

# INVESTING IN WILDLIFE CROSSINGS & HABITAT CONNECTIVITY

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## EXECUTIVE SUMMARY

Wildlife corridors and habitat connectivity are crucial for ensuring ecosystem health. Wildlife must be able to move to find food and water resources, genetically diverse mates, and climate refugia.<sup>12</sup> Wildlife crossings improve connectivity and reduce dangerous and costly wildlife-vehicle collisions. Virginia took steps forward in 2020<sup>3</sup> and 2021,<sup>4</sup> passing bills to study and prioritize wildlife corridors. Now, we must invest in the areas identified in the forthcoming Virginia Wildlife Corridor Action Plan by creating a state funding mechanism that leverages the new and available federal dollars unlocked by the Infrastructure Investment and Jobs Act.

## CHALLENGE

Over 70,105 miles of roads carve Virginia's land into pieces, impeding wildlife movement.<sup>5</sup> Roads create barriers to safe passage for terrestrial and aquatic species, and Virginian's are at "high-risk" for wildlife-vehicle collisions. According to State Farm collision data, it is the 15th most dangerous state in the nation, with a 1-in-75 chance of hitting an animal on Virginia's roadways.<sup>6</sup> More than 90% of deer collisions result in vehicle damage costing roughly \$1,840 per collision.<sup>7</sup> Nationally, the associated costs of vehicle repair, medical treatment, towing, law enforcement, monetary value of the animals, and carcass removal amount to \$8.4 billion per year.<sup>8</sup> That figure does not consider the cost of biodiversity loss.

Aquatic organisms suffer from roads too. Undersized culverts can block aquatic species movement, damage roadways, erode streambanks, and restrict spawning migrations and movement of culturally significant species like brook trout, shad, and river herring.<sup>9</sup> Two Virginia road stream crossings assessments found that 54% of crossings in Blue Ridge headwater streams<sup>10</sup> and 58% of crossings in the coastal plain impeded fish movement.<sup>11</sup> Increasing culvert size and improving design can create safe passage corridors for aquatic, terrestrial, game and nongame species.

Virginia has already made great strides to identify "hot

spots" for collisions on its roadways, but it has yet to fully invest in wildlife crossings, directional fencing, landscape protections, and agency staffing to implement these measures.

## SOLUTION

Wildlife crossings can decrease wildlife-vehicle collisions by 92% when properly sited and with exclusionary fencing.<sup>12</sup> Reduced collisions means reduced costs. In many cases, crossings end up paying for themselves over time by simply reducing the number of costly wildlife-vehicle collisions. In just 1.8 years, the benefits of culverts with exclusionary fencing along Virginia's I-64 exceeded the costs of fencing, with an average savings of \$2.3 million per site.<sup>13</sup>

Investing in wildlife-friendly infrastructure in Virginia is fiscally responsible and timely. Billions of federal dollars were made available for wildlife infrastructure with the passage of the Infrastructure Investment and Jobs Act. Many of these infrastructure programs require applicants to contribute matching funds to unlock the federal funds available, and because some of these programs are temporary, Virginia must seize these opportunities while they are available by committing to legislation that will help fund implementation of wildlife crossings and habitat connectivity projects.

Additionally, with climate change expected to increase the frequency and intensity of flooding,<sup>14</sup> Virginia has an opportunity to reassess and update its roadways and culvert maintenance to improve aquatic connectivity and build climate-resilient infrastructure. Addressing both issues at once will result in saved costs and an extended infrastructure lifespan.

The General Assembly passed excellent bills that began the work of protecting wildlife movement, but funding is still needed to support the agencies, partners, and private landowners who must all work together to truly protect and restore wildlife corridors and create safe passage for our terrestrial and aquatic species.

## POLICY RECOMMENDATIONS

Ensure a state funding mechanism and a \$5 million budget allocation in 2023 to, in part, support crossing implementation in areas identified by Virginia's Wildlife Corridor Action Plan, as well as to leverage federal dollars available for wildlife crossings and habitat connectivity projects.

Provide additional staffing capacity and support for the state agencies charged with developing and advancing the Wildlife Corridor Action Plan by funding and hiring at least 1 FTE in 2023.

Direct VDOT to determine the Aquatic Organism Passage (AOP) status of a road-stream crossing prior to replacement/repair projects and update design standards to ensure habitat connectivity and resiliency for all road stream-crossing projects.