TRANSIT ASSET MANAGEMENT

Resource Updates and Learning Opportunities Transcript
December 10, 2024

Tamalynn Kennedy: Hello everyone. We're just waiting for all the participants to join before we get started with today's webinar. Okay. I think we're just going to give it another 30 seconds to wait -- make sure everybody's out of the waiting room and then we'll get started with the webinar. Just a moment. Well, welcome everyone. My name is Tamalynn Kennedy. I'm the TAM Program Manager. Welcome to our last webinar. The TAM program's last webinar for calendar year 2024 titled Resource Updates and Learning Opportunities. Next slide. The first thing I'd like to do is start a poll to learn more about you, the audience. It helps us understand more about your experience with Transit Asset Management. So, if you just take one moment to answer the poll, that would be great. And then we'll see the results in a few moments. Wow. Okay. Pretty evenly distributed there, we're right -- coming in about 25% around, you know, for each of the categories. I think that's a pretty even distribution. That's interesting to see. Well thank you everyone for filling out the poll. Go to the next slide and do a little bit about, just cover logistics for the event. Today's presentation is not yet available but will be made available on the TAM website within the following week. And you can access the linked resources from the PDF once it is available, once it is posted online. Closed captioning is available by clicking Show Captions, then selecting View Full Transcript. There will be a question-and-answer session after the presentation, so please type any questions you have into the Q and A box available at the bottom of your screen. The chat feature is open but will not be monitored for questions. It will be used -- if you need to communicate, please use the chat function if you need to communicate with the host for any reason. Next slide. And today the speakers will be myself and our FTA, TBP ORISE Fellow Mohammed Abdul Karim. I also want to mention right off the start that today's presentation is meant to be an abbreviated webinar, for it will be 45 minutes in length, not the full 60 minutes. Just as a heads up there. Next slide. And today's agenda. I will give an update -- give the updated Resources and Learning Opportunities, run through with talking about the upcoming NTI course, TAMPLATE enhancements, Peer Program opportunities and the State of the Practice reports an upcoming technical assistance. Mohammed will discuss our NTD Narrative Template work updates and the analysis of the narrative reports. Next slide. All right, next slide. So the first thing I wanted to mention was that we have in 2024 relaunched the Introduction to Transit Asset Management course. If you haven't seen this course advertised through NTI or in TAM news, this is a good introductory course for those who are new to Transit Asset Management. Also those who need a refresher in Transit Asset Management principles. It is hosted by the National Transit Institute out of Rutgers University. The original course was designed for in-person delivery and it stopped running during the pandemic. It is now a virtual course and runs over three afternoons. There were three offerings in 2024. I can tell you that they filled up rather quickly. There will be five offerings of this course in 2025. So I encourage you to sign up to NTI's distribution list for updates about their course offerings. The TAM Program does not release on a consistent basis about the course offerings that comes from NTI. So to hear about the course availability, you need to be registered with NTI in order to get those announcements. Again, this is an introductory course. It is a good course for those that are new to Transit Asset Management or those that need a

refresher to Transit Asset Management. It talks about the TAM rule, but it does not give you specifics on how to complete a TAM plan. It tells you how the TAM rule interfaces with Transit Asset Management. Okay. Next slide. I also want to talk about TAMPLATE. We have -- we're going into -- looking forward to 2026, which is another four-year reporting year if you have not updated your TAM plan. And so we want to make some updates to TAMPLATE and we've added some new functionality. Again TAMPLATE is a great resource for Tier 2 and group plan sponsors. It is also a resource for Tier 1 organizations, but it might not have the complexity that Tier 1 organizations need to fully report their inventory and conditions. So what's the new functionality we're adding? Well, we have heard your comments and we are instituting the ability for more than one person to edit a single TAM plan. This means that one person -- both -- any individual working on the TAM plan will need and a unique user login; however, one person may share a TAM plan that is in progress with another user and both may work on editing the same TAM plan asynchronously. So they cannot be in there at the same time editing the plan together, but both may be in there at one point or another editing the TAM plan. Also, all users will be able to share their plan with stakeholders and executives. This was a feature that was previously only available to group plan sponsors. But now any user will be able to send their plan electronically to their accountable executive or executive -- or executive stakeholders and have them digitally certify the plan. Also the calculations for infrastructure have been updated and corrected. These new features will be released in early January 2025, with an updated user manual. So that will be just accessible from our TAMPLATE website -- which you may access from these slides, again once they are available. Next slide. The TAM Peer Program. For many years, the TAM program has offered peer learning events like the Round Table and the webinar series, but we recently expanded into other types of peer learning offerings. In 2023 and in 2024, the TAM program expanded peer learning opportunities between transit agency practitioners by offering virtual discussion forums, in-person peer exchanges and a year-long peer working group. These peer learning sessions make it possible for FTA recipients to help each other develop compliant TAM plans, set performance targets for capital assets, create data and narrative reports on performance measures and coordinate with their planning partners. On this slide, there's a -- there is a link and it will be put in the chat as well to sign up for GovDelivery to receive updates about the Peer Program and other TAM related resources. Next slide. So for calendar 2025, what are we planning? We plan to offer our opportunities specifically for MPOs, group plan sponsors and tribes. We are also planning a peer exchange on the management of systems and associated assets. So that means things like traction power, communications and control, revenue collection, IT business applications, tunnel support. Those -- that's what I mean by systems and associated assets. That will be an in-person two-day peer exchange that we hope to have hosted at a partner agency. You'll see more information about that coming in the spring in 2024 -- or 2025. Excuse me. Sorry. Next slide. And my final main topic that I wanted to talk to you about today is the State of the Practice reports. The FTA initiated the TAM State of the Practice report to review Transit Asset Management plans and Asset Management programs nationwide. The goal was to identify Asset Management processes and efforts implemented at various agencies and promote best practices and exemplary methods for TAM implementation. The study was a review of their TAM plans and Asset Management programs and not a compliance review. The participating agencies volunteered for consideration in the pilot review program. Nine total agencies were chosen. So we recently published the summary report to the FTA's website. Thank you for putting that link in the chat, Emily. The summary report details the findings from all nine participant agencies. At a top level, I will say that we have found

there continues to be a need for skills and training for agency personnel. Basically education on Transit Asset Management. And that's really one of the reasons why we're very happy that NTI has reintroduced the course on Introduction to Transit Asset Management. We hope that meets many people's needs. We also -- another major finding of the State of the Practice report pilot was that FTA should consider continuing this program review and assessment as part of an ongoing technical assistance. So next slide. So we will be promoting our new technical assistance or the program assessment in January 2025. Again similar to the pilot, agencies will participate in an assessment of their TAM practices, but the assessment will be conducted by FTA's TAM Program rather than an outside contractor as the pilot was conducted by. Selected agencies must provide documentation for review. The agencies will participate in interviews in order to receive an evaluation and recommendations on their TAM practice. Agencies will receive a summary report with ratings and recommendations for improvements, as well as highlighting areas where the agency is promoting best practices or instituting best practices. The application will be open in January 2025 and registration information will be provided through GovDelivery. So again, if you're not signed up for the GovDelivery links, please do so. Next slide. Okay. Switching topics here. I now want to share with you the work we've been doing looking at analyzing the A-90 or the NTD narrative reports. We have been doing natural language processing on these reports. And we want to share information with you about this tool and our findings. Next slide. But first I'd like to just take a quick poll about the narrative reports. Does your agency use the NTD narrative report template that's furnished by the FTA? Yes or no or if you're unsure. Let's see. Okay. A lot of unsures. Thirty-two percent at yes. Sixteen percent at no. That's very helpful. Thank you. Thank you for participating in the poll. Next slide. So let me first prep you with a little bit of background about the narrative reports. They have been analyzed in the past. They were used during the TAM Program's Multiyear Evaluation that was published in 2023. The evaluation covered four years -- 2019 to 2022. It collected information through interviews, focus groups, TAM Program event registration and feedback and National Transit Database, including the narrative reports. And how that -- those narrative reports were looked at is an evaluation team conducted an annual qualitative analysis of narrative reports from a set of 86 reporting agencies. A representative but not statistically significant sample for the three years in which agencies submitted them -- 2019, 2020 and 2021. The evaluation team conducted a content analysis which included categorizing and tagging responses into key themes and conducting the occurrence of each theme. The team analyzed trends across asset category and agency type. One of the things that came out of conducting -- looking at these narrative reports was that agencies requested clarification on the NTD narrative report instructions. So the TAM Program released, a narrative report example format in 2021. We recently updated that format in October of 2024. That new format is now available on the website. This is why it's important to use that narrative report -- this new narrative report template. This narrative report -- the A-90 narrative report -- is the best way of communicating your agency's successes and challenges with the FTA. And I want to show you that we are looking at this information. Next slide. We received over -- in 2023 we received over 650 narrative reports from agencies. Now that's a lot of reports for one person to comb through. But we have new tools available to us that will help us. And the new -- by using the new narrative template, it helps us read your agency's submittals. And with this new tool, then we can understand what challenges and successes the agency -- the industry is experiencing. Next slide. So now I'm going to turn it over to my colleague Mohammed who developed the tool and is going to explain a little bit more about how the tool functions and our findings on the report year 2023 reports using the tool. Mohammed.

Mohammed Abdul Karim: Next slide please. So you may be wondering what is LDA topic modeling? LDA stands for Latent Dirichlet Allocation and it is an application of natural language processing. Natural language processing being the area of machine learning focused on giving computers the ability to interpret human language. LDA specifically is used to uncover hidden topics within a collection of reports by analyzing the relationship between those words. The end user typically infers the meaning of each topic based on the most frequent terms since it is an unsupervised learning algorithm -- meaning there's no labeled data. So for example, if you were to feed a collection of books, to an LDA model and ask for, three topics to return, it could look something like the table below, where Topic 1's top terms are exercise, nutrition and treadmill. Meaning that, a good portion of those books, probably are health and fitness related. Next slide please. So, we do use a few input parameters to make sure that our results are useful and interpretable. The seed value is used to reproduce results by using a fixed value. We're basically forcing the same results to be produced each time by basically forcing the algorithm to think or behave in a certain way. The number of topics is the number of latent topics that we want the model to generate for us. The right number of topics -- the right number of topics can be gained by either domain knowledge or by, sorry, by basically domain knowledge or trial and error. And I found that about three to five returns the most coherent results for our use case and the number of terms and documents that you want the output to display. And these are ordered by the -- or how strongly associated they are with each topic. Next slide please. So the application first outputs the number of documents and the number of each key header identified. And those numbers reflect a rough estimate of reports with sufficient qualitative data in those categories that also follow the TAM-provided template. The Top Terms Per Topic just gives us a sense of what each topic is about while the Top Documents indicate how strongly each document is associated with a topic. For example, under Topic 1 we can see that the top terms are bus, replacement, challenge, fleet, purchase, electric, emission, and part. We can assume that the Topic 1 relates to challenges in getting replacement parts for buses, specifically electric buses. And we can also see that the Top Documents for covering that topic come from agencies in Region 9. Next slide please. Here we can see an example of highlighting an issue a lot of agencies were facing this year. Supply chain disruptions significantly impacted the transit industry's operations this year, specifically in maintaining and procuring vehicles and vehicle parts. Next slide. And here we can see specifically how supply chain disruptions have delayed agency's efforts into reaching their sustainability goals. The additional complexity of maintaining electric vehicles as well as their charging infrastructure compounded with the broader impacts of global supply -- global supply shortages strains the ability to provide reliable service. Next slide please. And this (inaudible) analysis can be done by grouping the reports into regions. This allows us to gain contextual insights into region specific themes. For example, we can expect more discussions regarding electric buses in Region 9 considering legislation regarding zero emissions vehicles. Meanwhile, in Region 4, we can expect reporters to discuss the lasting effects of climate related issues such as hurricanes. Next slide please. Ultimately the tool is meant to serve as a -- or the application is meant to serve as an internal support tool to identify factors that are impacting agencies from reaching their state of good repair targets and how they're progressing towards reaching their goals as well as identifying these agencies. Next slide please. And I'll give it back to Tamalynn.

Tamalynn Kennedy: Thank you, Mohammed. So that was a brief run-through of -- next slide. A brief run through of how the tool works and what information can be gathered or what insights can be inferred from

using the tool. What Mohammad showed you was an analysis of challenges that was what the tool was looking for in that specific case. So that's why it came up with things like parts for electric vehicles and other supply chain and other challenges faced specifically with revenue vehicles. Because that's what the tool was searching for -- for that specific question. And as I said, it's only through using the template provided are we able to -- the template that the FTA provides are we really able to best review your submissions and analyze your submissions with the tool. So we do hope that you will use the new NTD template when completing your A-90 requirements. I will say again though. I will say that it is entirely -- it will be entirely voluntary -- voluntarily. It's entirely -- excuse me. It's voluntary. You do not need or are not required to use the template. Sorry for that. Okay. Now I'm going to jump to our audience Q&A. It's a little light today. So I will take a few moments here for the next two minutes for people to please complete or ask questions. We don't need to go until -- to 45 minutes after the hour, but I want to make sure that there is space for people to ask questions that they would like to ask. The first question is, "When will NTI be releasing their 2025 schedule?" We have heard from the program director that that will be released in January. However, because they are offering -- they plan on offering five courses of the Introduction to Transit Asset Management course, it might be that they release a quarter at a time. So not all five courses may be released for registration in January. I just want to make people aware of that. It might only be the first three months are released, and then you'll need to keep receiving updates from NTI as they release their next quarter schedules. Let me look at the questions here. "Is it required or optional to use TAMPLATE?" It is entirely optional to use TAMPLATE. It is just a tool that the FTA makes available to providers for use. But it is entirely optional. It also -- one of the other benefits of using TAMPLATE is that it pulls in your most recent NTD data. So with the refresh in January of 2025, report year 2023 data will be available in TAMPLATE. And that's the most recent NTD data available. So it saves you from doing a lot of inventory, importing your own inventory, or inputting your own inventory. It automatically pulls that in. "Will LDA be used for NTD A-90 yearly going on into the future to identify major trends in each region?" For the foreseeable future, yes. We'll use this or other analysis tools to look at the A-90. We have -- like I said, it is the best resource for communicating your successes and challenges with the FTA because it is the required annual submittal to the FTA. So it helps us get a picture of trends in the industry and what might be happening. So we do intend to continue to use -- it might not always be natural language processing or the LDA tool, but we do intend to continue to look at how we can best utilize the information reported in the A-90s because these are resources that we don't just want to sit on a shelf. We don't want providers to feel like it's just another box to check off and that the FTA is not looking at them. We are, and they have valuable information for us in them. Let me answer a question related to the work for the narratives report. It says, "Does this tool only work for narratives prepared through the TAMPLATE or all other narrative reports submitted into the NTD, even those not done with the TAMPLATE?" So, the TAMPLATE is for completing your TAM plan. That's the requirement for every four years. The narrative report is part of the A-90 annual reporting submittal. So the narrative report is separate from your TAM plan, which is what the TAMPLATE helps you generate. I hope that's clear. If it's not, please write back in and I'll try to add some more clarity to that question. The other part of the question is, "How will NTD," or sorry, "How will FTA use the results?" Really we use them to help set our own strategic plan to see where the industry is going, where we can expect the industry to go and what benchmarks we as the FTA can set to try to reach, you know, what's happening in the industry. That we can set our own strategic plan targets based on the findings that we have from the narrative reports. I have another question here. "Is

the NTI Introduction to Asset Management course similar to the Enhancing Lifecycle Management course?" The Enhancing Lifecycle Management course is a much more advanced course than the Introduction to Transit Asset Management course. It is the Lifecycle -- Enhancing Lifecycle Management course is very much into more specifically looking at things like investment prioritization, risk management, those types of things. So if you've taken the Enhancing Lifecycle Management course and not taken the TAM 101 let's just say you took the Enhancing Lifecycle Management course and you felt a bit lost with the terminology or the concepts, then I would encourage you to take the Transit Asset Management Introduction to -- Introduction to Transit Asset Management course. That would be a good, starting step for you. Another question, "To confirm. The new TAMPLATE will be available from the slides once the webinar is released." No. The TAMPLATE refresh will happen in January 2025. We are planning to release the slide deck, before that. So look for this -- the slide deck and the webinar will be released within the next couple of weeks. The TAMPLATE update will be refreshed in January 2025. "When are TAM plan inventory reports due to the FTA?" That's a great question. It's based on when your fiscal year ends. If you look at our website, transit.gov/tam, there is a page on TAM plans but will show you a chart based on when your fiscal year ends about when your -- your TAM plan is due. Sorry. I'm messing that up. That's when your TAM -- I'm messing up your question. Sorry. Let me retract that. That's when your narrative report is due. The TAM plan is due every four years. A refresh is required every four years. However, with the TAM plan it is not a requirement that you submit your completed TAM plan to the FTA at the time that it is completed. I hope that's clear. Okay. Let me start over. And, the question was, "When are TAM plan inventory reports due to the FTA?" The TAM plan is required to be updated every four years. However, it is not required that you submit your TAM plan to the FTA. So the TAM plan is reviewed for compliance during your triennial or your state management review. So it must be up to date at that time. It must be current within the previous four years at the time of your triennial or your state management review. But it is not submitted to the FTA. The TAM plan is not submitted to the FTA. Okay. "Is there any news on TERM Lite upgrades and possible TAMPLATE integration to streamline reporting efforts?" That's a great question. We are looking at how to update TERM Lite and we are looking at all sorts of technology upgrades for that. So one of the possible enhancements could be pulling in your inventory from the NTD just as TAMPLATE does and streamlining reporting efforts. However, I cannot say specifically what an upgrade to TERM Lite will look like. A RFP will be going out for bid in 2025 for TERM Lite. And so we'll see what -- we'll see what enhancements are available from that point on. "How will information from the Peer Programs be used by FTA, particularly the MPO Peer Program? Will a guidance document be developed?" The Peer Programs, that's a great question too. We do develop not necessarily a guidance document, but we do provide a summary document of what transpired during the Peer Program. So we do that for all levels of the Peer Program from discussion forums to peer working groups, peer exchanges. All of those we develop a summary of the discussion and those are available on our website. There's a question. "Just a clarification about the four year horizon period for the TAM plan. It means the inventory is every four years as well. Correct?" That is correct. Your inventory when it's looked at or your TAM plan when -- when it's reviewed during your triennial or your state management review, they will look to see that the data that you have in your TAM plan is within at least that four-year time, the previous four years. However, your inventory is updated annually with the FTA via your NTD reporting. So it can be four years old in your TAM plan, but in your FTA NTD reporting, it is updated annually. "Where can I register to receive NTI updates?" I hope we put that in the chat. If not we can look for that and

provide that in the chat. Let me see. Let me just double check really quick. I know we're running close to time here. Thank you. That is in the chat. The NTI newsletter sign-up is in the chat. And I think we have time for one more question. "Is a group plan -- if a group plan sponsor opts to update its TAM plan annually, is there any downside to doing so?" There is not any downside to doing so. In fact, many Tier 1 agencies update their program -- their TAM plan annually. It's a common -- it's actually a relatively, common practice for larger agencies to update their TAM plan annually. So it is -- there is no downside. It actually just keeps everything fresh for your agency and makes sure that your -- it makes sure that your agency is, you know, continuing to follow on, using best practices. And I believe we're at time. Let me go to the next screen. Next slide please. I want to thank you all so much for your questions at the end. When we first came to the Q&A, there were no questions in the Q&A pod, and then you guys flooded it and that was great. We really -- Mohammed and I really hope that you'll use the new NTD narrative template so that we can continue to do analysis on the -- on your A-90 reports and we really hope to see you in NTI training and upcoming Peer Program if it so suits your schedule to apply. So, please again, if you are not already signed up for the GovDelivery releases, sign up for the GovDelivery releases and sign up for NTI's newsletter. With that, I'm going to thank you and I thank Mohammed for his presentation today and wish you the best for the rest of the day. Thank you.

Mohammed Abdul Karim: Thank you everyone.