

# WYOMING

## Traffic Records Strategic Plan For the Federal Fiscal Year 2025

November 08, 2024

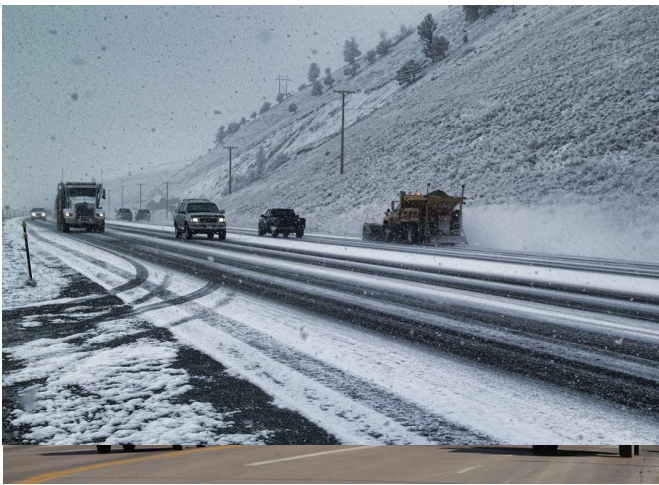


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**Approval Signatures**



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(WyTROC)



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**Revision History**

<b>Date</b>	<b>Revision By</b>	<b>Status</b>
20241108	JGM	Consolidated feedback from document review
202410	JGM	Consolidated the results of the TRSP Review Meetings for the FY26 version.

# Introduction

Wyoming continues to make large strides in the Traffic Records System and is on par with many other states across the nation. Several areas have received significant investments that are already starting to pay off, such as in Injury Surveillance. Other areas – like Crash, Driver, and Vehicle – are in the process of rebuilding with major changes in the system software used in those areas.

However, the need for improvement effort continues. There are areas where data sharing and integration improvements are desired, where the data quality can be improved, and where accessibility is not yet as easy as it should be. 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.

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 (the 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

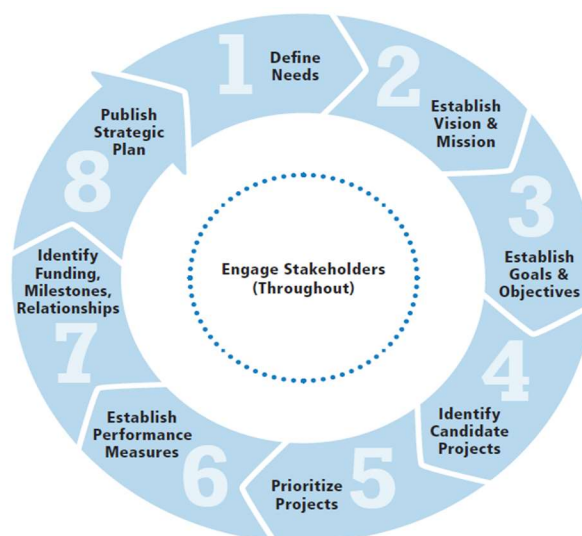
identified, prioritize activities, identify performance-based measures, and describe how grant funds are going to be used to address the needs and goals identified in the strategic plan.

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

Each cycle of update to the Traffic Records Strategic Plan has involved the process shown below, generally following the recommendations provided by NHTSA. The steps involved include:

- 1) Defining how the traffic safety needs have evolved since the previous published plan
- 2) Establishing how those Wyoming traffic safety needs can best be met by strategic traffic records improvements,
- 3) Establishing goals and objectives for traffic records improvements that would be desired,
- 4) Identifying candidate traffic records projects or initiatives that would help contribute to achieving those desired improvements,
- 5) Prioritizing the candidate projects, based on the desired outcomes, the feasibility, and outside factors (including alignment with other operational priorities of the TRCC participants),
- 6) Identifying potential performance measures to track how well the projects contribute to the desired traffic records improvements, and
- 7) Consolidating the results into the overall Traffic Records Strategic Plan which is then reviewed and approved by the TRCC.



## 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 membership and governance as well as a brief description of the system in Wyoming.

### **Traffic Records System Overviews**

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

For each traffic records system area, there are the following points:

- The recommendations from the most recent Traffic Records Assessment, along with the State's response,
- The summary considerations of the most recent Traffic Records Assessment, along with the State's response,
- A brief overview of the dependencies the system has on other traffic records systems,
- The strategic goals that were identified going forward for the system,
- The potential initiatives and projects that would help the State achieve the desired goals, and
- The potential performance measures that could help track the level to which the desired improvements are being achieved.

## 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.

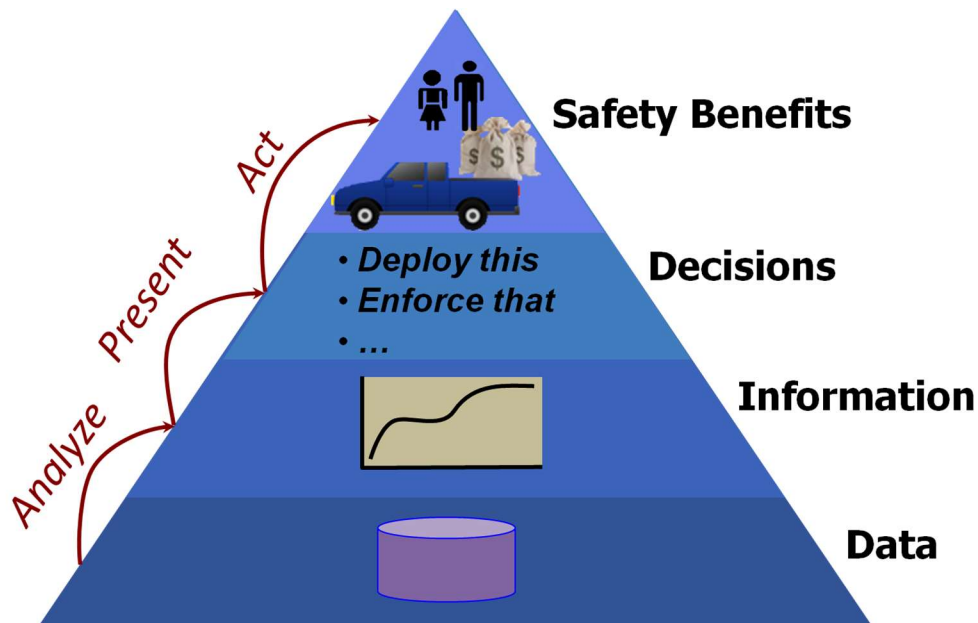


Figure 1. Traffic Records Data Pyramid

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 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.

## 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 & Roles 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.
- **Traffic Records Project Manager** — that coordinates efforts with the WyTRCC agencies involved in executing cross-agency projects.
- **Statewide Law Enforcement Liaison** — that coordinates efforts with the law enforcement agencies that enforce traffic laws and regulations at the local level.
- **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.
- **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.
- **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.

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	Wes Roberts	Judicial Outreach Liaison	WYDOT	Citation
Program	Tom Pritchard	Highway Patrol	WYDOT	Citation
Technical	Pete Abrams	Law Enforcement Liaison	WYDOT	Crash, Citation
Program	Misty Zimmerman	Driver Services	WYDOT	Driver
Technical	Renee Kocina	Driver Services	WYDOT	Driver
Program	Deborah Lopez	Motor Vehicle	WYDOT	Vehicle

Level	Name	Program	Agency	System
Program	Aaron Koehler	Office of Emergency Medical Services	WDH	Injury
Technical	Jay Ostby	Office of Emergency Medical Services	WDH	Injury
Technical	Elaine Volin	Office of Emergency Medical Services, Trauma Program	WDH	Injury
Program	Jeffery Mellor	Traffic Operations	WYDOT	Crash, Roadway
Technical	Andrew Bartell	Traffic Operations	WYDOT	Roadway
Program	Keri Bohlmann	Highway Safety	WYDOT	Crash
Technical	Stacey Gierisch (WYTRCC Secretary)	Highway Safety	WYDOT	Crash
Technical	Lori Davis	Highway Safety	WYDOT	Crash
Technical	Rachael Pivik	Planning	WYDOT	Roadway
Program	Dan Tolman	IT	WYDOT	Various
Program	Karson James	Highway Safety	WYDOT	Various
Technical	Stephanie Lucero	Highway Safety	WYDOT	Crash
Technical	Joe McCarthy	Traffic Records Project Manager	WYDOT	Various

The various Wyoming traffic records systems are described in the traffic records system sections below. A few auxiliary datasets are also maintained by WYDOT HWS including: Some additional records related to traffic safety analysis also exist and are managed by WYDOT HWS, including:

- Crash factors,
- Crash Involved factors,
- Crash geo-locations,
- School locations and education levels,
- Holidays, and
- Alcohol Establishment locations and type.

## Assessment Recommendations and Considerations

The recommendations and considerations listed under each traffic records systems were given to Wyoming in the most recent assessment (dated December 12, 2019).

Along with each recommendation and consideration, Wyoming’s response regarding how the State intends to address them 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.

# Wyoming Traffic Records Systems

## 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.
  - State Response: The State continues to encourage participation in the WyTRCC. In fact, Wyoming has recently hired a Judicial Outreach Liaison, who is active in representing the judicial area at the WyTRCC and for this Traffic Records Strategic Plan.
- 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.
  - State Response: Several performance measures have been identified in this plan for consideration in each core data system.

## 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.
  - State Response: Potential performance measures have been identified for all systems, and will be considered for implementation based on which initiatives can be undertaken given program and department priorities, funding, etc.

## Crash

### System Overview

The primary source of crash data is the WECRS Shadow database, consolidated from the crashes reported by law enforcement via the statewide electronic crash reporting system (known as “Report Beam”). This database is instantiated on WYDOT Oracle servers, and is kept synchronized with the vendor’s database via daily updates. The custodian for this data is the Highway Safety (HWS) program at WYDOT. This system is currently undergoing a major upgrade with the procurement of a new statewide crash reporting system. At this time, the final contract has been signed, and the project kickoff is scheduled.

### TRA Recommendations

Recommendation(s)	State position
<b>Crash-1:</b> 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 <b>high</b> priority as it affects so many departments and programs. The State has made major efforts in this direction previously, and the State will continue building on that foundation.
<b>Crash-2:</b> Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Wyoming considers this <b>high</b> 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.
  - State Response: This is a goal of the new crash reporting system, to eventually link with the driver and vehicle systems to reduce manual data entry of the related fields.
- 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.
  - State Response: Already, several crash performance measures have been developed and presented to the TRCC on a regular basis.
- Continue to integrate the crash data system with the emergency medical systems data. This will enhance injury data quality and support the crash system.
  - State Response: This is being done on the injury surveillance side of the integration. A further integration (through location and date, and perhaps more directly) is being pursued.

### Dependencies on other Traffic Record areas

The Crash Data System depends on other Traffic Records areas, and these dependencies and needs. It will be important to prioritize and coordinate these dependencies with the other areas:

- Roadway Data System for ALRS updates (timeliness, completion, integration)
- Roadway Data System for roadway features evolution (completion, timeliness, integration)

- Driver Data System for driver characteristics (integration)
- Vehicle Data System for vehicle characteristics (integration)

## Strategic Goals

### 1. Overall

- 2025: Complete the overall transition of the crash data and analysis system to the ALRS to ensure consistency throughout the crash data system, and indeed throughout the roadway network data.
- 2025: Deploy the new crash reporting system, which will address several specific goals below.
- 2026: Expand the linkage between crash data collect and crash data QC to the new RIS replacement.
- 2026: Pursue enhancements to the QA/QC capabilities for improved coverage, better reporting of issues, and quicker resolution of issues.
- 2027: Improve crash location, updating to the new system, the new LRS, and to further streamline officer crash location.
- 2026: Improve toxicology results linkage, in conjunction with the State's DSFR initiative.
- 2027: Identify accessibility needs experienced by safety analysts, safety partners, and the public to the crash data, the crash analysis capabilities, and the crash reporting capabilities.

### 2. Timeliness

- 2026: Reduce the time needed to release each year's worth of crash data to a maximum of four months (complete by April 30 of the following year).
- 2027: Reduce the number of submit/rejection/resubmit cycles by officers.

### 3. Completeness

- 2025: Add the alcohol and drug test results to the crash data.
- 2026: Get better data regarding the level of distracted driving.
- 2026: Ensure that the State has received reports for all reportable crashes.

### 4. Accuracy

- 2026: Reduce count of empty/unknown fields, especially for critical elements.
- 2026: Address compatibility across the crash data system relative to the underlying Linear Reference System, intersection inventory, roadway names, and other department conventions.
- 2027: Improve location accuracy as captured by the officer.
- 2027: Improve accurate capture of direction of travel / vehicle maneuver (and consistent with location).
- 2028: Improve accuracy of the captured data regarding restraint and distraction.
- 2028: Improve consistency between data fields, the narrative, and the diagram regarding the crash.

### 5. Uniformity

- 2025: Where applicable, update MMUCC compliance.

### 6. Integration

- 2026: Improved vehicle and driver data when completing crash reports.

- 2027: Consistency between crash and other traffic records systems (Roadway, Driver, Vehicle, Citation, Injury Surveillance).
- 2027: Be able to perform crash/citation integrated studies (e.g., vehicle safety related citations).
- 2027: Improve integration between crash and injury surveillance.

#### 7. Accessibility

- 2026: Improve ability of partners to access crash data. Partners include Driver Services, EMS, DOH, Law enforcement, and LTAP, traffic engineers.
- 2027: Improve the public's access to crash data.

### Potential Initiatives/Projects

#### 1. Timeliness

- Continue to track and communicate regarding the officer/supervisor time to submit.
- Create additional measurement points along the overall crash data submittal process.
- Improve efficiency / timeliness of the Crash QC/QA process & tools for vetting the crash data.
- Add the ability to check the agency crash database for crash reports that are “stuck” and not yet submitted to the State.
- Obtain and apply drug/alcohol results quicker.

#### 2. Completeness

- Provide officer training and support regarding reportable crashes.
- Collect report feedback to identify challenges to reporting crashes.
- Work with DCI and other labs to obtain test results directly by the State.
- Integrate with the DSFR (statewide reporting on impaired driver arrests and citations) which is moving towards electronic test results.
- Integrate with Injury Surveillance (to identify possible missing crash reports corresponding to crash-related injuries reported by the hospitals).
- Prepare for possible future state legislative changes to the definition of reportable crash.

#### 3. Accuracy

- Upgrade the map-based crash location data collection capability to better guide officer location entry.
- Ensure consistency of LRS through the crash system (from map-based crash location entry through crash location analysis).
- Improve the QC capability regarding crash locations.
- Provide and adapt officer and staff training.
- Reporting back to agency/officer of accuracy concerns.
- Possibly have “unofficial” suspected distracted (and possibly other fields) that allow the officer to capture suspected contributing factors without being put *on the record*.
- Pursue tools that could help the officer generate consistent narrative and diagram relative to the data fields (to spot and correct inconsistencies)
- Pursue tools to QC check the consistency between the data fields, narrative, and diagram.

#### 4. Uniformity

- Obtain current measure of MMUCC (6) compliance to get an up-to-date baseline
- Obtain a measure of MMUCC (6) compliance after new crash reporting system goes live.
- Document any incremental changes made over time that improve MMUCC compliance.

5. Integration

- Expand use of map-based incident location.
- Expand linkages between crash and the different traffic record systems.
- Expand linkage at the crash reporting level to (national) vehicle and driver data.
- Converge on key data elements such as VIN, Driver names, citation charges, etc.

6. Accessibility

- Expand the capabilities of the crash data dashboard.
- Expand the generated report capabilities.
- Expand access to the safety portal capabilities (based on need/role).
- Expand data linkage available to partners.
- Survey of crash data user needs / satisfaction.

Data System Performance Measures of Interest

Over time, Wyoming will adapt the most important (and most practical) performance measures to put in place over time. Having performance measures helps to drive improvement, and allows WY to report the improvements to NHTSA for credit.

Those measures with TBD in the target column are identified as “for consideration, if and when appropriate.”

Attribute	Measure	Model	Target #
Timeliness	% reports in DB within 10 days of crash	C-T-2	80%
Timeliness	Days past Jan 1 for the vetting of the annual crash data	C-T-1	Apr 30 of following year
Timeliness	The number of submit/reject/resubmit cycles	TBD	TBD
Accuracy	% reports consistent locations; lat/long and Route/milepost are consistent. (Ensure non-off-road, crashes are located near to the roadway or where the vehicle left the road; not where it ended up.)	C-A-1	TBD
Accuracy	% reports without inconsistency in direction of travel, vehicle maneuver (and perhaps roadway alignment)	C-A-1	TBD
Accuracy	% reports with inconsistent data in critical elements	C-A-1	TBD
Accuracy	% reports with inconsistent information in data fields, narrative, diagram)	C-A-1	TBD
Accuracy	% WY (national?) License plate #s that match vehicle record	C-A-2	TBD
Accuracy	% WY (national?) Drivers that link to driver record (through DL#, Name, DOB)	C-A-2	TBD
Completeness	% reports with no missing critical elements	C-C-1	TBD

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Attribute	Measure	Model	Target #
Completeness	% of reports with alcohol/drug test that include the results (within a time period)	TBD	TBD
Completeness	Percent of crash reports that are fatal (This helps measure indirectly whether non-fatal crashes, especially PDO are being reported)	TBD	TBD
Uniformity	# MMUCC Rev 6 compliant data elements in or linked to the crash database	C-U-1	TBD
Integration	% of crash reports with driver data auto-populated	TBD	TBD
Integration	% of crash reports with vehicle data auto-populated	TBD	TBD
Integration	Number of MIRE / Non-MIRE elements linked with crash data by location	C-I-1	TBD
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

## Vehicle

### System Overview

The custodian of the Motor Vehicle data system is the Motor Vehicle Services program at WYDOT.

The primary source of Vehicle data has historically the RIS application, but that outdated mainframe application is being replaced with a new, much more flexible and maintainable system MAX.

The transition to MAX will take place in two steps, with the first step being a temporary WYDOT internal Oracle APEX stop-gap system starting in summer 2025.

NOTE: It is not certain that funding for moving titles and registration to the new MAX system, so that may be delayed past 2025.

### TRA Recommendations

Recommendation(s)	State position
<p><b>Vehicle-1:</b> Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>The State has given this high priority.</p> <p>The new Oracle APEX will provide much more support for quality control, both through the implementation of the various procedure workflows as well as QC queries.</p>
<p><b>Vehicle-2:</b> Improve the interfaces with the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>The State has given this high priority.</p> <p>An interface had already been put in place between the crash data and the Oracle copy of the vehicle data. With the Oracle APEX – and the new Crash system – both currently being implemented by WYDOT, these two systems will be more tightly integrated.</p>
<p><b>Vehicle-3:</b> Improve the procedures/ process flows for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>The State has given this high priority.</p> <p>In the context of the implementation of the Oracle APEX (to replace the outdated RIS system), significant emphasis was placed on documenting and developing streamlined process flows to serve as the foundation for the new system.</p>

### 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.
  - State response: A number of potential performance measures have been identified in line with the strategic goals.

- 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.
  - State response: In the context of the new Oracle APEX system, much effort is being made to determine and optimize the process flows. Once the system implementation is completed, a review can be done to find further optimizations.
- 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
  - State response: The State will continue to encourage the counties (who have autonomy on this topic) to adopt a standard format, including a scannable barcode on the registration.

### Dependencies on other Traffic Record areas

There is a key dependency between Driver and Vehicle Data Systems is the ability to share a common record for the owner of a vehicle when the owner is an individual. Typically the individual will be in both the driver and vehicle system.

A critical dependency for the Vehicle data is on the counties, where efforts are underway in two key areas of improvement: A) for them to collect a driver's license number for the driver/owner, and B) to add scannable barcodes to the vehicle registrations.

The Vehicle Data System depends on Crash for indication of vehicles being involved in crashes

### Strategic Goals

1. Overall
  - Wyoming would like to see overall improved workflow and data flow for the Vehicle data system, along with some improvements in the interconnection with the counties.
2. Timeliness
  - Improve the timeliness of updates to Vehicle records following a change of status of the vehicle (involvement in a crash, transfer of title, etc..)
3. Completeness & Accuracy
  - Reduce missing *critical elements* and errors in *critical elements* in general
  - Reduce missing *critical elements* and errors in *critical elements* in commercial motor vehicles in particular.
  - Convince counties to implement bar codes on vehicle registrations
4. Uniformity
  - Generally, follow the applicable NMVTIS and AAMVA standards.
  - Standardize as much as possible the way title and registrations print to consistency across the state (and to facilitate optical character recognition of the documents).
5. Integration
  - Improve the completeness and accuracy (and efficiency) of vehicle data collection in crash reports.
  - Support integrated crash/vehicle studies, including vehicle data for "exposure."
6. Accessibility
  - Ensure that valid users have access to the appropriate Vehicle records.

Ensure that users have access to appropriate Vehicle summary data

### Potential Initiatives/Projects

1. Overall
  - Work with the counties to collect a driver’s license number when they process titles and/or registrations.
  - Complete the transition of the vehicle system from the outdated RIS application to the stop-gap APEX application, and through to the new MAX system.
  - Create the linkage between Driver and Vehicle data (through common elements such as driver and owner personal identifiers).
2. Timeliness
  - Link to the crash system for notification of a crash involving a vehicle.
  - Improve the data flow from the counties to the state.
3. Completeness & Accuracy
  - Work with the counties to include standard, consistent edit checks at data entry, especially for the most important elements.
  - Continue working to convince counties to implement bar codes on vehicle registrations.
  - With the completion of the new Oracle APEX, continue to improve appropriate QC checks to monitor trends, especially regarding apportioned motor vehicles and *critical elements*.
4. Uniformity
  - The State is working with the County Clerks to standardize the font, and fields that are printed on the title.
  - The State is also working to get the County Treasurers to standardize how they print the plate number on the registration paperwork.
5. Integration
  - Support WACRS links to vehicle data systems for populating / validating crash data elements.
  - Allow Crash analysis access to non-identifiable vehicle data for comparative studies (like % of crashes resulting in injuries or fatalities involving different kinds of vehicles).
6. Accessibility
  - Implement a system to provide query access to appropriate users to appropriate data records.
  - Implement a dashboard access to appropriate general summary data.

### Data System Performance Measures of Interest

Attribute	Measure	Model	Target #
Timeliness	The median or mean number of days from (a) the date of a critical status change in a vehicle status (e.g., a vehicle sold to a different owner) to (b) the date the status change is entered into the database (e.g., the owner data updated).	V-T-1	TBD

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<b>Attribute</b>	<b>Measure</b>	<b>Model</b>	<b>Target #</b>
Accuracy	The percentage of records with no errors in <i>critical</i> data elements.	V-A-1	TBD
Completeness	The percentage of records with no missing <i>critical</i> data elements.	V-C-1	TBD
Uniformity	TBD		
Integration	TBD		
Accessibility	TBD		

## Driver

### System Overview

The custodian of the Driver Data System, including the driver history record, is the Driver Services program at WYDOT.

The primary source of Driver data has historically the RIS application, but that outdated mainframe application is being replaced with a new, much more flexible and maintainable system MAX. (The anticipated completion date is summer 2025.)

In the meantime, a synchronized shadow database is maintained at WYDOT for use with linking with other data (e.g., the crash data system), and for ad-hoc reporting.

### TRA Recommendations

Recommendation(s)	State position
<p><b>Driver-1:</b> Improve the data dictionary for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>The State has given this high priority. In the context of the implementation of the MAX platform (to replace the outdated RIS system), significant emphasis was placed on developing a comprehensive Data Dictionary to serve as the foundation for the new system.</p>
<p><b>Driver-2:</b> Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>The State has given this high priority. The new MAX platform provides much more support for quality control, both through the implementation of the various procedure workflows as well as QC queries.</p>
<p><b>Driver-3:</b> Improve the interfaces with the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>The State has given this high priority. An interface had already been put in place between the crash data and the Oracle copy of the driver data. With the new MAX system (and with the new Crash system also being implemented by WYDOT) the intent is for the two systems to be more tightly integrated.</p>

### TRA Considerations

- Improve effectiveness of facial recognition program by increasing 1:1 match to 1: many match.
  - State response: Legislative changes would be needed to allow this to be implemented. 1:Many facial recognition will not be included in the Go-Live of the MAX system.
- Work with the courts to increase electronic submission of all convictions. This would increase the timeliness, completeness and accuracy of data on diver record.
  - State response: This is receiving high priority.
- Work towards linkage to crash data system which would allow for all crash data to post to driver record.

- State response: The linkage between the new crash system (WACRS) and the new Driver system (MAX) will be pursued with high priority once the two systems are in place.
- Establish performance measures for timeliness, accuracy, completeness, uniformity, integration and accessibility
  - State response: The State is giving increased emphasis to not only having performance measures for many of the data quality aspects, but also in providing regular reports out to the data collectors, including law enforcement.

## Dependencies on other Traffic Record areas

There is a key dependency between Driver and Vehicle Data Systems is the ability to share a common record for the owner of a vehicle when the owner is an individual. Typically the individual will be in both the driver and vehicle systems, and the person validation capabilities of the driver data system will help ensure proper identification and elimination of redundant records.

The Driver Data System depends highly on Citation & Adjudication for updating driver records, on Crash for indication of crash occurring, and for insurance check results, and other states for checking driver registrations in more than one state.

## Strategic Goals

1. Overall
  - Wyoming would like to see overall improved workflow and data flow for the Driver data system.
  - Wyoming would like to see major improvements in the work flow and quality of driver-related records (DSFR, citations, and crashes) going to Driver Services.
2. Timeliness
  - Improve the timeliness of updates to Driver records following a crash, DSFR, or driving related citation.
3. Completeness & Accuracy
  - Reduce errors and missing data in *critical elements* in general.
  - Reduce errors and missing data in CDL drivers in particular.
4. Uniformity
  - Generally, follow best practices regarding AAMVA and the National Driver Register Driver Pointer System.
5. Integration
  - Improve the completeness and accuracy (and efficiency) of driver data collection in crash reports.
  - Ensure Driver Services has DSFR (including test results) data needed to update driver records.
  - Ensure Driver Services has citation & adjudication data needed to update driver records.
  - Support integrated crash/driver studies, including driver data for “exposure.”
6. Accessibility
  - Ensure that valid users have access to the appropriate Driver records.

- Ensure that users have access to appropriate Driver summary data.

## Potential Initiatives/Projects

### 1. Overall

- Complete the implementation of the MAX system (replacing the outdated RIS), including the linkage between Driver and Vehicle data (through common elements such as driver and owner personal identifiers).
- Wyoming would like to see both the DSFR and citations to go electronic end-to-end.

### 2. Timeliness

- Link to the crash system for notification of a crash involving the driver.
- Implement the electronic DSFR system that is currently being pursued.
- Link to electronic citation systems being implemented by law enforcement agencies

### 3. Completeness

- With the completion of the new MAX system, continue to improve the edit checks for data entry, and especially for CDL Drivers.
- Develop as appropriate QC checks to monitor trends, especially regarding CDL drivers *critical elements*.

### 4. Uniformity

- No specific action identified.

### 5. Integration

- Support WACRS links to driver data systems for populating / validating crash data elements
- Provide validated Driver Services users access to DSFR data (including test results)
- Provide validated Driver Services users access to original citation data and adjudication data (either a centralized warehouse, or through law enforcement agencies).
- Allow Crash analysis access to non-identifiable Driver data for comparative studies (like % of drivers of certain age group involved in crashes).

### 6. Accessibility

- Implement a system to provide query access to appropriate users to appropriate data records.
- Implement a dashboard access to appropriate general summary data.

## Data System Performance Measures of Interest

Attribute	Measure	Model	Target #
Timeliness	The mean number of days from (a) the completion by an officer of a DSFR to (b) the entry of the data into the Driver database.	D-T-1	TBD
Timeliness	The mean number of days from (a) the test results being available for a DSFR to (b) the update of the data into the Driver database.	D-T-1	TBD
Timeliness	The mean number of days from (a) the adjudication of a traffic related citation to (b) the update of the data into the Driver database.	D-T-2	TBD

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Attribute	Measure	Model	Target #
Accuracy	The percentage of records with no errors in <i>critical</i> data elements.	D-A-1	TBD
Completeness	The percentage of records with no missing <i>critical</i> data elements.	D-C-1	TBD
Uniformity	TBD		TBD
Integration	The percentage of records in the driver database for which the test results are updated through linkage to the DSFR system.	D-I-1	TBD
Accessibility	TBD		TBD

## Roadway

### Overview

The State has just completed a major update of the Linear Referencing System, from the previous ELRS (“Enterprise LRS”) to a new ALRS (“Advanced LRS”). The ALRS addresses a number of challenges associated with the previous implementation, and has been available and maintained for a couple of years already.

Various programs at WYDOT, including Planning, Traffic Operations, Highway Safety, and Materials are the custodians for various elements of the Roadway Data System. Most, but not all owners/managers of linear data, have transitioned to the new ALS, and many of roadway features are now housed – along with the ALRS – in Roads & Highways, which presents a number of advantages for WYDOT.

The biggest challenge at this point is to help all the LRS users transition from the ELRS to the new ALRS. Some roadway data elements reside in the following systems, not all of which have transitioned to the ALRS:

- Agile Assets
- Safety Portal
- Various applications (e.g., approaches)

Another challenge is that some roadway feature data comes from sources outside of WYDOT, for example from counties and other agencies. The collaboration with the local agencies is a mixed bag, with some agencies being much more cooperative and collaborative than others.

Independent of where the data elements are managed, most of the roadway datasets are also accessible in the SPOD Oracle schema at WYDOT, to facilitate access for database access use (integrated queries, etc.). Many of the data elements are also accessible through the SPOD application, which also includes some metadata about each element.

### Dependencies

WYDOT is not responsible for the construction and maintenance of **all** public roadways, as that is shared with other agencies – counties, cities, reservations, parks, etc. However, WYDOT is responsible for reporting some data to the national level (through HPMS, for example).

The main features that depend on local entities are Functional Class and Ownership.

### TRA Recommendations

Recommendation(s)	State position
<b>Roadway-1:</b> Improve the applicable guidelines for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	State Priority to meeting this recommendation: High Work continues to ensure that roadway data elements are MIRE compliant and the FDE requirements are met.
<b>Roadway-2:</b> Improve the data quality control program for the Roadway data system to reflect	State Priority to meeting this recommendation: High

Recommendation(s)	State position
best practices identified in the Traffic Records Program Assessment Advisory.	Several quality projects have been initiated, planned, or considered to address various aspects of the roadway data system. Transitioning all roadway data elements to the ALRS is the most important goal for WYDOT
<b>Roadway-3:</b> Improve the procedures/ process flows for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory	State Priority to meeting this recommendation: Medium Improve information regarding when the data was collected / when it was changed (how old the data is)

### 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.

### Strategic Goals

1. Overall
  - NOTE: The ALRS is the strategic platform for linear location based integration.
  - Transition all WYDOT roadway data users to the ALRS.
2. Timeliness
  - Meet consistently the January date for ALRS line work.
  - Meet constantly the June 15 submittal date for HPMS data.
  - Address issues with the ALRS in a timely manner to meet the needs of the users.
3. Completeness
  - Meet user needs regarding which roadway data are available.
  - Meet user needs regarding the network coverage of the roadway data that are available.
  - Meet the federal MIRE FDE Requirements in terms of elements and network coverage.
4. Accuracy
  - Improve the accuracy (consistency, correctness) of the roadway data elements, with emphasis on those that are most important to the users.
5. Uniformity
  - Address the MIRE compliance of the roadway data elements, with emphasis on those that are most important to the users.
6. Integration
  - Ensure that the various users have ready access to the up-to-date ALRS.

- Transition all data sets to be ALRS compliant for easier integration.
- 7. Accessibility
  - Provide easy access to the ALRS foundation.
  - Provide easy access to the various roadway data elements
  - Provide transparent access to the data, so that users know who to go to for what data, and what they have.

## Potential Initiatives/Projects

1. Overall
  - Identify which roadway data elements are most important for the various users.
  - Provide the tools, mechanisms, and support to roadway data users to transition to the ALRS
  - Specifically, support the Milepost LRM to meet the needs of the various users.
  - Consider having a mechanism to provide periodic quality reports to the counties for the data needed from them.
2. Timeliness
  - Put in place a timely and efficient work order system to manage the corrections and enhancements to the ALRS needed by the users.
3. Completeness
  - Identify and prioritize the missing roadway data elements that are most valuable to the users.
  - Identify and prioritize the missing network coverage of the roadway data elements that are most valuable to the users.
  - Clarify what data exists (and calculations are done) for the most important elements; identify and address any gaps with user needs. The initial element to address is AADT.
4. Accuracy
  - Expand the number of roadway data checks in Roads & Highways – especially for those most important data elements – to ensure that user needs are being met; reduce the number of records that fail the checks.
  - Improve the system to allow users to submit issues related to the ALRS or to data sets for correction.
5. Uniformity
  - Update the Functional Classification data set to manage both old and new classifications.
6. Integration
  - Have a mechanism to provide regular annual updates (and ad-hoc for urgent exceptions) of the ALRS to the various users.
  - Transition all data sets to be ALRS compliant for easier integration.
7. Accessibility
  - Release the Intranet Viewer for WYDOT access to the roadway data elements in Roads & Highways.
  - Release the ALRS version of the Maintenance Section Book that is a reference used by many users within WYDOT.

- Put in place a comprehensive metadata system that helps data users can easily find what data exists, where that data can be obtained, and who to contact regarding questions or concerns.
- Ensure that users can understand the data in each of the roadway data elements (this is often referred to as a *data dictionary*).

Data System Performance Measures of Interest

Attribute	Measure	Model	Target #
Timeliness	TBD	TBD	TBD
Accuracy	Number of Roads & Highways Data Checks in place	R-A-?	TBD
Accuracy	Number of Data Elements with <= 10% of records failing Roads & Highways Data Checks	R-A-?	TBD
Completeness	% of roadway miles with Collected or calculated AADT	R-C-1	85%
Uniformity	Number of Roadway Data Elements that are ALRS compliant	R-U-1	TBD
Integration	Number of Roadway Data Elements (MIRE or Non-MIRE) linked with crash data	C-I-?	TBD
Accessibility	# of roadway data elements available in the SPOD (for WYDOT accessibility)	R-X-1	TBD
Accessibility	# of roadway data elements available on the Web (for external to WYDOT accessibility)	R-X-1	TBD

## Citation and Adjudication

### System Overview

For traffic records purposes, the citation and adjudication systems covers all the information relevant to traffic records-related citations. In the NHTSA ideal, this data would be collected in a central, statewide repository (and linked to appropriate Federal data systems) so the information can be analyzed by authorized users to improve and promote traffic safety.

In practice, the situation in Wyoming is similar to what is found in other states. The circuit courts operate in conjunction with the state supreme court. They have many things in common, such as supporting electronic citation submittal, having a unique identifier (the docket number).

The municipal courts operate independently, with different charges, though often very heavily leveraged from the state statutes and quite similar between municipalities. Rather few of the municipal courts are equipped to handle electronic citations, and not all of the municipal police departments are equipped to generate electronic citations.

At the Statewide level, the citation number is also a unique number, but is not always used or usable for tracking a citation all the way through the citation and adjudication system.

The DSFR (the generally used name referring to the impaired-driver related form used to capture information regarding implied consent, substance testing requested, and noting the BAC. This specific form is a critical document related to the application of penalties related to impaired driving, and thus is being addressed in addition to the citation and adjudication.

Together both the DSFR and the citation and adjudication systems are important to support traffic safety analysis that identifies trends in citation issuance, prosecution, and case disposition. Furthermore, linking citation and adjudication data with other systems (e.g., crash and driver) can provide valuable insights into over-representation or variations in effectiveness.

NOTE: The overall citation & adjudication system covers much, much more than traffic-related offenses. For the purposes of the Traffic Records Strategic Plan, the emphasis is on the traffic-related offenses.

### TRA Recommendations

Recommendation(s)	State position
<b>Citation-1:</b> Improve the applicable guidelines for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	High priority for three main points of interest in Wyoming: 1) a comprehensive repository of citations and their adjudication, 2) transitioning to electronic citations, and 3) clarifying and improving the workflow of both citations and DSFR.
<b>Citation-2:</b> Improve the data dictionary for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	High priority: This is fundamental to being able to collect, consolidate, and analyze the data consistently.

<p><b>Citation-3:</b> Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>High priority, since the quality of the analyses to drive decisions depends on the quality of the underlying data.</p>
<p><b>Citation-4:</b> Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.</p>	<p>High priority, in order to automate the flow of data within the overall citation and adjudication system, as well as to link with other data systems for analysis.</p>

### 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.

### Dependencies on other record systems

The Citation, Adjudication, and DSFR systems depend primarily on the following systems:

- Citation generation by law enforcement officers and agencies. Ideally, citations would be generated electronically.
- Docket management systems used by the various courts
- Driver Services system for handling citations, the DSFR, and the application of penalties, such as interlock, 24-7, suspension, or revocation.

It will be important to prioritize and coordinate between these systems especially regarding the linkages and data flow between them.

### Strategic Goals

1. Overall
  - There is high interest in having a comprehensive central repository for “all the data” regarding citations and adjudication (from all jurisdictions, including municipal courts).
  - Improve and automate the workflow of citations from the officer through the agency to Driver Services and the judicial system (various destinations).
  - Improve and automate the workflow of DSFR from the officer through the agency to the labs to Driver Services and other destinations.
  - Ensure Driver Services receives all the DSFR, citation and adjudication for traffic-related offenses.
  - Ensure that law enforcement are able to obtain the final adjudication results for the citations that they submitted, to drive improvements in effectiveness and efficiency.
  - Ensure that the most critical citations and DSFR are processed with the most attention.
2. Timeliness
  - DSFR: Reduce the time before the DSFR is received by Driver Services, especially so that it is in time for them to take the appropriate action.

- DSFR: Reduce the time for the drug/alcohol test results to be delivered to Driver Services and Highway Safety.
  - Citation: Reduce the time for a citation to be delivered to Driver Services and to the judicial system, ensuring that any deadlines are met.
  - Adjudication: Reduce the time for adjudication results to be delivered to Driver Services, ensuring that any deadlines are met.
3. Completeness
- DSFR: Ensure that Driver Services receives all DSFR and Citations that are relevant to motor vehicle drivers.
  - DSFR: Ensure that the test results are complete - obtained and added to the record - (for all appropriate substances).
  - Adjudication: Ensure that the adjudication (dismissed, deferred, plead, innocent, guilty, charge change, “pocket 301”, or decision not to prosecute) for every traffic-related citation written and submitted gets filed and delivered to the necessary parties, however they exit the work flow.
  - All: Ensure that the electronic system entry has sufficient edit-checks / validation rules to support data completeness.
  - All: Ensure every record that is approved and submitted is logged, to serve as the point of comparison for complete transfer to interested parties.
4. Accuracy
- Citations: Ensure that the locations of moving violation is captured accurately for use in comparative studies with crash data.
  - Citations: Ensure that the correct workflow is followed given the situation (e.g., repeat offenders, high BAC, etc.)
  - DSFR: Ensure that the correct test results are used by Driver services and available for crash studies.
  - All: Ensure that the electronic system entry has sufficient edit-checks / validation rules to support data accuracy.
5. Uniformity
- DSFR: Ensure that the standard form is used by all parties.
  - Adjudication Ensure that charges for CDL drivers are not downgraded when should not be.
6. Integration
- DSFR: Ensure that Highway Safety is able to link the test results related to crashes to the to crash report (used to determine “alcohol related” and/or “drug related”).
7. Accessibility
- DSFR: Authorized personnel can access the DSFR status, and track summary status for their needs.
  - Adjudication: Authorized personnel can access the status of a citation, and track summary status for their needs.

## Potential Initiatives/Projects

### 1. Overall

- Clarify, document and streamline the workflow of citations from the officer through the agency to Driver Services and the judicial system (various destinations).
- Using the workflow documentation, ensure that every outcome path can be checked and tracked.
- Implement a comprehensive set of electronic citation systems, starting at the law enforcement end, and connected through to the judicial system, the Driver Services System, and the other recipients (prosecutors, courts, etc.)
- Clarify and document the DSFR work flow through the system.
- Implement an electronic DSFR system that connects to law enforcement, the applicable labs, Driver Services, and Highway Safety.
- Making sure that the technical capabilities match from the beginning to the end, to address uniformity, completeness, and timeliness.
- Ensure that there is a single shared identifier for a citation to track through process of writing, transfer to Judicial and Driver Services, if charge changed, and resulting adjudication
- Use criteria to identify the most critical citations and DSFR (e.g., high BAC results, CMV drivers, repeat offenders, high-risk offenders); ensure that criteria can be used to trigger the appropriate treatment of the critical citations.
- Provide proper training and documentation of the systems.
- Consider reporting trends and quality issues to the courts; especially the municipal courts.
- Apply overall Quality Assurance approach: identify issues, and then determine the best actions (training, tools, linkage, and automation) to address the issues.

### 2. Timeliness

- DSFR: Using the electronic system (if/when implemented), implement appropriate mechanism to track timeliness and flag delays.
- Adjudication: Implement a mechanism to track the time from adjudication to when Driver Services receives the adjudication results.

### 3. Completeness

- DSFR: Using the electronic system (if/when implemented), implement appropriate mechanism to ensure that all records get through the workflow.
- Adjudication: Implement a mechanism to ensure that Driver Services receives the adjudication results of all driver-related citations that are applicable.
- DSFR and Citations: Track historic trends of counts, to be able to quickly detect if the counts suddenly drop off.
- Citations: Have checks that all citations get a disposition filed.

### 4. Accuracy

- DSFR: Automate the connection between the lab results systems and the DSFR system to reduce potential errors.

### 5. Uniformity

- DSFR: Encourage all parties to use the electronic system (when/if implemented).

6. Integration

- General: Using the unique identifier, implement a mechanism to ensure that Driver Services receives all DSFR (and citations?) as per the Crash Report.
- Ensure that Driver Services can compare the original charge with the adjudication to check for improper CDL driver changes.
- Citation & Adjudication: Linkage between the agency system, the lab system, the judicial system(s), driver services for operation
- DSFR: Linkage with crash for test results
- Citation & Adjudication and DSFR: Linkage between them (based on citation number and possibly docket number.
- Address the link (if needed) between citation number and docket number.
- Use the citation number (perhaps with docket number) as the Unique ID.

7. Accessibility

- DSFR: Ensure that authorized users are able to access the appropriate records in the central repository (and/or in the various systems).

Data System Performance Measures of Interest

Attribute	Measure	Model	Target #
Timeliness	Mean time between Citation issued and the citation applied to the statewide citation database	C/A-T-1	TBD
Timeliness	Mean time between Citation adjudicated and results applied to the statewide citation database	C/A-T-2	TBD
Accuracy	The percentage of charge disposition records with no errors in critical data elements.	C/A-A-2	TBD
Completeness	The percentage of DSFR records with no missing critical data elements.	C/A-C-1	TBD
Uniformity	% of DSFR records submitted via the electronic system (that have the built-in edit checks for uniformity)	C/A-U	TBD
Integration	The number of agencies whose citations are available in a central location.	C/A-I-?	TBD
Accessibility	TBD		TBD

## Injury Surveillance

### System Overview

The Wyoming Injury Surveillance system includes connections within the Department of Health between the EMS and Trauma, along with available hospital discharge data. There is also a linkage with lab test results regarding driver impairment, and with crash data from the Department of Transportation.

The EMS records by law are uniform, NEMSIS compliant and the Trauma Registry records follow National Trauma Data Standard from the American College of Surgeons.

### TRA Recommendations

Recommendation(s)	State position
<b>ISS-1:</b> Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	The state already uses edit checks & validation rules extensively for EMS reports. The EMS run reports data is derived directly from a medical record thus not having errors from dual entry systems.
<b>ISS-2:</b> Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Wyoming Ambulance Trip Reporting System (WATRS) and trauma registry integration use the nationally recognized UUID linkage system. Additional aspects of data linkage regarding crash and injury, will have further evaluation.

### 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).
  - State response: Wyoming will identify performance measures for the key improvements that are being pursued.
- 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.
  - State response: Wyoming is planning to introduce a NHTSA sponsored crash dashboard that can then be used as a basis on which to collect feedback.
- Incorporate a means for hospital discharge and emergency department patient severity (Abbreviated Injury Score, Injury Severity Scale) computation and use.
  - State response: In the short term, the injury scoring is solidly addressed between EMS and Trauma Center data. The potential for using Hospital Discharge data can be addressed with further integration with the EMS and when more hospitals are on board with the Wyoming Health Information Exchange (WyHIE).

## Potential Dependencies on other Traffic Record areas

The Injury Surveillance Data System depends on other Traffic Records areas, and these dependencies and needs. It will be important to prioritize and coordinate these dependencies with the other areas. The integration of EMS records with the Health Information Exchange is ongoing, though limited in nature.

Wyoming gives high importance to the linkage between EMS/Trauma data with crash reports. This can improve the quality of the injury severity data that is used in analyses and decision-making.

## Strategic Goals

1. Overall
  - Wyoming would like to continue to encourage agencies to get on board with the Wyoming Health Information Exchange.
  - The planned information dashboard is intended to meet user needs regarding access to injury- and health-related information.
2. Timeliness
  - Wyoming would like to improve the EMS record timeliness by addressing the outliers (especially for reports that are entered into the system more than 12 hours after the ambulance has returned to service).
3. Completeness
  - Ensure consistency between elements of the EMS report and other interventions.
4. Accuracy
  - Improve the accuracy of incident location of EMS calls in general (and with emphasis for calls related to crashes). This is highly valuable for linking EMS data to other data elements, such as crashes.
  - Improve the completion of the required elements in the EMS reports.
5. Uniformity
  - Reduce the number of outlier data elements being provided by agencies that are not currently compliant with the uniform dataset.
6. Integration
  - Improve linkage to Wyoming's Hospital Information Exchange; bring more hospitals and ambulance services on board.
  - Be able to link any involved person in a crash with corresponding injury information.
7. Accessibility
  - Provide key dashboard information, e.g., average times to respond based on location, and outcomes based on transportation and treatment.
  - Deploy a Crash Dashboard.

## Potential Initiatives/Projects

1. Overall
  - Regular reports regarding performance measures and participation will be considered in various areas.
  - A dashboard is planned and will provide both a first stab at providing injury and health data, as well as provide a basis for collecting feedback.

2. Timeliness
  - Develop a report for EMS agencies including timeliness.
  - Track compliance to the rules and regulations regarding EMS data entry.
3. Completeness
  - Identify specific inconsistencies to address and communicate back to the agencies (close the loop, get to fix).
4. Accuracy
  - Pursue a map-based service (such as WIGLS, which is used for crash locations) for collecting accurate information regarding where ambulances have been dispatched.
  - Perform ongoing review of the EMS records for issues, and identify and apply appropriate corrective actions.
5. Uniformity
  - Continue to encourage all agencies to use the state-provided EMS reporting system.
  - Identify mismatches in the validation rules that transform the non-NEMESIS data, and adjust accordingly.
6. Integration
  - Implement UUID linkage between the crash and injury systems.
  - Since participation in the Wyoming Health Information Exchange is voluntary, strive to improve and point out the potential efficiency gains.
7. Accessibility
  - Pursue the network security that would be necessary to deploy a dashboard.
  - Develop and provide targeted training to the data users
  - Leverage the NHTSA crash dashboard concept (as presented at San Diego TRF).

Data System Performance Measures of Interest

Attribute	Measure	Model	Target #
Timeliness	Reduce the percentage of EMS reports that take longer than 12 hours to be entered in the system	I-T-2	TBD
Completeness	Increase the percentage of EMS reports with no missing critical data elements.	I-C-1	TBD
Accuracy	Increase the percentage of EMS reports with accurate locations.	I-A-1	TBD
Uniformity	Decrease percentage of records that have values that are not National Emergency Medical Service Information System (NEMESIS)-compliant.	I-U-1	TBD
Integration	Increase the percentage of applicable EMS records that are linked to crash data (crash & involved person).	I-I-1	TBD
Accessibility	TBD	I-X-1	TBD

## 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
  - State Response: The diverse nature of the programs and State departments involved makes it difficult to identify a data governance process that applies to all systems and is acceptable to all the different entities involved. Nonetheless, the WyTRCC continues to emphasize data access and integration, and has made significant inroads in these areas.

# Next Projects & Actions

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

These “Next Actions & Projects” are selected from the overall list of improvement actions listed in each traffic records system sections.

Each year, the goals in those lists will be reviewed 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** in each traffic records section 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.***