

EXECUTIVE SUMMARY

Are wildlife crossings an appropriate tool in the planning of natural heritage systems in Ontario?

Is the application of wildlife crossings consistent with existing provincial policy directions in Ontario?

What lessons can be learned from the south Florida I-75 Project and Banff Wildlife Crossings Project that can inform the integration of wildlife crossings in Ontario's natural heritage systems?

A literature review outlined the translation of theoretical knowledge into practical mitigation practices related to the concept of corridors, the scholarly debate surrounding their efficacy in restoring habitat linkages between severed landscapes, and their relationship to wildlife crossings. The literature review consolidated research on the design, implementation, and monitoring of wildlife crossings and was used to derive a matrix of potential project components through which to organize case study data.

Using the matrix and content analysis of case study documents, the Interstate 75, south Florida and Trans-Canada Highway, Banff wildlife crossing projects were examined for lessons in design, implementation processes and requirements, and monitoring program structures. They are presented using a framework adapted from the recent publication *Safe Passages: Highways, Wildlife, and Habitat Connectivity* (Beckmann et al., 2010).

Wildlife overpass, Trans-Canada Hwy, Banff, AB.
Credit: Anita Sott, 2012.

Lessons Learned

Planning for wildlife crossing project locations is not an arbitrary practice and requires the employment of needs assessment tools to determine where wildlife movement is impeded and where it would be best facilitated, especially between areas of high habitat quality. Adjacent land management is essential to maximize the efficacy of crossing structures beyond the mitigated right-of-way.

The design of wildlife crossing structures should be selected to suit the needs of focal species but also feature elements that encourage use by multiple species, often facilitated by the provision of a diversity of structures. In combination with crossing structures, the installation

Successful project implementation and post-construction management benefit from project champions (whether an individual or an organization), explicit roles and responsibilities for agencies and players involved, and public support campaigns or initiatives. These can build project momentum and relay successes and information from monitoring data back to the public and funding contributors.

Long-term monitoring programs should accompany