



# Local Road Safety Plan Peer Exchange

October 9-10, 2013  
Minneapolis, MN

Summary Report



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## Introduction

All States have a Strategic Highway Safety Plan (SHSP) that provides a framework for reducing highway fatalities and serious injuries on public roads. While a State SHSP can assist local practitioners with addressing safety on local roads, a locally-focused plan can address the unique conditions that contribute to crashes and assist local officials with making informed safety investment decisions.

A Local Road Safety Plan (LRSP) can build on the foundation established by a State's SHSP and provides a framework for local practitioners to proactively identify the factors that contribute to crashes within their jurisdictions. It will provide the basis for the systemic implementation of safety countermeasures across an entire jurisdiction and identifies data-driven strategies that can be used to improve the overall safety of all road users. Comprehensive plans include a prioritized list of projects that often include infrastructure improvements as well as enforcement and education activities. Ultimately, an LRSP ensures flexibility so that local jurisdictions can leverage the plan to meet their specific needs.

An LRSP integrates the 4Es of Safety (engineering, education, enforcement, and emergency services) and provides an excellent opportunity for stakeholders at all levels of government to work together to address safety challenges. An LRSP promotes road safety awareness, develops lasting partnerships, instills or enhances collaboration across multiple disciplines, and assists local agencies with leveraging safety funding.

The Minnesota Department of Transportation (MnDOT) has been a pioneer in the area of Local Road Safety Plans. While their process for developing county-level safety plans is not the only example available, it is one of the most widely recognized initiatives – including a 2011 National Roadway Safety Award.

Minnesota's 2007 SHSP noted more than 50 percent of the State's traffic fatalities occurred on local roads, which are operated by counties. In order to meet the statewide Toward Zero Deaths (TZD) goal, MnDOT recognized that they would have to reduce crashes on those systems. Subsequently, MnDOT initiated the County Roadway Safety Plans (CRSP) Program to more effectively involve local highway agencies in the safety planning process and to provide these agencies with the technical assistance needed to successfully apply for State and Federal safety funding.

The MN CRSP process includes a crash analysis and system-wide risk assessment of road and traffic characteristics for each county. The results of this process are used to identify low-cost, infrastructure-based safety projects for specific at-risk locations on county roadways. Stakeholders from all 4Es are involved during the CRSP process which subsequently leads to the identification of enforcement and education strategies that also become part of the plan. MnDOT works with county engineers to prioritize projects and familiarize them with the safety project development and the Highway Safety Improvement Program (HSIP) solicitation processes.

Other States are now looking to Minnesota's CRSP Program as they develop or consider their own Local Road Safety Plan initiative. Specifically, Colorado and Iowa are interested in developing Local Road Safety Plans (LRSP) with their counties and want to learn from Minnesota's experience as they start their own programs. Kansas, Michigan, and Missouri have started Local Road Safety Plans and are interested in insight from their peers to enhance their initiatives. To assist these States, the Federal Highway Administration (FHWA) Office of Safety sponsored a Local Road Safety Plan Peer Exchange, which was hosted by Minnesota October 9-10, 2013 in Minneapolis. The catalyst for the peer exchange was a

request submitted by the FHWA Iowa Division Office through the Local and Rural Road Safety Peer Assistance Program offered as part of the FHWA Roadway Safety Peer-to-Peer (P2P) Program<sup>1</sup>.

Representatives from all levels of government in Minnesota, Colorado, Iowa, Kansas, Michigan and Missouri participated, including Federal, State, and county representatives. To ensure a candid discussion and provide the most comprehensive perspective of the CRSP process, participants from Minnesota included champions who supported the CRSP Program from the very beginning as well as county engineers who were skeptical at first, but eventually became advocates of CRSPs after recognizing their benefits.

There were three primary goals for the peer exchange.

1. Learn about all aspects of an LRSP – the process and how to get started; the content; how to fund development of the plan and projects included in the plan; stakeholders to involve; how to get buy-in; and how to implement the plan after it is developed.
2. Share information between peer States interested in developing and implementing LRSPs.
3. Learn how an LRSP can help a county move forward with the implementation of the systemic (proactive) approach to safety.

The peer exchange provided a forum for attendees to share information on processes for developing an LRSP, plan content and layout, engaging stakeholders, and implementing the plan. While attendees discussed many topics related to LRSPs over the course of the two-day meeting, some points recurred multiple times and are regarded as key takeaways. These central takeaways are summarized on the following page and provide additional guidance and considerations for developing a Local Road Safety Plan.

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<sup>1</sup> The Roadway Safety P2P provides technical assistance on policy, program, and technical issues across a broad range of roadway safety topics. The program is designed to help agencies develop and implement effective strategies and programs that reduce roadway fatalities and serious injuries on public roads. For additional information about the Roadway Safety Peer-to-Peer Program, visit <http://rspcb.safety.fhwa.dot.gov/technical.aspx>.

## Peer Exchange Takeaways

- All of the participating States identified a large percentage of severe crashes occurring on their local system. It is clear that safety goals will not be met if crashes on the local system are not addressed. The States cannot get to zero (TZD programs) highway fatalities without addressing local road safety.
- Having a champion(s) who is persistent is vital. Ideally, you will have a champion(s) from both the State and local levels who can help overcome obstacles (such as funding), convince others to come on board, and see the LRSP through to completion and into implementation.
- Local plans should have a strong systemic component. Typically, severe crashes are widely scattered throughout the local road system. However, certain segments and intersections are at greater risk and these areas can be identified with good data analysis and treated systemically. FHWA's Systemic Safety Project Selection Tool (<http://safety.fhwa.dot.gov/systemic/fhwasa13019/>) is a good resource.
- Engineers from the local agency need to be actively involved in the development of their plan; especially with providing input to the project list. It is not effective if the local agency is a passive recipient of a plan created by the State or a consultant. It is just as important that each plan is tailored to the local jurisdiction and its unique challenges.
- County Boards or other local elected officials should be educated about the local safety plan and engaged throughout the process. Their buy-in will be especially important for implementation; especially funding for projects. Reach out to elected officials proactively, provide frequent updates, and invite them to meetings to walk through the plan.
- During implementation of the plan, ongoing evaluation is very important. This increases your understanding of what types of projects are having the greatest impact so that you can adjust what projects are funded accordingly.
- MnDOT's process is just one approach to developing an LRSP. The method and resulting local plans should be tailored to each State's unique needs, characteristics, organizational structures, and resources.
- Identify a funding source for project implementation. Local plans that have no funding source for implementation will do little good.

In total, 66 attendees participated in the peer exchange. Attendees represented FHWA, State DOTs, counties, and Local Technical Assistance Program (LTAP) Centers from Minnesota, Colorado, Iowa, Kansas, Michigan, and Missouri. Each State is in a varying stage of developing Local Road Safety Plans. Some have just started discussing the concept while others have developed plans with pilot counties. All visiting States had a desire to learn more about the process and welcomed the opportunity to meet with their counterparts in from other states.

The peer exchange was formatted to provide a mix of presentations, facilitated roundtable discussions, and breakout sessions. This structure provided attendees with several opportunities to collect information for developing Local Road Safety Plans or learning solutions for improving existing Local Road Safety Plans. Each State was encouraged to share their noteworthy practices and innovations as well as challenges and barriers experienced as they consider or develop LRSPs. The facilitated discussions allowed participants as groups to focus on specific topics such as linking LRSPs to a State's SHSP and moving forward after an LRSP is finalized (for example, maintaining stakeholder interest).

For each of the breakout sessions, the attendees were divided into groups based on their level of government. Three groups consisted of a mix of county engineers and LTAP staff. A fourth group consisted solely of State DOT staff. The members of the 3 county level/LTAP groups changed with each breakout session to allow attendees to hear from different individuals and/or exchange information in a small group setting.

Each State delegation spent time developing Action Plans at the end of the peer exchange. A virtual peer exchange will be coordinated within the next year to follow up with attendees on their progress.

## Welcoming Remarks

**Sue Groth**, Minnesota DOT (MnDOT), welcomed the group to the peer exchange and provided opening remarks. She offered the following key points to the group.

- You do not need to have it all figured out before you get started with developing a Local Road Safety Plan (LRSP).
- Minnesota cannot talk about LRSPs without talking about the Toward Zero Deaths (TZD) program. TZD ties together behavioral and engineering elements. Groups that helped structure TZD:
  - Center for Transportation Studies at the University of Minnesota.
  - County Engineers have a Safety Committee and they became very important advocates for the LRSPs.
  - MnDOT created a traffic safety position in the State Aid Office (now filled by Mark Vizecky). Not everyone agreed that the traffic safety position was outside of the traffic office, but it was the right thing to do because there was now a champion for safety in the State Aid Office.
- MnDOT's vision is to reduce fatalities with aggressive goals.
- Fifty percent of fatalities happen off the State highway system. MnDOT realized that the local system needed to be addressed in order to see a reduction in fatalities. They also needed a different way to identify projects because there are not a lot of black spots. Further, MnDOT realized that they couldn't reduce the fatality numbers on their own.
- Since MnDOT realized that 50% of fatal crashes were happening on the local system, they decided that 50% of the funding should go to the locals.
- MnDOT called for projects from the locals but those submitted weren't what they expected. MnDOT wanted to see more projects that could be applied system wide (like rumble strips) so they started working closer with the locals on their projects.
- It's important that the State DOT have "sustainers." These need to be people who will stick around and see the vision through.

**Will Stein**, FHWA Minnesota Division Office, also provided opening remarks and offered the following key points for developing LRSPs.

- There are a lot of good ideas for starting LRSPs, but you really need champions to persevere and see it through to the end. Mark Vizecky (MnDOT) has a great relationship with the County Engineers and the counties trust him. Brad Estochen (MnDOT) has also been a champion. The most aggressive County Engineers in the State (all in attendance at this peer exchange) have also been champions. Attendees at this peer exchange will need to be the champions in their States.

**Rosemarie Anderson**, FHWA Headquarters, emphasized that the goal for this peer exchange is for everyone to have a game plan for developing Local Road Safety Plans when they leave.

Attendees introduced themselves and stated their expectations for the peer exchange. A complete list of all peer exchange attendees is included in Appendix A. Table 1 summarizes attendees' expectations.

Understand what an LRSP is and what it looks like.
Learn the nuts and bolts for developing an LRSP.
Hear about Minnesota’s experiences and lessons learned.
Learn the benefits that Minnesota County Engineers recognized from developing LRSPs. Did the time put into creating the plan save them time now?
Develop an action plan to create LRSPs similar to Minnesota.
Learn about county plans vs. regional plans (to help decide which to develop).
Learn how to work with the State DOT and get FHWA involvement.
Learn how to secure funding to develop LRSPs and implement projects.
Learn how LRSPs can be used to leverage more funding for locals.
Understand how an LRSP helps to allocate resources and secure State/Federal funding.
Learn how to prioritize projects.
Learn how to get the counties engaged and how to get buy-in.
Understand the systemic (proactive) approach so that local plans do not chase crash locations.
Understand the MPO’s role in plans for their region.
Learn how a county’s study can be used to help develop an LRSP.
Learn about the implementation phase after the LRSP is complete.
Learn if there are legal implications for having an LRSP.
Learn how the dots are connected from FHWA to the State to the locals.
Learn how to bring the education and engineering sides together.
Learn how to involve law enforcement and other partners/stakeholders.
Learn how to be an advocate for the counties.
Learn how safety projects can compete with capacity projects.
Answer questions and share knowledge/experiences.
Learn if there is anything they haven’t thought of and if there is anything they can do better when the LRSPs are updated.

Table 1. Attendee expectations.

## State Presentations

A representative from each visiting delegation provided a brief presentation to familiarize everyone with the status of Local Road Safety Plan development in their State, including challenges experienced and lessons learned. This section of the report highlights the key points from each State’s presentation.

### Colorado

- 40% of fatalities and 51% of serious injuries occur on local roads.
- Crash data is submitted by the Highway Patrol to the Department of Revenue (DOR). DOR has statutory authority to collect crash reports.
- Colorado has a dual crash records system. DOR is the legal custodian of the reports and Colorado DOT will get copies and “cleanse” them.
- Challenges with the data:
  - There are issues with timeliness and accuracy.
  - Until recently, they were 3 years behind on crash data. The State has made a big push to get records up to date.
  - Crash data is submitted on paper, which means there are more errors.
  - Coding challenges, including local crashes missing information on the location.



- No online access to data.
- Solutions for data challenges:
  - Strengthen the Statewide Traffic Records Advisory Committee.
  - Provide training to law enforcement and data handlers.
  - Improve data accessibility.
  - Emphasize data integration and sharing among all users.
  - Utilize the FHWA Crash Data Improvement Program.
- Colorado's Strategic Plan for Improving Roadway Safety (SPIRS) was developed in 2006 and is currently being updated. There are 18 emphasis areas, which is too many so they want to reduce the list.
- Colorado does not have a State-driven County/Local Road Safety Plan Program.
- Larimer County and Arapahoe County have successful Local Road Safety Plans. They went from a reactive to proactive approach. Each plan took about 1 year to develop. The benefit of the LRSPs is a faster response to issues. They also allow for easier reporting to the Board of Commissioners.
- With SAFETEA-LU, States were allowed to transfer 50% of their funding out of safety and Colorado did this. Of the 50% of HSIP funds left, 50% went to local safety projects.

## Iowa

- Iowa has good crash data.
- 91% of Iowa roads are locally owned. Of that, 71% are unpaved.
- 46% of fatalities and 54% of major injuries occur on local roads.
- Iowa uses TraCS to collect data; 90% of their crash data is collected this way.
- Reports are provided annually to FHWA, quarterly to the Iowa DOT Management Team, and upon request from others.
- Crash Data Challenges:
  - Completeness of reports is an issue; Iowa DOT needs full information to be able to address the issue
- Their new SHSP has 11 emphasis areas.
- A multidisciplinary approach was used when developing their new SHSP.
- An SHSP goal is to have 15 LRSPs written by 2017.
- Iowa has been exploring LRSPs for about 6 months. Challenges include funding, liability concerns, concerns about the reactions from Boards of Supervisors, resistance to State involvement, and counties believing they already have a plan.
- Less than 10% of HSIP funds go to the locals.
- If Iowa is going to have a "zero" campaign, they are going to have to partner with the locals to see any improvements.

## Kansas

- Kansas is at the ground floor for developing LRSPs.
- 93% of public roads are locally owned.
- ~45% of fatalities and 52% of serious injuries occur on local roads.
- There are 140,000 miles of public roads in Kansas. There are a lot of miles, but not enough funding to match.
- KDOT owns and manages the data. 50% of the data comes in electronically. The goal is 100%.
- KDOT tried to include local roads in their 5% report.

- KDOT performed RSAs that rolled into High Risk Rural Road projects.
- Every crash is tied to a location when it's on the State highway system. However, they do not have the same linear referencing system for crashes that occur on local roads. There is also incomplete roadway data on the local system ("off-system").
- To address data challenges, KDOT is using the High Risk Rural Road Program (HRRRP) to promote low-cost systemic improvements. Locals can apply for HRRRP funding without crash data. They are also using geo-coding to identify crash locations.
- The SHSP is committee driven and treated like a living document. It has 11 emphasis areas. There are great partnerships for the SHSP.
- Kansas has a Local Roads Support Team. The Team promotes the SHSP to local governments, tracks developments in local road safety, and assists/trains local partners.
- The "People Saving People Award" recognizes safety champions. It's important to recognize champions who are promoting safety.
- Finding a local champion is the key to success with LRSPs.
- Kansas has \$18M to spend; \$8.8M is available for local projects.
- Kansas wants to get money on the street as fast as possible; from the Federal government to the State to the street.

## Michigan

- 92% of roads are owned by the locals. 59% of fatalities and 54% of serious injuries occur on these roads.
- Data is collected through the Highway Performance Monitoring System. It's collected the same way for Federal-aid roads and local roads. 80% of data is collected electronically. The goal is 100%.
- The State and locals use different systems to analyze the crash data.
- Crash data challenges:
  - People want to know why the State wants the data and what's going to be done with it. Why do engineers want data? For example, law enforcement doesn't understand the relevance of documenting the direction of a vehicle in a crash report.
  - The manpower required to collect data is an issue.
  - Locals being able to access the data in a timely manner is also an issue.
- Michigan just completed their third update to their SHSP. It has 4 Emphasis Areas with 11 Action Teams. All 11 teams have finalized their action plans.
- The SHSP does not specify local roads, but all 11 Action Teams have local representation.
- Michigan has been working on Local Road Safety Plans for about 2 years. The challenges are:
  - Getting local participation and buy-in
  - There is no funding associated with the plans
  - The benefits are not realized yet
  - Locals see LRSPs as the State telling them what to do.
- Crash data ties the State's SHSP to LRSPs.
- \$15M of HSIP funds go to local projects.
- Michigan is considering a State peer exchange on developing LRSPs.

## Missouri

- 75% of roads are locally owned.

- 26% of fatalities and 32% of serious injuries are on local roads.
- Crash data is collected on all public roads and sent to the Missouri Highway Patrol.
- Traffic and other roadway data are limited on local roads.
- There are 115 counties in Missouri; 101 of those counties are responsible for 33% of fatalities.
- Challenges with crash data:
  - Limited roadway data on the local roads.
  - Location errors in the crash data.
- Solutions to crash data challenges:
  - Completed the Roadway Safety Data Program (RSDP) in 2011.
  - Completed the Roadway Data Improvement Program (RDIP) in 2013.
  - Active Traffic Records Coordinating Committee.
  - Sharing data and making it easier for the counties to access the data.
- SHSP Emphasis Areas
  - Serious crash types
  - High risk drivers & unrestrained occupants
  - Special vehicles
  - Vulnerable roadway users
  - Special roadway environments
  - Data and data system improvements
- The SHSP is comprehensive and data driven to address local/rural road safety.
- An Executive Committee oversees the SHSP and there are 12 State-level subcommittees and 7 regional coalitions.
- Missouri began their efforts with LRSPs in the fall/winter 2012.
- Challenges have been with (1) the RFP process, (2) counties have numerous jurisdictions with special interest groups, (3) getting the right people at the table, and (4) funding.
- The benefits of the LRSPs have been talking about safety at the local level. This is a culture change. Locals are seeing how they belong in improving safety on all public roadways and the State DOT has a better understanding of local issues.
- Need to fund safety initiatives defined by the LRSPs.

## How Minnesota Started County Roadway Safety Plans

Federal, State, and local representatives from Minnesota provided presentations during this peer exchange session. Their presentations, and subsequent group discussion, focused on how to get buy-in from county engineers and administrators; challenges and barriers to getting started; strategies to address barriers; Federal, State and county roles in an LRSP; and other stakeholders involvement.

This section of the report summarizes the key points made from each speaker and the group discussion that followed.

### ***FHWA – Will Stein***

There is language in MAP-21 that the purpose of the HSIP Program is to reduce fatalities and serious injuries on all public roads; including non-State-owned public roads and roads on Tribal land. This language can be used to combat any resistance to the development of LRSPs. There is no regulatory split, but agencies need to keep to the spirit of the language in MAP-21.

Funding is a critical first step. Consider how your State funds safety projects on the local system.

You do not want the plan to sit on a shelf. You want to convert the plan into treatments (like rumble strips).

How MnDOT allocates funding to locals:

- Federal safety funds are split based on the percentage of fatal and serious injury crashes. MnDOT looks at a 3-year time period when allocating funds. For example, 12% of K and A crashes occurred in District 6, so that District gets 12% of the HSIP funds. Within District 6, 39% occurred on the State system and 61% occurred on the local system. So of the District's 12% HSIP funding, 39% goes to State highways and 61% to local highways. This funding split was developed before the LRSPs were developed. There was a lot of discussion when figuring out the funding split, but everyone kept coming back to the data and it's working well. Funding is going to where the crashes are located.

About 50% of crashes occur on State highways and the other half are on the local system. MnDOT compares crashes against the amount of funding allocated to determine if there is good alignment between the funding split. If 50% of crashes are on the local system, is 50% of funding allocated to local projects?

Minnesota identifies parts of the local system that are at higher risk and where there are greater opportunities for improvements. MnDOT had to sell their Districts on doing less State projects and letting the locals do more. Now is a great time to make a case in your States that additional funding can go to the locals with more funding available through HSIP under MAP-21. This can help persuade upper management.

The Federal-aid process is often viewed as an obstacle. It is complex and Federal regulations apply. FHWA should be a resource. They have a Local Programs Engineer, Safety Engineer, Financial Specialists, experts at FHWA Headquarters, and technical experts in the Resource Center. Some State DOTs also have offices/personnel to assist/work with local agencies. FHWA has a website that can be used as a resource: Federal-aid Essentials for Local Public Agencies. The website is located at <http://www.fhwa.dot.gov/federal-aidessentials/>.

Evaluation is critical during implementation. Agencies need to keep very good data on where and when safety treatments were constructed. Evaluations assist with funding the most beneficial projects and will inform future safety planning efforts.

#### Group Discussion

An attendee suggested a more generalized/streamlined Federal-aid process. For example, agencies will not use Federal-aid funds for a signing project because it's too cumbersome and has too many administrative costs associated with it. Agencies will not do a \$100,000 Federal-aid project for safety. FHWA suggested multiple counties combining projects to make it a larger project that can use Federal-aid funding. Ohio has a best practice in this area. Ohio DOT purchases the signs and then lets the local agencies use their own work forces to install them.<sup>2</sup>

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<sup>2</sup> A summary of the Ohio Township Sign Safety Program is available in FHWA's publication titled *Assessment of Local Road Safety Funding, Training, and Technical Assistance*. To download a copy, visit [http://safety.fhwa.dot.gov/local\\_rural/training/fhwasa13029/index.cfm#toc](http://safety.fhwa.dot.gov/local_rural/training/fhwasa13029/index.cfm#toc).

### ***MnDOT – Mark Vizecky***

There are 141,000 miles of roadway in Minnesota; 130,000 are local (92%). If an agency's goal is zero fatalities, crashes on the local system must be addressed. However, there are 2 challenges with determining where to focus safety funds:

- Black spots are infrequent on local roads.
- Fatal and severe injury crashes are random on local roads.

MnDOT started allocating HSIP funds to local agencies in 2006. They look at the percentage of fatalities in each District by Area Transportation Partnership (ATP)<sup>3</sup> to help decide funding distribution (how much funding each District gets). There are 8 MnDOT Districts. They further divide funding by splitting between State/local roads in the District.

MnDOT developed an approach to identify risk factors to assist with determining locations to apply safety funds. This approach leads to improvements at locations where there have not been crashes, but the possibility exists based on roadway characteristics. For example, intersection risk factors can include: skewed; on horizontal curve; volume ratio major/minor roadway. When developing an LRSP for a county, MnDOT looked at their entire system and used a data tree to determine risk factors that led to the identification of locations to install safety countermeasures.

### ***Otter Tail – Rick West***

Otter Tail has 1,052 miles of county highways that are all paved.

The Minnesota County Engineers Highway Safety Committee was formed and the counties were involved in the MnDOT TZD efforts from the beginning.

Otter Tail has strong partnerships with FHWA, MnDOT (including the State Aid Office), Minnesota LTAP, and various associations. Otter Tail has a Safe Roads Coalition that represents the 4E's on a local level.

Things that Rick likes about his county's LRSP:

- The plan includes a High Priority Segment Map, which is a great visual aid for the county.
- The Federal-Aid application is 2 pages and very easy to complete.

When talking about regional plans, there must be strong buy-in from entities in that region. The Otter Tail LRSP is the county's plan, and the county's alone. Individualism could be jeopardized with a regional plan.

Strategies and Lessons Learned:

- Rick scheduled a special meeting with the County Board and spent 2 hours to walk through the LRSP with them. He recommends that other counties do the same.
- The lesson learned for him was to engage the County Board and public earlier.

Since the LRSP's development, there has been a shift in the safety culture. Before the plan, he would have reduced the number of signs purchased for replacement or reduced striping. With the plan in place, he would never cut those items now.

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<sup>3</sup> MnDOT created Area Transportation Partnerships (ATPs) to emphasize greater public involvement in the preparation of transportation plans and programs.

### Additional Comments from Minnesota Participants During Group Discussion

- MnDOT taking the lead and providing the manpower and funding for development of the County Road Safety Plans was essential; especially for the smaller, rural counties.
- It's important to have cooperation from neighboring jurisdictions. In one region of Minnesota, there is a striping project through 10 counties.
- How Minnesota got started on plans:
  - Funding
  - Patience
  - Strong partnerships
  - State DOT led development of the plans.

## Developing Local Road Safety Plans

State and county representatives from Minnesota provided presentations during this session. Their presentations, and subsequent group discussion, focused on funding plan development, the requirements, challenges and benefits of the process including time commitment, coordination and stakeholder involvement.

This section of the report summarizes the key points made from each speaker and the group discussion that followed.

### ***MnDOT – Mark Vizecky***

#### CRSP GOALS

- Moving away from hot spots and towards risk-based locations. Risk elements are things you can see because they are easy to explain to County Boards and the public. Math equations do not have the same effect.
- Implementing low-cost safety improvements at locations based on risk factors.

#### CRSP BENEFITS

- Project applications submitted to MnDOT by local agencies have improved since development of CRSPs.
- MnDOT is able to make project selections faster and award more money. It used to take 1 week per District to review and select projects and they only awarded \$2M. Now they are able to review and select all projects in a week and award \$30M.
- In 2005, MnDOT was committing about 33% of funding to engineering studies (such as RSAs). After implementation of CRSPs, there is a stronger focus on countermeasure (such as rumble strips, pavement markings, etc.).

### ***MnDOT – Kristine Hernandez***

Minnesota's Toward Zero Deaths (TZD) program started in 2003 before the CRSP initiative. Minnesota uses all forms of the 4E's with TZD and has included a 5<sup>th</sup> E – "Everyone Else." TZD was encouraged *while* the CRSPs were developed.

The TZD State-level program structure incorporates regional coordination and focus. The Department of Public Safety (DPS) funded the salaries of 3 pilot TZD Regional Coordinators using 402 safety funds. The positions are now funded 50% through MnDOT and 50% through DPS.

#### TZD STRATEGIES

- When talking about county roadway safety plans, talk about the crashes because that resonates with the County Boards.
- Use a PowerPoint slide that shows the number of teens killed in crashes as compared to cancer. This is very effective when talking with Departments of Health.
- Perform regional and county fatal reviews. Look at the crash from a 4E perspective and try to establish if anything can be done differently to prevent future crashes.
- Use crash maps during regional meetings. Law enforcement can then schedule saturation patrols in areas with a high number of crashes.
- Create a tier system for hospitals so EMS knows where to take a crash victim.
- Help all 4E's understand what the other E's are doing. That way, someone with an engineering background can consider the other E's. For example, a county engineer allowed a street closure for a bar-hosted event. In the letter to the bar owner, the county engineer encouraged working with taxis to establish safe rides home and training staff to know when to stop serving a patron.

#### ***Stearns County – Jodi Teich***

The development of the Stearns County CRSP started with a review of all county routes. They reviewed 405 intersections and evaluated things like traffic control devices, street lighting, etc. They also reviewed 244 road segments.

#### CRSP GOALS

1. Foster a safety culture among stakeholders.
2. Develop a unique Stearns County Safety Plan.
3. Identify high priority safety projects; both proactive and reactive.

#### LESSONS LEARNED BY STEARNS COUNTY

- County staff should have taken more time to evaluate roadway information to make sure the information given to MnDOT's consultant was complete.
- Counties need to make sure they review the project list. If you do not like the project list, sit down and talk about it.
- Jodi would have focused more on public buy in. If there are people in the community who are vocal, get them involved. Hold Town Hall meetings to get the public involved so they can understand the solutions being proposed.
- Spend more money to make the plan tailored to the county. Stearns County would have spent a little more money to make it more personalized to them.
- The CRSP process is better than no process.
- The benefits far outweigh any challenges they had.

## Data Analysis

FHWA as well as State and local representatives from Minnesota provided presentations during this session. Their presentations, and subsequent group discussion, explained the systemic approach and helped attendees understand the data that formed the basis of the Minnesota CRSPs.

This section of the report summarizes the key points made from each speaker and the group discussion that followed.

### ***FHWA – Karen Scurry***

The systemic approach is a safety improvement that is widely implemented based on high-risk roadway features that are correlated with particular severe crash types. The benefit of systemic safety planning is that it's proactive; an agency is not waiting for a crash to occur before taking action.

The Systemic Safety Project Selection Tool<sup>4</sup> is a guide that presents a process for incorporating systemic safety planning into traditional safety management processes. The tool can accommodate different degrees of data availability. Agencies that piloted the tool include:

- Kentucky Transportation Cabinet
- New York State DOT
- Missouri DOT (piloted the evaluation phase)
- Thurston County, Washington

New York analyzed their statewide data and found that 41% of crashes occurred at intersections. They then identified crash factors and further narrowed locations using descriptive statistics. The further an agency identifies risk factors, the closer they can get to the problem.

Thurston County established an Advisory Group to get feedback from stakeholders and also to educate them on the systemic process. Agencies can get a lot of support when they engage stakeholders early. The county prioritized their risk factors using a simple scoring system. Higher confidence risk factors received a higher score and vice versa. Applying their scoring system, they ranked each curve. The county selected 5 primary countermeasures based on factors such as low cost, MUTCD compliance, etc. In addition to implementing countermeasures, Thurston County realized they could also make changes in their maintenance activities that would lead to improvements.

An agency cannot make safety investment decisions without data. Local agencies can look at Statewide data (from similar roads) for comparison. Alternatively, locals can collect their own data.

Align priorities with the funding that is available.

It is important to consider evaluation when developing LRSPs. It helps define what success looks like.

Visit <http://safety.fhwa.gov/systemic> for resource materials.

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<sup>4</sup> The Systemic Safety Project Selection Tool is available at <http://safety.fhwa.dot.gov/systemic/fhwasa13019/>.



### ***St. Louis County – Vic Lund***

Instead of waiting for an event to happen and reacting, St. Louis County changed to a proactive approach to deploy strategies. They moved from a localized approach to systemic, and from events-based to risk-based. St. Louis County has now implemented a variety of countermeasures across the county.

Consequences of the Traditional (Reactive) Approach:

- The public asks how many people have to die before the county does something.
- Not able to address the real problem because you are reacting to public or political pressure.

A systemic approach is not:

- A Road Safety Audit (RSA).
- “Worst first.” That is a hot spot approach.

A systemic approach is the result of a planning process.

The equation for a traditional approach: crashes = risk, no crashes = no risk

The equation for a systemic approach: no crashes ≠ no risk.

County engineers have to educate the public that an intersection is not as bad as they think it is. For example, an intersection perceived as dangerous by the public might really only be ranked 75<sup>th</sup> out of 450. The systemic approach builds credibility with public officials and the public.

Safety plans may seem daunting, but take it one day at a time. It is a process that should never stop.

### ***MnDOT - Sulmaan Khan***

The Minnesota Crash Mapping Analysis Tool (MnCMAT) is an application that has crash data for all public roads in Minnesota. It is available to MnDOT, cities, and counties, but it's not open to the general public.

Users can select by County, District, Tribal Land, or State. Crash data for selection includes a variety of information; day of the week, age of the driver, month of the crash, etc. Data can be exported and used to create charts. The system can also generate Crash Type Summaries. Aerial photography is available so users can see what the area looks like.

Crash data is updated quarterly and the homepage indicates when the most recent update was completed. MnDOT gets data from the Department of Public Safety.

The system was built by a consultant. Iowa DOT initially developed the tool and Minnesota made it web-based. Before the web-based version, Minnesota had a desktop version that operated from CDs. The problem was that every time the data was updated, new CDs had to be sent out for users to download.

## Local Road Safety Plan Content

Howard Preston with CH2M Hill (contractor to MnDOT) provided a presentation on what to include in an LRSP. This peer exchange session identified the essential elements of the LRSP and how to customize the plan to local needs.

Below is a summary of the key points made during the presentation.

Every county in Minnesota has a County Roadway Safety Plan.

Why prepare local plans? MAP-21 requires States to address *all* roads as part of their statewide safety planning efforts. Further, you cannot get to zero deaths without addressing the local system as part of a comprehensive safety plan.

Challenges with Developing LRSPs:

- Institutional Inertia
  - HSIP has always been directed to the State highway system.
  - HSIP has always been focused on black spots.
- Data
  - If you have no data, you can't distinguish one segment from another, one intersection from another, one curve from another. And if you can't do that, you can't have a systemic approach.
- Culture
  - Need to build trust and relationships between the State DOT and the counties.

What a county needs to start an LRSP:

- A partner in the State's statewide safety planning efforts.
- A volunteer to be part of the SHSP update and support addressing safety of *all* roads.
- A champion(s).

The perspective on data is different if you're a State DOT looking down than the county engineer looking up. A State DOT sees 2,000 crashes on the local system. A county engineer only sees that he has one severe crash at the intersection with a State road and therefore he does not have a safety problem.

The plan development process starts with (1) a crash analysis, then (2) selecting safety emphasis areas, and finally (3) developing a comprehensive list of safety strategies. The county should then hold a Safety Workshop and identify a short list of critical strategies.

If a county has 800 curves, they can't address them all. However, if they are prioritized, they can address 200. That is manageable.

Another idea is to bundle the counties. Similar to how 10-12 counties will band together to let a project. Instead of a \$100k project, it becomes a \$2M project.

Using a data tree, Minnesota realized they had to address roadway departures. When drilling further down, they more specifically identified a need to address horizontal curves because they accounted for 50% of the roadway departure crashes. After analysis, MnDOT removed gravel roads from the mix because more crashes were happening on paved roads. With the paved roads that remained, MnDOT

looked at the characteristics of the roads at crash locations. They then reviewed the highway system to see what other roads had the same characteristics.

Risk Factors Identified for Segments:

- Density of roadway departure
- Traffic volume
- Access density
- Critical curve radius density

Risk Factors for Curves:

- ADT range
- Radius range
- Severe crash on curve

Risk Factors for Intersections:

- Skewed approaches
- On/near curve
- Volume
- Proximity to railroad crossing
- Proximity to last STOP sign
- Intersection related crashes
- Commercial development in quadrant

In Risk Assessment Findings, MnDOT could not just use crash data alone because the data would indicate minimal severe crashes. They have to also look at risk factors to establish a priority list for projects.

If a county has a capital project (reconstruction) that matches a segment on the high priority list in the CRSP, the county uses their capital funds for the middle 24' of the roadway and MnDOT provides funding to address the outer edge.

To select proven strategies, Minnesota used the Crash Modifications Factor (CMF) Clearinghouse and NCHRP Report 500 guides. For example, signalized intersection strategies included curb extensions and medians as well as pedestrian countdown timers.

## **Breakout Session 1**

Attendees divided into groups by governmental level to discuss the content, process, and funding of Local Road Safety Plans. At the end of the breakout session, a representative from each group reported on their discussion. Below is a summary of the groups' report outs.

What we liked best about Minnesota process.

- A contractor or State representative who knows what to do and can drive the process.
- Fatal crashes draw the most attention, but we need to focus on locations with the greatest opportunities.
- Get buy-in from elected officials.
- Everyone in Minnesota is a champion and involved. Everyone gets it and there is buy-in.
- The plans are easy and useful. It is a practical way to come up with solutions to problems.

- It is nice to have a cookie cutter form to use to apply for funding.
- LRSPs are adaptable.

#### What do you think will work in your State?

- Starting with the highest priority counties.
- Trying the systemic approach with pilot counties.
- Addressing gravel roads.

#### What should the level of local involvement be in LRSP development?

- Someone with technical expertise. However, the county might not have that person initially.
- Someone who is not attached politically.
- There should be extensive local involvement and it is needed from the beginning.
- Get MPOs involved.

#### What should your role be?

- Educating.
- Working directly with the State DOT staff to develop the LRSP.
- Don't blindside the County Boards.
- Counties should help develop what is in the plan, but the State should take the lead.
- Counties should be champions and change the culture/way of thinking.
- Counties should be suppliers of data to get the most effective plans possible.

#### Who are the stakeholders that need to be involved?

- Different plans require different stakeholders. A county plan will need different stakeholders than a State plan.
- Controversial groups
- Local driving schools
- AARP
- Judges
- Public

#### How do you get buy-in from leadership?

- Schedule at least 90 minutes with your County Board and invite the public.
- Find the right people within the State DOT to become champions.
- Need different arguments for different people (data people vs. emotional people).

#### What might affect plans varying from jurisdiction to jurisdiction?

- Geometrics of the roadway system.
- Amount of tolerance and acceptance in the jurisdiction.
- Rural vs. urban.
- Differences in terrain.
- Legislative issues.
- Different ways that counties collect crash data.
- Plans need to be adaptable to address new industry (biodiesel, fracking, wind turbines, etc.).

#### How would you use the plan?

- Prioritize projects and implement them.

- Bundle projects for funding.

#### Minnesota Lessons Learned

- LRSPs have streamlined their application process and improved the turnaround time immensely.

#### How Minnesota Publicizes Their Plans

- Newspaper articles

#### Would Minnesota eliminate any parts of the plan?

- No

#### Are there liability issues?

- Minnesota doesn't feel like there is liability as long as they have their plan and document decisions.

#### Other Comments

- It is a big shift moving from a reactive approach to a proactive approach.
- Citizens are worried about what is going on in front of their house, which goes against the systemic approach.

## **FHWA/State DOT Report Out on Lessons Learned During Day 1**

- Local plans need to be customized.
- There needs to be a “we” approach when developing LRSPs.
- Not all counties have an engineer.
- Sell safety in simple terms.
- Use regional projects to engage all locals.
- Identify local road safety champions.
- Listen to the local concerns and adjust as you go along.
- The counties own the plans.
- Get more local involvement.
- Directly engage negative people.
- How to fund TZD Coordinators.
- Tribal Road Safety Plans would be beneficial, but will require a lot of partnering.
- TZD was a catalyst for the Statewide Transportation Improvement Program (STIP) being detained until money was allocated to the locals. The State cannot get to zero highway fatalities without addressing local roads.

## **Roundtable Discussion: SHSP/County Road Safety Plan Relationship**

The second day of the peer exchange began with a group discussion of how Local Road Safety Plans are tied to a State's Strategic Highway Safety Plan (SHSP).

Minnesota is currently updating their SHSP and they have a multidisciplinary Steering Committee that includes a local representative. MnDOT has held 8 meetings across the State which have included the TZD coordinators.

Minnesota's SHSP is a *cyclical* process and a toolbox with a menu of options. CRSPs are referred to as mini SHSPs.

How can locals be incorporated into the State's SHSP?

- Detain the STIP until funding is allocated to the locals.
- Acknowledgement in the State's plan that K&A crashes are happening on the local system.
- Need seats at the table for the locals when the State's SHSP is being written/updated. Missouri has locals at the table for the SHSP. Their LRSP Program piggy-backs on the SHSP. The local plan has projects, but the State SHSP does not (it's more of a toolbox). Missouri has also talked about developing District level safety plans.
- Include goals in the State SHSP for a specified number of improvements on the local system. FHWA is pushing for more measurable quantities. This makes a commitment in the plan to the local system.

How do you get money to local roads? What needs to be in the LRSP to use the money?

- Input from Minnesota:
  - It has been a journey with the counties in Minnesota. In 2004, there was a meeting with senior county engineers as part of the development of the Comprehensive Highway Safety Plan, and this was really the start of the journey. Between 2004 -2007, there was a lot of education with the county engineers to help them understand that they could implement \$50k safety projects.
  - MnDOT policy makers made it possible to use HSIP funds for CRSPs. The SHSP moved Minnesota to a systemic (proactive) approach and also opened the door to dedicate HSIP funds to the local system.
  - Minnesota counties have never been short on projects to give the State DOT for funding and then they actually deliver the projects. The State DOT has been willing to give the counties the money. Counties need to have projects ready if funding comes available and then make sure to deliver them if they get the funding.
  - Minnesota included project sheets in the CRSPs to help the locals.
  - County engineers need to be involved in the process of developing their LRSP so that they have input to the project list. As a local, you should be able to tailor the plan to your county.
  - Find a champion at the State DOT level who will push for money going to the local system.
- Other Input:
  - Educate county engineers on low-cost safety improvements that can be implemented.
  - Include language in the State's SHSP about primary *and* secondary roads.
  - Each State will be different on what needs to be in the LRSP in order to obtain funding.

Do Minnesota CRSPs reference the SHSP?

- Yes.
- 80-85% of the CRSPs are the same. The projects are different from county to county. Chapter 1 of a CRSP includes an overview of what's happening at the National and State level. The second chapter is what's going on in the Region and describes how the CRSP is a piece of the bigger, overall picture.

## Local Road Safety Plan Implementation

State and local representatives from Minnesota provided presentations during this session. Their presentations, and subsequent group discussion, focused on project selection, project development, project packaging (grouping projects), funding sources, and methods for LRSP implementation.

This section of the report summarizes the key points made from each speaker and the group discussion that followed.

### ***Wright County – Wayne Fingalson***

Wayne’s presentation focused on the strategies implemented in Wright County as a result of their LRSP.

The State SHSP identifies the Statewide safety goal, the safety emphasis areas, and high priority strategies.

Wright County was among the first group of counties to have a CRSP developed. The benefits of the plan far outweighed the challenges.

“Safe Communities of Wright County” was formed in 1997 and there are a number of community partners. It was started by the Hospital using a grant from a national hospital board.

Projects/Programs Implemented by Safe Communities:

- “2 dots apart” project to reduce tailgating. The project reduced speed and reduced tailgating.
- Implemented a Seat Belt Challenge Program.
- Drive Wright Program. This is a driver diversion course with curriculum focused on traffic safety.
- Parent-Teen presentations.
- Sober Cab Program. This is funded 1/3 by establishments that participate in program, 1/3 by liquor distributors, and 1/3 by Safe Communities
- \$1500 mini grants to help localities purchase speed feedback trailers.
- A Fatality Review Committee meets three times per year.

The Wright County Traffic Safety Tool Box includes:

- MnCMAT
- RSAs

### *Wright County Safety Solutions*

**Rural intersection street lighting.** Wright County created a program for rural intersection street lighting, which has been extremely popular and used as a statewide model. The county has to pay for the power, but LED lights cost less.

**Intersection advance warning system.** The system provides a warning in both directions. It provides a warning for the side street traffic, but also for the through traffic. A system costs approximately \$40k. It alerts drivers that there is a vehicle approaching on the cross street. If installing these systems again, the county would probably use loop detectors instead of radar.

**Improved signing.** Chevron signs and guide marker plates on curves. Flashing chevron signs on a curve with a visual trap (flashing is triggered for vehicles traveling at 47MPH or higher).

**Edge treatments.** The county is using the SafetyEdge, rumble strips/stripes, and grooved edge markings. The county learned that rumble stripes are not a good solution on roads with a high volume of traffic (about 10,000 ADT). To address noise complaints, they installed a second 6" wide edge line inside of the rumble stripe and it worked.

**Dynamic Speed Display Signs.** Signs that (1) post the speed limit and (2) provide actual speed feedback to the driver.

### ***MnDOT – Julie Witcher***

MnDOT's function in project implementation is providing the funding. MnDOT funds local projects from HSIP and Penalty Funds (Sect 164) (MS 32).

MnDOT distributes safety dollars based on the percentage of fatalities and serious injuries. District 1 has 8% of the State's fatal and injury crashes, so they get 8% of the funding. That is further broken down to determine the percentage of crashes on the State and local roads and funding is allocated respectively.

After the funding is split up, decisions must be made on how to apply it. The old approach was to be reactive and identify black spot locations. The new approach is to use surrogates of crashes to identify locations where crashes are likely to occur.

The solicitation process continues to evolve. MnDOT wanted funding to be there right after the CRSPs were developed to reinforce the importance of the plans. The solicitation announcement includes a summary of the funding available for each ATP (District). MnDOT had \$31M available last year for projects that would be installed in 2014-2016.

Project Applications to MnDOT:

- The CRSP should be the starting point. Before CRSPs, MnDOT got varying information with applications submitted. The CRSPs give the counties a leg-up and a starting point for applying for project funding. Consequently, the applications have improved immensely.
- Projects that originate from a CRSP receive priority.
- Another bonus is that systemic lane departure and intersection projects only need to complete page one of the State's application and then attach the corresponding project sheet from the CRSP.

MnDOT encourages counties to work together. They will not get as good a price for installing 12 miles of rumble strips as opposed to 100 miles. There was a \$350k limit on individual systemic projects, but MnDOT waived that limit if a county worked with another county.

MnDOT also encourages agencies to submit multiple applications so that they are not putting all of their eggs in one basket. An agency should put in as many applications as they can handle.

There is an administrative cost that goes along with getting Federal funding. The locals pay a 10% match; sometimes more. MnDOT requires a 10% match. The 10% match is applied across the board to be fair to all counties and it makes administrative functions easier.



MnDOT had to make decisions on what would not be eligible for the solicitation. These projects include:

- RSAs
- Overlays
- Guardrail updates
- Sign updates (but sign upgrades do qualify)
- “Force Account” work. MnDOT does not reimburse for right-of-way engineering; projects must be done by a qualified contractor through the design-bid-build process.

Summary of the 2014-2016 Local Solicitation for HSIP Funds:

- Largest response in the history of the program.
- 137 applications received (this was more than double what was previously submitted) for \$29.5M.
- \$23M in projects selected. MnDOT had \$30M to allocate. MnDOT wants to keep the integrity of the solicitation process and the quality of the projects that are awarded. The \$7M not awarded did not fit MnDOT’s qualifications/requirements. MnDOT also gave priority to the projects in the CRSPs.
- 9 joint projects were submitted.
- 2 Districts submitted District wide applications.
- 45 counties were represented (out of 79 that participate in the solicitation process).

MnDOT awarded projects for chevrons, ITS warning systems, intersection lighting, enhanced pavement markings, intersection signing, and 2’ shoulder paving.

MnDOT sends out an Award Memo to everyone who receives funding. The memos include guidance on the projects.

### Group Discussion

Who develops the funding estimates on the project sheets?

- The consultant who developed the CRSP and then it is checked by the county.

Are projects stand-alone, or part of a rehab project?

- MnDOT wants stand-alone safety projects. If a county has a larger improvement project, MnDOT encourages the agency to fund the safety elements with the larger funding source for the overall project. MnDOT does not want this to become a restriping program (for example). They want counties to keep up the maintenance so that MnDOT can be “free” to help as many counties (and therefore miles) as possible. MnDOT project solicitations include language that the feature must be maintained by the County for its expected service life. Some features (such as pavement markings) have a specified number of years that they must be maintained.

## **Breakout Session 2**

Attendees divided into groups by governmental level to discuss the benefits to safety at the local level as a result of LRSPs. Groups shared ideas with each other on getting stakeholder feedback and management support during plan development. They also discussed the cost to counties, what works well and what does not and why.

At the end of the breakout session, a representative from each group reported on their discussion. This section of the report summarizes the groups' report outs.

#### Benefits of Safety Plans

- Fatality reduction.
- Mechanism to apply for funds.
- Cuts through red tape.
- Increases focus on safety.
- Institutionalizes safety.
- Justification for HSIP dollars.
- Increased positive public perception.
- Crash reduction (although it takes Minnesota 5 years to recognize reductions from their plans).
- Quick and effective direction for spending safety funding when it becomes available.
- Helps create a safety culture.

#### Involving Elected Officials

- Communicate with them and bring them on board. Do not surprise them.
- Provide a presentation to the County Board after the LRSP is developed.
- Get County Boards involved early.
- Show them the data.
- Talk to them about the 4E's.
- Involve them in CRSP kick-off meeting.
- Educate them so they can educate everyone else; they can help address public questions.
- Have the County Board adopt the LRSP.

#### How a Regional Agency Can Support an LRSP

- Develop Regional Safety Coalitions.
- Help bundle projects.
- Serve as a stakeholder in the LRSP development process.
- Educate the public.
- Spearhead the LRSP development process.
- A regional focus will involve more than infrastructure.

#### How LTAPs Can Support an LRSP

- Assist with outreach and technical support.
- Assist with putting together applications.
- Serve as a liaison with FHWA and other agencies.
- Assist in technical preparation of the LRSP.
- Educate public and elected officials.
- Advocate/serve as a liaison to the State DOT and FHWA.
- Provide Training to elected officials.
- Provide Training to MPO audiences.

#### Benefits of Local Agencies Leading Development of the LRSP

- Immediate buy-in.
- Plan is tailored to the local jurisdiction.
- Locals understand the political environment.

- Local knowledge of the system.
- Ownership.
- Contributing to the safety culture of the State and cultivating that culture at the local level.

#### Reservations/Opportunities

- When countermeasures are installed, there are future maintenance costs. Maintenance = additional costs.
  - Convey the benefits of what is being done and that it is worth the money.
- Why even try? There will be unbelievers on the County Board.
  - Show the value of what is being done.
- The LRSP may identify projects that cross jurisdictional borders.
  - Collaborate.
- All levels of government must buy-in.
  - Share information.
- Some do not want to spend any money to get Federal funding.
  - Convince these people of the benefits.
  - Use State /FHWA safety staff.
- Liability
  - Document responses and use of the plan.
  - Educate – help people understand how the LRSP helps with safety and does not increase liability.
- Project List
  - Stay involved and provide input/suggestions to project list.
- Resources (time and staff).
- Local elected official resistance.
  - Use a federal or state practitioner or consultant to educate elected officials. Make that part of the RFP when using a contractor.
  - Make sure local county staff is on board.
  - Educate them early on so they are comfortable with the process.
- No one wants to be the guinea pig.
  - Counties might not be familiar with the State’s consultant.
  - A county has to live with the plan when it’s done.
  - Funding can help overcome resistance.

#### First Steps in the LRSP Development Process.

- Identify stakeholders.
- Commitment from the State and elected officials.

#### How is the Minnesota CRSP Tied to the State SHSP?

- Locals are at the table for the development of the SHSP.
- Developing a CRSP builds a relationship with the State Safety Engineer.

#### Next Step for Minnesota

- Next iterations of the CRSPs will include the other 3E’s more; not just engineering.

#### State DOT Report Out

- LRSP should complement the State SHSP.
- LRSP includes a list of projects.

- Use resources that are available through Safety Coalitions, MPOS, etc.
- Involve LTAPS. They can help get people engaged and educated prior to developing LRSPs.

### Group Discussion

How do you manage the maintenance costs of a countermeasure after using HSIP funds to install it originally?

- If it gets positive public reaction, the County Board will usually be okay with it.
- Minnesota is just starting to deal with this as projects are coming due for maintenance.
- Maintenance is also safety.

## **Roundtable Discussion: Moving Forward**

The second roundtable discussion focused on updating an LRSP. Kaye Bieniek, Olmsted County Engineer, started the session with a presentation on how her county has moved forward since development of their CRSP.

Olmsted County applied for HSIP funds to develop their CRSP. Olmsted put in some money to match the HSIP funds and the county was the lead. (As opposed to the other 86 counties whose plans were led and funded by MnDOT.)

Because of the CRSP, the county incorporated safety into projects that were not using HSIP funds.

They focused on safety emphasis areas during the first stakeholder meeting then prioritized the strategies. This is where people really got involved. Due to the TZD initiative, the stakeholder partners were already there and engaged. This really helped.

Olmsted County ended up with project categories.

- Infrastructure Based Projects
  - Wider Edge Lines
  - Rumble Strips/Stripes
  - Enhanced Curve Delineation
- Driver Behavior Based Projects
  - County's continued participation in Southeast Minnesota TZD and Safe Community Coalitions.

After projects are identified, they are included in the Capital Improvement Plan.

The County Board formally adopted the CRSP in November 2009.

The Olmsted County CRSP is on their website at [www.co.olmsted.mn.us/pw](http://www.co.olmsted.mn.us/pw)

The county has been successful in applying for and receiving HSIP funds. They've received nearly \$1M.

They had some challenges with implementing some of their projects (such as the red light running project) because of multijurisdictional issues.

The CRSP has been in place for ~5 years. So, what now?

A large chunk of projects in the plan have been implemented, but not all.

The county has more automatic use of wider edge lines, rumble strips, and SafetyEdge. The CRSP has definitely impacted the safety culture.

Now that the CRSP has been used for a few years, the county is considering the following for the next update:

- Analyze data to see if the CRSP made a difference.
- Review whether the strategies are still good and in the correct order.
- Determine if there are new people who need to be involved in the Plan.
- Determine if driver behavior projects need to be included in the CRSP.
- Determine if projects like roundabouts should be included.
- Determine if capital funds can be applied if there are bigger projects.

The best thing to come out of the Olmsted CRSP is the culture change and the partnerships that have been developed.

### Group Discussion

How valuable was the TZD when developing the LRSP?

- Very valuable because the stakeholders were already in place. There is a unique relationship because of TZD efforts and it was just natural to get them involved in the LRSP.

How was the SafetyEdge included to be eligible for funding?

- Minnesota has never funded the SafetyEdge as a stand- alone project; it's always part of a shoulder widening project.

How do you handle maintenance costs? For example, costs associated with maintaining a 6" edge line.

- Minnesota does not require agencies to maintain a device/countermeasure, especially if the data doesn't support that it made a difference.

How did you get people to meetings?

- Written invitations to groups (like bicyclists).
- The public had two opportunities to attend a meeting and comment.

How did you address liability concerns?

- The CRSP is dependent on resource availability.

## **Action Plans**

At the end of the peer exchange, attendees divided into their State delegations and created a list of actions they would undertake as a result of the meeting. This section of the report summarizes each State's strategies for moving forward with development of LRSPs.

### *Minnesota*

- Develop more urban safety strategies for counties that are part rural and part urban.

- Coordinate the City and County Engineer Safety Committees. They meet separately, but there may be opportunities to meet together a couple of times a year and collaborate. Especially to bundle projects.
- Consider developing Pilot City Safety Plans.
- Provide information on where and when countermeasures were installed as a result of the CRSPs.
- Bring along the lagging counties.
- Policy changes at MnDOT that might help counties; like lighting projects that cross jurisdictional boundaries.
- Develop some additional safety videos to help the public understand countermeasures like rumble strips.
- Faster FHWA review of projects.
- Capture safety projects that are not implemented with HSIP funds. Some CRSP projects are implemented without HSIP funds.

#### *Missouri*

- As a result of the peer exchange, Missouri is rethinking their approach to LRSPs. They want the locals to buy-in to the LRSP concept and the benefits for safety.
- Hold a pre-meeting prior to a kick-off meeting. Make sure expectations are set and everyone understands.
- Need a champion; perhaps at the Area Engineer level. It cannot just be a MoDOT champion though. There must also be a local champion.
- Funding can kill the entire process. Might want to mirror the funding distribution used in Minnesota.
- MoDOT needs to ask the locals what they need. Listen to their perceived issues at the beginning.
- All of the 4E's need to be present in plan development.
- There are a couple of large metro areas. To start, just have the larger 10-12 cities involved from these areas.
- Use the systemic approach rather than "chase" hot spots.

#### *Michigan*

- With the lessons learned from the peer exchange MI needs to take a step back in developing their LRSP program. Currently, no funding is tied to the plans. They cannot go forward until there is funding to develop the plans and implement projects identified in them.
- Counties want to have simple plans that build on Michigan's current Local Safety Initiative (LSI) program.

#### *Kansas*

- Lack of staff is going to be an issue. KDOT is centralized, so that is a challenge. Everything will be generated from Topeka.
- Will pilot LRSPs with the 3 counties that attended the peer exchange.
- Look at the HSIP Program. Want LRSPs to influence how they spend their HSIP funds. Want to carve out more of their HSIP for local roads.
- Talked about creating Regional Safety Coalitions, but a centralized State DOT makes this a challenge and they don't know yet how to split the State into regions.

### *Iowa*

- HSIP Secondary Program needs to be finalized so that locals can start using the money.
- Meet with County Engineers' Association Executive Board to get their buy-in.
- Iowa DOT does not intend to make plans mandatory.
- Investigate Iowa tort law. They want to make sure the counties are protected.
- Meet with the counties that attended the peer exchange.
- Counties in Iowa are ready and want LRSPs.

### *Colorado*

- CDOT has not yet adopted a TZD policy, so getting them to do this is one step.
- Rely on FHWA to work with CDOT on recognizing the importance of local roads.
- Colorado Counties, Inc. is a good place to start with promoting the concept of LRSPs.
- Begin working with County Boards to start educating them.
- Find local champions as the LRSP process starts.

## Appendix A – List of Attendees

Name	Agency
<b>Colorado Delegation</b>	
Renée Railsback	Colorado LTAP
Doyle Villers	La Plata County Road and Bridge
Scott Wiggs	Arapahoe County
<b>Iowa Delegation</b>	
Lee Bjerke	Winneshiek County
Joel Fantz	Palo Alto County
Nicole Fox	Iowa DOT
Paul Geilenfeldt	Marshall County
Vanessa Goetz	Iowa DOT
Todd Kinney	Clinton County Secondary Roads
Keith Knapp	Iowa LTAP
Jan Laaser-Webb	Iowa DOT
Brian Moore	Wapello County
Terry Ostendorf	Iowa DOT
Jerry Roche	FHWA-Iowa Division
Bob Sperry	Iowa LTAP
Dan Waid	Hamilton County
<b>Kansas Delegation</b>	
Norm Bowers	Kansas Association of Counties
Steven Buckley	Kansas DOT
Dave Corp	Kansas DOT
Zach Edwardson	Wichita Area MPO
Lisa Harris	Kansas LTAP
Darryl Lutz	Butler County
Justin Mader	McPherson County
Danielle Marten	Kansas DOT
Clark Rusco	Barton County
Ron Seitz	Kansas DOT
<b>Michigan Delegation</b>	
Lynnette Firman	Michigan DOT
Karl Hanson	Wexford County Road Commission
Larry Hummel	Van Buren County Road Commission
Kimberly Lariviere	Michigan DOT
Kajal Patel	Southeast Michigan COG
<b>Minnesota Delegation</b>	
Lon Aune	Marshall County
Kaye Bieniek	Olmsted County
Peter Buchen	Minnesota DOT



Mindy Carlson	Minnesota LTAP
Brad Estochen	Minnesota DOT
Wayne Fingalson	Wright County Highway Department
Sue Groth	Minnesota DOT
Kristine Hernandez	Minnesota DOT
Sulmaan Khan	Minnesota DOT
Steve Kubista	Chippewa/Lac qui Parle County
Derek Leuer	Minnesota DOT
Vic Lund	St. Louis County
Howard Preston	CH2M Hill, Inc.
Wayne Sandberg	Washington County
Kristi Sebastian	Dakota County
Will Stein	FHWA-Minnesota Division
Jodi Teich	Stearns County
Mark Vizecky	Minnesota DOT
Rick West	Otter Tail County
Julie Whitcher	Minnesota DOT
<b>Missouri Delegation</b>	
Aaron Bartlett	Mid-America Regional Council
Larry Grither	East-West Gateway COG
Martin Gugel	City of Springfield Department of Public Works
Glenn Henninger	St. Louis County Department of Highways & Traffic
Adam Humphrey	Greene County Highway Department
Jason Jonas	Jefferson County
John Miller	Missouri DOT
Teresa Krenning	Missouri DOT
Laurel McKean	Missouri DOT
Anna Musial	East-West Gateway COG
Ashley Reinkemeyer	Missouri DOT
Judy Wagner	Missouri DOT
<b>FHWA Headquarters</b>	
Rosemarie Anderson	FHWA
Karen Scurry	FHWA
Heather Rigdon	Leidos

## Appendix B – Agenda

### October 9, 2013

- 8:00 – 8:30AM      **Welcoming Remarks – Derrell Turner, FHWA Division Administrator; Sue Groth, Director of Office of Traffic, Safety & Technology, MnDOT**
- Workshop Overview, Rosemarie Anderson, FHWA Office of Safety
- 8:30 – 9:00      **Participant Introductions**
- 9:00 – 10:00      **State Presentations**  
Each visiting state will briefly discuss their Local Road Safety Planning status including challenges experienced and lessons learned.
- 10:00 – 10:15      **BREAK**
- 10:15 – 11:15      **How Minnesota Started County Road Safety Plans**  
Overview presentations and discussion with a focus on – getting buy-in from county engineers and administration; challenges and barriers to getting started; strategies addressing barriers; federal, state and county roles; other stakeholders involvement
- **Will Stein**, FHWA, Safety Engineer
  - **Brad Estochen/Mark Vizecky**, Minnesota DOT
  - **Rick West**, Otter Tail County
- Potential Outcome: Attendee recognizing the challenges to undertaking a new concept and selling it to management and stakeholders
- 11:15 – 12:15PM      **Developing Local Road Safety Plans**  
Presentations will focus on funding plan development, the requirements, challenges and benefits of the process including time commitment, coordination and stakeholder involvement - **Brad Estochen/Mark Vizecky**-MNDOT; **Kristine Hernandez**, TZD Regional Coordination; **Jodi Teich**, Stearns County
- Presentations from the State DOT, and County perspectives;
  - Roundtable discussion to follow the presentations – to include collaboration
- Potential Outcome: Attendees have an understanding of the Plan development process including agency time commitment.
- 12:15 – 1:00      **LUNCH**

- 1:00 – 2:00      **Data Analysis**
- Systemic Tool – Overview (what is it, why consider, examples from the pilot) – **Karen Scurry**, FHWA Office of Safety
  - MN County Experience on the Systemic Approach – why use it, benefits; challenges/strategies to selling the systemic approach to management – **Victor Lund**, St. Louis County
  - Demonstration of MN Crash Data Tool – including a discussion on county access and use – **Sulmaan Khan**, MnDOT
- Potential Outcome: Attendees understand the data basis of the MN county road safety plan as well as the benefits of the systemic approach.*
- 2:00 – 2:15      **BREAK**
- 2:15 – 3:00      **Local Road Safety Plan Content– One size fit all?**  
Presentation and discussion on what is included in the LRSP – **Howard Preston**, CH2M Hill  
*Potential Outcome: Attendees will be able to determine essential elements of the LRSP to customize for their local needs.*
- 3:00 – 4:15      **Breakout Session – Plan**  
The attendees will breakout by governmental levels (FHWA, state DOTs, County Engineers, others) to discuss the Plans – content, process, funding; making it work in different situations/locations; varying available resources  
*Potential Outcome: Possibility of discreet discussion and specific information sharing with counterparts from other states and providing networking opportunity*
- 4:15 – 4:45      **Report Out**
- 4:45 – 5:00      **Recap & Wrap Up**

**October 10, 2013**

- 8:00 – 8:45AM      **Roundtable Discussion - SHSP/County Road Safety Plan Relationship**  
Are the County Road Safety Plans tied to MN SHSP?  
Benefits to SHSP/CRSP Relationship  
Effects on the HSIP – tying these funds to projects  
*Potential Outcome: Practices in project implementation through plan development*
- 8:45 – 10:00      **Local Road Safety Plan Implementation**  
Presentation and discussion on – project selection, project development; project packaging (grouping projects) funding sources; funding systemic projects versus hotspots and methods for the plan implementation – **Wayne Fingalson**, Wright County; **Julie Witcher**, MnDOT  
*Potential Outcome: Practices in project implementation through plan development*
- 10:00 – 10:15      **BREAK**

10:15 – 11:30	<p><b>Breakout Session - Program Evaluation</b></p> <p>The attendees will breakout by governmental levels (FHWA, state DOTs, County Engineers, others) to discuss lessons learned – benefits to safety in the county; stakeholder feedback; management support; cost to counties; what worked well and what did not and why; hints for counties moving forward</p> <p><i>Potential Outcome: Participants gets practical information on moving forward with their plans</i></p>
11:30 – 12:00PM	<b>Report Out</b>
12:00 – 12:45PM	<b>LUNCH</b>
12:45 – 1:30	<p><b>Facilitated Roundtable Discussion - Moving Forward</b></p> <p>Revising CRSP – when and how; budget/resources – <i>Kaye Bieniek</i>, Olmsted County</p> <p>Overcoming liability concerns</p> <p>Maintaining stakeholder interest</p> <p><i>Potential Outcome: Understanding potential roadblocks</i></p>
1:30 – 1:45	<b>BREAK</b>
1:45 – 3:15	<p><b>Action Planning – Breakout Group by State</b></p> <p>The attendees will breakout by State to discuss strategies for moving forward and develop an Action Plan based on lessons learned during the workshop</p> <p><i>Potential Outcome: Ideas on proceeding with the development of LRSP and identifying commonalities (potential for identifying CRSP mentors)</i></p>
3:15 – 3:45	<b>Report Out</b>
3:45 – 4:00	<b>Wrap Up (Next Steps), Adjourn</b>