WYOMING

Traffic Records Strategic Plan

October 28, 2020

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Approval Signatures

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Wyoming Traffic Records Oversight Committee
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Revision History

Date	Revision By	Status
201910	JGM	Initial draft using the new NHTSA Strategic Planning template
202005	JGM	Updated with results of the initial rounds of sessions
202008	JGM	Completing the sections with available results.
202010	JGM	Updated with WyTRCC review comments for final approval

Introduction

Wyoming continues to make improvements in the Traffic Records System and is on par with many other states across the nation. However, there are still key areas to address. Many databases still function as islands of information with limited data sharing and integration. Data remains inconsistent from one dataset to another. The quality of some data is questionable and accessibility is limited. State agencies continue to change and build databases with limited input from other state partners. While the Wyoming Traffic Records Coordinating Committee (WyTRCC) continues to work to solve these issues, we are often limited by resources, involvement, support, and understanding of Traffic Records at the higher department levels.

Today more than ever, it remains vital for stakeholders to have reliable traffic records data upon which to make decisions concerning policy formulation and allocation of resources. Continuous improvements in data collection, accessibility, and quality are required to keep pace with our changing needs, technology, and the demand for Data Driven decision-making.

The Purpose of this Document

The purpose of this document is to provide the Highway Safety Program of the Wyoming Department of Transportation (WYDOT) and other traffic safety stakeholders of the State of Wyoming with a consolidated, prioritized list of potential *Traffic Records Improvement* projects to consider over the next 1-3 years. These projects have been identified as appropriate ways to achieve desired improvements in safety analysis and communication capabilities to support roadway safety decisions and actions in the State of Wyoming.

The Plan (this Strategic Traffic Records Plan) is aimed primarily at actions that the Wyoming Traffic Records Coordinating Committee (WyTRCC) can help accomplish through its membership while pursuing the goal of improving traffic records. As such, it touches on the activities of all stakeholder agencies within the state, but it does not represent an attempt to set those agencies' agendas. Rather, it is an attempt to help the WyTRCC and the member agencies fulfill a broad role of communication, coordination, and assistance among collectors, managers, and users of traffic records data in Wyoming.

Statutory Requirements for a Traffic Records Strategic Plan

Recent transportation authorizations, from SAFTEA-LU through MAP-21, and now with the Surface Transportation Board Reauthorization Act of 2015, have laid down requirements for a Traffic Records Strategic Plan in association with the funding for traffic records projects.

The latest statues includes a requirement for strategic planning in order to qualify for federal grants to support projects to improve a state's traffic records system. The law requires states to establish a Traffic Records Coordinating Committee (TRCC), to develop a *"multiyear highway safety data and*
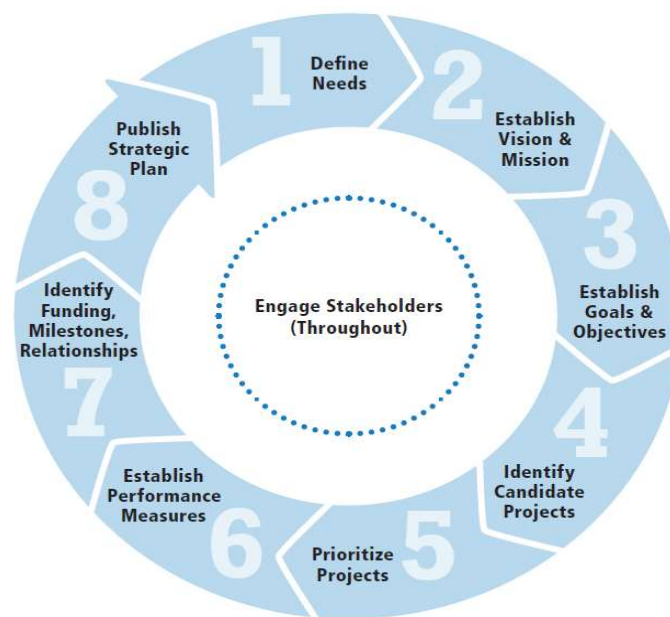
traffic records system strategic plan" that addresses deficiencies in the traffic records system, and to obtain approval of the plan by the TRCC. The plan should specify how the deficiencies were identified, prioritize activities, identify performance-based measures, and describe how grant funds are going to be used to address the needs and goals identified in the strategic plan.

While related to eligibility for funding under Section 405, the requirements may also be interpreted more broadly as a need to link the state's safety planning process to the traffic records strategic plan. The support for this linkage is that all of the planning efforts require data and require some statement about the quality and reliability of the data used in safety planning. Where deficiencies are noted, a state is expected to address those with a series of activities that will result in data improvements. Presumably, a state with a *Strategic Plan for Traffic Records Improvement* could meet this obligation by adopting this plan by reference in the other planning documents, as well (such as the Strategic Highway Safety Plan).

Background of the Traffic Records Strategic Plan

TRCC in Wyoming conducted a Strategic Planning Process over a 6 months period. The process was designed to establish its strategic baseline from which the plan will be defined and updated through the execution of actions and projects.

The process generally followed the recommendations provided by NHTSA, with 8 steps shown in the diagram below. The process was interrupted to a significant degree by the COVID-19 pandemic, which prevented in-person meetings (only two of which were held early in the process), and also severely impacted the bandwidth available from the desired participants.

Organization of the Traffic Records Strategic Plan

The Traffic Records Strategic Plan is organized into the following sections.

TRCC Background

This section covers the State TRCC's history, governance, and membership.

Traffic Records System Overview

The following domains make up the traffic records data sets being addressed:
- Crash
- Roadway
- Vehicle
- Driver
- Citation / Adjudication
- Injury Surveillance / EMS
- Others (such as school locations, alcohol establishment locations, etc.)

The quality of the data is measured with respect to the following aspects (among others):
- Timeliness
- Consistency
- Completeness
- Accuracy
- Accessibility
- Integration

Traffic Records Assessment

This section includes the results of latest traffic records assessment; the list of the resulting recommendations, considerations, and suggestions.

Traffic Records Strategic Approach

This section includes the strategic baseline defined during the strategic process: needs, vision, mission, goals and objectives; this section also includes the Data Quality Management with an overview of statewide performance measures and metrics as they relate to core systems.

Traffic Records Projects

This section describes the project prioritization process and provides the list of projects in the current FY to be delivered as part of the strategic plan.

TRCC Background

NHTSA's Interim Final Rule (Federal Register, 81 (99), 32554-32605) regarding Uniform Procedures for State Highway Safety Grant Programs published in response to the Fixing America's Surface Transportation (FAST) Act advises that a TRCC should have diverse membership with clearly delineated roles and responsibilities. The intent is that the TRCC will have the technical knowledge and access required to review any of the State's highway safety data and traffic records systems. Fully representative TRCCs can provide executive level leadership and decision-makers the information they need to support traffic records improvements. The FAST Act describes minimum requirements for State TRCCs on meetings and membership, strategic plans, quantifiable and measurable progress, and the traffic records assessment. The strategic plan requirement (23 CFR 1300.22(b)(2)) states that strategic plans must accomplish the following:

1. Describe specific, quantifiable, and measurable improvements that are anticipated in the State's core safety databases.
2. Provide a list of all recommendations from the most recent traffic records assessment.
3. Identify which traffic records assessment recommendations the State tends to address, along with which Highway Safety Plan (HSP) projects will address each recommendation, and the performance measure used to track progress.
4. Identify which recommendations from the traffic records assessment the State will not address and provide reasoning.

TRCC Membership

The Wyoming Traffic Records Coordinating Committee (WyTRCC) was established in March 2004, and its mandate is to improve the traffic records system. The committee's mission statement is ***"To improve transportation safety by enhancing and integrating our traffic information systems for the public and safety community."***

WYTRCC's membership consists of personnel from the various programs within the various State agencies. Oversight of the committee's activities is provided by the Highway Safety Engineer along with the Wyoming Traffic Records Oversight Committee.

Agencies Involved

Wyoming's TRCC (WyTRCC) is made up of representatives from various agencies and organizations that are vested with a responsibility for transportation safety, including:

- **Highway Safety Program** — that is responsible for traffic safety program management, problem identification, and countermeasure grant funding.
- **WYDOT (Wyoming Department of Transportation**) **Planning** — that is responsible for planning, project programming, asset management, and roadway feature inventory.

- **WYDOT Traffic Operations** — that is responsible coordinating with the five Transportation Districts for addressing traffic safety through roadside hardware, striping, intersection signaling, etc.
- **Statewide Law Enforcement Liaison** — that coordinates efforts with the agencies that enforce traffic laws and regulations at the local level.
- **Wyoming Highway Patrol** — that is responsible for enforcing laws on state highways, as well as having a particular focus on commercial vehicles.
- **Driver Services** — that licenses drivers and maintains data on suspension, revocation, and application of various constraints such as ignition interlock.
- **Motor Vehicle Services** — that maintains vehicle title information and manages information on commercial motor carriers.
- **Department of Health** — that is responsible for collecting and managing information that describes incidences of trauma occurring within the state.
- **The Judicial System** — that is responsible for the adjudication of traffic offenses at both the state and local level.

NOTE (*): Due to very high workloads, and due to the Corona virus pandemic, representation from the Department of Health and the Judicial system has been quite limited over the last year.

Table 1. TRCC Membership

Level	Name	Program	Agency	System
Executive	Matt Carlson	Highway Safety	WYDOT	All
Program	James Stout (WyTRCC Chair)	Highway Safety	WYDOT	All
Program	Lily Sharpe	TBD	Supreme Court	Citation
Program	Misty Dobson	Driver Services	WYDOT	Driver
Program	Andy Gienapp	EMS Administrator	WDH	Injury
Technical	Jay Ostby	EMS Operations	WDH	Injury
Technical	Kelli Perrotti	Trauma	WDH	Injury
Program	Dan Tolman	IT	WYDOT	N/A
Program	Deborah Lopez	Motor Vehicle	WYDOT	Vehicle
Technical	Joe McCarthy	Consultant	WYDOT	All
Technical	Keri Bohlmann	Highway Safety	WYDOT	Crash
Technical	Lori Davis	Highway Safety	WYDOT	Crash
Technical	Stephanie Lucero	Highway Safety	WYDOT	Crash
Technical	Tom Carpenter	Highway Safety	WYDOT	Crash
Technical	Stacey Gierisch (WYTRCC Secretary)	Highway Safety	WYDOT	Crash
Program	Tom Pritchard	Highway Patrol	WYDOT	Crash, Citation
Technical	Pete Abrams	Highway Safety, LEL	WYDOT	Crash, Citation
Technical	Christina Spindler	Traffic Operations	WYDOT	Crash, Roadway
Technical	Renee Krawiec	Driver Services	WYDOT	Driver
Technical	Aundrea Brown	Trauma Program	WDH	Injury

Level	Name	Program	Agency	System
Technical	Rachael Pivik	Planning	WYDOT	Roadway
Technical	Taylor McCort	Traffic Ops	WYDOT	Roadway
Technical	Karson James	Highway Safety	WYDOT	Various

Traffic Records System Overview

The State of Wyoming traffic records systems are summarized in the table below. The Traffic Records Inventory document provides further details into the data sets in each of the systems.

Table 2. Traffic Records System

Traffic Record System	Description
Crash	The primary source of crash data is the WECRS database, consolidated from the crashes reported by law enforcement via the statewide electronic crash reporting system. Auxiliary datasets are also maintained by WYDOT HWS including crash factors and crash geo-locations. The Highway Safety (HWS) program at WYDOT is the custodian for this data.
Driver	The primary source of Driver data is the RIS application. A synchronized shadow database is maintained at WYDOT for use with linking with the crash data, and for ad-hoc reporting. The Driver Services program at WYDOT is the custodian of this data.
Vehicle	The primary source of Motor Vehicle data is the RIS application. A synchronized shadow database is maintained at WYDOT for use with linking with the crash data, and for ad-hoc reporting. The Motor Vehicle Services program at WYDOT is the custodian of this data.
Roadway	The various set of roadway features reside in different locations, including: • Agile Assets • Approaches • ESRI • Safety Portal Most of the datasets above are consolidated into the SPOD Oracle schema at WYDOT, to facilitate access. Various programs at WYDOT, including Planning, Traffic Operations, Highway Safety, and Materials are the custodians for this data.

Traffic Record System	Description
Citation/ADJUDICATION	TBD
INJURY/SURVEILLANCE	TBD
OTHER	Some additional records related to traffic safety analysis also exist and are managed by WYDOT HWS, including: • Schools • Holidays • Alcohol Establishments

Traffic Records Assessment

Assessment Recommendations

The following recommendations were given to Wyoming in the most recent assessment (dated December 12, 2019). The considerations given in the assessment are also listed, as well as any specific suggestions that were given in the summary.

Along with each recommendation is Wyoming's response regarding which recommendations the State intends to address and with what priority. In general, the priority levels mean the following:
- High means that the State intends to address the recommendation in the next 2-3 years,
- Medium means that the State intends to address the recommendation in the next 3-5 years, and
- Low means that the State does not intend to address the recommendation within the next 5 years.

Traffic Records Coordinating Committee (TRCC)

TRA Recommendations – None

TRA Considerations

- Continue to encourage all stakeholders to participate in TRCC meetings, both at the technical and Executive level.
- Establish and track performance measures for EMS/Injury Surveillance with the goal of having at least one performance measure for each of the core data systems.

TRA Summary Suggestions

- Executive members that hold high-level positions within their area of responsibility can establish policy, direct resources, and set the vision for the technical TRCC.
- The Traffic Records Coordinating Committee should be monitoring the data quality of all of the component data systems regularly, in order to ensure that Wyoming's Traffic Records System is as good as it can be and serves the needs of the State.

Strategic Planning

TRA Recommendations – None

TRA Considerations

- The State has performance measures identified for only three of the six systems. They should identify and begin measuring at least one performance measure from each of the Vehicle, Citation, and Injury Surveillance systems.

TRA Summary Suggestions – None

Crash

TRA Recommendations

Recommendation(s)	State position
Crash-1: Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Wyoming considers this **high** priority as it affects so many departments and programs. Major efforts have been made in this direction previously, and the State will continue building on that foundation.
Crash-2: Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Wyoming considers this **high** priority. Wyoming will continue the efforts to improve on the interfaces between crash data and other traffic records systems.

TRA Considerations

- Work to identify resolution of linkage challenges with driver and vehicle systems.
- Evaluate the crash performance measures. Discuss them with the TRCC. Identify the relevancy with the project or if they have been met. Determine if additional or different measures should be developed.
- Continue to integrate the crash data system with the emergency medical systems data. This will enhance injury data quality and support the crash system.

TRA Summary Suggestions – None

Vehicle

TRA Recommendations

Recommendation(s)	State position
Vehicle-1: Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Wyoming considers this **high** priority. One of the key factors associated with the Vehicle data system is the replacement of the outdated mainframe RIS application (Registration Information System) that is currently planned. Improving the data quality prior to the migration to the new system is very important.
Vehicle-2: Improve the interfaces with the	This is given low priority, as the initial emphasis will

Recommendation(s)	State position
Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	be on the replacement system, and getting the basic RIS replacement system in place.
Vehicle-3: Improve the procedures/ process flows for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	This is given low priority, as the basic procedures / process flows for the Vehicle data system are constrained by the statutory decentralization of authority to the counties, with little ability of the State to set direction. However, once the RIS replacement system is in place, work can begin on this.

TRA Considerations

- Develop goals for data quality and follow them up with performance measures, which are regularly monitored and reported to the Traffic Records Coordinating Committee.
- Form a Committee or Working Group to develop process flows and, in so doing, review the policy and procedures for the State's vehicle data collection, to ensure greater uniformity and efficiency.
- Since the capability already exists, expand barcoding of registration documents to all vehicles in the State, creating a more efficient means to transfer vehicle information to crash reports and citations

TRA Summary Suggestions

- Increasing reporting to NMVTIS to daily,
- Barcoding all registration documents. Registration barcoding helps to improve data accuracy because the VIN is a likely source of data entry error.
- Barcoding and transfer to citations or crash reports electronically would save time on data entry and error correction.
- Flagging of vehicle records when they have been reported stolen … ensuring that the stolen vehicle cannot be immediately and fraudulently sold to an unsuspecting buyer.
- Using the same naming conventions on vehicle and driver records would make combining or linking those files easier, although for Wyoming it might require legislative change.
- Development of the flows in a group or committee setting helps to engender communications about how things are accomplished and can improve interactions between State and county entities and result in greater uniformity.
- Regular measurement of data quality can prevent that slow degradation from becoming a much bigger issue.

Driver

TRA Recommendations

Recommendation(s)	State position
Driver-1: Improve the data dictionary for the Driver data system to reflect best practices identified in the Traffic Records Program	The State is giving this high priority, as it helps set the foundation for the replacement of the current RIS system.

Recommendation(s)	State position
Assessment Advisory.	
Driver-2: Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	The State is giving this low priority at this time. A significant effort has been made already to improve the quality of the data, but further progress depends on the RIS replacement system being in place.
Driver-3: Improve the interfaces with the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	The State is giving this medium priority, with the emphasis on improving a few select interfaces, a few of which have been prototyped and need to be solidified with the RIS replacement.

TRA Considerations

- Improve effectiveness of facial recognition program by increasing 1:1 match to 1: many match.
- Work with the courts to increase electronic submission of all convictions. This would increase the timeliness, completeness and accuracy of data on diver record.
- Work towards linkage to crash data system which would allow for all crash data to post to driver record.
- Establish performance measures for timeliness, accuracy, completeness, uniformity, integration and accessibility

TRA Summary Suggestions

- The driver system has edit checks and data collection guidelines for many of the data elements. WYDOT has plans to modernize the driver system once funding is established. These efforts are encouraged and should help to have a more complete data dictionary and establish guidelines for keeping it updated.
- Efforts should be made to increase electronic submission to increase timeliness, accuracy and completeness of the driver data.
- The creation of a more detailed [Driver] process flow document that combines these two process flow diagrams would be an invaluable tool in the modernization of the driver system.
- It would be beneficial for all crash data to be linked to the driver record regardless of fault. This would provide invaluable data for analysis regarding crashes and other driver history attributes.
- Efforts should be explored to provide driver data to the courts electronically. This can also be invaluable data for judges to have immediate access to.
- Missing for a complete data quality management program are performance measures that include established numeric goals, periodic comparative and trend analyses, data quality feedback between users and providers, and data quality management reports that could be provided to the TRCC to easily recognize areas that need further improvement.

Roadway

TRA Recommendations

Recommendation(s)	State position
Roadway-1: Improve the applicable guidelines for the Roadway data system to reflect best practices identified in the Traffic Records	This is given low priority by the State, as the data definitions that Wyoming is already applying to the roadway data elements is in line with MIRE (Model

Recommendation(s)	State position
Program Assessment Advisory.	Inventory of Roadway Elements), and WYDOT is moving towards meeting the FDE (Fundamental Data Elements) requirements in the required timeframe.
Roadway-2: Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	This is given high priority by the State, with the emphasis on the identification and implementation of an appropriate quality control program with appropriate quality control measures.
Roadway-3: Improve the procedures/ process flows for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory	This is given high priority by the State, as there is an urgent need to improve the process of coordinating roadway feature data with the LRS (Linear Reference System). In addition to the ongoing updates to the LRS, major new rollout of the LRS is underway(moving to Roads & Highways).

TRA Considerations

- Work to establish a spectrum of performance measures across the roadway data quality areas (timeliness, accuracy, completeness, uniformity, accessibility, and integration) along with baselines and actual values.
- The performance measure(s) should be tailored to the needs of data managers and data users.
- Work to consolidate available documentation, identifying and mitigating any shortcomings while doing so. Consolidation of the documentation from various program areas could simply involve gathering roadway data information into a central repository, available for all program areas to reference.

TRA Summary Suggestions

- Documentation exists but could be consolidated or better referenced as separate program areas maintain specific portions. The resultant documentation should help ensure uniformity and accuracy and promote long-term consistency.
- Performance measures help identify shortcomings in the data or system for future improvement across the spectrum of data quality measures (timeliness, accuracy, completeness, uniformity, accessibility, and integration). For these to be effective, baselines must be established and performance data gathered and analyzed to assess system performance, indicating health and potential for improvement.

Citation and Adjudication

TRA Recommendations

Recommendation(s)	State position
Citation-1: Improve the applicable guidelines for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	This is not currently being pursued by the State, due to the current lack of judicial system participation in the TRCC.
Citation-2: Improve the data dictionary for the Citation and Adjudication systems to reflect best	This is not currently being pursued by the State, due to the current lack of judicial system participation in

practices identified in the Traffic Records Program Assessment Advisory.	the TRCC.
Citation-3: Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	This is not currently being pursued by the State, due to the current lack of judicial system participation in the TRCC.
Citation-4: Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	This is not currently being pursued by the State, due to the current lack of judicial system participation in the TRCC.

TRA Considerations

- Work to identify proper data dictionaries that can be shared and utilized within the State.
- Develop performance measures with quantitative baselines and goals. Regularly monitor and report to the TRCC on outcomes and progress towards meeting the goals set forth.
- Identify and implement interfaces to other traffic safety systems to improve overall data quality and efficiency of data collection within Wyoming.

TRA Summary Suggestions

- To gain a better understanding of citation data and outcomes, all courts should report data to one repository. Even though courts are not on the same system, this should be a possibility through integrating the data in a standard from each court system in use. Once the data is in SCIS, it can be used for all courts to have access to records needed for adjudication.
- Each traffic record system should have a data dictionary to not only include the specific fields that exist but also data-types and the elements that are linked to other systems. The data dictionaries should be made available for key stakeholders within the State to promote the integration and linking of citation and adjudication data to other traffic safety systems.
- After knowing what is available by sharing data dictionaries, the State could begin taking steps towards making the data more accessible and used by other agencies who may have a valid use for the data.
- There is no central repository for tracking a DUI citation from the time it is issued through to disposition and posting on the driver and vehicle records. Without the ability to track citations for DUI offenses to this degree, it makes it more difficult to determine problem areas not only in specific geographic areas for enforcement and education but also within adjudicating DUI offenses.
- With performance measures in place, the State will be able to identify and mitigate the degradation of system processes. These measures are meant to assist in decision making, resource allocation, and system performance.

Injury Surveillance

TRA Recommendations

Recommendation(s)	State position
ISS-1: Improve the data quality control program for the Injury Surveillance systems to reflect	This is not currently being pursued due to the overwhelming load that the COVID-19 pandemic has

best practices identified in the Traffic Records Program Assessment Advisory.	caused to the Department of Health participants in the TRCC.
ISS-2: Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Work has taken place on this, with the intent to pursue. However, at this time, this is getting low priority due to the overwhelming load that the COVID-19 pandemic has caused to the Department of Health participants in the TRCC.

TRA Considerations

- Establish comprehensive data quality measures for timeliness, accuracy, completeness, uniformity, integration, and accessibility for all ISS data sets. Each measure should have a pre-established quantitative goal and include a current baseline. Results should be measured routinely and shared with stakeholders (i.e. the WyTRCC)
- Incorporate user feedback from the existing means of communication/reporting from all 5 ISS data sets, within strategic highway plans. Important improvements can be prioritized for support and budgeting.
- Incorporate a means for hospital discharge and emergency department patient severity (Abbreviated Injury Score, Injury Severity Scale) computation and use.

TRA Summary Suggestions

- While the State does monitor the WTR timeliness of record entry and completeness of AIS entry, the measures have no pre-established numeric goals for the associated performance metric(Timeliness, Accuracy, Completeness, Uniformity, Integration, and Accessibility) as defined in the Advisory.
- Include the formal development of performance measures for all six metrics (accessibility, accuracy, completeness, integration, timeliness, uniformity) by submitting entity and measuring over time.

Data Use and Integration

TRA Recommendations – None

TRA Considerations

- Give high priority to and continue the support of the current development of a formal data governance process through the WyTRCC

TRA Summary Suggestions

- The development of a catalog of data systems should remain a prioritized WyTRCC objective for completion in the coming year.

Traffic Records Strategic Vision

The vision of the WyTRCC is: "To support traffic-safety related decision-making with quality traffic records data and analysis capabilities that meet the users' needs"

Traffic Records Strategic Mission

The mission of the WyTRCC is "To improve transportation safety by enhancing and integrating our traffic information systems for the public and safety community."

Traffic Records Strategic Needs

The prioritized recommended actions contained in this strategic plan are the result of a systematic review of the most recent Traffic Records Assessment along with a review of Wyoming's existing traffic records system components as well as inputs obtained from those persons knowledgeable in their use and operation. These findings have been combined with knowledge of traffic records concepts and contemporary approaches to traffic safety to produce this strategic plan, which includes a synthesis of the necessary actions using information derived from the following sources:

- 2019 Traffic Records Assessment Report
- Workshops, interviews, and email exchanges with data collectors, users, and system managers of traffic records data throughout the state.
- Review of the previous revision of the Traffic Records Strategic Plan
- Recommended Practices and Standards promulgated by various federal agencies and professional organizations involved in transportation, highway safety, and traffic records.
- Technical expertise in the definition, development, and use of traffic records to support national, state and local highway safety applications.
- Status updates of actions and projects that have previously been completed.
- Evolution of database, data analysis, and data display technology.

The Plan Provides Guidance for Improvements

The information contained in this strategic plan is intended to provide overall guidance in promoting improvements to the safety related information contained in the various traffic records systems. Information is provided that establishes the basis for each proposed improvement, the recommended sequence for accomplishing these improvements, and a justification for their inclusion in the plan.

WyTRCC does not have operational responsibility for any of the traffic records system components. However, by virtue of its role in promoting highway and traffic safety, and through its role as the primary deliberative body concerned with traffic records information, the WyTRCC serves a lead role in ensuring that the traffic records system in Wyoming serves all users well.

The central focus of this plan is the availability and quality of traffic records data to support traffic safety decision-making. The WyTRCC is intended to be the representative body for the traffic records community where collection, management, and use of traffic records are discussed and plans are made for meeting the needs. Thus, even when specific goals or objectives may involve actions by specific departments or agencies, the steps to be taken are written with the implied understanding that those steps and oversight of the strategic plan will be guided and coordinated by the WyTRCC.

The Plan Emphasizes Crash Reduction

The main purpose of this strategic plan is to provide Wyoming with the guidance needed to achieve a traffic records system that meets the broadly stated system goal of providing high value transportation safety information for use in traffic safety analysis. The emphasis of this plan is on traffic safety in the broadest sense; i.e., the improvement of road systems; the regulation of motor vehicles and drivers operating on these road systems; and the treatment of injuries arising from motor vehicle crashes.

The philosophy behind this plan - as illustrated in the diagram below - is that:
- The ultimate goal is the reduction in the number and severity of traffic crashes,
- Various actions, across diverse domains (i.e. the "4 E's" of traffic safety) will help achieve such reductions,
- Appropriate information, presented clearly and meaningfully help drive the optimal decisions, and
- That information comes from the analysis of quality traffic records data.
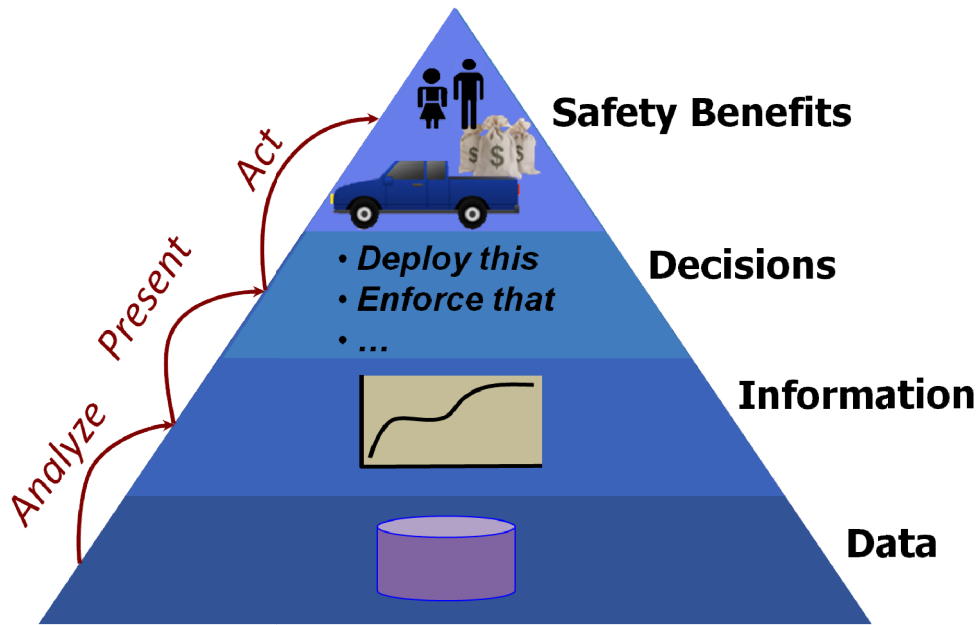

Figure 1. Traffic Records Data Pyramid

Thus, from a Traffic Records Data System perspective, it is critical to ensure that the underlying data - the foundation of the whole system - supports the necessary analysis and presentation capabilities needed to supply the decision-makers with quality information.

Traffic Records System Performance

This section provides a summary of the performance measures being used to track progress on the strategic goals as projects and tasks are implemented. The intent is to link this section with the documented annual reporting on the traffic records performance measures.

The performance measures selected for tracking are those that represent the most important areas of improvement amongst the 6 traffic records areas, and the 6 data quality areas.

The following tables summarize the performance measures being tracked.

Crash

Attribute	Measure	Model	Target #
Timeliness	% reports in DB within 10 days of crash[1]	C-T-2	80%
Accuracy	% reports without errors in location	C-A-1	98%
Completeness	% reports with no missing critical elements	C-C-1	TBD
Uniformity	# MMUCC R5 compliant data elements entered or linked to the crash database	C-U-1	TBD
Integration	% WY License plate #s that match vehicle record	C-A-2	90%?
Integration	% WY Drivers that link to driver record (through DL#, Name, DOB)	C-I-1	98%
Accessibility	Proposed: Number of standard reports available to public via web site	C-X-1a	TBD
Accessibility	Proposed: Percent of users satisfied with overall level of support	C-X-1b	TBD

Roadway

Attribute	Measure	Model	Target #
Timeliness			
Accuracy	Proposed: % of curves that match with Pathway data	R-A-1	
Completeness	Proposed: % of roadway miles with no missing critical elements?	R-C-1	
Uniformity	# of MIRE-compliant data elements	R-U-1	
Integration	# of LRS-compliant data elements	R-I-1	
Accessibility	# of roadway data elements available in the SPOD (for WYDOT accessibility)	R-X-1a	
Accessibility	Proposed: # of roadway data elements available on the Web (for external to WYDOT accessibility)	R-X-1a	

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[1] This is the current performance measure. One thought is to modify the measure to focus more on the outliers, for example the % of records received more than 15-20 days after the crash.

Driver

Attribute	Measure	Model	Target #
Timeliness			
Accuracy			
Completeness			
Uniformity			
Integration	% Driver judgments that link to enforcement citation written – Pilot baseline	D-I-1	TBD
Accessibility			

Vehicle

Attribute	Measure	Model	Target #
Timeliness			
Accuracy			
Completeness			
Uniformity			
Integration			
Accessibility			

Citation and Adjudication

Attribute	Measure	Model	Target #
Timeliness			
Accuracy			
Completeness			
Uniformity			
Integration			
Accessibility			

Injury Surveillance

Attribute	Measure	Model	Target #
Timeliness			
Accuracy			
Completeness			
Uniformity			
Integration			
Accessibility			

Wyoming Strategic Goals

During the Strategic Planning sessions, and follow-up discussions, several strategic needs were identified. These needs were later fleshed out in terms of goals:

1. Expand participation in the WyTRCC, adding representatives of traffic records area that are currently missing, or unable to attend regularly. Increase the level of involvement at the decision-maker level.
2. Develop and implement pragmatic Data Governance plans, given the growing reliance on traffic records for decision-making and to optimized traffic safety investments.
3. Improve efficiency of data collection by law enforcement officers and others, with the intent to also improve the quality of the data collected.
4. Replace the current RIS Application (Registration Information System) used by Driver Services and Motor Vehicle services
5. As traffic records data is used more and more to support traffic safety decisions, expand the use of data quality initiatives and tools to cover more traffic records areas, with the intent meeting user data quality needs.
6. Expand the use of performance measures in specific traffic records areas in order to better measure achievements in traffic records data, and even – in some areas – operations.
7. Develop additional sustainable and quality roadway data sets to support HSM predictive modeling, to address MIRE FDE requirements, and to support planning and programming needs.
8. Improve the linkage/integration of data sets in order to improve the quality of the data, and to improve the value of the data for safety analysis.
9. Continue to improve the degree to which the various traffic records systems align with the needs of the data users in terms of accessibility, documentation, and technical support.
10. Adapt the various LRS compliant data sets to the new Wyoming LRS, to continue to improve the ability to integrate location-based data.

In addition to the above needs identified by the TRCC members, WYDOT has received advice – in the form of recommendations and/or considerations – from the most recent Traffic Records Assessment. Due to limited resources and funding, it has become more important to carefully prioritize actions and projects, and place the emphasis on the most urgent and/or strategic needs.

Expand WyTRCC participation

Addresses:
- Wyoming Need(s):
  - Adding representatives of traffic records area that are currently missing, or unable to attend regularly. Increase the level of involvement at the decision-maker level.
- TRA Consideration(s):

        o   Continue to encourage all stakeholders to participate in TRCC meetings, both at the technical and Executive level.

Priority: Medium – by 2024
Progress on goal: No Action
Traffic Records Areas Addressed: TRCC, Citation/Adjudication, Injury Surveillance, Data Use and Integration.
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Uniformity, Data Integration, Accessibility.
Action Plan: See table below.

Table 3. Tasks & Projects to Expand TRCC Participation

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2020	Contact district and circuit court leads	Obtain court participation in TRCC	WYDOT/HWS	J. McCarthy	-
2020	Follow up with DOH about participation	Renew DOH participation in TRCC	WYDOT/HWS	J. McCarthy	-
2021	Identify potential participants and appropriate forum for exec level TRCC	Involvement of decision-makers in TRCC	WYDOT/HWS	J. McCarthy M. Carlson	-

Develop Data Governance

Addresses:
- Wyoming Need(s):
    - o Data Governance has become more important as traffic records is being used much more in decision-making and to optimized traffic safety investments.
- TRA Recommendation(s):
    - o **Roadway-1:** Improve the applicable guidelines for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
    - o **Roadway-2:** Improve the procedures/ process flows for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
    - o **Citation-1:** Improve the applicable guidelines for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
    - o **Citation-2:** Improve the data dictionary for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- TRA Consideration(s):
    - o Give high priority to and continue the support of the current development of a formal data governance process through the WyTRCC.

Priority: High – by 2023
Progress on goal: Initial Progress

Traffic Records Areas Addressed: Strategic, Crash, Driver, Vehicle, Roadway, Citation/Adjudication, Injury Surveillance, Data Use and Integration
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Uniformity, Data Integration, Accessibility
Action Plan: See table below.

Table 4. Tasks & Projects to Develop Data Governance

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2021	Develop WYDOT Data Governance approach	Address the traffic records areas within WYDOT with pragmatic governance	WYDOT SIT	J McCarthy	-
2022	Share WYDOT Data Governance approach	Make work available to other agencies	WYDOT SIT	J McCarthy	-
2020 - 2021	Review the initial dataset management documents to determine what level of documentation would be applicable for WY.	Determine whether the ESRI process addresses this, or if something else is needed for WY	Planning		
2022	Improve access to metadata (e.g. how up-to-date is the data, owner, etc.)	Address concerns about SPOD and other data sources being up-to-date	WYDOT IT WYDOT GIS HWS	J Hayden V Garcia K Bohlmann	
2023	Put in place roadway data governance that meets WYDOT needs, and addresses NHTSA / FHWA requirements	Address high-level needs for more rigorous planning and execution of improvement efforts	Planning	R Pivik	

Improve Data Collection Efficiency and Quality

Addresses:
- Wyoming Need(s):
  - Improve the efficiency of collection by law enforcement officers, with the intent to also improve the quality of the data collected. Pursue solutions that provide win-win improvements.
- TRA Recommendation(s):
  - **Crash-1:** Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - **Vehicle-2:** Improve the interfaces with the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

- o **Driver-3:** Improve the interfaces with the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - o **Citation-4:** Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- TRA Consideration(s):
  - o Work to identify resolution of [crash] linkage challenges with driver and vehicle systems.
  - o Since the capability already exists, expand barcoding of registration documents to all vehicles in the State, creating a more efficient means to transfer vehicle information to crash reports and citations.
  - o Work with the courts to increase electronic submission of all convictions. This would increase the timeliness, completeness and accuracy of data on diver record.
  - o Work towards linkage to crash data system which would allow for all crash data to post to driver record.
  - o Identify and implement interfaces to other traffic safety systems to improve overall data quality and efficiency of data collection within Wyoming.
  - o Form a Committee or Working Group to develop process flows and, in so doing, review the policy and procedures for the State's vehicle data collection, to ensure greater uniformity and efficiency.

Priority: Medium – by 2024
Progress on goal: Initial Progress
Traffic Records Areas Addressed: Crash, Driver, Vehicle, Citation/Adjudication.
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Data Integration.
Action Plan: See table below.

Table 5. Tasks & Projects to Improve Data Collection Efficiency and Quality

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2022	Work with NHTSA to implement electronic transfer of fatal crash Data to FARS	Reduce the manual effort to copy over fields from crash data to FARS	WYDOT/HWS	S Gierisch	
2024	Improve law enforcement ability to link driver data (DCI return, scan) to crash form	Improve driver data accuracy, completeness, reduce officer effort	Law enforcement agencies Support from HWS		
2025	Improve law enforcement ability to link vehicle data (DCI return, scan) to crash form	Improve vehicle data accuracy, completeness, reduce officer effort	Law enforcement agencies Support from HWS		
2020	Solidify the linkage of DCI toxicology results to crash data	Improve drug/alcohol test result data, reduce officer effort	HWS, DCI	S Gierisch R Simmons	
2022	Review potential synergy between various forms for	Reduce officer effort, improve data quality,	LEL, Law enforcement	P Abrams	

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
	possible optimization of data entry	improve integration	agencies Support from HWS		
2023	Assess potential approaches to consolidate citation data from various courts and agencies regarding impaired driving	Ability to respond to GCID requests/needs for DUI citations and adjudications	WHP Circuit courts, District courts, Supreme court	G Ellis TBD from courts	
2021	Assess process to fill out crash reports; identify potential approaches to reduce the time	Identify specific actions/projects to consider for improvements	LEL LEAs	P. Abrams Et al	
2023	Assess the ability to tag a vehicle record as reported stolen	To help ensure that the stolen vehicle cannot be immediately and fraudulently sold to an unsuspecting buyer	LEL MV Services	P. Abrams D Lopez	
2024-5	Develop a plan, identifying which agencies' data is needed, what is needed (e.g. which MIRE elements), what is currently potentially available, and the gaps that would need to be addressed.	Coordinate with federal land agencies to collect (and keep up-to-date) the roadway data for non-state roads.	Planning	R Pivik	
2022	Adapt the new ALRS (and Roads & Highways)	Reduce effort and cost to manage LRS located data as the LRS evolves	GIS, Planning, HWS	V Garcia M Kidner M Carlson	
2023	Determine if there are other areas where the map-based crash locating capability used in WIGLS would be applicable	To reduce effort and cost to collect some field events	TRCC, HWS	M Carlson	
2021	Increase electronic submission of citations	Reduce re-entry, improve quality	LEL Driver Services	P Abrams M Dobson	
2021	Transition to unique plates (numbers) for every vehicle	Reduce errors, rework	Motor Vehicle	D Lopez	
2022	Streamline the transfers with the counties	Reduce errors, rework	Motor Vehicle	D Lopez	
2022	Get apportioned plates and temp tags in NLETS	Reduce errors, rework	Motor Vehicle	D Lopez	
2023	Standardize the Data Dictionary (make codes, etc.) used by all counties. Maybe expand to cover crash reports, law enforcement.	Reduce errors, rework	Motor Vehicle	D Lopez	
2023	Provide feedback to stakeholders regarding	So that law enforcement improves quality of	Driver Services	M Dobson	

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
	documentation provided to Driver Services	submittals			
2024-5	Barcodes on all registrations	Facilitate quick, proper entry by officers	Motor Vehicles	D Lopez	
2024-5	Online with NMVITS for state and county	Facilitate quick, proper entry by officers	Motor Vehicles	D Lopez	
2024-5	All counties use same system to load title and registration info	Reduce errors, rework	Motor Vehicles	D Lopez	
2021	Investigate ways to recover the VIN checking ability when officers enter VIN on crash reports	Reduce errors, rework	Highway Safety	TBD	
2022	Leverage the single DSFR form that has been completed for impaired driving	Allow officer to submit electronically; eliminate the need to re-enter data from a PDF, reduce the loss of files due to non-standard transmittal	WYDOT/HWSO	P Abrams	
2023	Assess approaches that would facilitate the creation of accurate crash diagrams, that would be in synch with the data filled in the crash form elements.	Avoid the discrepancies between the data and the diagram, reduce the time needed to produce a diagram	WYDOT/HWS	J McCarthy P Abrams	

Improve Data Set Coverage

Addresses:
- Wyoming Need(s):
  - Increase the number of sustainable, quality Roadway Feature data sets.
- TRA Recommendation(s):
  - **Roadway-1:** Improve the applicable guidelines for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - **Roadway-2:** Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - **Roadway-3:** Improve the procedures/ process flows for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - **Crash-2:** Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- TRA Consideration(s):
  - The performance measure(s) should be tailored to the needs of data managers and data users.
  - Work to consolidate available documentation, identifying and mitigating any shortcomings while doing so. Consolidation of the documentation from various program areas could simply

involve gathering roadway data information into a central repository, available for all program areas to reference.

Priority: Medium – by 2024
Progress on goal: Initial Progress
Traffic Records Areas Addressed: Roadway, Data Use and Integration.
Data Quality Performance Attributes Addressed: Accuracy, Completeness, Uniformity, Data Integration, Accessibility.
Action Plan: See table below.

Table 6. Tasks & Projects to Increase Roadway Feature Data Set Coverage

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2021	Develop a prioritization approach to developing new data sets (e.g. MIRE FDE, HSM, etc.).	Balance effort to develop new data sets with need to maintain the quality of existing data sets.	WYDOT / SIT		
2021	Develop a Data Catalog of roadway data sets	Identify and prioritize the data sets to pursue	WYDOT / SIT	J. McCarthy R. Pivik	N/A
2021	Identify the applicable criteria for sustainable and quality	Leverage data governance plans and quality plans	WYDOT / SIT	J. McCarthy R. Pivik	N/A
2021	Develop V1 of roadmap plan for the data sets	Identify the actions needed to collect and release the next data sets	WYDOT / SIT	J. McCarthy R. Pivik	N/A
2022-3	Implement additional data sets, such as superelevation	Improve completeness	WYDOT / SIT		
2022-5	Expand MIRE FDE coverage	to meet Federal requirements, improve completeness	WYDOT / SIT		
2023	Build out the signs database	Ensure that the various needs for signs data are met	Traffic Ops	J Mellor	
2024	Assess needs for roadway data relative to autonomous vehicles and connected vehicles	Get an idea of what new data sets (and/or changes to existing ones) would be needed to better meet department and user needs	Traffic Ops	J Mellor	

Replace the RIS Application

Addresses:
- Wyoming Need(s):

- o Replace the current RIS Application (Registration Information System) used by Driver Services and Motor Vehicle services
- o Expand the use of performance measures in specific traffic records areas in order to better measure achievements in traffic records data, and even – in some areas – operations.
- TRA Recommendation(s):
  - o **Vehicle-2:** Improve the interfaces with the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - o **Vehicle-3:** Improve the procedures/ process flows for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - o **Driver-1:** Improve the data dictionary for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - o **Driver-2:** Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - o **Driver-3:** Improve the interfaces with the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Priority: High – by 2024
Progress on goal: Initial Progress
Traffic Records Areas Addressed: Driver, Vehicle, Data Use and Integration.
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Uniformity, Data Integration, Accessibility.
Action Plan: See table below.

Table 7. Tasks & Projects to Replace the RIS Application

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2021-2	Consolidate records between Driver's License, Title, Registration	Reduce errors, rework, discrepancies between names Registrations should show DL#	Driver Services, Motor Vehicle Services	M Dobson D Lopez	
2021	Identify need for Access & Training to reporting tools	Feed requirements for RIS replacement to improve quality of driver records	Driver Services	M Dobson	
2025	Clear definition and explanation of data fields of data sold to Experian, Polk, etc.	Document the deliverables	Motor Vehicles	D Lopez	
2025	Identify the procedures/ process flows for the Vehicle data system with the new RIS replacement	To optimize the use of the new system.	Motor Vehicles	D Lopez	
2021	Develop the data dictionary for the Driver data system.	Prepare for the transition to the new RIS replacement system	Driver Services	M Dobson	

Expand Data Quality Programs

Addresses:
- Wyoming Need(s): Make wider use of quality program initiatives to cover more traffic records areas.
- TRA Recommendation(s):
  - Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- TRA Consideration(s):
  - Develop goals for data quality and follow them up with performance measures, which are regularly monitored and reported to the Traffic Records Coordinating Committee.

Priority: Medium – by 2024
Progress on goal: Initial Progress.
Traffic Records Areas Addressed: Driver, Vehicle, Data Use and Integration.
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Uniformity, Data Integration, Accessibility.
Action Plan: See table below.

Table 8. Tasks & Projects to Expand Data Quality Program

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2021	Refine the Data Quality Program in place for Crash Data	Improve overall quality of the crash data	WYDOT / HWS	S. Gierisch J. McCarthy	
2021	Identify and document the appropriate Data Quality Program to implement for Roadway Feature data	Improve overall quality of the roadway data	WYDOT / Planning	R. Pivik	
2024	Grow the comfort level in Project Development with use of safety tools (design tools) for both the specific project location and the larger network picture.	Have more solid basis for discussions of project scope.	WYDOT/Project Dev	J Brown	
2020-	Ensure that the equivalent	Replace the obsolete	HWS	J McCarthy	

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2021	data of HW Feature File is available to the department	data sets that are needed for HSM, etc.			
2021	Address the vehicle data quality program in the context of the RIS replacement application.	Identify the requirements for the RIS replacement application.	Motor Vehicle	D Lopez	
2025	Address the driver data quality program in the context of the RIS replacement application.	Take advantage of the RIS replacement capabilities.	Driver Services	M Dobson	
2022	Implement completeness reporting to law enforcement agencies	Reduce the number of missing (unknown) critical elements	WYDOT / HWS	S Gierisch	N/A

Expand Use of Performance Measures

Addresses:
- Wyoming Need(s): Expand the use of performance measures in specific traffic records areas
- TRA Recommendation(s): N/A
- TRA Consideration(s):
  - The State has performance measures identified for only three of the six systems. They should identify and begin measuring at least one performance measure from each of the Vehicle, Citation, and Injury Surveillance systems.
  - Evaluate the crash performance measures. Discuss them with the TRCC. Identify the relevancy with the project or if they have been met. Determine if additional or different measures should be developed.
  - Work to establish a spectrum of performance measures across the roadway data quality areas (timeliness, accuracy, completeness, uniformity, accessibility, and integration) along with baselines and actual values.
  - The performance measure(s) should be tailored to the needs of data managers and data users.
  - Establish [Driver] performance measures for timeliness, accuracy, completeness, uniformity, integration and accessibility.
  - Develop [Citation/Adjudication] performance measures with quantitative baselines and goals. Regularly monitor and report to the TRCC on outcomes and progress towards meeting the goals set forth.
  - Establish comprehensive data quality measures for timeliness, accuracy, completeness, uniformity, integration, and accessibility for all ISS data sets. Each measure should have a pre-established quantitative goal and include a current baseline. Results should be measured routinely and shared with stakeholders (i.e. the WyTRCC).

Priority: Medium – by 2024
Progress on goal: Initial Progress

Traffic Records Areas Addressed: Crash, Driver, Roadway.
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Uniformity, Data Integration, Accessibility.
Action Plan: See table below.

Table 9. Tasks & Projects to Expand Performance Measures

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2022	Develop and Implement process measures throughout Driver Service	Operational effectiveness	Driver Services	M Dobson	
2021	Refine/develop new performance measures for the highest priority crash data improvements	Drive improvement of the most important / most urgent areas of crash data	HWS	S Gierisch J McCarthy	
2021	Refine/develop new performance measures for the highest priority roadway data improvements	Drive improvement of roadway feature data	Planning	R Pivik J McCarthy	

Address Traffic Records Data User Needs

Addresses:
- Wyoming Need(s):
  - Continue to improve the degree to which data user needs are met by the various traffic records systems.
- TRA Recommendation(s):
- TRA Consideration(s):
  - Work to identify resolution of [crash] linkage challenges with driver and vehicle systems.
  - Continue to integrate the crash data system with the emergency medical systems data. This will enhance injury data quality and support the crash system.
  - Work to consolidate available documentation, identifying and mitigating any shortcomings while doing so. Consolidation of the documentation from various program areas could simply involve gathering roadway data information into a central repository, available for all program areas to reference.
  - Work to identify proper [citation/adjudication] data dictionaries that can be shared and utilized within the State.
  - Incorporate user feedback from the existing means of communication/reporting from all 5 ISS data sets, within strategic highway plans. Important improvements can be prioritized for support and budgeting.
  - Incorporate a means for hospital discharge and emergency department patient severity (Abbreviated Injury Score, Injury Severity Scale) computation and use.

Priority: Medium – by 2024, Low – 2024 and beyond
Progress on goal: Initial Progress
Traffic Records Areas Addressed: TRCC, Strategic, Crash, Driver, Vehicle, Roadway, Data Use and Integration.
Data Quality Performance Attributes Addressed: Timeliness, Accuracy, Completeness, Uniformity, Data Integration, Accessibility.
Action Plan: See table below.

Table 10. Tasks & Projects to Better Align with Data User Needs

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2020	Initiate Crash Data user's group meetings	Improve the understanding of user's needs	HWS	S Gierisch	
2022	Add trend analysis capability	Address user need	HWS	K Bohlmann	
2021-3	Improve the reporting back to law enforcement officers	Improve the quality of the data collection, addressing user issues or concerns	HWS	S Gierisch	
2021-2023	Make more data sets available for enterprise use via the SPOD	Expand the "one-stop shop" value of the SPOD Oracle schema	Planning WYDOT/IT	R Pivik J Hayden	
2021-2023	Make more data sets available for enterprise query	Expand the query capability for the general users via the SPOD application	Planning WYDOT/IT	R Pivik J Hayden	
2021	Facilitate access (ability to download) to crash data. E.g. add crash data to the SPOD	Improve user access to crash data for advanced analysis.	HWS/WYDOT IT	J McCarthy K Bohlmann J Hayden	
2021-2	Refine the crash factors	Improve user satisfaction (e.g. Winter Weather, enforcement)	HWS	K Bohlmann J McCarthy	
2024	Improvements to integrated analysis, ad-hoc reporting	User satisfaction to data access	HWS	K Bohlmann	
2024	Allow certain parties to access up-to-date crash data	User access (though need protect PII)	HWS	K Bohlmann	
2021	Improve behavioral reporting "trouble spots"	User access to data/analysis for enforcement, education	HWS	K Bohlmann	
2023	Review/evaluate crash form for appropriate data, possible update	Identify plan to address emerging needs (autonomous vehicles, marijuana, MMUCC evolution)	HWS	J Stout	
2022	Assess ways to better capture suspected distraction on crash reports	Get a better understanding of the prevalence of distraction	LEL	P Abrams	

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
	(or other method)	in crashes, data to support actions.			
2022	Identify method to identify delays in crash report completion (between officer, supervisor, etc.)	Determine best way to make the data available to agencies to improve timeliness.	HWS	S Gierisch	
2021	Facilitate access (ability to download) to crash data. E.g. add crash data to the SPOD	Improve user access to crash data for advanced analysis.	HWS/WYDOT IT	J McCarthy K Bohlmann J Hayden	
2024	Better qualification of the "crash types" for planning-level identifications of intersections to look at.	Improve the accuracy of the intersection collision fields relative to direction of travel, turning actions, etc.	HWS, Planning	K Bohlmann M Kidner	
2024	Facilitate directed access to data and tools (CMFs, crash history, HSM, etc.)	Be better able to answer the question – "How many crashes will we reduce by doing safety treatment X"?	HWS, Planning	K Bohlmann M Kidner	
2024	Develop a system that incorporates recommended safety treatments along with others (e.g. pavement, bridge)	This is essentially the "Project Builder" initiative; to help consolidate what should be included in a project	Planning, HWS	M Kidner K Bohlmann	
2023-4	Develop a plan for evolving HSM predictive modeling for additional facilities, and to adapt to the new HSM when it comes out	Ensure that the HSM modeling is appropriate for Wyoming users.	HWS	K Bohlman / J McCarthy	
2022-3	Pursue leveraging the Vehicle VIN decode for HWS	Better QC of the VIN in crash data	HWS WYDOT Vehicle IT	S Gierisch D Lopez J Hayden	

Expand the Level of Traffic Records Integration

Addresses:
- Wyoming Need(s):
  - Develop additional sustainable and quality roadway data sets to support HSM predictive modeling, to address MIRE FDE requirements, and to support planning and programming needs.
- TRA Recommendation(s):
  - **Crash-2:** Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

- o **Vehicle-2:** Improve the interfaces with the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - o **Citation-4:** Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- MIRE FDE Requirement:
  - o Meet the federal requirements for MIRE Fundamental Data Elements

Priority: Medium – by 2024, Low – 2024 and beyond
Progress on goal: Initial Progress
Traffic Records Areas Addressed: Roadway, Data Use and Integration.
Data Quality Performance Attributes Addressed: Completeness, Data Integration.
Action Plan: See table below.

Table 11. Tasks & Projects to Expand Traffic Records Integration

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2020	Initiate Crash Data user's group meetings	Improve the understanding of user's needs	HWS	S Gierisch	
2022	Add trend analysis capability	Address user need	HWS	K Bohlmann	
2021	Improve the linkage and matching of Wyoming DL# between crash and Driver	Reduce unmatched crash data for Driver Services	HWS & Driver Services	S Gierisch M Dobson	
2023	Improve the linkage and matching of Wyoming license plate # (VIN) between crash and Driver	Improve linkage between crash and vehicle data	HWS & Motor Vehicle Services	S Gierisch D. Lopez	
2021	Improve linkage of crash data to roadway feature data	Increase RW feature elements linked to crash data	HWS/WYDOT IT	J McCarthy K Bohlmann J Hayden	
2021	Pilot the link between WHP citations written and Driver Services adjudication / consequences	Get an understanding of the ratio of penalties imposed to citations written	WYDOT IT, WHP, Driver Services	J Hayden K Germain M Dobson	
2022-3	Enhance the QC check and correction capabilities on the License Plate numbers	Ensure that the link between crash and vehicle is accurate	HWS Motor Vehicle IT	S Gierisch D Lopez J Hayden	
2021-2	Enhance the QC check and correction capabilities on the Driver License numbers	Ensure that the link between crash and driver is accurate	HWS WYDOT Driver IT	S Gierisch M Dobson J Hayden	

Adapt to the new Wyoming Linear Reference System

Addresses:
- Wyoming Need(s):
  - Continue to improve the degree to which data user needs are met by the various traffic records systems.
  - Adapt the various LRS compliant data sets to the new (Roads & Highways based) Wyoming LRS
- TRA Recommendation(s):
- TRA Consideration(s):

Priority: High – by 2022
Progress on goal: Initial Progress
Traffic Records Areas Addressed: Crash, Roadway, Data Driver, Vehicle, Use and Integration.
Data Quality Performance Attributes Addressed: Data Integration.
Action Plan: See table below.

Table 12. Tasks & Projects to Adapt Data to the new Wyoming LRS

Year	Project Title/Description	Objective	Lead Agency	Lead Staff	Funding Amount & Source
2020	Crash Data Migration (phase 1)	Migrate crash data and related processing to the ELRS, which is being finalized in 2020	WYDOT HWS	J McCarthy	TBD
2020	Map-based Crash Reporting Migration (phase 1)	Migrate map-based crash reporting to the ELRS, which is being finalized in 2020	WYDOT HWS	J McCarthy	TBD
2022	Roadway feature Migration	Migrate roadway feature data and related processing to the new Roads and Highways LRS, which is being finalized in 2021	WYDOT / Planning	R Pivik	TBD
2022	Crash Data Migration (phase 2)	Migrate crash data and related processing to the new Roads and Highways LRS, which is being finalized in 2021	WYDOT / HWS	J McCarthy	TBD
2022	Map-based Crash Reporting Migration (phase 2)	Migrate map-based crash reporting to the Roads and Highways LRS, which is being finalized in 2021	WYDOT / HWS	J McCarthy	TBD

FY21 Proposed Projects & Actions

In order to better drive the prioritization and monitoring of traffic records improvements, Wyoming will pursue the following actions and projects during the coming fiscal year.

These "Next Actions & Projects" are selected from the overall list of improvement actions listed in the section entitled "**Desired Traffic Records Capabilities and Improvement Actions**". The following list of desired next actions will be used to feed into the process of identifying projects for funding by the WyTRCC with federal (NHTSA) funds or through other funding sources.

Selection and Prioritization

These next actions are selected and prioritized according to the following process:
- A first list of Next Proposed Projects and Actions is prepared by the Traffic Records Project Manager and the chairs of the Traffic Records Oversight Committee and Traffic Records Coordinating Committee based on several factors:
  - An overall sense of which projects would be good to tackle in the coming year, given the relatively small funding available (Wyoming is a *minimally funded state* with regards to NHTSA traffic records funds, and the state funds available to the various agencies are also quite limited.)
    - Those projects and actions that are largely or solely funded by agency internal funds don't have the same funding concerns.
  - The dependencies between the desired capabilities are taken into account.
    - For example, if Capability 1A needs to be in place for Capability 1B to work, then Capability 1A will have higher priority
  - The level of "feasibility" of the project, including potential bottlenecks on key resources
  - Needs as expressed by the Traffic Records Oversight Committee
  - New needs that come from the Strategic Highway Safety Plan (and the ability to identify, characterize, and effectively address the different emphasis areas of the SHSP).
- The list of Next Proposed Projects and Actions is presented to the WyTRCC members at one of the regular meetings (usually scheduled in May)
- Discussion is opened to allow each participating member to express their feedback, to raise or lower priorities, or even to modify the list by adding or deleting items.
- More elaborate methodologies (such as a Four-Box Analysis or a modified Delphi technique can be used if there are challenges to getting convergence.

See the section on **Traffic Records Assessment Recommendations** for more details on the TRA recommendations. The **FHWA Roadway Safety Data Assessment/Safety Data Action Plan** is also used as a source of recommendations for considerations. Recommendation from that assessment are not (yet) individually numbered, but are referenced by "WSDAP".

See also the section on **Traffic Records Performance Measures** for more information on the performance measures.

List of Traffic Records Projects and Actions

The official list of Traffic Records projects is documented in the Highway Safety Plan.

MIRE Fundamental Data Element Collection

To comply with 23 CFR Part 924.11, States must incorporate specific, quantifiable, and measurable anticipated improvements for the collection of MIRE Fundamental Data Elements (FDE) into the State Traffic Records Strategic Plan. Although this was a one-time requirement, the TRCC should continue to track the collection of the MIRE FDE to assure the State shall have access to the MIRE FDEs on all public roads by September 30, 2026.

NOTE: The percentages of MIRE Fundamental Data Elements that a State collects are annually documented in the State Highway Safety Improvement Program Annual Report.

Governance, Roles & Responsibilities

Traffic Records Strategic Plan Implementation

This plan contains the framework and most important action items for improving the Wyoming traffic records system. It is designed to elevate the state's system to the state-of-the-art while allowing flexibility in the methods and time frame for achieving this goal. This flexibility is required given the realities of changing financial resources, competing priorities, and the consensus required of the various departments and agencies responsible for providing traffic records information in Wyoming.

Flexibility is required also because of the nature of the WyTRCC's role as an advocate for the improvement of system components that it does not own or control. Thus, the WyTRCC must have the ability to move forward on those parts of the plan where it can find willing partners ready to take the necessary actions in coordination with the WyTRCC's efforts.

It is also important to realize that performance indicators and grant justifications are part of the on-going strategic planning process and appear herein as a set of recommended indicators that must tie in to the various available grants that the state may pursue. As the proposed actions in this plan are addressed, the plan can and should be updated to reflect the actual programs put in place, how success of those programs will be measured, and the full grant justification that should be available.

If that course is pursued, this document will continue to meet the requirements for Section 405 eligibility for years to come. If, however, the WyTRCC lets the document fall into disuse by not updating it when actions are taken and grants are implemented, it cannot possibly serve as a valid strategic plan for the future. Monitoring and updating the plan is a job for which the WyTRCC is ideally suited.

WyTRCC Responsibility for Implementation

The Plan is designed so that it can be used as a roadmap for work on traffic records improvement. It is intended to provide:

- A summary of the desired improvements in analysis and communication capabilities that support the stakeholders of the Traffic Records System in making decisions and launching actions to improve roadway safety in the State of Wyoming.
- Guidance as to the improvements needed in the Traffic Records System to achieve the desired improvements in analysis and communication capabilities.
- A basis for ongoing updates in terms of capabilities needed and/or the corresponding traffic records projects to deliver those capabilities. Over the course of implementation, evolution in terms of needs, organizations, technology, and business processes will result in updates needed to this plan.

- A roadmap of specific traffic records improvement projects that can be used by the WyTRCC to launch, review, and redirect their efforts to support the traffic records system users in a timely and efficient manner.

This plan presumes that the WyTRCC will take responsibility for developing specific action plans for each step.

WyTRCC to Develop and Monitor the Specific Action Steps

This plan is written with the following vision in mind: that Wyoming's traffic records system must be driven by users' needs -- that improvements must involve communication and cooperation among stakeholders across all interested divisions, agencies, and political subdivisions. The specific action steps taken to implement these improvements are not identified -- the custodial agencies must ultimately decide how best to implement specific strategies and steps. However, the plan has been designed to facilitate the WyTRCC's determination of these action steps and to assist in monitoring their progress.

The potential for diminished utility and the need to avoid it are guiding factors in the development of this strategic plan for enhancing Wyoming's traffic records system. Other factors given consideration include:

The Changing Role of State/Regional/Local Agencies – Shifts in national programs and changes resulting from federal legislation and rule-making require state, regional, and local agencies to continue to assume broad responsibilities for improving traffic safety. In fact, these needs expand the scope of what data are needed, who needs access, how they use it, and how it can be distributed.

The Need to Allocate Resources and Measure Progress – Increasingly, the demand for resources to support traffic safety programs exceeds the available supply. As the cost of initiatives increases and the demand for new programs rises, states assume more of the financial burden for their program administration and funding. Information plays an expanded role and greater emphasis must be placed on effective allocation of available resources. Of particular importance for traffic safety is that much of the value of information rests in its ability to improve resource allocation decisions and measure progress in achieving defined goals.

The Need to Rapidly Integrate New Initiatives into the State's Safety Programs – Continually, new legislative mandates and administrative responsibilities are placed on state safety programs. These changes must often be made quickly, implying that processes, rulings, and the data required for implementation must be in place as rapidly as possible.

The Advantage of leveraging evolving technology into the State's Safety Programs – As technologies evolve, it is important to adapt the systems used to take advantage of the newer technologies, which can provide increased functionality, increased flexibility, lower efforts, and lower costs. Another aspect of evolving technology is what is happening out on the roadway:

The advent of autonomous capabilities in vehicles as well as communication between vehicles with other vehicles and/or the infrastructure creates new opportunities for the collection and analysis of different kinds of safety data.

Primary Mission of Traffic Records System Components

Most systems that provide the data used to analyze highway and traffic safety are created and maintained for other distinct missions; e.g., licensing drivers, titling vehicles, etc. It is not feasible to change these systems to bring a more direct safety-related focus, if the primary uses of a system cannot be retained, as well. Cost savings to the state as a whole for effectively managing these data systems for multiple uses must be recognized.