NEVADA DEPARTMENT OF TRANSPORTATION

RESEARCH DIVISION

DATA COLLECTION OF WILDLIFE ANIMALS CROSSING I-80 IN EASTERN NEVADA AND USA PARKWAY

Key · Points

Project Number:
342-18-803 TO 1

Start Date:
September 17, 2018

Duration:
8 months

Project Cost:
$70,349.00

Researcher:
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Principal Investigator:
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PROBLEM

Wildlife crossing road surfaces is a major concern of highway safety in rural and suburban areas. Wildlife-vehicle collisions (WVCs) are dangerous for motorists and the wildlife animals involved, and cause millions of dollars in infrastructure damage. The Nevada Department of Transportation (NDOT) implemented various mitigation facilities, such as wildlife fencing and wildlife-crossing structures, along highways to reduce WVCs. Monitoring wildlife animals' use of crossing structures is important for evaluating the effect of existing structures and understanding wildlife-crossing patterns, which is valuable for future mitigation strategies.

OBJECTIVE

Collect extended data to track the trend of usage and provide the before and after data of two new wildlife overpass projects, continue data collection and data analysis along I80 in Pequop Mountains, Nevada, and extend the effort to USA Parkway, Nevada.

METHODOLOGY

This project will use NDOT motion-activated infrared cameras to document wildlife activities at the eight crossing structures, including two wildlife underpasses, two vehicle underpasses and two large overpasses in Pequop Mountains, and two underpass structures along USA Parkway. All cameras will be housed in security enclosures and mounted to the T-Posts or other existing facilities. The spring migration is normally from early March to mid-May, and the autumn migration is typically mid-September to early December, based on known historical movement patterns.

IMPLEMENTATION POTENTIAL

UNR will analyze how wildlife use the facilities for migration and how the facilities benefit highway safety. The analysis will combine data from previous migratory periods, so it will offer the knowledge of wildlife animals crossing different structures over an extended period. The data gained will help facilitate understanding of animal crossing patterns to help NDOT better utilize wildlife overpass projects in future locations statewide.

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