Development of a Nevada Wildlife-Fencing GIS Dataset

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Abstract:

Wildlife fencing is one of the most commonly applied measures to separate wildlife from motorists and is also among the most cost-effective mitigation measures reducing wildlife-vehicle collisions (WVCs). The Nevada Department of Transportation (NDOT) has been installing wildlife fences along interstate/state highways where WVC concern exists, such as the recent fence installation on US 50 from Boyer Lane to Pinto Lane and from Onyx ST to US 95 in Silver Spring. While some of the fencing information could be found in project contract documents, there is no statewide wildlife-fencing GIS data that can provide integrated and accurate fencing information such as locations, fence types, end types. The Center for Advanced Transportation Research and Education (CATER) at the University of Nevada, Reno (UNR) will create the statewide wildlife-fencing database with Google Map Street View, Google Earth Street View (Google Map and Google Earth may provide data/information from different years) and NDOT Roadview Workstation. UNR CATER will review the 360-degree street view pictures and identify the existence of fences, fence type, location and start/end points. This project will integrate the extracted wildlife-fencing data, historical crash data, NDOT Highway Performance Monitoring System (HPMS) road network and data of existing crossing structures on interstate/state highways. The data of crossing structures will also be collected using the aerial map pictures and street view pictures when UNR CATER extract the fencing data.