet-2019.pdf> [<https://perma.cc/BFE3-5F26>] (last visited Nov. 24, 2020).

¹⁵ *Bird-Friendly Development Guidelines*, CITY OF TORONTO, https://thebirdersreport.com/FLAPdevelopment_guidelines.pdf [<https://perma.cc/9TN8-AAHZ>] (last visited Nov. 24, 2020).

¹⁶ *Id.* at 3.

¹⁷ *Id.*

¹⁸ *Id.* at 5.

¹⁹ See *Bird-Friendly Development Rating System and Acknowledgement Program*, CITY

were slightly modified to help migratory birds.²⁰ Bird fatalities “were almost completely eliminated” once the changes were made.²¹ With a few new policies, Toronto, which had posed one of the greatest urban threats to birds,²² became the exemplar for bird-friendly cities in North America.²³ As FLAP’s Executive Director, Michael Mesure, pointed out, Toronto is now “a champion in bird-friendliness” because of Lights Out! Toronto, Toronto City Council, and City of Toronto Planning Department staff, who worked in harmony with FLAP.²⁴

Chicago, another city that attracts migratory birds,²⁵ stepped up to the plate. Between 1978 and 2002, the Field Museum in Chicago counted bird fatalities at a single building, McCormick Place.²⁶ With an array of 140 species, nearly thirty thousand birds were recorded.²⁷ As troubling as this is, it cannot be understated that Chicago took the exact steps necessary to confront the issue. Indeed, they “led the country with the largest bird collision monitoring project in the nation,”²⁸ and it still continues strong.²⁹ In 1995, Chicago mirrored Toronto by being the first city in the U.S. to implement a Lights Out program during migration seasons.³⁰ As a result of

OF TORONTO, <https://www.toronto.ca/legdocs/mmis/2007/pg/bgrd/backgroundfile-6418.pdf> [<https://perma.cc/RF52-4VR6>] (last visited Nov. 24, 2020); *2017 Best Practices for Effective Lighting*, CITY OF TORONTO, <https://www.toronto.ca/wp-content/uploads/2018/03/8ff6-city-planning-bird-effective-lighting.pdf> [<https://perma.cc/8JXR-W3NT>] (last visited Nov. 24, 2020); *2016 Bird-Friendly Best Practices Glass*, CITY OF TORONTO, <https://www.toronto.ca/wp-content/uploads/2017/08/8d1c-Bird-Friendly-Best-Practices-Glass.pdf> [<https://perma.cc/W4CL-CCZL>] (last visited Nov. 24, 2020).

²⁰ McKinley Corbley, *Here’s How Thousands of Birds Are Being Saved From Flying into Toronto Buildings*, GOOD NEWS NETWORK (Mar. 15, 2018), <https://www.goodnewsnetwork.org/heres-how-thousands-of-birds-are-being-saved-from-flying-into-toronto-buildings/> [<https://perma.cc/64RS-MWRW>].

²¹ *Id.*

²² See CITY OF TORONTO, *supra* note 19, at 8.

²³ See Daniel Klem, Jr., *A National Standard for Bird-Friendly Building Design*, CONSTR. CAN. (Nov. 19, 2019), <https://www.constructioncanada.net/a-national-standard-for-bird-friendly-building-design/> [<https://perma.cc/KJV7-N4UK>].

²⁴ Corbley, *supra* note 20.

²⁵ Meena Miriam Yust, *Buildings Are Hazardous to Migratory Birds, But There Are Solutions*, TRUTHOUT (June 9, 2019), <https://truthout.org/articles/buildings-are-hazardous-to-migratory-birds-but-there-are-solutions/> [<https://perma.cc/VKU6-XNL7>].

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Solutions*, BIRD FRIENDLY CHI., <https://birdfriendlychicago.org/solutions> [<https://perma.cc/CW6Y-YZQU>] (last visited Nov. 24, 2020).

²⁹ *Migratory Bird Rescue and Protection*, CHI. BIRD COLLISION MONITORS, <https://www.birdmonitors.net/> [<https://perma.cc/F6UJ-SL92>] (last visited Nov. 24, 2020).

³⁰ BIRD FRIENDLY CHI., *supra* note 28.

turning off lights, the bird collision deaths at McCormick Place were reduced by eighty-three percent.³¹ The City believes the Lights Out program saves at least ten thousand migratory birds per year.³² This voluntary effort paved the way for a legislative effort; initiated by then–Cook County Commissioner Mike Quigley in 2008, the County adopted bird-friendly construction legislation for new and existing County-owned buildings.³³

Correspondence with Dan Lory of the Chicago Ornithological Society shed light on the practical difficulty of trying to quantify results. While it would be ideal to have a clear before-and-after picture assessing certain actions intended to lessen a building’s impact on bird deaths, researchers are “often dealing with incomplete data at the start.”³⁴ Furthermore, even when a program, initiative, or law results in a dramatic decrease in bird fatalities, the threats often still exist. Lory pointed out that Chicago remains, even after the lights-out program, the “most deadly [American] city for lighting-related bird fatalities.”³⁵ Of course, nobody could reasonably conclude that Chicago’s efforts were in vain. Lory remarked, “[i]t’s terrible to imagine where we would be without that program!”³⁶ Any absence in concrete data is far outweighed by the manifest influence Chicago’s pilot program has had, not just locally,³⁷ but for the entire nation.

Sitting along the Pacific Flyway, the Bay Area is a popular rest point for migratory birds.³⁸ Responding to irrefutable findings, San Francisco in 2011 adopted “Standards for Bird-Safe Buildings,” which set forth requirements for severe conditions, an educational checklist for

³¹ BD. OF COMM’RS OF COOK CNTY., REPORT OF THE COMMITTEE ON CONSTRUCTION 2 (2008).

³² Tony Briscoe & Cindy Dampier, *As Many as a Billion Birds Are Killed Crashing Into Buildings Each Year—And Chicago’s Skyline Is the Most Dangerous Area in the Country*, CHI. TRIB. (Apr. 4, 2019), <https://www.chicagotribune.com/news/breaking/ct-met-migratory-bird-collisions-chicago-20190402-story.html> [<https://perma.cc/8BEJ-7K9Z>].

³³ BD. OF COMM’RS OF COOK CNTY., *supra* note 31.

³⁴ Email from Dan Lory, Dir. (non-committee chair), Chi. Ornithological Soc’y, to author (Jan. 10, 2020, 10:36 PM) (on file with author) [hereinafter Email from Dan Lory, Jan. 10, 2020].

³⁵ *Id.*; see Pat Leonard, *Chicago Tops List of Most Dangerous Cities for Migrating Birds*, CORNELL CHRON. (Apr. 1, 2019), <https://news.cornell.edu/stories/2019/04/chicago-tops-list-most-dangerous-cities-migrating-birds> [<https://perma.cc/GVU6-N9T6>].

³⁶ Email from Dan Lory, Jan. 10, 2020, *supra* note 34.

³⁷ Efforts are currently being made to adopt new bird-friendly design standards. See Jay Koziarz, *Chicago Buildings Could Adopt New Bird-Friendly Design Standards*, CURBED CHI. (Apr. 25, 2019), <https://chicago.curbed.com/2019/4/25/18514382/chicago-bird-friendly-design-ordinance> [<https://perma.cc/7R42-4MQL>].

³⁸ See Lisa Owens Viani, *Building for the Birds*, ARCHITECT MAG. (Jan. 17, 2012), https://www.architectmagazine.com/design/building-for-the-birds_o [<https://perma.cc/XN3N-9TS8>].

planners and the community, and voluntary programs that encourage bird-safe practices.³⁹ San Francisco may have been influenced by California's Green Building Standards Code of 2010, which included *Bird-Friendly Building Design* in its appendix.⁴⁰

A study by the California Academy of Sciences offers an example of those standards' impact.⁴¹ The Academy used their own building, which was built before San Francisco's standards were passed, initially as an example of poor design.⁴² They decided to slightly modify their plans: they studied the building and recorded diverse information about the strikes.⁴³ They also made changes to the building during the study, installing shades on the upper two-thirds of the window area, to analyze the effects of the mitigation.⁴⁴ The east side of the building demonstrated the most notable contrast: pre-mitigation strike rates "were almost 22 times higher than post-mitigation."⁴⁵

Though San Francisco's bird-safe building standards are not mandated, the influence has been great. Oakland jumped in with the standards in 2013, Sunnyvale in 2014, Richmond in 2016, Alameda in 2018, with Berkeley and Emeryville currently in progress.⁴⁶ Perhaps the greatest success story in California has been San Jose, the home of Silicon Valley. Collaborating with Audubon, Sierra Club, and American Bird Conservancy, the City adopted standards in 2016 that offer "simple and cost-effective" solutions.⁴⁷ In the spring of 2019, San Jose's city council "voted unanimously" to update "downtown design guidelines with new bird-safety measures" that are mandatory.⁴⁸

³⁹ *Standards For Bird-Safe Building*, S.F. PLAN., <https://sfplanning.org/standards-bird-safe-buildings#about> [<https://perma.cc/5KC4-JPAK>] (last visited Nov. 24, 2020).

⁴⁰ *Bird Friendly Glass: Changing Cities One at a Time!*, WALKER GLASS (Mar. 28, 2019), <https://walkerglass.com/bird-friendly-glass-changing-cities-one-at-a-time/> [<https://perma.cc/L744-MSUU>].

⁴¹ Logan Q. Kahle et al., *Bird-Window Collisions at a West-Coast Urban Park Museum: Analyses of Bird Biology and Window Attributes from Golden Gate Park, San Francisco*, 11 PLOS ONE 1 (2016).

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ EMERYVILLE PLAN. COMM., *Study Session—Bird-Safe Building Standards (STUDY19-001)*, STAFF REP. (2019), <https://www.ci.emeryville.ca.us/DocumentCenter/View/12152/Item-81-Bird-Safe-Building-Standards-09-26-19> [<https://perma.cc/7H62-3NH6>].

⁴⁷ *Largest City In Northern California To Adopt Bird-Friendly Building Guidelines*, AM. BIRD CONSERVANCY (Mar. 5, 2015), <https://abcbirds.org/article/largest-city-in-northern-california-to-adopt-bird-friendly-building-guidelines/> [<https://perma.cc/G9Q9-ADBQ>].

⁴⁸ Crugnale, *supra* note 7.

New York, the Empire State, is responsible for 90,000 to 230,000 building-related bird fatalities each year.⁴⁹ In September 2019, the New York City Committee on Housing and Buildings discussed legislation introduced earlier that year to significantly reduce that annual number.⁵⁰ The legislation was passed in December and earned the Mayor’s approval.⁵¹ For the state itself, an act “to establish a council to promote the use of bird-friendly building materials and design features in buildings” passed both the Senate and the Assembly, but was ultimately vetoed by the Governor.⁵² In Maryland, the House and Senate passed legislation in 2019 that closely resembled the BSBA.⁵³

II. BIRD CONSERVATION ORGANIZATIONS

The National Audubon Society (“NAS”) has a mission to protect not only birds but “the places they need, today and tomorrow, throughout the Americas using science, advocacy, education, and on-the-ground conservation.”⁵⁴ It is no wonder, then, that the organization encourages everyone to ask their respective members of Congress to support the BSBA, which NAS describes as “a bipartisan, common-sense solution.”⁵⁵ NAS’s Director of Community Conservation, John Rowden, who takes note of the bill’s evidentiary foundation, energy-efficient considerations, and cost-friendly benefits, thanked U.S. Representatives Quigley and Morgan Griffith “for their commitment to protecting birds.”⁵⁶

⁴⁹ Zoe Rosenberg, *Pols Push for Bird-Friendly Glass on New York City Buildings*, CURBED N.Y. (Mar. 29, 2019), <https://ny.curbed.com/2019/3/29/18287160/nyc-city-council-bill-bird-safe-glass-migration> [<https://perma.cc/3YS7-VTSG>].

⁵⁰ See *Bird Friendly Materials*, N.Y. CITY COUNCIL, COMM. ON HOUS. & BLDG., <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=3903501&GUID=21B44B73-D7E1-4C55-83BD-1CA254531416&Options=&Search=> [<https://perma.cc/Y6Y7-K982>] (last visited Nov. 24, 2020).

⁵¹ *NYC Lawmakers Vote 43–3 To Require ‘Bird-Friendly’ Glass*, AP NEWS (Dec. 10, 2019), <https://apnews.com/article/f97aa6977481ebd3a0f46e7f211ac106> [<https://perma.cc/Y63Y-HGK2>].

⁵² S.B. S25A, 2019 Leg., Reg. Sess. (N.Y. 2019).

⁵³ See H.B. 136, 2019 Leg., Reg. Sess. (Md. 2019); S.B. 314, 2019 Leg., Reg. Sess. (Md. 2019).

⁵⁴ *About Us*, NAT’L AUDUBON SOC’Y, <https://www.audubon.org/about> [<https://perma.cc/9LJ3-KYAZ>] (last visited Nov. 24, 2020).

⁵⁵ *Help Reduce Bird Deaths from Building Collisions*, AUDUBON, https://act.audubon.org/onlineactions/cFKDdt0hEC6HqnxgB0y-Q2?ms=policy-adv-web-website_nas-engage-mentcard-20190100_bird-safe_buildings_alert [<https://perma.cc/CR84-NTFR>] (last visited Nov. 24, 2020).

⁵⁶ *Bipartisan Bill in U.S. House Seeks to Reduce Bird Collisions with Federal Buildings*,

Of course, this is not the first time NAS has pushed for bird-safe buildings. A few highlights from history include New York's participation in the Lights Out Initiative, which was initiated by Audubon New York to protect migratory birds.⁵⁷ Another example is Project BirdSafe in the Twin Cities, where Audubon Minnesota teamed up with the state's Department of Natural Resources to reduce bird-building collisions.⁵⁸ NAS also has Portland Audubon's *Bird-Safe Building Design Toolkit*.⁵⁹ After retrofitting the Columbia Building, Portland Audubon documented a strike reduction of about ninety-four percent after the application of Solyx, a manufacturer of window films, some of which are bird-friendly.⁶⁰ Other examples include Mass Audubon's Lights Out Boston!,⁶¹ Houston Audubon's Lights Out for Birds as well as their guide for architectural solutions,⁶² and the joint Audubon effort in California to design and implement *Standards for Bird Safe Buildings*.⁶³

The American Bird Conservancy prides itself in publishing, with great collaboration from New York City Audubon, *Bird-Friendly Building Design*, which both explains the "collision phenomenon" and delivers "cost-neutral solutions" for both new and existing buildings.⁶⁴ The Conservancy also collaborated with the U.S. Green Building Council to create

NAT'L AUDUBON SOC'Y (Jan. 30, 2019), <https://www.audubon.org/news/bipartisan-bill-us-house-seeks-reduce-bird-collisions-federal-buildings> [<https://perma.cc/EHD3-DJVK>].

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Bird-Safe Building Design Toolkit*, PORTLAND AUDUBON, <https://audubonportland.org/our-work/protect/habitat-and-wildlife/urban/reducing-wildlife-hazards/bird-safe-building/bird-safe-building-design-toolkit/> [<https://perma.cc/6DBQ-5FY3>] (last visited Nov. 24, 2020).

⁶⁰ Email from Dan Lory, Dir. (non-committee chair), Chi. Ornithological Soc'y, to author (Jan. 15, 2020, 11:17 AM) (on file with author) (quoting Mary Coolidge, Biologist & Bird Safe Portland Campaign Coordinator, Audubon Society of Portland) [hereinafter Email from Dan Lory, Jan. 15, 2020]. See *Bird Safety Products*, DECORATIVE FILMS, https://www.decorativefilm.com/product-list?Search=&Sort_By=disp_order&Per_Page=24&i_f_privacy_level=1&i_f_style=1&i_f_brand=1&i_f_specialty=1&f_specialty=Bird+Safety [<https://perma.cc/9AUR-JQQE>] (last visited Nov. 24, 2020).

⁶¹ Christina W., *Supporting Bird-safe Buildings*, MASS AUDUBON (Feb. 11, 2019), <https://blogs.massaudubon.org/politicallandscapes/supporting-bird-safe-buildings/> [<https://perma.cc/X6JP-GZ7J>].

⁶² *Bird-Safe Design*, HOUS. AUDUBON SOC'Y, <https://houstonaudubon.org/conservation/bird-friendly-communities/bird-safe-design.html> [<https://perma.cc/Q26A-T3XJ>] (last visited Nov. 24, 2020).

⁶³ *Standards for Bird Safe Buildings*, GOLDEN GATE AUDUBON SOC'Y, <https://goldengateaudubon.org/conservation/make-the-city-safe-for-wildlife/standards-for-bird-safe-buildings/> [<https://perma.cc/2SAN-UWFX>] (last visited Nov. 24, 2020).

⁶⁴ AM. BIRD CONSERVANCY, <http://collisions.abcbirds.org/collisions/index.html> [<https://perma.cc/R5FU-P67H>] (last visited Nov. 24, 2020).

Pilot Credit 55, available for designers and builders who employ bird-friendly strategies.⁶⁵

The Cornell Lab of Ornithology is a unit of Cornell's College of Agriculture and Life Sciences, yet has the "real-world impact of a nonprofit organization."⁶⁶ With regard to bird-friendly design, the Cornell Lab of Ornithology compiles and sets forth reasonable solutions for the everyday birder, detailing methods that could be applied in one's own home.⁶⁷

III. COSPONSORSHIP OF THE BSBA

Some suggest that the Bird-Safe Buildings Act, which has been bipartisan since its first attempt at being passed,⁶⁸ stands a "realistic chance" of becoming law partly because of its bipartisan nature.⁶⁹ Since 2015, Representative Griffith has actively supported the bill.⁷⁰ Indeed, Griffith is an "international birder" and has had a "longtime interest in birds."⁷¹ On the other hand, some see "bipartisan" as nothing more than a label, finding optimism more in the fact that, at this present time, the Democrats control the House.⁷² With only three Republicans out of the forty-six representatives sponsoring the bill, there is no denying that the vast majority of support, at least legislatively, comes from Democrats.⁷³

⁶⁵ *Bird Collision Deterrence*, U.S. GREEN BLDG. COUNCIL, <https://www.usgbc.org/credits/core-shell-existing-buildings-healthcare-new-construction-retail-nc-schools/v2009/pc55> [<https://perma.cc/C7GA-HKSC>] (last visited Nov. 24, 2020).

⁶⁶ *Programs*, CORNELL LAB OF ORNITHOLOGY, <https://www.birds.cornell.edu/home/about/programs/> [<https://perma.cc/MX9X-JMLM>] (last visited Nov. 24, 2020).

⁶⁷ Cornell Lab of Ornithology, *Why Birds Hit Windows—And How You Can Help Prevent It*, ALLABOUT BIRDS (May 5, 2017), <https://www.allaboutbirds.org/news/why-birds-hit-windows-and-how-you-can-help-prevent-it/> [<https://perma.cc/DQS4-NXGN>].

⁶⁸ Bird-Safe Buildings Act of 2010, H.R. 4797, 111th Cong. (2009).

⁶⁹ See *Take Action: Protect Birds from Building Collisions*, ENV'T ACTION, <https://environmental-action.org/action/bird-safe-buildings/> [<https://perma.cc/2A93-DPUE>] (last visited Nov. 24, 2020); see also Sydney Franklin, *Congress May Follow Architects' Lead in Constructing Bird-Safe Buildings*, ARCHITECT'S NEWSPAPER (Feb. 4, 2019), <https://archpaper.com/2019/02/congress-bird-safe-legislation/> [<https://perma.cc/49AH-KXQ3>].

⁷⁰ *Congressman Morgan Griffith Visits Virginia Tech's Aviary*, VA. TECH DAILY (May 5, 2016), <https://vtnews.vt.edu/articles/2016/05/cnre-griffithvisitsaviary.html> [<https://perma.cc/85FM-B546>].

⁷¹ *Id.*

⁷² Blair Kamin, *Spectacular Skylines Can Also Be Bird Killers. Here's How a Proposed Chicago Ordinance Is Trying to Help*, CHI. TRIB. (Feb. 11, 2019), <https://www.chicagotribune.com/columns/blair-kamin/ct-biz-bird-friendly-design-kamin-0211-story.html> [<https://perma.cc/L3SJ-JQVN>].

⁷³ *H.R. 919 (116th) Details*, GOVTRACK, <https://www.govtrack.us/congress/bills/116/hr919/details> [<https://perma.cc/MGD5-ZDGP>] (last visited Nov. 24, 2020).

The correlation may simply be connected with the generalization that environmental and wildlife bills are often introduced by liberals rather than conservatives. Moreover, representatives on the right may be concerned about regulations in general, and therefore slow to support an act that may seem to deter economic progress.

Indeed, a prod from one cosponsor to another, in a setting that is less conducive to boredom,⁷⁴ may go a long way in recruiting supporters. This may partially explain why there has been a general increase in cosponsorship over the last decade. In 2010, there were several cosponsors, but then none in 2011.⁷⁵ In 2013, there were four.⁷⁶ Then, a sudden spike up to twenty-seven cosponsors in 2015,⁷⁷ with the same number again in 2017.⁷⁸ The spike in 2015 could be partially attributed to Representative Griffith's large role in sponsoring the bill. Rather than simply putting their names on it, both Quigley and Griffith have voiced their opinions, backed by credible findings, to fellow members of Congress.⁷⁹ While the Senate attempt in 2017 had only two cosponsors,⁸⁰ the house bill at the time of this writing has forty-six.⁸¹ Constituents hope their letters will be read,⁸² but unfortunately a proposition from a fellow member of Congress tends to have more influence than the Americans that a member of Congress has promised to represent.

IV. GENERAL PUBLIC INTEREST

One need only look at a daily headline to recognize the rising presence of environmental conservation efforts in our day-to-day lives.⁸³ There is certainly a surge of energy coming from Millennials, which may have been gradually triggered by a general increase in environmental education.⁸⁴ But Millennials are not alone; Boomers and Gen Xers not

⁷⁴ Press Release, *supra* note 7.

⁷⁵ Bird-Safe Buildings Act of 2011, H.R. 1643, 112th Cong. (2011).

⁷⁶ Bird-Safe Buildings Act of 2013, H.R. 2078, 113th Cong. (2013).

⁷⁷ Bird-Safe Buildings Act of 2015, H.R. 2280, 114th Cong. (2015).

⁷⁸ Bird-Safe Buildings Act of 2017, H.R. 2542, 115th Cong. (2017).

⁷⁹ See Morgan Griffith, *Making Buildings Bird Safe*, YOUTUBE (Sept. 20, 2019), <https://www.youtube.com/watch?v=afDQKDLjDTg> [<https://perma.cc/9BJQ-7UG3>]; Press Release, *supra* note 7.

⁸⁰ See Bird-Safe Buildings Act of 2017, S. 1920, 115th Cong. (2017).

⁸¹ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

⁸² Letters from constituents, initiated either by organizational efforts or individual pursuits.

⁸³ See, e.g., John Schwartz, *A Mini-Mississippi River May Help Save Louisiana's Vanishing Coast*, N.Y. TIMES (Feb. 25, 2020), <https://www.nytimes.com/2020/02/25/climate/louisiana-mississippi-river-model.html> [<https://perma.cc/29G9-4B9G>].

⁸⁴ See Alexa Piccolo, *Environmental Education: Knowledge Is Power*, OECD ENV'T FOCUS

only perceive themselves as “more environmentally minded than when they were in their twenties”—they also have demonstrated it through their investments.⁸⁵

Bird-watching, or in a more general sense, birding, has been identified as “the fastest growing outdoor activity in America.”⁸⁶ Birding is a niche within wildlife-watching. In 2016, eighty-six million Americans, or thirty-four percent of the nation’s adult population, participated in wildlife-watching.⁸⁷ This was a twenty percent increase in just five years.⁸⁸ The U.S. Fish & Wildlife Service also estimated that more than forty-five million Americans engage in bird-watching.⁸⁹ While there are many differences among birders, surveys have generated the typical profile of a U.S. birder: “highly educated, affluent, slightly more women (56%) than men,” and, pulling from the largest group represented, 40–70 years of age.⁹⁰ But the future of birding will not die with that generation; embracing the hype of social media and digital apps, as well as core values like diversity, inclusion, and environmentalism, young birders are expanding birding itself.⁹¹

In 2011, the National Survey found that bird watchers spent approximately \$41 billion each year on trips and equipment, benefitting

(Feb. 21, 2020), <https://oecd-environment-focus.blog/2020/02/21/environmental-education-knowledge-is-power/> [<https://perma.cc/F244-HA4R>].

⁸⁵ See Joseph Coughlin, *Greener Than You: Boomers, Gen X & Millennials Score Themselves on the Environment*, FORBES (May 5, 2018), <https://www.forbes.com/sites/josephcoughlin/2018/05/05/greener-than-you-boomers-gen-x-millennials-score-themselves-on-the-environment/#10574c004d8b> [<https://perma.cc/S2RD-EX9E>].

⁸⁶ Caribbean Tourism Org., *Developing a Niche Tourism Market Database for the Caribbean*, ACORN CONSULTING P’SHP (Feb. 2008), at 10, <https://www.onecaribbean.org/wp-content/uploads/NicheMarketsDatabase.pdf> [<https://perma.cc/HNL8-4KVG>].

⁸⁷ U.S. FISH & WILDLIFE SERV., 2016 NATIONAL SURVEY OF FISHING, HUNTING, AND WILDLIFE-ASSOCIATED RECREATION (2018).

⁸⁸ *Report: 86 Million Americans Watched Wildlife in 2016, a 20 Percent Jump from 2011*, BIRDWATCHING DAILY (Oct. 2, 2018), <https://www.birdwatchingdaily.com/news/birdwatching/report-86-million-americans-watched-wildlife-2016-20-percent-jump-2011/> [<https://perma.cc/7ZY7-Y9N6>].

⁸⁹ *Birds, Bird Watching and the U.S. Economy*, U.S. FISH & WILDLIFE SERV. (Oct. 18, 2018), <https://www.fws.gov/birds/bird-enthusiasts/bird-watching/valuing-birds.php#target> [<https://perma.cc/7M9P-89UZ>].

⁹⁰ *Market Analysis of Bird-Based Tourism: A Focus on the U.S. Market to Latin America and the Caribbean Including Fact Sheets on The Bahamas, Belize, Guatemala, Paraguay*, CTR. FOR RESPONSIBLE TRAVEL, at 2, <https://www.responsibletravel.org/docs/Market%20Analysis%20of%20Bird-Based%20Tourism.pdf> [<https://perma.cc/PN7B-MX7Z>] (last visited Nov. 24, 2020).

⁹¹ See Matt Mendenhall, *The New Faces of Birding: Young, Urban, More Diverse*, BIRDWATCHING DAILY (Oct. 5, 2018), <https://www.birdwatchingdaily.com/news/birdwatching/new-faces-birding-young-urban-more-diverse/> [<https://perma.cc/2EUM-B4YS>].

local economies with \$14.9 billion spent on food, lodging, and transportation;⁹² 666,000 jobs were created in 2011 because of the expenditures.⁹³

Technological advances have made some aspects of birding more accessible than they once were,⁹⁴ thus triggering an exponential increase in birding. For example, participation in birding and photography increases congruently, with 13.9 million wildlife photographers in 2001 rising to 25.4 million (an increase of eighty-two percent) by 2011.⁹⁵

When we are not watching birds, they still have our backs. They certainly help farmers: they prevent erosion and are faithful forms of insecticide.⁹⁶ Some of our best sources of lumber are protected by insectivorous birds.⁹⁷ They have inspired music,⁹⁸ design,⁹⁹ and the fine arts.¹⁰⁰

V. ONE EXPERIENCE CAN CHANGE EVERYTHING

Though some enthusiasts are practically born as birders,¹⁰¹ many bird watchers can point to an experience or season in their lives that instilled them with a growing love for birds.¹⁰² While the experience could stem from some exotic trip,¹⁰³ it could also be as simple as noticing an odd-looking robin, which turned out to be a female towhee.¹⁰⁴ Indeed, the timing of it all—how bird-watching becomes relevant to an individual's life—is arguably the greatest factor in determining when a birder is born.

⁹² U.S. FISH & WILDLIFE SERV., *supra* note 87.

⁹³ *Id.*

⁹⁴ See CTR. FOR RESPONSIBLE TRAVEL, *supra* note 90, at 2.

⁹⁵ *Id.*

⁹⁶ See Barry Yeoman, *What Do Birds Do for Us?*, AUDUBON NEWS (Apr. 8, 2013), <https://www.audubon.org/news/what-do-birds-do-us> [<https://perma.cc/6FHU-4ZS6>].

⁹⁷ *See id.*

⁹⁸ See Naomi Lewin, *Classical Music for the Birds*, NPR MUSIC (Feb. 27, 2008), <https://www.npr.org/templates/story/story.php?storyId=33945288> [<https://perma.cc/Y5FA-7YEW>].

⁹⁹ See, e.g., *Sunni Robertson on How a Kingfisher Inspired a Bullet Train*, EARTHSKY (June 29, 2012), <https://earthsky.org/earth/sunni-robertson-on-how-a-kingfisher-inspired-a-bullet-train> [<https://perma.cc/KRH8-97QV>].

¹⁰⁰ Consider the ballet realm alone: Marius Petipa's "Swan Queen" in *Swan Lake* and "Bluebird" in *Sleeping Beauty*, and George Balanchine's version of the *Firebird*, to name a small sample.

¹⁰¹ See, e.g., Nate Senner, *Birding From Birth, Now an Ornithologist*, ALL ABOUT BIRDS, <https://academy.allaboutbirds.org/birding-from-birth/> [<https://perma.cc/CB28-BXWT>] (last visited Nov. 24, 2020).

¹⁰² See, e.g., Sidra Monreal, *How I Accidentally Became a Birder*, CONDE NAST TRAVELER (June 21, 2019), <https://www.cntraveler.com/story/how-i-accidentally-became-a-birder> [<https://perma.cc/6RPM-C44E>].

¹⁰³ *See id.*

¹⁰⁴ Author's personal experience, despite having traveled to many exotic places beforehand.

However, bird enthusiasts seldom begin with an awareness of bird-building collisions.¹⁰⁵ Indeed, the American Bird Conservancy explains that a “home may kill a dozen or more birds each year without [its resident(s)] realizing” because the bird “may have flown away injured to die elsewhere, or been eaten” by a local predator.¹⁰⁶

For Representative Quigley, local birders took him to McCormick Place in Chicago during migratory season.¹⁰⁷ While the “new mirrored and glass buildings” surrounding him were stunning, the “dozens and dozens of beautiful songbirds lying on the ground” shocked him much more, prompting him to pass in Cook County the legislative model that has inspired other areas since.¹⁰⁸

Representative Griffith had already been an “avid bird watcher,” but he points to a specific experience as triggering his legislative push.¹⁰⁹ Griffith’s then-five-year-old son, accompanying his father at the Capitol, pointed out a heart-wrenching sight: “Daddy there’s a dead bird out on the ledge.”¹¹⁰ Griffith understood that while the Capitol would be exempt, other federal buildings could be altered and prevent needless bird deaths simply by passing a common-sense bill.¹¹¹

VI. BSBA’S COST-EFFECTIVE GUIDELINES

A. *Opposition*

A member of Congress need only read the title of the bill, and an array of assumptions is sure to follow. As will be shown, many of these first impressions would become irrelevant once the reader goes through the bill in its entirety. However, in order to clear the fog, so to speak, it is important to address these concerns in a context much wider than the focus of H.R. 919. Thus, even though the bill applies only to a limited class

¹⁰⁵ See, e.g., Ken Edelstein, *Kendeda Building’s Bird-Safe Glass: Small Step in ‘Shockingly Huge’ Issue*, BLDG. CHRON. (Apr. 26, 2019), <https://livingbuilding.kendedafund.org/2019/04/26/kendeda-buildings-bird-safe-glass-shockingly-huge-issue/> [<https://perma.cc/9QD9-6BUQ>].

¹⁰⁶ *New Window Tape Can Significantly Reduce Bird Collisions At Homes*, AM. BIRD CONSERVANCY (Feb. 21, 2012), <https://abcbirds.org/article/new-window-tape-can-significantly-reduce-bird-collisions-at-homes/> [<https://perma.cc/9KXL-QCT7>].

¹⁰⁷ See Becca Cudmore, *The Bipartisan Partnership Behind the Bird-Safe Building Act*, NAT’L AUDUBON SOC’Y (May 18, 2015), <https://www.audubon.org/news/the-bipartisan-partnership-behind-bird-safe-building-act> [<https://perma.cc/3CBA-5N4T>].

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

of federal buildings, this section also addresses bird-safe building ventures in general.

To combat bird-building collisions, an obvious solution would be to remove the windows or glass altogether. Albeit effective, architectural beauty, among other things, would be sacrificed. There is no need to “argue for a windowless world to protect birds” though, or even less glass for that matter.¹¹² While some cities have been more confining, H.R. 919 provides options besides going without glass: “At least 90 percent . . . from ground level to 40 feet” must either “not be composed of glass” or, alternatively, use glass that adheres to certain provided methods.¹¹³ The façade “above 40 feet” lists the same options, but lowers the amount of conformity to “[a]t least 60 percent.”¹¹⁴ Those methods will be explained below.

Whenever new regulations are imposed, some assume that there will be many more to come. When San Francisco passed Standards for Bird-Safe Buildings in 2011, several planning commissioners perceived some of the ordinance’s regulations, like the encouragement of fritting,¹¹⁵ as only the beginning of a sequence of regulations that would grow “cumbersome” and “discourage[] construction.”¹¹⁶ Regarding fritting, an architect found the additional cost to be “less than half of a percent.”¹¹⁷ Anticipating future regulations is very rational, especially when planning directors opine that “the city is on the right track.”¹¹⁸ This transparency, however, can have its benefits, including alerting the market of a new demand, thus increasing competition and lowering costs.¹¹⁹ Another advantage elaborated on further below is that developers can incorporate the costs from the beginning as opposed to deviating from the original plan with “last-minute changes.”¹²⁰ It is worth noting, however, that San Francisco has not amended that ordinance since 2011.¹²¹

¹¹² Daniel Klem, Jr., *Landscape, Legal, and Biodiversity Threats that Windows Pose to Birds: A Review of an Important Conservation Issue*, 3 LAND 351, 352 (2014).

¹¹³ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

¹¹⁴ *Id.*

¹¹⁵ Fritted glass is “glass that is printed with a ceramic frit and fired into a permanent, opaque coating.” Fritted glass helps reduce glare and lowers the danger to birds. Elizabeth Stamp, *Why Fritted Glass Makes Buildings Even Better*, ARCHITECTURAL DIG. (Aug. 4, 2016), <https://www.architecturaldigest.com/gallery/why-fritted-glass-makes-buildings-even-better> [<https://perma.cc/85B3-NUBR>].

¹¹⁶ Viani, *supra* note 38.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *See id.*

¹²⁰ *Id.*

¹²¹ S.F. PLAN., *supra* note 39.

Retrofitting, or making changes to existing buildings, is another area of cynicism. Chicago's proposed ordinance from 2019 is similar to H.R. 919 but also applies to large-scale private buildings.¹²² The Executive Vice President of the Building Owners and Managers Association of Chicago, Michael Cornicelli, commented that retrofitting "is a potential sticking point" because, compared with new construction, it is more difficult and expensive.¹²³ Perhaps in response to this concern, H.R. 919 offers room for discretion with regard to retrofitting, as will be further discussed below.¹²⁴

Another argument rests on the false assumption that birds can detect glass windows. Yet there is irrefutable evidence that "[b]irds behave as if clear and reflective glass is invisible to them."¹²⁵ These birds are trying to reach habitat and sky seen through or reflected from a pane.¹²⁶ Alternatively, some might assume that birds will adapt or evolve in a way that will enable them to see the glass of presently threatening buildings. To the contrary, their vulnerability has increased in correlation with the increased quantity and quality of glass.¹²⁷ No matter the weather or time of year, birds are not "immune from glass,"¹²⁸ "an indiscriminate killer, taking the fittest as well as the less fit members" of a variety of birds.¹²⁹

In a more general sense, the greatest barrier to this bill is its facial appearance: with pressing issues in America such as immigration, government dissatisfaction, healthcare, and racism, why should Congress give its attention to birds?¹³⁰ This contemplation, to some extent, presumes that there is no room left on Congress's plates. But these larger issues will likely not clear away anytime soon. In fact, the current political division causes many problems to be at a standstill. Thus, it is not unreasonable to accomplish bipartisan acts, like H.R. 919, rather than work circularly toward higher mountains, such as the recent reinterpretation of the Migratory Birds Treaty Act.¹³¹

¹²² See Kamin, *supra* note 72.

¹²³ *Id.*

¹²⁴ Bird-Safe Buildings Act, H.R. 919, 116th Cong. (2019).

¹²⁵ Daniel Klem, Jr., *Glass: A Deadly Conservation Issue for Birds*, 34 BIRD OBSERVER 73, 73–81 (2006).

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ Klem, *supra* note 112, at 351–61.

¹³⁰ See, e.g., Martin Armstrong, *The Most Important Issues Facing The U.S. Today*, STATISTA (Aug. 23, 2019), <https://www.statista.com/chart/10278/the-most-important-issues-facing-the-us-today/> [https://perma.cc/K29M-Z32N].

¹³¹ 16 U.S.C. §§ 703 et seq.

Furthermore, the chapter that would be amended, “Acquisition, Construction, and Alteration” of Title 40’s “Public Buildings, Property, and Works” has added other non-partisan guidelines in the recent past.¹³² For example, in December 2007, the “[u]se of energy efficient lighting fixtures and bulbs” was added.¹³³ In October 2016, “[b]aby changing facilities in restrooms” were instituted.¹³⁴ And in July 2019, lactation rooms for public buildings were passed into law.¹³⁵ These changes did not need to set themselves as equivalents in priority with immigration; they merely needed more exposure to both the public and Congress.

B. *Cost-Neutral Assertions*

Representative Quigley describes H.R. 919 as “cost-neutral” among other things.¹³⁶ A press release claimed the BSBA would “permanently limit bird deaths for little to no cost.”¹³⁷ Supportive organizations like Audubon assert that the BSBA would improve buildings “at no extra cost to taxpayers.”¹³⁸ Local officials and even some developers agree that bird-safe buildings require no extra costs if “incorporated into the initial building design.”¹³⁹ While it is unclear what exactly is being factored into the equation, though probably not the “\$6.2 billion in state tax revenues” that birding activities bring in,¹⁴⁰ the Congressional Budget Office has already acknowledged the 2015 bill, which is highly similar to the current one, as being cost-neutral.¹⁴¹

Even in circumstances where there are extra costs, a few examples illustrate how incorporation of bird-friendly design is likely inevitable for many buildings. Thus, the economy saves enormously by making the necessary changes up front rather than as an afterthought.

Consider the Minnesota Vikings stadium, or US Bank Stadium, whose design plans attracted attention from many conservation groups due to its “200 [thousand square feet] of glass walls and their impact on

¹³² 40 U.S.C. § 3301 (2007).

¹³³ *Id.* § 3313.

¹³⁴ *Id.* § 3314.

¹³⁵ *Id.* § 3318.

¹³⁶ Press Release, *supra* note 7.

¹³⁷ *Id.*

¹³⁸ NAT'L AUDUBON SOC'Y, *supra* note 54.

¹³⁹ *Bird-Friendly Design*, GREEN BLDG. ALL., <https://www.go-gba.org/resources/green-building-methods/bird-friendly-design/> [<https://perma.cc/GX59-3DCH>] (last visited Nov. 24, 2020).

¹⁴⁰ Press Release, *supra* note 7.

¹⁴¹ Karen Berkowitz, *Highland Park Takes up Bird-Friendly Building Design*, CHI. TRIB. (Oct. 15, 2015), <https://www.chicagotribune.com/suburbs/highland-park/ct-hpn-bird-friendly-tl-1022-20151015-story.html> [<https://perma.cc/BD4H-HUD3>].

migratory birds,”¹⁴² not to mention the implicit fact that the city sits in a prominent migratory flyway. Despite being on notice years before construction began, bird safety concerns were not addressed until a month before the stadium’s opening, where a study finally took place, which revealed that the stadium causes at least 111 bird fatalities per year, a number that “exceed[s] the estimated range of fatality rates at the majority of U.S. high rise buildings,” the upper end being seventy seven.¹⁴³ This \$1.1 billion stadium could have employed, during construction, bird-safe glass for an estimated one million more.¹⁴⁴ But once it is constructed, retrofitting the stadium with such glass could cost ten times that amount. By the way, contrast this head-shaker with Fiserv Forum, home to the Milwaukee Bucks, which made plans in 2015 and followed through in becoming the “world’s first bird-friendly arena.”¹⁴⁵

How about bird-friendly implementation before construction, but still rather late in the whole process? With the Kendeda Building in Atlanta, GA, the bird-friendly glass was proposed after the general design had been determined.¹⁴⁶ This did not deter Diana Blank, founder of the Kendeda Fund and an avid birder, to offer help with the budget. The added cost was “\$32,000—less than a fifth of a percent of total construction cost.”¹⁴⁷ Thus, there is a sliding scale for costs as to when bird-friendly designs are introduced even in the pre-construction process.

Portland Audubon monitored the Columbia Building in 2015 and then received the funding necessary to retrofit.¹⁴⁸ The cost between labor and materials was thirty thousand dollars.¹⁴⁹ The original budget of the

¹⁴² Matthew Rothstein, *Can Bird-Safe Glass Ever Become An Industry Standard?*, BISNOW E. COAST (Oct. 17, 2019), <https://www.bisnow.com/national/news/construction-development/bird-safe-glass-regulations-new-laws-industry-standard-101339> [<https://perma.cc/U5BM-W528>].

¹⁴³ Scott R. Loss et al., *Factors Influencing Bird-Building Collisions in the Downtown Area of a Major North American City*, PLOS ONE (Nov. 6, 2019), at 17, <https://doi.org/10.1371/journal.pone.0224164> [<https://perma.cc/X478-QUAY>].

¹⁴⁴ Josh Peter, *Site of Super Bowl LII Is a Death Trap for Birds*, USA TODAY SPORTS (Jan. 31, 2018), <https://www.usatoday.com/story/sports/columnist/josh-peter/2018/01/30/site-super-bowl-2018-death-trap-birds-eagles-patriots-us-bank-stadium/1079934001/> [<https://perma.cc/2Y9B-Q7QC>].

¹⁴⁵ Marc Devokaitis, *The Milwaukee Bucks Have The Most Bird-Friendly Stadium In The NBA*, ALLABOUT BIRDS (Mar. 31, 2019), <https://www.allaboutbirds.org/news/the-milwaukee-bucks-have-the-most-bird-friendly-stadium-in-the-nba/> [<https://perma.cc/KP73-2HJ4>].

¹⁴⁶ Edelstein, *supra* note 105.

¹⁴⁷ *Id.*

¹⁴⁸ Email from Dan Lory, Jan. 15, 2020, *supra* note 60.

¹⁴⁹ This does not include the cost of individuals monitoring the building once per week each week for a year. *Id.*

Columbia Building was \$11.5 million, making the ratio of bird-safe upgrades about 0.26% of the original budget. That is fairly cost effective when taken on its own, but there are other costs involved: the monitoring portion of the project, the bad publicity for the building, the psychological impact on building inhabitants, and the time spent by Bureau Directors and City Commissioners on reviewing the project for funding approval. Thus, Portland Audubon “still therefore recommend[s] integrating bird safe measures early on rather than as a reaction to strikes.”¹⁵⁰

The Bird-Safe Buildings Act promotes “a healthier environment for all life,” standing alongside measures taken in the past like “prohibiting the use of the pesticide DDT in North America or substituting unleaded for leaded gasoline.”¹⁵¹ With the BSBA, the guidelines would “not prove to be cost prohibitive given their value for saving countless innocent bird lives that in turn provide utilitarian and aesthetic services to humans.”¹⁵²

C. *Capacity to Reduce Costs*

How exactly can the methods reduce costs? One example is “fritted glass”, which not only reduces collisions but “can also reduce heat gain in summer and heat loss in winter thereby reducing cooling and heating costs.”¹⁵³ The other side of the bill, lighting guidelines, would also reduce costs. Exterior light fixtures that are “poorly designed or improperly installed” cause a large portion of the light to leak into the sky rather than on people below, wasting “over one billion dollars in electricity costs annually” in the United States.¹⁵⁴

VII. BSBA’S ATTAINABLE STANDARDS

The Bird-Safe Buildings Act sets out attainable standards, making the bill a rational next step toward protecting birds. There are essentially three factors that contribute to the BSBA’s practicality. First, it respects the role and judgment of the General Services Administration

¹⁵⁰ *Id.*

¹⁵¹ Klem, *supra* note 112, at 352.

¹⁵² *Id.*

¹⁵³ *Bird-Friendly Building Ordinance*, BIRD FRIENDLY CHI., <https://birdfriendlychicago.org/ordinance> [<https://perma.cc/3G6N-AJCQ>] (last visited Nov. 24, 2020); *see also* M.L. Nestel, *Death From Above: Lawmaker Envisions Bird-Safe Buildings In New York City*, NEWSWEEK (Jan. 24, 2019), <https://www.newsweek.com/bird-deaths-collision-nyc-buildings-time-warner-center-new-york-city-debora-1294801> [<https://perma.cc/3YE3-E5JM>].

¹⁵⁴ *Bird-Safe Building Guidelines*, N.Y.C. AUDUBON SOC’Y, <http://www.nycaudubon.org/pdf/BirdSafeBuildingGuidelines.pdf> [<https://perma.cc/G3VE-X7NJ>] (last visited Nov. 24, 2020).

(“GSA”), which “manages nearly 10,000 buildings” for the United States through their Public Buildings Service (“PBS”).¹⁵⁵ Second, the bill’s language is narrowly tailored toward the goal of preventing bird-building fatalities. Third, the bill is consistent with related laws.

A. *Discretionary Language*

There are at least six clear examples of how the BSBA gives discretion to the GSA.

First: Whether a building is being “substantially altered” concerns “the opinion of the Commissioner of Public Buildings.”¹⁵⁶ The PBS Commissioner manages “approximately 371 million square feet” of space in the United States.¹⁵⁷ Rather than define “substantial alteration,” the BSBA delegates its interpretation to the PBS Commissioner, which is very sensible considering how the current commissioner at the time of this writing, Daniel Mathews, has previously served on the Transportation and Infrastructure Committee.¹⁵⁸ Of course, the Commissioner would be expected to factor in the definitions of “alter,” “construct,” and “public building,” which presently exist at the beginning of Chapter 33 of Title 40.¹⁵⁹

Second: What is considered the “maximum extent practicable” is a question to be answered “by the Administrator.”¹⁶⁰ This qualifier “practicable” gives room for the GSA to exempt buildings where it would be impractical to apply the given standards.¹⁶¹

Third: In determining the composition of the glass, the bill prefers four distinct approaches.¹⁶² But subsection (v) allows the Administrator to employ “any combination of the methods.”¹⁶³ That means the GSA could use appropriate ultraviolet (“UV”) patterned glass for some glass on a building, and employ netting in another portion.¹⁶⁴

¹⁵⁵ Erik Schneider, *The Federal Bird-Safe Buildings Act*, NAT’L AUDUBON SOC’Y, http://dodnrconservation1.homestead.com/Bird_Safe_Buildings_-_Audubon.pdf [<https://perma.cc/399S-UCUR>] (last visited Nov. 24, 2020).

¹⁵⁶ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

¹⁵⁷ *Commissioner, Public Buildings Service*, U.S. GEN. SERV. ADMIN., <https://www.gsa.gov/about-us/organization/leadership-directory/commissioner-public-buildings-service> [<https://perma.cc/NTF7-3FQ8>] (last visited Nov. 24, 2020).

¹⁵⁸ *Id.*

¹⁵⁹ 40 U.S.C. § 3301.

¹⁶⁰ H.R. 919.

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

Fourth: Subsection (b) of the BSBA briefly addresses monitoring, and requires the “Administrator [to] take such actions as may be necessary to ensure that actual bird mortality is monitored at each public building.”¹⁶⁵ The broadness of this language is most likely in consideration of the wide variety of circumstances and environments for a given public building. While the GSA may choose to glean ideas from bird conservation organizations, the Administrator ultimately decides what is “necessary” as to monitoring.¹⁶⁶ What matters is that it is happening in some shape or form.

Fifth: In subsection (d), the avenue of using “any available methods and strategies in accordance with existing effective best practices” allows the Administrator to consider alternative methods that would be consistent with new research and new technologies.¹⁶⁷

Sixth: Subsection (e) reemphasizes the “practicable” clause, noting that the Administrator may determine “exceptions for significant cost” after considering multiple options.¹⁶⁸

B. Narrowly Tailored Guidelines

The discretionary language of the bill does not, however, vanquish its underlying purpose. Indeed, the bill’s clear and easy-to-implement guidelines are the product of an organized collaborative effort, backed by decades of ornithological research, to prevent bird fatalities caused by buildings. Thus, many revisions have helped refine the bill. These changes will be thoroughly analyzed below. Also, while the bill’s scope is limited to public buildings, the BSBA is a necessary stepping stone in setting an example for buildings and homes throughout the nation.

The first attempt of a bird-safe building act also used “practicable” language, but its vagueness would have redirected the GSA on a quest to figure out which guidelines to follow.¹⁶⁹ For example, “the term ‘bird-safe building materials and design features’ *includes* [those] recommended by” guidelines established by Chicago, Toronto, and New York City.¹⁷⁰ To strictly follow this section, the GSA would need to have been consistent with all three standards, along with other guidelines in general because of the non-exhaustive “includes.”¹⁷¹

¹⁶⁵ H.R. 919.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ Bird-Safe Buildings Act of 2010, H.R. 4797, 111th Cong. (2009).

¹⁷⁰ *Id.* (emphasis added).

¹⁷¹ *Id.*

Some background to the guidelines in the latest BSBA is warranted. The U.S. Green Building Council, in 2011, added Pilot Credit 55: Bird Collision Deterrence.¹⁷² Drafted by American Bird Conservancy, the Bird-Safe Glass Foundation, and the Green Building Council Site Subcommittee, this popular credit sets out guidelines for different patterns of glass.¹⁷³ Pilot Credit 55 has been an essential pillar for the BSBA since 2015.¹⁷⁴ Also, it cannot be stated enough how Canada has influenced, and will continue to influence, the U.S. approach to bird-friendly building guidelines. Commissioned by their federal government, the National Standard of Canada group prepared and published *Bird-Friendly Building Design*.¹⁷⁵ This standard is grounded in science and was guided by “several existing municipal and private bird-safe regulations in North America,” making itself an invaluable assessment, summary, and incorporation of bird-friendly building recommendations.¹⁷⁶ Indeed, the standard’s intent is to help design bird-safe buildings not only in Canada but worldwide.¹⁷⁷

The current BSBA somehow managed to articulate the recommended guidelines in fewer than 400 words.¹⁷⁸ Not only are the guidelines concise—they are clear. The first suggested method for glass composition presents the general idea: The glass should use “elements that preclude bird collisions without completely obscuring vision.”¹⁷⁹ Next, the bill gives five examples of what would satisfy that principle: “[S]econdary façades, netting, screens, shutters, and exterior shades.”¹⁸⁰ The other methods use language that is widely understood by the glass market and ornithologists alike: “ultraviolet (UV) glass . . . the ‘2 x 4 rule’ . . . or translucent glass.”¹⁸¹

Additionally, the bill uses specific numbers and percentages whenever possible: for example, “90[%] of the exposed façade material from ground level to 40 feet” and “60[%]. . . [for] above 40 feet”. The language

¹⁷² Christine Sheppard & Glenn Phillips, AM. BIRD CONSERVANCY, *Bird-Friendly Bldg. Design*, 11, 15 (George Kenwick et al. eds., 2nd ed. 2015), available at https://abcbirds.org/wp-content/uploads/2019/04/Bird-Friendly-Building-Design_Updated-April-2019.pdf [<https://perma.cc/YFC6-PCAS>].

¹⁷³ *Id.* at 11.

¹⁷⁴ Bird-Safe Buildings Act of 2015, H.R. 2280, 114th Cong. (2015).

¹⁷⁵ CSA A460:19, *Bird-friendly building design*, STANDARDS COUNCIL OF CAN. (May 1, 2019), <https://www.scc.ca/en/standardsdb/standards/29805> [<https://perma.cc/9FGV-W2M9>].

¹⁷⁶ Klem, *supra* note 23.

¹⁷⁷ *Id.*

¹⁷⁸ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

is friendly to any member of Congress, regardless of whether they have served on the Transportation and Infrastructure Committee.

The bill is thorough. Packed into several hundred words, the BSBA addresses everything from stained glass to UV-reflective glass, from transparent corners to bird-attractive courtyards, and from security consistencies to infrared and motion detectors.¹⁸² This meticulous preparation is vital for a bill that would affect the planning and development of thousands of buildings in diverse settings.

The discretionary language, as discussed above, adds to the attainability of the BSBA's standards. That language is not any kind of compromise or settlement. Consider one example of a victory: New York's Javits Convention Center, which had previously caused the most annual bird deaths in New York, recorded a ninety-five percent reduction in bird collisions after FXCollaborative renovated the façade with fritted glass.¹⁸³ As a side note, another advantage of that change was reduction on "solar heat gain for the building's vast interior spaces."¹⁸⁴ Even though the BSBA would only apply to public buildings, perhaps millions of bird deaths would be prevented each year. The design changes would become mainstream to the public eye, creating an influential surge for bird-safe buildings that are industrial, residential, business, etc.

C. *Consistency with Other Laws*

As an extension to the BSBA's thoroughness, the bill has already included a section for exempt buildings, including those that may fall under the National Register of Historic Places, the White House, the Supreme Court, the United States Capitol, and all related buildings and grounds.¹⁸⁵ This is helpful for future stages of the bill, which usually have to be revised for these peripheral things.

CONCLUSION

The more often we see the things around us—even the beautiful and wonderful things—the more they become

¹⁸² H.R. 919.

¹⁸³ John Gendall, *How Architects Are Designing Buildings With Birds in Mind*, ARCHITECTURALDIG. (Feb. 27, 2019), <https://www.architecturaldigest.com/story/how-architects-designing-buildings-birds-mind> [<https://perma.cc/392E-V2M8>].

¹⁸⁴ *Id.*

¹⁸⁵ Bird-Safe Buildings Act of 2019, H.R. 919, 116th Cong. (2019).

*invisible to us. That is why we often take for granted the beauty of this world: the flowers, the trees, the birds, the clouds—even those we love. Because we see things so often, we see them less and less.*¹⁸⁶

The Bird-Safe Buildings Act would serve as a perpetual reminder to both public authorities and its residents that the United States has invested in the future of birds. A reminder that their presence is often a key factor in making a building and its environment beautiful. A reminder that the United States' prosperity has been propelled by its birds—socially,¹⁸⁷ academically,¹⁸⁸ scientifically,¹⁸⁹ economically,¹⁹⁰ emblematically,¹⁹¹ and even heroically¹⁹²—to unbelievable heights. The BSBA is a common-sense solution whose language, in the last decade particularly, has been adopted by an increasing number of states and cities. A national effort is necessary to combat the significant drop, which we ourselves have caused, in the birds' population. Otherwise, we will *not* “see [birds] so often,” but will continue to literally “see them less and less.”¹⁹³ Birds inspired the human race to take flight. Let us allow birds to inspire this bill to do the very same.

¹⁸⁶ Joseph B. Wirthlin, “Live in Thanksgiving Daily,” BYU DEVOTIONALS (Oct. 31, 2000).

¹⁸⁷ See, e.g., SCOTT WEIDENSAUL, *OF A FEATHER: A BRIEF HISTORY OF AMERICAN BIRDING* (2008).

¹⁸⁸ See, e.g., ALEXANDER WILSON, *AMERICAN ORNITHOLOGY OR THE NATURAL HISTORY OF THE BIRDS OF THE UNITED STATES* (1831).

¹⁸⁹ See, e.g., *The Auk: Ornithological Advances*, AM. ORNITHOLOGICAL SOC'Y, <https://americanornithology.org/publications/the- auk/> [<https://perma.cc/W48T-HK9Q>] (last visited Nov. 24, 2020).

¹⁹⁰ Bird watchers significantly add to the \$75.9 billion spent in just one year towards the U.S. economy by wildlife watchers. See U.S. FISH & WILDLIFE SERV., *supra* note 87.

¹⁹¹ The bald eagle, emblem of the USA, has been utilized as such since June 20, 1782. See Hope Rutledge, *American Bald Eagle Information*, BALD EAGLE INFO., <https://www.bald eagleinfo.com/eagle/eagle9.html> [<https://perma.cc/B26U-QFEM>] (last visited Nov. 24, 2020). Though it is widely known for its “boundless spirit of freedom” as Maude M. Grant once wrote, its ignorance of unnecessary chases from small birds has been misinterpreted, even by Benjamin Franklin and Audubon himself, as cowardly. *Id.* There is always more to learn: is bravery really found in unnecessarily creating and then eliminating enemies, or in fostering peace whenever possible? *Id.*

¹⁹² Utah pioneers, threatened by a sudden cricket plague, attribute retention of their final crops to God's sending of flocks of California gulls, which devoured the crickets. See William G. Hartley, *Mormons, Crickets, and Gulls: A New Look at an Old Story*, 38 UTAH HIST. Q. 224, 224–39 (1970).

¹⁹³ Wirthlin, *supra* note 186.