

**MAP -21  
Asset Management NPRM (External)**

**FHWA National Highway Performance Plan  
March 4<sup>th</sup>, 2015**

*Presented by*

**Grant Zammit**

Acting Director in the Office of Asset Management

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<https://connectdot.connectsolutions.com/p9tg2ke55nb/>

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**Operator:** Ladies and gentlemen. Thank you for standing by and welcome to the Asset Management Webinar. All lines are in listen-only mode. If you should require off-line assistance, please press star then zero. Your hosting speaker, Michael Kay. Please go ahead.

**Michael Kay:** Thanks, Kevin and good afternoon everyone and welcome to today's webinar on the Risk-Based Asset Management Plan Proposed Rule. My name is Michael Kay. I'm with the U.S. DOT's Volpe Center in Cambridge, Massachusetts. I'll be helping facilitate today's webinar and helping to address any clarifying questions in our question in answer period throughout. I wanted to mention that our webinar will be covered in five parts. At the very end there will be an opportunity to ask clarifying questions using that chat box that is currently at the lower left-hand side of your screen. Just quickly to orient you to the web room. First you will find a poll at the top center inquiring as to your level of familiarity with the Notice of Proposed Rulemaking. It helps our presenters understand whether you have read the NPRM, just skimmed it, have some general knowledge or have not yet dived deep into the material. On the top left is the audio call in information. You are welcome to listen in through your computer speakers, however if you experience any bandwidth issues through your computer, I do recommend that you use that toll-free number to dial in. You'll see the attendee list below that and below that a presentation download box where you can download a P.D.F. version of the presentation. Simply click on the file name. Click download files and follow the prompts on your screen. So I'm going to close out our poll at the moment and expand our presentation. We are trying something a little bit different today whereby we encourage you to tweet about today's webinar using the hashtag MAP21. There's also a link on your screen on the slide to the official docket and we encourage you to follow Federal Highways on Twitter, Facebook, YouTube and Flickr and there are some links provided for you there. And you can of course subscribe to free Federal Highway TPM updates at the link also provided on your screen. Unfortunately we don't have Butch Waidelich with us today. He had to head home early but we do have Grant Zammit sitting in for him. Grant is the acting director in the Office of Asset Management. Grant is helping to lead efforts to prepare us for this transformational change to the program. I want to give Grant a moment to provide some opening comments. Grant?

**Grant Zammit:** Thank you very much and hello everyone. Thank you for joining us today and welcome to today's webinar on Asset Management Plan Notice of Proposed Rulemaking. When we talk about the implementation of transportation performance management, we mention opportunities in the area of creating more consistency nationally, greater collaboration with all those that can have a stake in achieving targets, gaining a better understanding of what works, optimizing the investment of funds across many areas, and being able to tell our funding story better. I believe this rulemaking directly speaks to the last three I just mentioned. Asset management over time will definitely help us understand what works. Over time we are not only going to learn what strategies will help meet these targets for the conditions of bridges and pavements on the national highway system. We are also going to learn what does not work. By definition asset management is a strategic and systemic process that will achieve and sustain a state of good repair of the assets at minimum cost. Thus by definition, it is intended to optimize the investment of funds and asset management will definitely help us tell our story better...

**Grant Zammit:** It will not only tell us what we can do with our limited resources. It will also tell us what we cannot do. This notice of proposed rulemaking is important because asset management is a tool that can help proactively maintain critical transportation infrastructure and a state of good repair. The tool will help make decisions that focus on addressing the needs of the highway network while at the same time minimizing lifecycle costs. Consider risk to the asset while managing the system's whole life within a constrained budget, improve condition over the long term, and respond to an increased desire for accountability and transparency.

**Grant Zammit:** The asset management NPRM is the fifth NPRM that FHWA has published and the sixth we are responsible for. This slide shows the responsibilities of our sister agencies...

**Grant Zammit:** As a reminder, congress had a vision to transform the federal aid transportation program to a performance based program. One that provides more efficient and transparent investments that the public will hold us accountable for. Congress established seven goals to focus on the federal aid program: on safety, infrastructure condition, congestion reduction, system reliability, create movement and economic vitality, environmental sustainability, and reduced project delays. They require U.S. DOT to establish measures in twelve areas: four in safety, three in infrastructure conditions, two in systems performance, one in freight, one in traffic congestion, and one in on-road mobile source emissions. Once measures are established states have one year to set targets and MPO.s no later than 180 days afterwards. States are required to develop plans to document strategies and investments made to address performance needs. Today's topic area, asset management plan, is one such plan that applies only to state DOTs. This is followed by reports meaning that all states are required to report to U.S. DOT on progress towards achieving their targets. And finally there is accountability and transparency. All states will be held accountable for making significant progress towards the achievements of their targets. For additional information regarding MAP-21 performance elements, be sure to check out the FHWA MAP-21 website. A link to this site is on the bottom right-hand corner of this slide.

**Grant Zammit:** This slide shows the schedule for all of the FHWA related coordinated rulemakings, safety performance measures NPRM and highway safety improvement programs, NPRM were published first and the comment periods have closed. However comments can still be submitted through the e-docket. Any late comment will be considered to the extent practicable. The statewide and metropolitan non-metropolitan planning NPRM was published in June and the comment period lasted through the beginning of October. The infrastructure condition measures NPRM is currently open and accepting comments through May 8. The asset management plan NPRM is the rule we are discussing today and is open and the comment period will be open until April 21<sup>st</sup>, 2015. Finally the last performance measure NPRM related to systems performance is anticipated for May 2015 and will have a 90-day comment period. Now let me turn this over to Steve Gaj who will start by discussing how does the asset management plan, NPRM, relate to the other performance management provisions. Steve?

**Stephen Gaj:** Thank you, Grant. As you may be aware the term asset management has been used more frequently in recent history. But it can mean different things to different people. For our purposes we want to emphasize that risk-based asset management is a powerful decision making framework that

makes it possible to view the impact of today's decisions on tomorrow's infrastructure sustainability both in terms of performance and value. With that in mind it's important to note asset management is not minimum cost. It's not just preservation. It is not a system. It is a framework for decision-making. It's about accountability for the decisions that we make. It is a way of looking into the future to see the impact of our decisions on infrastructure ten years from today. And to ask ourselves important questions about those decisions. And this could be accomplished by developing an asset management plan. In this presentation you will hear risk-based asset management plan referred to as asset management plan, or TAMP.

**Stephen Gaj:** So asset management helps us answer some important questions. Here are just a few of the common questions you might be asking yourself. What are the best investment strategies for operations and maintenance in capital improvement? What is the best long-term funding strategy to sustain a state of good repair? How will our infrastructure perform ten years from now as a result of today's decisions? Funding is limited. Challenges are many. What are our priorities? How should we be distributing FMs? How we manage risk and system performance as it relates to the physical asset? Will our infrastructure withstand the recurring severe events? Do we know if we are making the right decisions? Will our children be in substantial amounts because of debt if these decisions are implemented?...

**Stephen Gaj:** This graph shows how measures and targets for condition of pavements and bridges in asset management plan and performance-based planning process all work together. A risk-based asset management plan incorporates measures and targets and provides a framework for infrastructure investment decisions that are focused on managing assets for their whole life, looking at risk performance in developing investment strategies. The asset management plan in turn is incorporated into a performance-based planning process to develop a program and deliver projects aimed at achieving performance goals. Performance management in a risk-based asset management plan increases our accountability and transparency of the Federal Aid Highway Program. A focused highway infrastructure improvement on achieving and sustaining a desired state of good repair over the lifecycle of the assets at minimum actual costs.

**Stephen Gaj:** Now we will introduce the outline for today's presentations. It will be in five parts in order of the proposed rule. Part one will review the purpose of the asset management NPRM as well as the asset management as described in MAP-21. Part two will focus on proposed development process for state DOT's asset management plan. Part three will describe the content requirements proposed under the asset management process. Parts two and three give detailed information including required analysis, a review of investment strategies, and specific content requirements. Part four of the presentation will cover the options from phasing in asset management plan development. It will also discuss the steps for certification penalties for insufficient plans or corrective actions. Part five will discuss the section on periodic evaluation of facilities requiring repair or reconstruction due to an emergency. Finally we will wrap up the presentation with a summary of the questions raised or comments in the NPRM in the regulatory impact analysis. We will finish with discussion of next steps...

**Stephen Gaj:** Now that we have reviewed the structure and content of the asset management NPRM, let's begin our review of the proposed processes and contents. To begin our discussion we will first define asset management in the broad sense as well as in the specific language of MAP-21. Then we will review the purpose of the NPRM

**Stephen Gaj:** So we know what asset management can do so why do we want to adopt it? Let's look at the definition from MAP-21 up on your screen...I want to call your attention to a couple of key points within this definition. Asset management is a strategic and systematic process. It is a way to operate, maintain and improve assets with real thought to the process a sequence of how we do that. So an asset management plan describes a sequence of actions to achieve and sustain a state of good repair over an asset life cycle. It spells out how we will get to that ideal state. MAP-21 lists the requirements for transportation asset management plan in section 1106 of MAP-21. Note that a proposed rule would also address other MAP-21 requirements that relate to asset management through consistency. The proposed rule has the following purposes. First establish a process that state DOTs use to develop a risk-based asset management plan. Second, establish the minimum requirements for the development of a TAMP. The proposed rule also describes penalties for failure to develop and implement TAMP. Next a rule would define the minimum standards that states would use in developing and operating highway bridge and pavement management systems as required by section 1203A of MAP-21. And finally the rule would address the requirements of section 1315B by requiring states to conduct statewide evaluation to determine if reasonable alternative to roads highways or bridges that repeatedly require repair and reconstruction activities from emergency events. Now let me turn it over to Ms. Nastaran Saadatmand to discuss part two.

**Nastaran Saadatmand:** Thank you, Steve. Now that we understand the definition of asset management and the purpose of this NPRM, let's go deeper in to the NPRM and its proposed requirements starting with section 515007. This section covers the process that the state DOT would follow to develop an asset management plan. It's a development process addresses the current of MAP-21 definition of asset management. The process primarily describes how do highway network systems including the N.H.S. will be managed to achieve a desired level of conditions and performance while managing risk in a financially responsible manner at the minimum practicable cost over the life cycle of its assets. This section also proposes standard and outcomes the state DOT development processes would have to satisfy.

**Nastaran Saadatmand:** You may be asking how would the FHWA ensure that the processes to develop an asset management plan meets the MAP-21 requirements. As proposed in the NPRM state DOTs would include description of their processes in the asset management plan. And those processes would be subject to FHWA certification that we describe later. As this slide shows, there are seeming components to address. Subpart A. describes the minimum required development processes to manage the N.H.S. Subpart B. details minimum requirements for a bridge and management and pavement management system. And subpart C. requires approval by the head of state DOT. We will discuss the first two components today. The third component approval of the plan by the head of state DOT is straightforward so we will not talk about it today.

**Nastaran Saadatmand:** Subpart A. of this section proposes the minimum processes that state DOTs would have to detail in their asset management plan. The minimum requirements for TAMP development include a performance gap analysis, a life-cycle cost analysis, an asset management analysis, a ten-year financial plan, and last a process for developing investment strategies. Why these processes are required? States can always choose to incorporate additional elements into their account development process.

**Nastaran Saadatmand:**

The first required process is a performance gap analysis. A performance gap analysis would identify deficiencies centering progress towards improving and preserving the N.H.S. and achieving and sustaining state of good repair. This analysis would address at the minimum performance targets for the condition of interstate highway payments, non-interstate N.H.S. highway payments, N.H.S. bridges and other public routes is included in the plan. And then gaps in the non-interstate pavement of N.H.S. in providing for state and efficient movement of people and goods ways can be effected by physical access. The gaps between the existing condition of the analysis, asset classes and asset subgroups and the state's DOT's performance targets. Alternative strategies to close or address the identified gaps...

**Nastaran Saadatmand:** The next proposed process is the life cycle cost analysis which is a process to estimate the cost of managing an asset class or asset subgroup over its whole life with consideration for minimizing costs while preserving or improving the condition. Life cycle cost analysis considers both asset class and asset subgroups. According to the NPRM state DOTs would be required to address at the minimum the following: the desired condition for each asset class or asset subgroup, the identification of the deterioration model for each asset class or asset subgroup. Potential work time including the treatment options for the work site, assess the whole life of each asset class or asset subgroup with their relative unit costs. A strategy for managing these asset class or asset subgroups by minimizing its life cycle cost while achieving the performance targets set by the state's DOT...

**Nastaran Saadatmand:** Another required analysis is the risk management analysis. According to the NPRM a process for risk management would ensure that the following area included within the TAMP. Identification of risks that can affect N.H.S. condition and effectiveness. This could include physical assets, operational risks, financial risks, or risks associated with current and future environmental conditions such as extreme weather events, climate change, seismic activity, particularly for those assets that have had recurring damage. Assessment of the identified risks to NHS condition and effectiveness in terms of the logistics of their occurrence, their impact and their consequence if they do occur. And mitigation plans for addressing the top priority risks, an approach for monitoring the top priority risks, a summary of the evaluations carried out under section 515019 periodic valuations of facilities requiring repair or construction due to emergency event. That discussing at the minimum there is no relating to the states' existing pavements and bridges. This section will be discussed later during today's presentation...

**Nastaran Saadatmand:** A fourth required process is a financial plan. Per the NPRM the state DOT will develop a financial plan to include a minimum of ten years. This plan would identify in our costs over a minimum period of ten years, identify anticipated funding sources, include the estimated cost of expected future work, to implement investment strategies by state and include the estimated funding levels that are expected to be available for fiscal years to address the cost of future work time, include an estimate of the value of the agency's pavement and bridge assets, and include the needed investment on an annual basis to maintain the value of these assets...

**Nastaran Saadatmand:** The last required process proposed within the NPRM is development of investment strategies. Its specific definition and requirement for investment strategists are described fully in section 519009 and subpart F of the proposed rule. This section however would require that the asset management process describe how does investment and strategies are influenced by the following: gap analysis, life cycle and cost analysis, risk management analysis and last, anticipated of overfunding with the estimated costs of future work time associated various candidate strategies, as based on the financial plan required under previous sections...

**Nastaran Saadatmand:** In addition to the five processes just described, this NPRM sets out a requirement that state DOTs use a bridge and pavement management system...We need to distinguish between management systems and asset management, pavement and bridge management systems of our software and analysis tools whereas asset management is a decision making framework leading to cost effective investment and strategy. Pavement and bridge management systems are used to analyze massive pavements and bridge data that the information from the pavement and bridge management system is used to develop the asset management plan...Under this proposed rule the state DOTs would be used at bridge and pavement management systems for collecting, processing, storing, and updating inventory and condition data for all N.H.S. bridge and payment assets, forecasting deterioration for all the N.H.S. bridge and pavement assets, determining the life cycle benefit cost analysis for alternative strategies for managing the condition of all N.H.S. bridge and pavement assets. Identifying short and long term budget needs for managing the condition for all the N.H.S. bridge and pavement assets, determining the utmost strategies for identifying projects for managing pavements and bridges, and recommending programs and implementation that's scheduled to manage the condition of all interstate highways, non-interstate N.H.S. pavements and N.H.S. bridge assets. Now I will turn it over to Steve Gaj to discuss the next part.

**Stephen Gaj:** Thank you, Nastaran. Now that we have viewed the plan development processes that would be required to create the TAMP, let's turn to the required concept of that plan; 515009 asset management plan requirements spells out both the assets that would be included within an asset management plan, as well as an objective measures, targets and analysis that would comprise the plan. This section has a number of sub parts which we would detail for the next few slides. First in terms of the objective of this plan, the NPRM says that a state DOT shall develop and implement an asset management plan to improve or preserve the condition of the assets, and improve the performance of the N.H.S. The TAMP would apply to any assets that the state DOT includes within the plan, the NPRM would require at a minimum pavements on the interstate system, pavements on the NHS excluding the



interstate system in bridges on the NHS. In addition, state DOTs would be encouraged but not required to include all of the NHS infrastructure assets within the right of way corridor. State DOTs may also choose to include other public roads within the asset management plan. If a state DOT does to choose to include other assets on the N.H.S. of public roads in the plan, evaluation and management of those assets must be consistent with the provisions of the asset management rule. This slide and the next summarize the minimum content for an asset management plan then spend a little time running through these one by one. First, asset management objectives. As proposed in the notes of proposed rulemaking the objectives should align with the agency's mission. Must also be consistent with a purpose of asset management. For example to achieve and sustain the desired state of good repair over the lifecycle of the asset at minimum at cost. Next, asset management measures a target which includes those under the performance management final rule for pavements and bridges must add a minimum cover condition of pavements on the interstate system, condition of pavements on the N.H.S., excluding the interstate, and condition of bridges on the N.H.S. These are just a minimum proposed in the NPRM, the state DOT's process may certainly include additional measures and targets for the N.H.S. Next, a summary listing of N.H.S. pavement and bridges including a description of the conditions of those assets. The inventory should be summarized using the categories described above. As noted on a previous slide, if a state DOT decides to include other public roads of the asset management plans, it should include a summary listing of those assets and the conditions as well. Importantly, the process is established by state DOTs would include a provision for the state DOT to obtain necessary data from other N.H.S. owners in a collaborative and coordinated effort...

**Stephen Gaj:** In addition to the objectives, measures, and targets, in the summary listing an asset management plans would include a discussion of the following activities which were described in the previous slide: identification of performance gaps, a review of the life cycle cost analysis, a review of the risk management analysis which would include the results of the periodic evaluation of assets requiring frequent repair or reconstruction due to emergency. The financial plan covering at a minimum a ten-year period, and a review of investment strategies discussed in more detail on the next slide. What is not included on the slide, I want to note that subpart E. on this section proposes that the action management plan cover a minimum of a ten-year period. In addition to the overall content requirement, this section also lists a few detailed requirements for investment restrictions. Under the NPRM an asset management plan must establish and discuss a set of investment strategies leading to a program of projects that would: achieve and sustain a desired state of good repair over the life cycle of the assets. Improve or preserve the condition of the assets in the performance of the N.H.S. relating to the physical assets. Make progress towards achievement of the state targets for asset condition performance of the N.H.S. in accordance with 23USE150B, and support progress towards the achievement of the national goals identified in 23USE150B. It is up to the state DOT to determine exactly which investment strategy would best meet these objectives. Lastly, there are also a few other requirements described under the content section of the NPRM They include first a description of how the analysis based on the asset management processes described in 515007 developed by a state DOT supporting the rest of the strategies in a description of how the rest of the strategies satisfied the requirements of the last five. The NPRM also state that the state DOT should select such projects for inclusion in the state transportation improvement program, the STIP, to support its efforts to achieve the requirements of

this section. Also it is proposed that the TAMP must be made available to the public. State DOTs are encouraged to use a format that is easily accessible. Finally it's important to note the inclusion of performance measures, the state DOT targets in the asset management plan does not relieve the state DOT from any performance management requirements including the 23USE150E reporting. Now Miss Saadatmand will be discussing part four.

**Nastaran Saadatmand:** Now that we have reviewed content and the required processes let's take a moment to understand how the FHWA would support the state DOTs as they develop asset management plan. And how they would ensure compliance with the requirements of the NPRM The NPRM contains four sections that apply to this area: phasing of asset management plan development, certification, penalties, and organizational integration for asset management. We will not spend time on this section during today's webinar but please note that it contains helpful information on how state DOTs may choose to integrate asset management within their organization. Please see the NPRM for more information on this section...

**Nastaran Saadatmand:** The proposed rule describes a phase-in option for the development of initial TAMP. If a state DOT chooses to follow this option it will have more time to develop some components of the complete asset management plan. Although it would still be required to submit an initial plan to FHWA by one year after the effective date for the rule. The NPRM describes a few requirements for the initial plan under the phasing options. The initial plan would be required to include state DOT's processes for developing its plan, measures and targets for assets covered by the plan, investment strategies, and for other part of the initial plan the state DOT must use the best available information. The initial asset management plan would be to exclude the following: Life cycle cost analysis, risk management analysis, financial plan analysis. Note that the initial plan must include all the required processes and only the analysis for life cycle cost, risk management, and financial plan may be excluded. States would use the best available information for any part not listed here...

**Nastaran Saadatmand:** A few more points about the initial phase-in option. Regarding the required investment strategy these would still be required to support projects towards the achievement of the national goals. They would not be required to address the states targets for asset condition and performance required but performance management final rule unless the state DOT has established those targets at least six months before the TAMP submission deadline. There are a couple of requirements for when the initial plan would be amended. After the final rulemaking for pavement and bridge condition measures, state DOTs would have 18 months to amend their initial plans while incorporating the measures and state DOT targets for pavement and bridges for NHS. The FHWA may extend the 18 months' time period to provide 12 months between the time FHWA has certified the state DOTs processes and the date amended plan is due. It is important to note that the amended plan must meet all the same requirements for processing the plan contents and analysis. Whether the state DOT chooses a phase-in option or not, the NPRM is processed so that FHWA would follow the certified asset management plan. For all plans, a plan designed for submission to FHWA would be no later than one year after the effective date of the final rule. Once it has received a plan before or under deadline, FHWA will have 90 days to review this plan. After the review there are three possible outcomes. Either

the plan is certified with no deficiencies so it means all the requirements have been met. Then the second one is the plan would be certified but with minor deficiencies. So the asset management processes substantially meets the requirements. FHWA would identify those minor deficiencies. And last the plan would be denied. FHWA would send a written notice of the design of specific requirement deficiencies. If a plan is denied the state DOT has 90 days to address the requirement deficiencies. Note that FHWA may extend the state DOT's 90 day period secure deficiencies upon request. Likewise the state DOT has 90 days to address minor deficiencies in an otherwise certified plan. Again FHWA may extend this period of request. Lastly, following the initial plan, state DOTs would be required to update and submit their asset management plan to FHWA. for a new process certification on October first every four years after initial certification...

**Nastaran Saadatmand:** This section also details the determination of consistency with the National Highway Performance program which is required by MAP-21. Under the NPRM the consistency determination ensures that the plan was developed using FHWA certified processes and it has been implemented. It considers the asset management plan and other documents illustrating the implementation of the plan and FHWA shall make this determination annually no later than August 31<sup>st</sup> beginning with the first discovery following the effective date of the final rule...

**Nastaran Saadatmand:** Last under the NPRM any time state DOT amends its asset management plan it would be required to submit the amended plan to FHWA for recertification and consistency determination at least 30 days prior to the deadline for the next FHWA consistency determination...

**Nastaran Saadatmand:** Under the NPRM certain penalties will be imposed when a state DOT has not met the requirements. There are two proposed penalties. First, if the state DOT has not developed and implemented an asset management plan by 18 months after the effective date of the final rule for performance management, FHWA will not approve any further projects using energy funds. However FHWA may extend the 18 months period if it's determined that the state DOT has made a good faith effort to develop and implement an asset management plan and establish a required performance target. Second, beginning with the second fiscal year after the effective date of the final rule, planning each fiscal year thereafter if state DOT has not developed and implemented the asset management plan, the maximum federal share for National Highway Performance Program project would be reduced to 65 percent for that fiscal year. Now I will turn it over to Robert Kafalenos to discuss part five.

**Robert Kafalenos:** Thank you, Nastaran. The NPRM also covers the requirements under section 1315B of MAP-21, the review of certain vulnerable facilities. Specifically MAP-21 requires periodic evaluations of facilities requiring repair or reconstruction due to emergency events. Let's review how the NPRM proposes to include these evaluations as well as relevant information on how to mitigate the risks from emergency events. This section links to the risk management analysis described in section 515007A and the TAMP content requirements described in section 515009D. Section 515019 of the rule refers to periodic evaluations of facilities requiring repair or reconditioning due to emergency events which are required under section 1315B of MAP-21. Under this proposed rule all title 23 eligible facilities that have needed emergency repair two or more times after emergency events must be evaluated. State DOTs are

required to analyze and identify reasonable alternatives to repeatedly repairing or reconstructing facilities after emergency events. The evaluation would be required to consider the risk of recurring damage and the cost of future repairs under current and future environmental conditions. One of the risks that can affect the condition and effectiveness of transportation assets as noted earlier. And the evaluation should align with the risk assessment requirements that are in section 515007 and section 515009 of the NPRM...

**Robert Kafalenos:** What would be considered a reasonable alternative under this proposal? First, reasonable alternatives reduce the need for emergency repairs. They also better protect public safety and the environment. And finally they meet transportation needs as detailed in relevant programs of plan including long range statewide transportation plan, the STIP, the metropolitan transportation plan, and the transportation improvement plan. There are two deadlines for completing evaluations. For N.H.S. bridges and highways evaluations must be completed within two years of the effective date of the rule. Other title 23 eligible facilities should be rated within four years of the effective date. Also the evaluation shall be updated after emergency events and otherwise every four years. So that's it for section 515019 requirements. Now I will return it back over to Stephen.

**Stephen Gaj:** Thank you, Rob. That concludes our review of the NPRM We are working to develop and improve the proposed rule and the Federal Highway seeks feedback from you all on the regulatory impact analysis in other aspects of implementation. In the next few slides we will review these outstanding questions on the NPRM in areas where FHWA seeks feedback. As you provide comments to us, please try with some detail as much as you can. That's important to us as we go to improve the rulemaking. Federal highway specifically requests that commenters submit information on the quantitative benefits of asset management. First as part of NPRM, Federal Highway included a regulatory impact analysis. It is included in the docket. Currently, Federal Highway does not have sufficient information to estimate total cost of benefits, from asset management as a whole. There are examples of the economic savings that result from the most typical component subsets of asset management. That being pavement and bridge management systems. To a fully formed RIA we specifically request that commenters submit information on quantitative the benefits of asset management and on the estimated that is the cost ratios included in the NPRM. In addition to the RIA analysis Federal Highway is seeking comment on a number of aspects of NPRM implementation. Proposed definitions and suggestions for any term that should be defined. Whether the specified standards for bridge and pavement management systems are appropriate, Whether a state should be required to include tunnels in the asset management plan. Whether the proposed change in approaches are desirable and workable. Feedback on the proposed certification process in consistency determination, and whether the date of August 31 for consistency determination is needed if applied adequate time before the next fiscal year. Please provide comments to these in as much detail as you can. That would really be appreciated as we move ahead. In addition Federal Highway seeks feedback on anticipating problems and identifying projects that meet the requirements of 23USE119E2 in the ideas of resolving problems. Whether the rule should specify one or more methods state DOTs would need to identify projects, then meet 23USE119E2 requirements. Other possible approaches to whether state DOT has implemented an asset management plan. And all potential alternative methods of

meeting the MAP-21 section 1350B requirement. The requirements are periodic evaluations considered for repair or reconstruction due to emergency events Federal Highway highlights a number of specific questions pertaining to these requirements which I list on the next slide. Now I'll turn it to Rob to go over those.

**Robert Kafalenos:** Thanks, Steve. Steve's comments on the follow questions on section 1315B of MAP-21. Is the amount of time allotted in proposed section 515019 appropriate for the initial evaluation of any test asset and other assets included in the state DOT asset management plan of two years, and for all other roads highways and bridges which is four years? If not how much time should be allotted? Likewise is the four year general update cycle for the statewide evaluation appropriate? If not what would be a reasonable cycle for the ongoing periodic evaluation? Next, should Federal Highways establish a limit to the length of the look-back state DOTs will do in order to determine whether a road, highway, or bridge has been repaired or reconstructed on two or more occasions? If so, what would be an appropriate and feasible length of time? Also, should the regulation address the types of data sources that should be considered to determine whether a road, highway or bridge has been repaired or reconstructed on two or more occasions? If so, what types of data sources would be most appropriate? Building on that, should the rules specify required content for the evaluations in greater detail? If so, what elements ought to be required? Finally, should the regulation require the state to consider these evaluations prior to requesting title 23 funding for a project? And lastly, should the regulation address when and how Federal Highways would consider the evaluation in connection with an FHWA project approval? ...

**Stephen Gaj:** All public comments on the NPRM must be submitted to the docket. You will find the information here by April 21 of 2015. Also be sure to check FHWA's MAP-21 website for additional materials. This webinar is being recorded and will be posted shortly. Finally, the last slide presentation includes a list of additional resources so I would encourage you to look through those after today's instruction. Thank you for our attention. I want to point out for a minute to point out websites and Federal Highway etcetera there's a lot of valuable information in that. For those of you who want to be familiar with asset management, I strongly recommend looking at that. We now have time take some clarifying questions.

**Michael Kay:** Thank you, Steve. So right now I'm going to expand our chat box and we have a lot of questions and encourage you to keep submitting them. Some of these relate back to very early parts of the presentation so we will see if we can delineate and understand the nuance among them. We may need to ask for some clarification. I'm just going to go ahead and start reading them and we will see how it goes. So first question is from Matt and it is "Are the N.H.S. bridges required to be included in the TAMP limited to bridges that are carrying the N.H.S. the pavement and bridge performance measure rule limits bridges to those carrying the N.H.S.?"

**Stephen Gaj:** Yes well MAP-21 says and has been included in those proposed rulemaking indicates that the pavements and bridges that carry the N.H.S.

**Francine Shaw Whitson:** It also includes grant settings that are connecting to the N.H.S. as well.

**Michael Kay:** Also from Matt, "Are the requirements under 515.007 subsection B. related to bridge and pavement management systems expected to be a single tool that encompasses all of the six requirements, or could it be a collection of systems, processes, approaches that collectively address the six requirements?"

**Stephen Gaj:** The language in the Notice of Proposed Rulemaking does not specify it one way or the other. If you have any specific recommendations, don't hesitate to provide them to the docket.

**Michael Kay:** Next question, "How do penalties work with regard to non-state owned N.H.S. assets?"

**Peter Stephanos:** This is Pete Stephanos, Federal Highway. The question needs to be clarified. If the penalties are referencing the asset management plan penalties that were discussed today regarding that asset management plan process which these include all N.H.S. assets. If the question is regarding penalties that are associated with minimum conditions on interstate pavements and N.H.S. bridges, those are outlined in the rulemakings that is our right now for comment as well on pavement and bridge conditions and apply to all pavements and bridges in assistance regardless of ownership.

**Michael Kay:** Thanks, Pete. Next from Karen, "Will Federal Highways grant the AASHTO requests for extension on the Asset Management NPRM as 60 days is not enough time."

**Francine Shaw Whitson:** This is Francine Shaw Whitson. We have received AASHTO's request for extension and it is under consideration at this time. If we do decide to grant the extension there will be a notice published in the federal register notifying the public.

**Michael Kay:** And I believe a related question from Leif "Was the commenting period extended for the condition measures rule that was originally published at April 6<sup>th</sup>?"

**Francine Shaw Whitson:** That's correct. We did extend the comment period for the second NPRM as requested by AASHTO. Active notice was published in the Federal Register last week.

**Michael Kay:** Next from Kirby at the Minnesota DOT, "Can you elaborate on how states should address risks to assets in the plan that have required repair and reconstruction activities on two or more occasions due to emergency events. How would Federal Highways expect this requirement to be identified or met?"

**Robert Kafalenos:** That's a great question and actually you may recall that we went through some questions that we're looking for feedback on that is the kind of question that you just raised that would be good to put a comment in to the registrar.

**Michael Kay:** Great. Next from one of our guests "As described the plan sounds a lot like a long-range plan for a region or a state. How is this NPRM and associated requirements being recorded with these?"

**Harlan Miller:** That's a good comment also. As was mentioned earlier in the discussion there is a separate NPRM for the long range planning process and the planning NPRM talks about integration of other performance-based plans into the planning process and then N.H.S. asset management plan would be one of those other plans to be integrated into the planning process under the planning rule.

**Michael Kay:** Thanks, Harlan. Our next question comes from Hisami, "What does MAP-21 mean by risk-based? How does Federal Highway incorporate this term in TAM?"

**Stephen Gaj:** As indicated in 515007, it indicates that the minimum proposed requirements for TAM development include a risk management analysis as also indicated. Information for the risk analysis and life cycle cost etcetera would feed into the investment strategy being developed as we mentioned earlier. There is more information that describes risk analysis that you can find in the guide.

**Michael Kay:** Great. Next question is "How is the highway asset management plan being coordinated with the transit asset management plan so that system level information can be assessed and tradeoffs analyzed?"

**Harlan Miller:** Also I would refer back on that to the planning rule talks about integration of other performance-based plans and both the asset management plan for the N.H.S. and the transit asset management plans would get integrated into the planning process so that's a place where that coordination would happen across those plans.

**Michael Kay:** Thanks, Harlan. We had a question from David and a couple thereafter regarding our recording of the webinar. I just wanted to take this opportunity to let everyone know that we are recording today's webinar and if you registered we will be sending you a link to the recording and that will be synchronized with the slides and synchronized with the chat box. Our next question comes from Jim. "Can you explain how an asset management plan that only looks out ten years can be used to view, manage and improve decisions on infrastructure when those infrastructure assets are 20 to 75 year assets?"

**Stephen Gaj:** I will answer that question in a couple different ways. First it says look out a minimum of ten years. And certainly as you are looking at management for the whole life that would certainly be looking at some of the issues you raised here. But if you have any specific comments, please provide them to the docket. Like I said, it's a minimum of ten years and discussing assets that have a longer life as I mentioned about the life cycle cost analysis, I certainly expect that to be addressed as written in the NPRM is addressed at that stage and please provide comments to the docket.

**Michael Kay:** Thanks, Steve. Next, "Could you clarify if the asset management NPRM in TAMP focus only on bridge and pavement condition? It seems like all the other MAP-21 targets and measures would be addressed separately but have to come back together in the performance-based plan then programs?"

**Stephen Gaj:** Yes.

**Michael Kay:** Thanks. Next "For section 515.019, what if the state has no assets that fall under this section? Is there a time frame between incidents whereby an asset should not fall under this section?"

**Robert Kafalenos:** That's a good comment to put into the docket. We also did raise some questions in terms of how far back the look-back period should go so that's also a question that might be relevant for that as well.

**Michael Kay:** Thanks. Next question is "How will the asset management plan incorporate public involvements?"

**Harlan Miller:** I think that's a good area for comments to the docket. If someone has a thought on public involvement for the asset management plan, I think we'd like to hear about that. Have a comment submitted to the docket.

**Stephen Gaj:** Yeah the one thing it does say in those proposed rulemakings is that it be made available, easily accessible as far as public involvement directly is not addressed. Please provide the comments to the docket.

**Michael Kay:** Thanks, Harlan and Thank you, Steve. That was one for me about reloading the presentation without the dots in the dates. That's creating a problem during printing. Okay, I'll make sure to attend to that. Thanks. The next subsequent question from Steven, "Does Federal Highway certification occur at the division level?"

**Stephen Gaj:** We have had some internal dialogue on that. That is still to be determined and that's beyond the scope of the NPRM

**Michael Kay:** From Jim, "How can the A.M.P. investment strategy determine priorities of it only looks at different levels of funding? In investment strategy you must also look at different investment strategies for the same investment funding levels?"

**Stephen Gaj:** On this one here, please submit a comment to the docket. I don't completely understand what the question is.

**Michael Kay:** Next from Greg in Maryland. "If we meet our performance goals, why do we need to do a performance gap analysis?"

**Stephen Gaj:** I will answer that simply, if anyone wants to add something. MAP-21 requires that a gap analysis be undertaken. The notice of proposed rulemaking addresses it, and maybe this is not the best answer, maybe the analysis maybe really simple if you are meeting it.



**Michael Kay:** Thank you, Steve. From Claude in New Mexico. "If our asset management plan has been developed in coordination with our statewide long range plan, to what extent will that enable us to cover our public outreach requirements? Our public and stakeholder outreach for our long range plan was quite robust."

**Harlan Miller:** Again I think this is a good area we would like to get some comments on the docket too. Certainly the statewide planning process could be one venue for getting public comments and including the asset management plan is part of that effort. We would like to hear back from people who have reviewed the NPRM and get their thoughts or comments on this.

**Michael Kay:** Thanks, Harlan. Next from Andrew. "If we are capturing performance of our entire system do we report just N.H.S. to Federal Highways or do we report everything?"

**Peter Stephanos:** This is Pete Stephanos. The reporting to FHWA in terms of conditions and performance is proposed in the performance measure rulemakings, not this rulemaking. And that is limited for pavements and bridges to the N.H.S. including the beyond N.H.S. in your asset management plan. We talked about today the allowance for that but it doesn't have to be reported to FHWA That plan is just-- I'm sorry. It does need to be approved but the reporting for conditions is not discussed in this rule making. It's discussed in performance measure rulemaking which is out for comment right now as well.

**Michael Kay:** Next question is "Who judges if there is a gap?"

**Stephen Gaj:** The state DOT sets the targets. They are reporting on what the condition is. They would identify the gap.

**Michael Kay:** Next from Dana, "What is the difference between asset class and asset subgroup?"

**Nastaran Saadatmand:** This has been mentioned in the NPRM to some extent and if you think that it is not clear, please submit comments to the docket.

**Michael Kay:** Next from Jim, "How is an L.C.C.A. performed on a class of assets when the specific assets in that class will be at different points in their lifecycle, in other words he has payments that are as new as one year and as old as 40 years?"

**Stephen Gaj:** Yes that is recognized. Take a look at the language in the NPRM and I believe it addresses it and if it doesn't, please provide comments on the docket and I will react to it.

**Michael Kay:** From Dan, "How is the President's Fix-It First initiative consistent with the proper use of asset management?"

**Peter Stephanos:** This is Pete Stephanos. With regard to the rulemaking we are going through right now, the series of rulemakings implement these aspects of performance in MAP-21. The minimum condition requirements for interstate pavements and for N.H.S. bridges is really a focus on investments to be made to address those poor and are proposing poor condition pavements and structurally deficient bridges. And in considering how to develop an asset management plan, of course that would need to be considered. It isn't a direct link to the Fix-It First initiative but it is focused on dealing with those most urgently needed pieces of infrastructure that need to be addressed in our system.

**Stephen Gaj:** I'll just add to that. A little earlier we showed the asset management definition and it talked about a structured sequence of maintenance perseverance, repair, rehab and replacement action that will achieve a sustained desired state of good repair over the life cycle of the assets and the minimum practical cost.

**Michael Kay:** Thanks. Next from Jeffrey, "A number of important and detailed questions are being asked regarding the presentation of proposed rules. Will the presenters or Federal Highway staff be able to send the webinar participants written responses to these questions?"

**Robert Kafalenos:** If there are any remaining questions we'd like to get your comments submitted to the docket and we will also be providing this as a recording and Michael will share that with you at the end.

**Michael Kay:** Next question "There are better ways to judge than life cycle cost as benefit. Will other means be acceptable?"

**Stephen Gaj:** Once again, take a look at the language in the Notice of Proposed Rulemaking and if you have something specific that you think it's important for us as the final rules develop, please submit your comment to the docket.

**Michael Kay:** Next from Greg in Texas. "What funding level would be required to be used to develop the ten year investment plan? Future funding beyond the current authorization is difficult to predict from year-to-year much less for a ten year period."

**Stephen Gaj:** If you see the language in the NPRM is "what you determine to be reasonable". So based on what appears reasonable is going out the ten years.

**Michael Kay:** From Steven, "It would be helpful if the rule provided more guidance on risk categories while not being prescriptive on what to include."

**Stephen Gaj:** I'll answer that two ways. If you would believe we should actually include an NPRM more specific, please provide that feedback to the docket. But as a side note, a little earlier I did reference material into visit the FHWA asset management website. There is a series of five reports. They get into risks and examples. They have it in recorded webinars that Federal Highway has undertaken by us and in coordination with AASHTO and the subcommittee in asset management. I believe there's a good bit of material on risks and I'll get one other information and it may go a little beyond the Notice of Proposed

Rulemaking, but today state DOTs have a stewardship of agreement with Federal Highway division offices. Take a look at the risk part of those stewardship agreements and it certainly is a place to start.

**Michael Kay:** Thanks, Steve. And we had a note in the chat box from Melanie at T.P.M. just noting that at least one person has tweeted about this webinar and we encourage the rest of you to do so using the hashtag MAP21. The next question comes in from Tom. "Many N.H.S. routes are managed by cities and counties and not the DOT Thus we have no idea what their investment is on these routes."

**Stephen Gaj:** If we take a look at the language in the Notice of Proposed Rulemaking it talks about coordination with other N.H.S. owners.

**Michael Kay:** Thank you. Next from Elise, "Is the definition of life cycle cost provided on slide 19 inconsistent with the L.C.C.A. definition Federal Highways has been actively promoting over the last decade and a half out of the office of asset management?"

**Stephen Gaj:** I won't say it's inconsistent. The definition that you may be most familiar working with is project level, the definition of how we address it here is about managing the network. I don't think there is inconsistency here. But if you feel there is, please don't hesitate to provide comments to the docket.

**Michael Kay:** I want to read out a response here. So Steven I believe is responding to a previous comment but I'm not 100 percent sure. I'm just going to read this out. I think it's responding to Greg of Texas noting that "MPO.s are required to develop a revenue forecast for at least 20 years as part of their metropolitan transportation plan. This is understood as having an agreed upon level of uncertainty." So I think we can take that as a comment and move on. From John, "In establishing performance targets of the N.H.S., what happens to the other performance target established by the secretary, performance of interstate N.H.S. less the interstate, traffic congestion, emissions, freight movement?"

**Francine Shaw Whitson:** The performance targets for the N.H.S. that will be covered in your asset management plan are the performance targets for pavement and bridges. The other targets will be covered as required and as proposed under the appropriate rule be it the pavement and bridge Notice of Proposed Rulemaking and final rules or the system performance congestion and emissions rule so I would say look at what is required of those targets for those rules.

**Michael Kay:** Next from Tom, there are thousands of miles of N.H.S. that were added to California for which there is absolutely no linear reference system to attach the assets to. This task to add the L.R.S. is extensive and costly.

**Peter Stephanos:** Please add that comment to the docket. The pavement and bridge condition measure rulemaking which is out right now for comment has a regulatory impact analysis in it that talks about the costs that we expect states will have to take on to meet the data collection reporting requirements. So look at that rule and provide a comment accordingly.

**Michael Kay:** Thanks, Pete. Just checking the time. It's quarter-till. We have fifteen minutes left and we may stay a few minutes over if need be. We are going to try to get through most or all of these questions so we'll see if we can get through them. Next from Steven, "The NPRM is nearly silent on the issue of N.H.S. mileage owned by other agencies. For example in New York NYSDOT owns only about 75 percent of the N.H.S. The rule needs to be clear on this issue rather than simply instructing the state to find a way to collect data from others.

**Francine Shaw Whitson:** We suggest that that comment be placed on the docket for consideration.

**Stephen Gaj:** And the MAP-21 and the NPRMs says and maybe this is what you are saying here, the asset management plan must address and include all N.H.S. pavements and bridges. And I'll add despite who the owner is.

**Peter Stephanos:** Michael, in the interest of time when you read something that we believe is a comment, we are just going to reply real quickly that we believe that's a comment just to move on. With those we can clarify we do.

**Michael Kay:** That sounds like a great idea. So the next one is from Brad. I made a note so Brad is referring to a particular slide. I think it was around slide it was 25 I believe and I can pull it up if need be but it was on that slide the last bullet. "Does all public roads regardless of ownership." In other words is it referring to all public roads regardless of ownership? And if you need me to pull up that slide I can.

**Francine Shaw Whitson:** Okay...

**Francine Shaw Whitson:** That asset management plan only requires the inclusion of N.H.S. roads. The comment you are referring to has to do with when Nastaran mentioned that if a state chooses to include all public roads they may but all public roads are not required to be included in the asset management plan, only the N.H.S. roads.

**Michael Kay:** Thanks, Francine. Was there another comment there?

**Stephen Gaj:** Yeah I would just add the state has the option to include other public roads in the asset management plan if they so desire, so wish to.

**Francine Shaw Whitson:** I think the question is about the analysis.

**Michael Kay:** Thanks. Next from John. Does the term "preserve and improve include a reduced state of asset conditions?"

**Stephen Gaj:** Yes.

**Michael Kay:** Next from Andrew, "Are we talking about N.H.S. bridges or bridges on the N.H.S.?" And again I think that was around slide 26 on minimum content.

**Peter Stephanos:** It's referring to the bridges on the N.H.S. as we have defined them in the pavement and bridge condition measure rule which we have already talked about. Bridges that carry the N.H.S. and the ramps leading to the N.H.S.

**Michael Kay:** Thanks, Pete. "So if a state included all roads in its plan then it would have to do an analysis on all projects regardless of ownership?"

**Stephen Gaj:** I'm getting hung up with the word projects but I'm reading the question if a state included all roads in its asset management plan, it would have to do the analysis for all roads that are not included in the plan whoever the owner is.

**Michael Kay:** Alright. Next "Many of the repaving activities trigger A.D.A. upgrade compliance. The cost of these upgrades are frequently exceeding the cost of the repaving. If the DOT already cannot match available federal matching funds, how are they ever supposed to catch up?"

**Stephen Gaj:** Please provide that comment to the docket.

**Michael Kay:** Next is "The investment plan requirements should refer back to the long range plans for region and the state if there is a fiscally constrained L.R.P."

**Peter Stephanos:** Comment.

**Nastaran Saadatmand:** And by the way I just want to mention that we didn't talk about investment plan in asset management proposed rule. We were talking about investment strategies.

**Michael Kay:** Next from guest 27 I believe it was just clarifying their comment from earlier saying "The state already realizing not being able to maintain the current system." So I don't think there's anything to address there. People can correct me if I'm wrong but we'll move on to Deb. "Not only do I understand if the state includes the road, it needs to analyze it and is required to report performance and can be penalized if it's not in a state of good repair."

**Peter Stephanos:** The last part of that question, any impact on the state regarding the actual condition of the pavement bridge relative to its target is discussed in the pavement and bridge condition measure rulemaking which is out for comment right now and the only penalty associated to that is the minimum condition requirements for interstate pavement.

**Stephen Gaj:** And the penalties that we spoke about in this presentation talks about having an asset management plan. So my answer to the question may be no. Take a look at the Notice of Proposed Rulemaking. Please provide the comments to that.

**Michael Kay:** The next question is "How will the asset management plan differ from the fiscal constraint financial plan requirements in the C.L.L.R.P.s? At a minimum there needs to be some coordination and consistency.

**Harlan Miller:** I'll try to talk to that briefly. In the planning rule which is a separate rule also talks about incorporating asset management principles in the statewide and metropolitan planning processes so it tries to establish a linkage to the asset management plan and the financial plan for the asset management plan in the planning process which includes the STIP and TIP and the financial plan for the STIP.

**Michael Kay:** Next from Claud in New Mexico, "The plan must be available to the public, but does it need to be developed with public input?"

**Harlan Miller:** There's not a requirement for public input on asset management plan but again we'd like to if somebody has a thought we'd certainly like to get comments on that.

**Michael Kay:** Thanks. The next from guest 13 I think is a comment. "Made available to the public is not the same as active public involvement."

**Peter Stephanos:** That's a comment.

**Michael Kay:** Next from John. "In performing the required gap analysis what is meant by the gaps if any in the effectiveness of the N.H.S. in providing for the safe and efficient movement of people and goods relating to 515.009A12?"

**Stephen Gaj:** Please provide us with any comments you may have on that. Provide them to the docket.

**Michael Kay:** Thanks, Steve. Next is "A gap in performance is often the result of a lack in funding. Will Federal Highways help states with funding gaps?"

**Francine Shaw Whitson:** Please put that comment in the docket.

**Michael Kay:** Next from Jim. "How can an investment strategy be developed without an L.C.C.A. risk management analysis or a financial plan? The investment strategy is the outcome of these."

**Stephen Gaj:** Yes, I believe you saw the earlier slide covered in the NPRM is the investment strategy should be based on the information gathered from the let's say the cost analysis, risk management analysis and the financial plan. Yes. And if it isn't clear or you recommend we word it some other way, please provide the comments to the docket.

**Michael Kay:** Next is "How is value defined in 515.007A44?"

**Stephen Gaj:** We did not define it in the Notice of Proposed Rulemaking. Please provide the comments to the docket.

**Michael Kay:** The next question I'm having a tough time deciphering from guest 22. "Is the plan denied or the process?" Any thoughts on that?

**Stephen Gaj:** The certification is focused on the process. If you have comments please provide them to the docket.

**Michael Kay:** Next from Tom "This seems very vague as the rules are the same for every state but the states could put together could be very different." That sounds like a comment to me. Does everyone concur?

**Peter Stephanos:** Yes.

**Michael Kay:** Next question comes from Delaware. "The proposed rule requires a gap analysis if the effectiveness of the H.S. How is the effectiveness of the N.H.S. defined?"

**Stephen Gaj:** We had a similar comment a little earlier. So please provide a comment to the docket and if you have any recommendations or thoughts please include them.

**Michael Kay:** That makes sense. I see we did have that question from John earlier. From Tom "It takes years to put a TAMP together. Ninety days to cure deficiencies does not seem realistic to fix deficiencies."

**Peter Stephanos:** Comment, thank you.

**Michael Kay:** From Ray, "What is implemented? Please define."

**Stephen Gaj:** Please comment on that one also.

**Michael Kay:** And I understand we need to wrap up at three o'clock sharp because we lose our conference room so let's try to go rapid fire here. I'll leave a moment for the presenters to explain how we'll address the questions that we can't get to but let's try to get to a few more here; from Steven. "It would be helpful if Federal Highways looks at the reporting requirements and plan update frequency and deadlines forward is October one from the TAMP, across all of the performance planning and management rules." That's a comment I think?

**Francine Shaw Whitson:** Yes, this is Francine. We are looking at the implications and timelines across the reporting requirement and the frequency of deadlines and updates. We are looking at that and as we move the final rules we will make that information available, but please put that comment on the docket.

**Michael Kay:** From the bridge division, "Regarding 515.009A and C, given that we have far fewer than ten percent structurally deficient deck area on the N.H.S. and on our state system can our submitted A.M.P. apply to our state highway system which includes most of the N.H.S. bridges?" In other words can we have one A.M.P. for the state system on which we optimize decisions or do we need separate A.M.P.s for state where N.H.S. systems are concerned? Is that attempting to optimize decisions across more than one pool of assets would be likely to create conflicting strategies and redundant administrative work."

**Stephen Gaj:** Yes, how to say, the MAP-21 requirements are that it must include the pavements and bridges on the N.H.S. States are encouraged to include other assets and can go beyond what's on the N.H.S. And if you have how you decide to do it in the state is the state's call but if you have any specific recommendation or comments please don't hesitate to provide this to the docket.

**Michael Kay:** Thanks, Steve. I did want to mention that if you have been tweeting about today's webinar, please remember that all formal comments must be submitted to the docket to be considered. I also wanted to mention I brought up one concluding poll at the top of your screen just to get a better sense of whether this webinar provided you a good overview of the rule and if you have any additional comments please feel free to be in touch with us directly. In our final minute I wanted to give our presenters an opportunity to provide any concluding comments and maybe a little bit of guidance on the plan for addressing some of these additional questions after the webinar concludes.

**Grant Zammit:** Thank you, Michael. This is Grant. There are obviously lots of questions that have surfaced during today's webinar. Obviously we have not covered all of them, but if there are questions that are outstanding that we weren't able to get to today, we ask you to contact the FHWA contact listed in the NPRM or submit your questions or comments to the docket for consideration. And in doing so, we welcome your comments on aspects of the NPRM that you like and you don't like so that we have a full appreciation of what you are thinking.

**Michael Kay:** Thanks so much and with that I want to thank everyone. We are going to conclude at this point and hope everyone has a pleasant afternoon.

**Operator:** Thank you, ladies and gentlemen that does conclude your conference. We do thank you for joining.