

MOUNTAIN-PLAINS CONSORTIUM

RESEARCH BRIEF | MPC 19-399.3 (project 454) | October 2019

Regional Implementation of Tribal Transportation Safety Program: Yankton Sioux Tribe Roadway Safety Improvement Program



the **ISSUE**

Tribal communities recognize the need to improve roadway safety. A five-step methodology has been developed by the Wyoming Technology Transfer Center to improve roadway safety on reservations. This methodology was initially implemented on the Wind River Indian Reservation, which led to the Wyoming Department of Transportation's funding of three system-wide, low-cost safety improvement projects. Due to the success of the program on the Wind River Indian Reservation, tribes across the country have become interested in implementing the program. WYT2/LTAP and the Northern Plains Tribal Technical Assistance Program (NPTTAP) are helping tribes implement this program on their reservations in the Great Plains region, and have developed criteria to identify tribes for participation. This study aimed to improve roadway safety of the Yankton Sioux Tribe Reservation.

the **RESEARCH**

The methodology applied for this study provided tools to prioritize safety improvement on the Yankton Sioux reservation. A combination of data driven, field verification, and trend analysis was used in the study. Crash data analysis, field evaluations of roadway conditions, a combined ranking to identify high risk locations, identification of countermeasures and a benefit cost analysis was undertaken for this study.



A University Transportation Center sponsored by the U.S. Department of Transportation serving the Mountain-Plains Region. Consortium members:

Colorado State University
North Dakota State University
South Dakota State University

University of Colorado Denver
University of Denver
University of Utah

Utah State University
University of Wyoming



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Project Title

Regional Implementation of
Tribal Transportation Safety
Program

Sponsors | Partners

Wyoming Technology Transfer/
Local Technical Assistance
Program (WYT2)

University of Wyoming

Wyoming Department of
Transportation (WYDOT)

Federal Highway
Administration (FHWA)

Mountain-Plains Consortium

North Dakota State University

Northern Plains Tribal Technical
Assistance Program (NPTTAP)

Road Supervisors

USDOT, Research and
Innovative Technology
Administration

the FINDINGS

Ranking of sites was done using a data driven analysis. Road segments with low ranking scores were selected and evaluated for safety improvements. Countermeasures were proposed for the selected segments based on the analysis. It was found that crash data was adequate. Many crashes in the Yankton Sioux reservation involved alcohol, young drivers and were mostly run-off. More crashes were recorded where safety equipment was not used and crashes occurred at night where roadway conditions changed suddenly such as on curves and intersections.

the IMPACT

The outcome of the research is the identification of low-cost safety improvement projects to advance for funding to respective state and federal governments. Strategic highway safety plans will be development and ready for full acceptance and approval by the stakeholders for the Tribe. This will help to improve roadway safety in the tribal reservation.

For more information on this project, download the entire report at <http://www.ugpti.org/resources/reports/details.php?id=968>

For more information or additional copies, visit the Web site at www.mountain-plains.org, call (701) 231-7767 or write to Mountain-Plains Consortium, Upper Great Plains Transportation Institute, North Dakota State University, Dept. 2880, PO Box 6050, Fargo, ND 58108-6050.



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