

Highway 22 Animal Detection system

Alberta Transportation and Economic Corridors (TEC)

Alberta Transportation and Economic Corridors (TEC) mandate is to provide a safe and efficient transportation system for Albertans. To improve public and wildlife safety along the southern end of the Highway 22 corridor, TEC is constructing an Animal Detection System (ADS) that will commence at the end of the recently installed wildlife exclusion fence, approximately 2.0 km north of the Highway 22 and Highway 3 junction, and will span about 2.4 km north. TEC has retained WSP Canada Inc (WSP) to manage the design and construction supervision for this Project, while PBX Engineering and Highline Electrical Constructors will design and construct the system.

To address Animal Vehicle Collisions (AVCs), the Government of Alberta has implemented the Alberta Wildlife Watch (AWW) Program, which aims to improve driver safety and reduce the impacts of highways on wildlife. AWW was developed in close collaboration with federal (Parks Canada) and provincial agencies (Wildlife Stewardship) with input from academia and environmental non-governmental organizations.

Animal Detection System

The ADS will alert drivers when wildlife are found within the highway right-of-way (ROW) which will help to avoid/reduce collisions. The system will consist of both radar and AI-based video detection technologies that will be paired with a robust software system to warn drivers when wildlife are within the highway ROW. The system is only turned on when animals are within the highway ROW and automatically filters out vehicles and other highway users. Once an animal is detected within the ROW, a custom illumined sign (Fig 1) warning drivers of wildlife ahead. The ADS automatically turns off the signs once the animal has left the highway ROW. Drivers are urged to exercise additional vigilance when the signs are illuminated.

Based on the target wildlife species in the area (elk, deer, and moose), the location of the system was determined using existing AVC data, wildlife movement data from Reconnecting the Rockies Alberta, landscape characteristics, and existing human developments including the recently installed wildlife exclusion fence.

Benefits of the Animal Detection System

Animal Detection Systems are designed to protect humans and wildlife alike. Some of the benefits include:

- Protecting human and wildlife lives.
- Reducing property damage.
- Improving wildlife connectivity.



Figure 1 Example of animal detection

Stay Informed About the Project

The Project team is beginning engagement with local municipalities, Indigenous groups, and Project stakeholders to share information about the Project.

To speak with a Project team member about the Highway 22 Animal Detection System Project, please email the Project team at: animaldetectionsystem@wsp.ca

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