
**TRANSPORTATION PLANNING BOARD
MEETING MINUTES**

June 17, 2026
In-Person Meeting

MEMBERS AND ALTERNATES IN-PERSON

Matt Frumin – District of Columbia
Susan Cunningham – Arlington County
Dan Malouff – Arlington County
Corey Pitts – Montgomery County
Kim McCool – VDOT
Deshundra Jefferson – Prince William County
David Snyder – City of Falls Church
Sandra Marks – DDOT
Dan Koenig – FTA
Marc Korman – Maryland State Delegate
Bill Cuttler – VDOT

MEMBERS AND ALTERNATES ONLINE

Allison Davis – WMATA
Amy Wesolek – City of Takoma Park
Victor Angry – Prince William County
Ashley Hutson – City of Manassas
Canek Aguirre – City of Alexandria
Christina Henderson – District of Columbia
Ralph Patterson – Charles County
Deborah Carptenter – Frederick County
Garrett McGuire – Virginia State Delegate
Eric Olson – Prince George's County
Glen Warren – MWAA
Heather Edelam – District of Columbia
Jimmy Bierman – Fairfax County
Kari Snyder – MDOT
Kristen Weaver – City of Greenbelt
Marilyn Balcombe – Montgomery County
Mark Rawlings – DDOT
Mati Bazurto – City of Bowie
Meagan Landis – Prince William County
Michael O'Connor – City of Frederick
Michael Weil – NCPC
Monique Ashton – City of Rockville
Oluseyi Olugbenle – Prince George's County Executive
Regina Moore – VDOT
Ryan Hand – DCOP
Jennifer Boysko – Virginia Senator
Nancy King – Maryland Senator
Stephen Kenny – Montgomery County
Tom Peterson – City of Fairfax
Vinn White – MDOT
Mark Phillips – WMATA

Walter Alcorn – Fairfax County
Zack Kershner – City of Frederick
Victor Weissberg – Prince George’s County Executive

MWCOG STAFF AND OTHERS PRESENT

Kanti Srikanth
Cristina Finch
Lyn Erickson
Amand Lau
Laura Bachle
Ian Newman
Fabiha Rahman
Mark Moran
Rachel Beyerle
Janie Nham
Debora Etheridge
Delanna Thomas
Robert d’Abadie
Dusan Vuksan
Charlene Howard
Pierre Gaunaurd
Eric Randall
Jamie Bufkin
Ceriann Price
Thomas Harrington
Mike Farrell
Tim Canan
Renee Ritchey
Pierre Gaunaurd
Kaelem Mohabir
Jessica Storck
Sergio Ritacco
Jose Lemus
Katherine Rainone
Tim Davis – CAC Chair
Kelly Russell – Former City of Frederick
Emelia Suljic – ICF
Sukirti Ghosh – RHI
Brent Riddle – Fairfax County
Coalition for Smarter Growth – Bill Pugh
Lindsey Mendelson – Maryland Sierra Club
Bill Orleans – member of the public

1. PARTICIPATION PROCEDURES, MEMBER ROLL CALL, AND PUBLIC COMMENT OPPORTUNITY

Vice Chair Matt Frumin opened the meeting welcoming members and sharing virtual meetings procedures and that the meeting is live streamed on YouTube.

Lyn Erickson called the roll call. She said the TPB has a quorum. She said that two members of the public signed up to comment: Bill Pugh and Lindsey Mendelson.

Bill Pugh said that he is the transportation and climate director for the Coalition for Smarter Growth, and he is here to speak about two items. He said the first item is the TIP amendment that's on the agenda today. He said that there's a change to the I-495 Southside Express Lanes project. He said that this appears to be an administrative change, but there's not an explanation for the public and local jurisdictions that are affected by it. He said that it has some wording that's a little concerning and appears to not address the TPB's October 2025 resolution.

Bill Pugh said that VDOT and MDOT agreed to that resolution, unanimously. He said that the TIP project description says extend the express lanes 11 miles from Springfield across the Wilson Bridge into Prince George's County, advance activities to include design P-3 development and procurement activities. He said that this is the project description. He said that this body's adopted resolution last October stated that the Southside Express Lanes proposal at that time had not addressed issues raised by TPB members, and it directed VDOT and MDOT to "Explore project options and work with local jurisdictions toward securing a consensus." He said that this TIP amendment needs to be reworded to reflect the TPB's resolution and to clarify that the additional project funding is not advancing last year's preferred alternative, which was left out of the Visualize plan.

Bill Pugh said that CSG also asks for VDOT and MDOT representatives here at the meeting to please explain to the board how the TIP funding will be used and how they plan to engage jurisdictions and explore project options. He said that maybe this is just an administrative change to move money forward, but for a person like him who lives in the corridor, one of the impacted jurisdictions, the project language and being put on the [TPB] agenda without any explanation does cause some concern. He said that he wants that cleared up and put in writing.

Bill Pugh said that on the second, separate matter, he wants to thank this body and COG for the great DMVMoves work. He said that he didn't get the commitments from state legislators, although some did some great work, and tried, and got a bill passed through their chamber. He said that we didn't get the commitments for the \$460 million in new state capital funding this past spring, but we made progress. He respectfully asked TPB members here to talk with their state legislative delegations and their DC councilmembers and tell them that we need to get the new dedicated funding for FY 2028 this coming year. He said that if you're a Virginia member, please talk to your delegates and senators who are finalizing the budget package right now to make sure that Metro funding for next year is in the budget.

Lindsey Mendelson said that she is the senior transportation campaign representative with the Maryland Sierra Club. She said that she wants to express her concerns about VDOT asking this body to approve a TIP amendment package that appears to advance the Southside Express Lanes project. She said that the proposed amendment contradicts a resolution [R2-2026] that this body spent months deliberating and approved unanimously in October. She said that while reading the resolution, it, "Directs staff to finalize the air quality conformity analysis report, the draft Visualize 2050 plan, and the draft 2026 to 2029 documents without the I-495 southside project." She continued by saying that the TIP amendment package before the body seems to imply that the Southside project would be exempt from the air quality conformity requirement. She said that the TPB staff write on page two of the TIP amendment that the projects in the TIP amendment are either "Included in the air-quality conformity report or exempt from the air-quality conformity requirement." She asked the TPB staff to clarify that part.

Lindsey Mendelson said that the resolution approved last year also asked that VDOT explore project options with local jurisdictions towards securing a consensus and submit a report in 2026 on the outcome of its work with jurisdictions. She said that we have many members that would be impacted by this project and that the public hasn't heard any updates about how that collaboration is going or seen a status report. She said that instead, all we see today is a one-page amendment variate in a 176-page document where VDOT is asking to advance not just their planning activities but also, "Their P-3 development and procurement activities," related to their project. She said that this is not the type of transparency that should be happening with this project, especially given its controversial history.

Lindsey Mendelson asked that this body continue to reject any efforts to advance a project as a toll lanes expansion and that VDOT shares exactly how they plan to work collaboratively with Maryland and all jurisdictions on the issues in this corridor. She said that since last year's resolution, the need for transit options has become ever more important, underscoring what Bill [Pugh] said, we really need to make sure that we fund the DMVMoves request for WMATA. She stated that gas prices are high and remain volatile, new and used car prices are rising, and residents continue to face unsafe traffic conditions on 210 where the proposed toll lanes would end. She said that many residents are also breathing unhealthy air, and that the American Lung Association's report released this spring found that over 700,000 kids in the Washington, Baltimore, and Arlington metro area are breathing unhealthy levels of air pollution, putting their developing lungs and long-term health at risk. She said that the last thing that we should be doing is advancing projects that put future generations at risk. She asked that the Southside project not advance in the TIP as a toll lanes expansion project and that TPB continue to stand by its October decision.

Lyn Erickson said that concludes the public speakers' section and that she will be reporting out other comments. She said that between noon Tuesday, May 19 and noon Tuesday, June 16, the TPB received one letter, and one comment submitted via email. She said that a summary as well as all full comments can be found at our meeting page. She said that Barbara Coufal from the Citizens Against Beltway Expansion writes that VDOT's TIP amendment seeks to resurrect the Southside Express Lanes, disregarding TPB's rejection of the proposal last October. She said that they urge the TPB to remove this clause from the TIP amendment.

Lyn Erickson said that Brian Ditzler writes that VDOT's proposed TIP amendment concerning the Southside Express Lanes project appears to ignore the TPB's resolution adopted in October 2025. She said that he urges the TPB to ask VDOT and MDOT representatives to explain how TIP funding for further study of the Southside Express Lanes project will be used and how local jurisdictions will be engaged to explore options.

Kanti Srikanth said that based on the comments that were received online and during the public comments today, there are three main topics that could be clarified, and then there might be other follow-ups that VDOT might choose to speak to. He said that the first one is, why is this TIP amendment or this proposed addition of funding to this project exempt from air quality? He said, second, how is including this project in the TIP consistent with the TPB's resolution last year? He said that then, perhaps at a higher level, what exactly does TPB's approval to include the project in the TIP mean?

Kanti Srikanth said that he can talk about the clarification, and then will turn to Lyn Erickson to explain including the project in the TIP and its consistency with the TPB resolution. He stated that the reason this proposed project for the TIP amendment is exempt from air quality is that only those projects that are proposed for construction with an opening date that has been specified with the scope of the project outline, both of which have been approved by the TPB, can be included in air quality conformity. He said that means that the preliminary engineering phase of all projects that are in the TIP are not included in air quality because that does not mean those projects will be constructed. He said that many times, agencies have funding only to do preliminary engineering and they might use federal funding, any project, a bike/ped project for example, if it is using federal funds, has to be in the TPB's TIP, but a bike/ped project is not included in air quality conformity. He said that nevertheless it still needs to be in the TIP, so there are explicitly federally outlined exemptions for what projects can be and should be included in air quality.

Kanti Srikanth said that the Southside Express Lanes project, as proposed, is in the preliminary engineering phase. He said that there is no demonstration that there is full funding to construct the project. He said that the TPB has not approved including the project for construction in its long-range plan, and that is why the project won't be included in air quality conformity. He said that this is a standard thing that we do and invited federal oversight members to clarify or correct. He said that there isn't

anything different that is being done with this. He said that the higher-level takeaway is, this project has been in the TIP for a number of years. He said that the preliminary engineering phase covers a very broad swath of activities, it can start with the feasibility study, it can then proceed to some sort of a NEPA study, which could simply be an analysis to seek categorical exemption, it could be an environmental assessment, it could be an environmental impact statement all these activities are still within preliminary engineering. He said that it could also include design, designing not just the preferred alternative, but designing multiple alternatives all the way up to but not beyond 30%.

Kanti Srikanth said that all of these activities fall within the federally defined preliminary engineering phase, and federal funds can be used up to that level, and those projects are required to be in a TIP and not included in air quality conformity. He said that in other words, TPB leaving this project in the TIP to be funded for continuing preliminary work, is consistent with its earlier resolution and does not give VDOT the approval to proceed with funding constructing the project. He stated that VDOT can only construct the project if it gets approval from the federal government and the federal government will only approve the project if it is in the TPB's air quality conformity analysis and if it is in the TPB's long-range plan and the TPB's TIP. He said that right now, the project is not in the air quality conformity analysis, and the project is not in the plan for construction.

Kanti Srikanth said that the rest, yes, is an administrative action, and it is a budgetary action so that the federal government knows of the money that they are giving to VDOT, what money in what amount in what year will be used for what purpose, and this amendment is staying approximately about \$6 million is going to be used to continue preliminary engineering all the way up to preliminary design. He said that's how we understand the amendment, but he will turn to Lyn to talk about the text in the resolution and the general sense of whether it's consistent or not.

Lyn Erickson said that both MDOT and VDOT have these items in TPB's TIP and were rendered as early as 2022, so the old 2023 to 2026 TIP had an MDOT and a VDOT item for this project. She said that in the Maryland TIP T-11618 in Maryland has it in the 2026 to 2029 TIP as well. She invited everyone to take a look at the screen, in case anybody forgot the resolution that we just approved a few months ago. She said that the first resolved clause was the deferral of the project, keeping it outside of the conformity analysis. She said that then we go on to say that we encourage VDOT and MDOT to continue to explore project options and work with local jurisdictions towards securing a consensus on this important regional corridor, and number two, directs VDOT to provide TPB a report in 2026 on the status and outcomes of its work with all relevant jurisdictions. She said that she wants to point out that this upcoming VDOT action to secure funding in the TIP to make this happen will enable them to meet their commitment.

2. APPROVAL OF THE MAY 20, 2026 MEETING MINUTES

Vice Chair Frumin moved approval of the May 20, 2026 minutes. The motion was seconded by Deshundra Jefferson from Prince William County.

3. TECHNICAL COMMITTEE REPORT

TPB Technical Committee Chair Dan Malouff shared a summary of the June 5 meeting of the Technical Committee. He said the Technical Committee received a briefing on four items for the board, including (1) VDOT Section of the TIP Amendment, (2) Approve PHED and Non-SOV Targets, (3) Performance Measures and Targets: Draft VOC and NOX Targets, and (4) Extreme Heat Analysis Overview. He said that there was one item presented for information and discussion: Traffic Incident Management Update.

4. COMMUNITY ADVISORY COMMITTEE

Tim Davis, TPB Community Advisory Committee Chair. He explained that it was his pleasure to deliver his report in-person. He continued by saying that before diving into his report, he'd like to welcome their

guest that day, Kelly Russell. He noted that some of them might recall her from her years of service there at TPB representing the City of Frederick. He stated that he first met Kelly back in the early 2000s when she was a police officer, before she even got into politics. He explained that now she was serving on their board at the Delaplaine Arts Center, and that before that, she had been an alderman city council member for 16 years, president pro tem for 11, and a TPB member for 11 years, including a 2020 chairmanship. He said that he would like to welcome Ms. Russell and then get right into his report.

Tim Davis said that the CAC met virtually on June 11. He explained that TPB staff had given them a thorough update on the Transportation Resilience Program, focusing on the Regional Extreme Heat Analysis and Economic Impact Analysis. He stated that members had chatted about various aspects of the Extreme Heat analysis, like street trees, bus stop designs, and trailhead amenities. He continued by saying that they had also shared their personal experience with high heat on rail and the improvements they had noticed recently. He explained that the CAC was keen to see the analysis expand beyond rail and include bicycle and microtransit. He noted that it had also been mentioned that the future analysis would include monitoring of air quality, which he said was a great complement to the effort. Regarding the economic analysis, he stated that members were happy to hear that many of the modeled low- and medium-priced investments offered a good return on investment. He explained that these cost-effective approaches would be helpful as they advocated for these improvements in their capital budgets. He continued by saying that the CAC encouraged TPB staff to share more information about these studies, perhaps in the context of an FAQ, so they could share information with their communities and their elected and appointed officials. He said that he invited the TPB members to read the report the Vice Chair had mentioned earlier, and that he was happy to answer any questions.

5. STEERING COMMITTEE ACTIONS AND REPORT OF THE DIRECTOR

Kanti Srikanth said that the TPB Steering Committee had met on June 5 and had taken the following actions. He stated that it had adopted Resolution RS-32 2026, and he explained that this was in response to a request from the Virginia Department of Transportation to review and provide a resolution of support for projects that the TPB's Northern Virginia members were submitting for Smart Scale funding considerations. He noted that this was a legislative requirement in Virginia. He continued by saying that the documents were on pages five through nine, but that pages eight and nine contained the projects that TPB members planned to submit for funding considerations. He explained that TPB staff had reviewed those projects and had grouped them under projects that were already in the long-range plan but needed additional funding, or projects that were not yet in the long-range plan and might come back to them to be included if they were successful in securing the funding. He stated that the Steering Committee had reviewed two requests for amending its FY 2026 through FY 2029 TIP and had approved them. He explained that the first one had been at the request of the District Department of Transportation, adding about \$7.3 million for multimodal access improvements along Georgia Avenue in Northwest, and that it also added about \$20 million for the Anacostia River Pedestrian and Bike Connectivity Project. He noted that the details were on pages 10 through 16 of his memo. He explained that the second TIP amendment had been at the request of WMATA, to make several changes to the funding information in the TIP. He stated that all of these changes were meant to reflect the latest budget for FY 2027 that the WMATA board had approved in April. He explained that the total changes made to the project amounted to about \$541 million, but that it was mostly for capital projects, and that it included projects such as track and structural improvements, about \$78 million for that, improvements at station passenger facilities, about \$100 million for that, and then acquiring buses, improving bus facilities, and paratransit systems, about \$270 million for that. He noted that the details were on page 28.

Kanti Srikanth moved to the letters sent and received section of his memo, starting on page 30, he pointed out four letters of support by the TPB for its members who were seeking federal grants. He explained that WMATA, for example, was seeking Safe Streets For All grant funding to study fatal and serious injury crash locations near its stations and to develop implementable strategies to address that. He continued by saying that Fairfax County was also seeking Safe Streets For All funds for improving roadway safety, and he noted, with interest, that this involved using advanced technology, including testing drones as first responders to the sites of crashes. He then explained that Prince William County was seeking a railroad crossing elimination grant, as well as consolidated rail infrastructure and safety improvements grants, for its US 15 Railroad Overpass Project. He stated that they trusted these applications would be successful.

Kanti Srikanth moved to the announcements and updates section on page 35, he explained that a copy of the TPB's own application for federal Safe Streets For All grant funds could be found there. He noted that he had briefed the Board the previous month about a public-private joint venture with the District Department of Transportation and the Consortium of Private Sectors, being led by the international firm WSP. He explained that this project would evaluate the use of vehicle-to-everything communications to improve the safety of bicyclists on their roadways. He stated that the project would be a demonstration for about 18 months, and that it would take place in D.C. He said that they certainly hoped they would be successful in that application as well. He announced that the TPB was hosting the Bicycle and Pedestrian Subcommittees leadership for a workshop on best practices in designs for bicycle facilities. He noted that the instructors would be from a nationally recognized firm, Toole Design, which had helped develop these guides. He stated that this was a one-day training that would be in-person only, and that it would take place on July 13 at the Rails to Trails Conservancy headquarters in D.C. He explained that there was no charge, but that advanced registration was required, as it was first-come, first-served, and staff is putting the registration link in the chat box for those interested in registering.

Kanti Srikanth said that the last announcement was a bittersweet one. He explained that at the end of that month, they would be saying farewell and happy retirement to one of their staff, Andrew Burke. He stated that Andrew had joined the TPB in the last century, in 1999, and had served the region, the TPB, and COG for over 27 years. He explained that he had started with traffic counts, counting traffic on their roadways and freeways, trying to look into cars to see whether they really had three people or only two. He continued by saying that Andrew Burke had started from that fieldwork and had gone on to become the lead staff for the Metropolitan Area Transportation Operations Coordination, which he noted was a key element of emergency preparedness in the region. He added that Andrew Burke had also been the lead person recently working with COG staff on emergency preparedness activities. He recalled that in what he believed was 2018, TPB and COG had held a regional Traffic Incident Management Enhancements Task Force, which had come up with a set of recommendations, and he explained that Andrew Burke had been the lead in working with COG staff on following up on those recommendations. He stated that while they thanked Andrew for all of his work, his colleagues would surely miss his strong, always-smiling, and somewhat silent presence around all the activities at work. He said that he wanted to take a moment to thank Andrew.

6. CHAIRMAN'S REMARKS

Vice Chair Frumin explained that members might be aware that every year, the COG board holds a leadership retreat of its board members and invites the chairs of the other two policy boards that COG convenes, the TPB and the Metropolitan Washington Air Quality Committee. He continued by saying that this year, the leadership retreat was being held that month, June 26 to June 28, and that the TPB chair

was unable to participate, so he joked that they should shed no tears for him, as he would be attending in the chair's position and was very excited about that. He then said that, with that, they should get started with the action items.

7. APPROVAL OF THE AMENDMENT TO THE VIRGINIA SECTION OF THE TPB'S FY 2026-2029 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Vice Chair Frumin announced that Virginia DOT is requesting an amendment to update all project and funding information in its portion of the FY 2026-2029 TIP. He said that Sara Brown will brief the board on comments received or technical corrections, and Kim McCool from VDOT will speak to the action.

Sara Brown said that she is presenting a major draft amendment to the FY 2026-2029 TIP to update project and funding information for Northern Virginia. She said that the amendment entails adding approximately \$4.4 billion to the TIP, primarily with financial changes to existing records, though there are a few new records that do not impact conformity.

Sara Brown said that many projects are transferring status in the TIP because they're currently listed as a discrete record and are being reclassified as a component project within a larger category called a project grouping. She said that the project sponsor agencies will be able to deliver these projects in a more time-efficient manner with less financial oversight by the TPB. She stated that TPB staff have reviewed these requested classifications and are comfortable with these changes. She stated that no public comments were received during the TPB 30-day comment period; however, there are four updates to share with the board.

Sara Brown said that regarding the CMAQ Terms/Carbon Reduction Program, this project was initially proposed for reclassification from a discrete record to a component record within a construction safety ITS operation null improvements project grouping. She said that after further review, the TPB will be marking this project as inactive until further funding has been identified. She said that the South Street Extension Project has been added to this amendment. She said that this is an existing project in the TPB FY 2026-2029 TIP, and acknowledging it now supports its inclusion in the current FY 2024-2027 STIP at the request of FHWA. She said that no changes were made to this project record as part of this amendment.

Sara Brown said that the Dulles West Boulevard phase two project has no changes needed during this amendment cycle and will remain as it is currently in the TIP. She said that the Landmark Transit Center Project will be removed as a discrete record and incorporated as a component record in TIP project grouping T-6328, the Transit Amenities Project Grouping.

Sara Brown stated that TPB staff recommends approval of Resolution R15-2026, adopting the proposed amendments to the FY 2026-2029 TIP as requested by VDOT.

Kim McCool thanked TPB staff and said that she wanted to reinforce that this is an administrative item to align the TPB TIP with VDOT's TIP. She said that as projects move through project development, schedules and estimates change, that is the basis for this [the amendment], and that's true as well for the I-495 Southside that VDOT is now looking at coming back to the board with this fall in FY 2027. She said that VDOT needs to shift some funds to continue the study work on the project.

Kim McCool said that the project is still a study at \$6 million, and what VDOT is looking to do is to continue looking at options, doing community outreach, and hearing the concerns of the community and all affected stakeholders. She said that VDOT is looking at involving their new secretary in some of the efforts because Secretary Donahue is interested in hearing concerns from Prince George's County, Maryland, and all affected.

Kim McCool said that VDOT is requesting the TIP amendment to update the project and funding to align with the Virginia portion of the TIP with the draft Virginia FY 2027-FY 2030 STIP, and VDOT plans to

submit the STIP to Federal Highways in July; therefore, VDOT makes a request [motion] to TPB to adopt Resolution R15-2026.

David Snyder seconded the motion.

Vice Chair Frumin said that because of the public comments, the way he understands it is that to the extent there is any investment in pre-engineering for the toll lanes project as previously conceived, that investment would be at risk because until the TPB approves the project, it (project construction) couldn't happen. He said that VDOT wants to still do the work of preparing and considering other options at this point, but there was a very focused discussion, and the idea that we need to come to consensus around this (project construction), and we don't want to act as if there already is a consensus. He asked whether Virginia has a clear understanding that to the extent it's investing in the toll lanes, that investment might be at risk.

Kim McCool said that yes, VDOT does. She said as part of project development, there are projects that unfortunately don't move forward. She said that VDOT would not like that to happen, but it's a risk that VDOT understands.

Vice Chair Frumin stated that when Kanti Srikanth talked about the situation, it was said that this (project construction) couldn't move forward because the federal government wouldn't approve it, and there were a couple of conditions referenced that would be requirements for the federal government and steps that we would need to take in order for the federal agencies to then approve it. He asked if Kanti Srikanth could review those two things.

Kanti Srikanth said that the project is proposed for the TPB to include it in its long-range plan, and one important test for every project is that it has to provide a good engineering design-based estimate of the total project cost and a detailed financial plan to fully fund the project's implementation. He said that the financial plan has to be shared with the TPB and with the public. He stated that only with that the TPB could consider including the project in the long-range plan because it's a financially constrained plan.

Kanti Srikanth said that the second test for projects to be in the plan, because this region is in non-attainment of the federal air-quality standards for ozone, is that TPB does an air quality conformity analysis. He said that when the analysis is done, it is essentially estimating over the next 25 years what will be the amount of VOC and NOx emissions when all the projects are built, when the future population, households, and jobs growth happens. He said that when that happens, all the projects are implemented, and they're making whatever trips they're making, the TPB calculates the emissions and has to show that those combined emissions on any typical day are less than the amount that has been approved by the US EPA for our region. He said this is called the Motor Vehicle Emissions Budget. He stated that until the project is a plan and these two are done, fiscal constraint and air quality conformity analysis of the plan, the Federal Highway Administration will not issue a record of decision on the environmental impact statement (EIS) or provide permits needed for construction. He asked Bill Cuttler to chime in if there have been any changes to this process or new things.

Bill Cuttler said that is correct, and this is just a normal part of the process. He said that VDOT is continuing to review the project, and this body [TPB] asked VDOT to continue to review. He stated that there is a new administration in the Commonwealth, and they're exploring this project, and trying to understand the concerns. He said that he understands that Secretary Donahue has reached out to Prince George's County to have a meeting to listen in order to understand the concerns and continue that dialogue in order that VDOT may be able to come back to this board and tell you what we've learned and what VDOT's posture is at that point.

Vice Chair Frumin said that the TPB spent a lot of time last year on this, and he wants to make sure that the TPB doesn't alter the status quo inadvertently. He asked if the federal reviews are statutory, and if they [VDOT] can't get federal dollars for proceeding because they have to overcome these hurdles with

us. He asked if it's a matter of practice or is that something statutory in front of the federal government.

Kanti Srikanth said that to the best of his knowledge, for the federal agencies, FTA or FHWA, to issue a finding on a NEPA study to say, "Yeah, this is approved," and then subsequently, to release funding, they may have a long list of things to check, but one of the things they check is whether it is in the local MPO's long-range plan. He stated that if that MPO requires an air quality conformity, a question by the federal agencies is has this project been included in that analysis, and if that analysis has been approved by the feds. He stated that those two are statutory things.

Vice Chair Frumin stated that he doesn't want to inadvertently take a step that changes the status quo. He said that he has satisfied himself that the TPB would not be doing that but will turn to everyone else in the District of Columbia then Maryland to see if they have questions or comments.

Eric Olson asked if this amendment keeps the project in a planning and evaluation stage. He asked if VDOT can confirm that this amendment does not fund construction, advance the project into implementation, or change any prior decisions about the project for VDOT.

Kim McCool said that she can confirm that it stays within preliminary engineering, and it's in the TIP as a study. She said that it is not doing any advanced design and absolutely no construction, so the project is staying in as a study.

Eric Olson asked what the \$6 million amount is going toward and how does VDOT plan to incorporate transit and Transportation Demand Management (TDM) alternatives to be brought forward to be studied.

Kim McCool said that is something that VDOT will probably come back to the board with, in the fall. She said that she does not have that information available today.

Eric Olson asked if the \$6 million will go towards study, towards outreach, and towards any other activities.

Kim McCool said that VDOT is doing investigation activities to see what concepts are feasible and which are not feasible. She said concepts may be feasible from a technical standpoint or not based on talking to communities and finding out their needs. She said the funds are for supporting those efforts.

Eric Olson stated that the resolution passed last year. He said that we are going to collaborate, we will have discussion, and we look forward to a much more robust discussion around this.

Marc Korman stated that he would like to understand the community outreach piece more and how it relates to when VDOT comes back to the board sometime this fall. He asked whether the public outreach in Prince George's County and Maryland will be before VDOT comes back to the TPB. He stated that he also heard mention of Secretary [Donahue] calling Prince George's County, but that's different than a public meeting in Prince George's County. He asked for clarification on what the public outreach is and how the timing relates to coming back before this body.

Kim McCool stated that part of the resolution was to continue public outreach. She said that the meeting referenced with the secretary is not a public meeting. She said that she would follow up on a schedule for community meetings. She stated that this was part of a procedural item of 140 plus or minus projects, so VDOT would be glad to follow up on additional details.

Marc Korman said that it's hard to come back to this body without having done the public outreach, and he is trying to understand when that might happen.

Monique Ashton said that she did hear comments about reaching out, and she defers to the state of Maryland and Prince George's County because they are right there and most affected. She said that she wants to be respectful of their needs and wishes. She stated that this also needs to be a conversation with Maryland broadly because there's some precedence in terms of toll lanes in Maryland. She said that she wants to confirm that there are broader conversations happening with Maryland and the shared space that we have.

Kim McCool said that yes, there are broader conversations happening. She stated that VDOT has a host of people that they are coordinating on this, and it is an enormous project that touches a lot of people, so they are trying to make sure they reach out to understand how it affects everyone.

Monique Ashton said that part of it relates to revenue sharing, so she wanted to flag that in particular if this were to proceed.

Oluseyi Olugbenle said, supporting what Marc Korman said earlier, that there clearly is confusion about what exactly this TIP amendment is and the amount of information or lack thereof. She said that given that this may be perceived as a restart by the public, she would like to know how this is being communicated to the public that this action does not advance the project to construction. She stated that there is clarity needed by VDOT, and there's clarity possibly needed by the TPB staff as well.

Kim McCool said that the TIP amendment was subject to a 30-day public comment period, and no comments were received specifically on this TIP amendment. She stated that the comments have come later as general meeting comments. She stated that the amendment was included in that as a study, and it is more of an administrative item to align the two TIPs and to move the money forward, but the dollar amount was in there as well, so it's not commensurate with construction of a project that size.

Oluseyi Olugbenle said that we understand that in our expertise and being in this industry, but to the public, that is not clear. She said that you could also hear in the public comment that a lot of questions were raised as well. She stated that on this project, there is need to think more specifically and thoroughly on how you're going to engage the public and make it very clear to members of the public.

Oluseyi Olugbenle thanked Bill Cuttler for raising the point of reaching out to Prince George's County. She said that she will continue to work with MDOT and the secretary of VDOT to address the concerns that were raised by Prince Georgians. She asked why the term 'closeout' was used. She said that she believes it caused confusion. She asked VDOT to share exactly the designation of the environmental document, the pre-design phase.

Sara Brown said that VDOT uses pending financial closeout in other records not just this one. She stated that VDOT specifically put it for this one because they knew they were going to have to move the funding, so they needed the project in the TIP but didn't want to remove it from the TIP because they were just going to have to add the funding right now anyway. She said that "pending financial closeout" was used to keep it an active project but to put it in a different section because it didn't have funding within the four years of our TIP.

Kanti Srikanth said that the closeout refers to financial closeout because of how the bookkeeping is done with the money. He said that when one phase of money runs out, and you're adding new, you're saying, "We are closing out the financial piece." He said that with this project that phraseology that is so typical may have caused some confusion.

Victor Weissberg said that since the TPB voted on the full project and did not include this part in air quality conformity and as part of Visualize 2050, just moving the money around and adding money within the TIP has raised eyebrows. He asked how this will be communicated to elected officials, stakeholders, and the public since there is already a bit of confusion amongst those who aren't very knowledgeable. He said that he wants to make sure that this amendment is limited to PE and environmental activities only.

Kim McCool replied that is correct, and it is a study, and only study activities for which the funds will be used.

Vinn White said that for the record, MDOT is aware of the project and all the attention it's rightfully getting. He said that MDOT continues to talk with VDOT and with local partners. He said that MDOT thinks that further study and planning is helpful in order to know more. He said that as VDOT described, this is an investigation, and MDOT thinks that information that is gathered will help work with what MDOT wants

to do on a pathway going forward. He said that it's not taking things off the path that they were already on, and he wanted to register that MDOT is a partner in this.

David Snyder said that his reason for seconding the motion was so this discussion would occur. He stated that he thinks it's important to be able to communicate more clearly to the public exactly what the status of the project is and the way forward, including the public engagement. He stated that we should not lose sight of the fact that in that area, folks need something that improves safety, reliability of transportation, efficiency, and that improves environmental quality. He said that he is hopeful that as the dialogue continues, we'll end up with a project that achieves consensus and that achieves those objectives. He said that he thinks this is yet one more valuable discussion, and he's hopeful about future progress.

Walter Alcorn stated that we clearly all need to understand that for this project, given the sensitivities around it, that we need to have better communication across TPB on this and with each other so that there aren't surprises. He said that the language can be consistent with what we did last October but also can move towards consensus around this project. He asked Bill Cuttler, given the comments and what he has heard, if there is any clarification VDOT would want to make to the motion or to the VDOT resolution that would help address some of these issues.

Bill Cuttler said that VDOT set forth that VDOT is working on what this body asked us to do, to review this further and come back to this board at a later date. He stated that this is not about construction. He said that he has heard comments about transportation demand management (TDM) and transit, and he thinks that while it is still out there in the future, those kind of details—it's nevertheless something that the Commonwealth is very focused on. He said that when you look at the Commonwealth's 97-mile express lane system, there's an enormous commitment towards transit interests. He said that he expects that very much to be a part of anything should this be considered into the future.

Walter Alcorn said that hopefully enough has been put on the record that everyone is comfortable at this point because he said it's clear to him that this is a study only, and that there is something coming back to our board this fall as well.

Jennifer Boysko thanked everyone for the discussion and clarification. She said that she has several colleagues who have a very strong interest in this issue who are probably going to have questions. She asked that all continue to be clear with one another as this moves through the process and make sure that the communities of interest are included.

Garrett McGuire said that he is new to the board and is representing the Virginia House of Delegates. He said that his delegate district is I-495 from the Woodrow Wilson Bridge to the I-95 interchange. He said that he appreciates VDOT exploring options to study that section of road and having the conversation. He said that one of the main conversations that he has with constituents is, "What can we do to improve transportation in this corridor?" He said that he hopes we can move forward with at least exploring what we can do in the future, and I think this is the way to do it.

Vice Chair Frumin announced that the motion carried.

The TPB adopted Resolution R15-2026 to approve the VDOT FY 2026-2029 TIP Amendment.

8. APPROVAL OF PERFORMANCE MEASURES AND TARGETS: PEAK HOURS OF EXCESSIVE DELAY PER CAPITA AND NON-SOV MODE SHARE

Ian Newman said that he would be discussing the proposed two and four-year targets for the two performance-based planning and programming metrics of peak hours of excessive delay per capita, or PHED, and the percentage of non-single-occupant-vehicle, or non-SOV, mode share. He said that for PHED per capita, the TPB is looking at the sum of the annual hours of excessive delay that's measured during the combined A.M. and P.M. travel peak periods, so 6:00 to 10:00 A.M. and 3:00 to 7:00 P.M. per

capita. He stated that the data for this comes from the Federal Highway Administration-sponsored National Performance Management Research Dataset, NPMRDS. He said that the percentage of non-SOV mode share measures the percentage of commuting to work trips that are taken by transportation modes, which include teleworking, other than single-occupant-vehicle, or SOV travel, in the urban area. He said that this data is from the US Census Bureau's American Community Survey, five-year estimates.

Ian Newman said that every four years new targets are set, there is a midpoint check-in, which occurs every two years, and that is that opportunity for the adjustment biennially. He said that targets are set for the federally established urban area and includes coordination with the state DOTs and the MPOs in the urban areas, which in this case expands into FAMPO, the Fredericksburg Area MPO, as well as the Baltimore Metropolitan Council, BMC. He said that the targets for the two metrics are reported to the Federal Highway Administration, and this is through the state DOT's biennial performance reports with the next one on October 1, 2026.

Ian Newman said that the two-year proposed target for 2027 is 24.2 hours of excessive delay per capita, and for the four-year target, 26.3 for calendar year 2029. He said for non-SOV mode share, the 2027 target is 49.4% non-SOV mode share, and for 2029, with our four-year proposed target, 50.3%. He said that next steps are that the three states and two MPOs are to adopt the targets no later than the end of September. He said that the TPB will then finalize the region's 2022-2025 and 2026-2029 CMAQ performance reports for inclusion in the state's performance management frameworks by October 1.

Vice Chair Frumin made a motion to adopt TPB Resolution R16-2026 to approve the PHED and non-SOV mode share targets.

Sandra Marks seconded the motion.

Vice Chair Frumin commented that the peak hours of delay numbers go up, which is bad, but the non-SOV share also goes up and that is good. He said that one would think that they would both go in a good direction, or both go in a bad direction. He asked why that might be different.

Ian Newman said that we're talking about peak hours of excessive delay per capita, we're not just focusing on commuting trips. He said that we're taking trips that are occurring in a combined eight-hour period, so 6:00 to 10:00 A.M. and 3:00 to 7:00 P.M. He said that this is encompassing not only traditional commuting trips, but this is also encompassing other trips as well. He said that for the non-SOV mode share, this is only looking at commuting trips, and it's important to keep in mind that telework is part of non-SOV mode share.

David Snyder said that he would like to go back to Councilmember Frumin's question. He said that TPB staff answered what each metric does but didn't answer the why. He said that it seems to me there's some inconsistency with why we would be admitting that despite all the investment and all the focus on transit, that we're going to have even more hours of delay than we do today, and at the same time saying that we're increasing the non-SOV share. He asked how the two relate together.

Kanti Srikanth said what is being measured is why we have, in one instance, if the number goes up, it is not good. He said that is because we are measuring how many hours are being spent in delayed traffic. He said that is why when you see the numbers go up, we are saying, "We are headed in the wrong direction." He said that with the non-SOV, we want to see more people in non-SOV mode share, and that is why when that number goes up, it is good. He said in terms of why when you compare the proposed targets with the past targets, the past target for 2023 was 22.5, and the proposed target for 2027 is 24.2, that means we had a target that in 2023, during an entire year, the number of hours per person spent in traffic delays would be 22.5 hours in 365 days. He said that now we are saying it's going to go up to 24.2, which is a small increase.

Kanti Srikanth said that the reason the region did so much better in 2023 was because we had not fully come out of the COVID period, and instances of telework were very high. He said that today there are

more return to office trips happening leading to increase in congestion. He noted that there's a significant increase in the number of days that people are teleworking compared to pre-COVID period. He said that prior to COVID, the regional average was 1.1 day a week, and today, it is more like 2.4 days a week which helps with the non-SOV mode share numbers.

Kanti Srikanth said that telework more than doubled in a period of five years, and it took almost 17 years to get to 1.1 days, but then in five years, we doubled it. He said that we don't see that trend going back down to 1.1. He said, however, this is one of the reasons why we anticipate it's going to be a challenge to get people back on to transit, to carpool, and to vanpool. He said the current return to office posture is helping rideshare recover from the low levels during COVID period, and he said in Commuter Connections, every day we are seeing increased numbers of calls from people to form carpools, to get into a vanpool, to register for Guaranteed Ride Home, and asking, "Can you give us the latest bus schedule or the train schedule?" He said that non-SOV mode share is headed in the right direction, but it is not there yet.

Kanti Srikanth said that these targets are for 2027. He said that there were public comments about additional funding needed for all of our transit systems, although in the public comment mentioned just Metro, VRE, MARC, and the 12 other local bus systems also need additional money to bring back the service levels and gain ridership. He said that TPB staff is looking at the data, and we are projecting this is what it would be.

Vice Chair Frumin said that if we're going to see an increase in non-single-occupancy-transport, and we're still going to see an increase in delay, there's something else that is causing the increase in delay. He stated that it may be that even though a higher percentage of folks are carpooling, more cars are commuting, or more people are commuting at different times of the day. He commented that one would expect if non-single-occupancy travel was going up, that delays would go down unless something else was causing it. He asked what is causing TPB staff to predict more delay in spite of the fact of more carpooling and telework.

Kanti Srikanth said that at a high level, there are many factors, including where land use changes have shifted, and where travel is happening. He said that there is partial return to office happening, and also that the congestion measure is over an eight-hour commuting period on a typical workday and the non-SOV mode share covers an entire day and includes non-work trips. He said that one way to look at it is, on the congestion, if the increase in non-SOV mode share is significant enough and, in a way, reflected, or it was a mirror image of the excess congestion, then you would say, "Okay, that increased, this went down."

Kanti Srikanth said that what's happening is that the peak hours of excessive delay pre-Covid were high, which went down during the COVID period; but then bounced back with the return to office combined with more teleworking. The slight increase in transit, we are seeing with return to office, is not enough to offset the increase in congestion since return from COVID. He said that we're gaining, but we have not offset the ridership loss yet, and on top of it, we're adding additional highway trips because of our telework posture.

Vice Chair Frumin asked for nays or abstentions. He said that hearing none, the motion carries to adopt Resolution R16-2026 to approve PHED and Non-SOV Mode targets.

9. PERFORMANCE MEASURES AND TARGETS: DRAFT VOC AND NOX TARGETS

Vice Chair Frumin introduced the item, stating that performance measures and targets, draft VOC and NOx targets, is another metric for which federal regulation requires the TPB to adopt data-driven targets. He said that the board will be asked to act on this item next month.

Robert d'Abadie said that he'll be presenting on a continuation of Ian Newman's work but on the air quality side. He said that there are six criteria pollutants defined in the Clean Air Act, and EPA regulates

all six. He said that for the District, Maryland, and Virginia, we are only non-attainment for ground-level ozone, and the TPB only has to analyze that one pollutant. He said that ground-level ozone is not directly emitted, and it's the result of two other pollutants, nitrogen oxide, or NOx, and volatile organic compounds, or VOC, combining in sunlight.

Robert d'Abadie said that the precursor pollutants are regulated in order to reduce ozone. He said the metric used is the sum of volatile organic compounds, reductions for projects receiving CMAQ funding. He said that TPB staff also looks at the reduction in NOx emissions as a result of projects that are receiving CMAQ funding. He said that the TPB prepares two-and four-year targets which are the total emission reductions of VOCs and NOx as recorded in the CMAQ database.

Robert d'Abadie said that federal regulations require the states and the MPO to outline any causes for any shortfalls and to devise a mitigation plan if that were to happen. He said that Congestion Mitigation and Air Quality (CMAQ) is a federal program and a source of flexible funding for the states and the localities, and the funding is available to regions that are either maintenance or non-attainment of the federal air-quality standards. He said that we will continue to be maintenance probably into the future, so this funding isn't going away.

Robert d'Abadie said that CMAQ funding is only a very small portion of the overall funding in the region, about 1.2% of the total funding. He said that if we look at the region as a whole, between 2026 and 2030, through our conformity analysis, TPB staff is estimating significant reductions in VOC, 4.2 tons, and nitrous oxide, 13.6 tons, per day. He said that CMAQ public access system is a database that was created specifically for the CMAQ program, and it contains all the data for the projects that are receiving CMAQ funding, including emission reduction.

States enter their data on March 1, and the methods for estimating the emission reductions that are recorded in the CMAQ database do vary. For small projects, we might just use a sketch-level method.

Robert d'Abadie said that going on to past performance, the initial targets for the last performance period, 2022 to 2025, were based on the projects that were anticipated to be done using CMAQ funding at that time. He said that projects are subject to substitution and change once we set our targets, and that happened to us twice, to our benefit. He said that two performance periods ago, the TPB had an approved project in Maryland which actually ended up resulting in 80% of the total emissions for the region, and in the last performance period, Maryland and DC funded Commuter Connections, and in DC, goDCgo, using CMAQ funding, and that ended up with larger emission reductions than we originally projected. He said that these TDM projects have high expected emission reductions associated with them.

Rob d'Abadie said that if we look at all the other CMAQ projects that were done in the last four years, their average benefit is less than one kilogram per day per project. He said that this shows the outsized impact that these projects have. He said that the TPB outpaced our targets in the last two performance periods. He said in 2018 to 2021, it was the result of the Maryland signaling project, and in 2022 to 2025, choosing to fund goDCgo and Maryland and DC funding Commuter Connections, resulting in a huge increase over what had been originally targeted. He said that similar values are also seen for nitrous oxides.

Robert d'Abadie said the nitrous oxides values are a little bit higher for the previous performance period simply because the type of project actually has a greater impact on NOx emissions than it does VOCs. He said that moving forward, the draft emission targets are based on projects that are anticipated to receive CMAQ funding, and Maryland and Virginia have provided TPB a list of their projects that they are expecting in the next four years along with their anticipated emission reductions. He said that DC programs their CMAQ funding annually, so they don't have a list of projects for the next four years. He said that DC's targets will be based on past performance.

Robert d'Abadie said that for the region as a whole, targets reflect the cumulative benefit of all three states for the projects that fall within our planning area. He said that DC, for their future targets, has just decided to go with their previously reported benefits that TPB just did in past performance reporting. He said that Maryland provided a list of projects that includes another round of funding for Commuter Connections. He said that Maryland actually is assuming a lower benefit for Commuter Connections this next go-round because they're assuming that there will be some changes in program participation, but even more importantly, as we go into the future, cars are becoming cleaner, so every car we take off the road is actually giving us less benefit. He said that Virginia will be spending their CMAQ funds on several smaller projects and continuing projects.

Robert d'Abadie said that the two-year targets are much lower than the four-year targets because the TDM projects in DC and Maryland aren't happening until the second half of the performance period. He said that Virginia does not fund Commuter Connections using CMAQ funding and a lot of their projects are continuing projects, so even though there are high-impact projects happening in Virginia, they're actually continuing projects, so by the nature of the CMAQ database, no benefit is being recorded.

Robert d'Abadie stated that the difference seen between past performance and future performance is entirely due to the 31% reduction that Maryland is including in its benefit when it's calculating its benefit for Commuter Connections. He said that a similar difference is seen in NOx emissions. He said the difference between what we just did and what we're anticipating we're going to do is entirely due to Maryland assuming they'll have less benefit from the Commuter Connections program.

Robert d'Abadie said that the TPB will be asked to adopt the targets at the next meeting, and similar to the congestion measures, the TPB is looking to adopt the measures no later than September.

10. RESILIENCE PROJECTS: REGIONAL EXTREME HEAT ANALYSIS

This item was tabled for this meeting. It will be presented in the September 2026 TPB meeting.

11. RESILIENCE PROJECTS: REGIONAL TRANSPORTATION RESILIENCE ECONOMIC ANALYSIS

Vice Chair Fruman introduced Katherine Rainone and David Ryder of ICF Consulting. He said they will provide a briefing on the results of a recently completed study looking at economic impacts of transportation projects to improve the resilience of the transportation infrastructure. He said decision-makers are constantly challenged to prioritize the needs as there is never enough funding. He said this study will provide a framework for how to look at the benefits and costs of the investment decisions.

Katherine Rainone said she provided an overview of the Transportation Resilience Improvement Plan and program earlier. She said as a reminder, the Transportation Resilience Improvement Plan completed in 2024 identified a need to conduct economic analyses to demonstrate the cost of inaction and provide support for the benefits of proactive resilience investment. She said that five transportation assets were analyzed for no, low, medium, and high-cost adaptation interventions, working with the Regional Transportation Resilience Subcommittee to identify one asset of each type: a rail stop, a bus stop, a road segment, a rail segment, and bridges. She said these assets were looked at regarding two natural hazards: flooding and extreme heat. The most likely risk for each asset was examined.

Katherine Rainone said a generalized best practices flowchart framework for benefit cost assessment was developed. She introduced David Ryder, ICF, to go over the first five case studies.

David Ryder said ICF relied on the region's TRIP, Transportation Resilience Improvement Plan, to identify the case studies in conjunction with the subcommittee. He said some were virtual and some were site visits for these specific infrastructure types. He started with the bus stop example.

David Ryder reviewed the inputs needed for this study. He said the inputs varied across the case studies, but these are the data needed to monetize each of the solutions and then compare them. He said the

bus stop at Army Navy Drive and South Joyce Street was selected due to its high susceptibility to heat. He said daily ridership scales the heat impacts based on the number of people waiting in the heat and how many heat-related emergencies there are in the area. He said this was monetized using the number of emergency department visits and hospitalizations.

David Ryder said that for the heat data, a study from the Center for American Progress was used entitled "The Healthcare Costs of Extreme Heat in Virginia." He said the broader report used health and weather data from around Virginia. He said the analysis was scaled using population and weather data from the Northern Virginia area. He said emergency department visits and hospitalizations were used as well as data on the number of heat days or days experiencing temperatures above 80 degrees, to build in an estimate of how heat costs may grow across time as our summers get warmer.

David Ryder said that for each case study, three potential approaches were analyzed: a no-action or no-investment scenario, basically a continuation as normal, a low-cost solution, which was typically a smaller investment meant to only partially or temporarily abate the problem, and a high-cost approach, which required a larger investment but was often designed or intended to completely solve the heat or flooding issue. He said for the bus stop example, the no-action approach involved no investment, the low-cost solution involved the installation of a bus shelter, and the high-cost solution involved installation of a bus shelter as well as foliage and trees around the area. He said the bus shelter allowed advertising. Referring to a chart, he said the chart compares the findings, including the total cost, total benefits, and net benefits or net costs for each of the solutions. He said the high-cost solution includes the purchase and installation of the bus shelter, trees, and shelter for shade. He said the total cost for the solution is about \$63,000. He said the total benefits for the solution from avoided heat-related health effects as well as the advertising benefits amounts to about \$171,000. He said subtracting total costs from total benefits for the high-cost solution results in net benefits of about \$108,000. Moving on to the low-cost approach, he said the total benefits look similar to the high-cost solution, while costing slightly less. He said the net benefits are about \$113,000, in this case the low-cost solution is more cost beneficial, but less effective at abating some of the long-term health impacts. He said for the no-action scenario, the cost estimate of the heat-related impacts over the next 20 years would be about \$5,000.

David Ryder said all costs and benefits are discounted at about 3.1%, meaning each year the annual cost or benefit is reduced by 3.1 to account for the time value of money. He said the next case study was the Greenbelt MARC Station in Maryland. He said this analysis considered the heat effects of the train station using similar heat-related data inputs. He said this case study was selected because there's a flooding risk, both nuisance flooding and 100-year flooding. He said estimates for both the frequency and cost of nuisance flooding and the larger flooding that could affect the station were included. He said solutions included a no-action scenario, a low-cost approach that accounted for purchasing temporary signage to direct commuters away from areas with pooling water, to stay out of the heat, and rental pumps for the quick removal of nuisance flooding from the station. He said the high-cost scenario involved installing shelters on the outdoor portions of the rail station to provide shade for commuters and track-hardening to prevent potential flooding of the tracks in the 100-year flooding scenario altogether. He said the results indicate that while the costs yielded by the high-cost approach are large, the benefits are also fairly large with about \$40,000 more value over the next 20 years.

David Ryder said the low-cost approach would cost about \$15,000 while yielding about \$93,000 in net benefits, with a net benefit value of about \$78,000 over the next 20 years, which is targeted at most of the nuisance flooding; not looking at the larger 100-year flood impacts. He said the lack of investment for heat and flooding abatement at the MARC station could cost over \$900,000 over 20 years.

David Ryder said the final case study is the road segment case study. He said this is looking at a portion of the Anacostia Freeway in Washington D.C. between 11th Street and Pennsylvania Avenue, coinciding with Interstate 295. He said it examines the impact of flooding on commuters along the road segment, including the southbound and westbound sections of the Anacostia Freeway that ultimately crosses the

bridge over the Anacostia River into D.C. He said this area is at high risk of flooding, particularly near sections of the Anacostia Recreation Center. He said flooding in this section is particularly problematic during the morning rush hour and can snarl access into the city, which has cascading impacts around the region, adding that flooding impacts on limited access freeways are particularly troublesome because there are few opportunities to exit the road, and slowdowns can extend for miles. He said options for handling 100- and 500-year flood events as well as nuisance flooding were explored. He said for the low-cost solution, a semi-permanent deployable flood barrier targeting and reducing the impacts from nuisance and 100-year flooding was explored, and for the high-cost solution, raising the roadway, causing significant delays during construction, but ultimately solving all the flooding impacts, was explored. He said to assess the impacts, daily traffic counts, the frequency and the duration of the flood events, detour and travel time, and the cost of construction and road closure were examined. He said results for this scenario suggest significant impacts from no action, about \$17.3 million over 20 years. He said the proactive investments are cost-effective, with a return on investment of the low-cost solution of about eight to one, or \$11 million in net benefits, and 1.5 to 1, or about \$6 million in net benefits, for the high-cost solution.

David Ryder said they are exploring benefit cost analysis case studies of transportation assets to demonstrate the cost of inaction, compare low-cost and high-cost solutions, and provide support for the benefits of proactive resilient investment. He said these case studies are representative examples for the kinds of analysis that could be done in support of resilience initiatives around the National Capital Region. He said the results range significantly, but in some cases, it found the costs of inaction are significant, as much as \$17.2 million over the next 20 years at a single location. He said results are case study and solution-specific, but the lower-cost investments often produce similar or more benefits than higher-cost solutions. He said return on investments could be up to six to one, suggesting there are significant returns from the solutions. He said for all the infrastructure types considered, taking similar actions across the National Capital Region could lead to significant health savings and avoided costs.

Katherine Rainone said we understand why these specific case studies are important but wanted to talk about why resilience investments are important overall. She said resilience investments matter because they deliver strong returns, and they also reduce risk. She said every dollar spent on preparedness can save big, in fact, the US Chamber of Commerce recently released a report that stated every one dollar in investment in resilience and preparedness saves \$13 in economic damage and cleanup costs after an event. She said these benefits apply across communities of all sizes, and they're increasingly important as our region faces frequent high-cost extreme weather. She said resilience pays off in a lot of other ways in addition to just economic benefits, including increases in mobility, improving public health, supporting jobs, strengthening local economies, and improving our long-term stability as a region.

Katherine Rainone said the next step is turning these insights into action. She said we can apply the guidance locally, advance these types of resilience projects that are listed in our Transportation Resilience Improvement Plan, and pursue funding opportunities for these projects to get them from concept to implementation. She said there is a clear role for regional coordination to share lessons learned and scale these types of solutions. She said together, this sets us up to move from these types of analyses to implementation in all localities and member agencies. She said these are just a couple of indicative case studies from around the region that can be used to help any of our members make the case for resilience investments at similar locations with different inputs and to guide other economic analyses in the future.

Katherine Rainone said we have the models behind each of five case studies, so if anyone is interested in a particular bus stop, or rail stop, or an asset in your region that you'd like to see put through this model, contact her.

Vice Chair Matt Frumin asked if there were any questions or comments. Delegate Marc Korman asked about the blue and green charts. He said it looks like it costs more to harden rail than to raise an entire roadway. He said how is that possible?

Katherine Rainone said that the roadway figure is in millions, and the other ones are in thousands.

David Ryder said a very small amount of the railway was in the 100-year flood plan.

David Snyder commended COG staff for groundbreaking work in this area and asked how we embed the resilience element into project planning, project design, and even more importantly into the long-term plans for which this body is responsible.

Kanti Srikanth said project prioritization happens locally, at the state level or sub-regionally. He said resilience could be included as part of the metrics used in any project prioritization: highway, transit, bike, pedestrian, all of which have multiple benefits. He said to the extent that we intentionally look at, "How does this help build resiliency?" a bicycle and pedestrian investment might give you an option when the parallel roadway is flooded, and you need a way to get around it.

Kanti Srikanth said one of the products at the TPB is mapping of the infrastructure: roadways, bus stops, and rail tracks. He said there is now a GIS tool on the TPB website in which you can enter an address to see "is this facility at risk for either urban flooding, sea level rise, or for heat?" He said that this will help you look at your own infrastructure's resiliency as you engage in planning and programming decisions. He said, additionally, we have built these benefit-cost analysis models, and we're happy to have our members use them. He said if they need some assistance tweaking it or working with it, we are happy to provide that assistance as well. He said the key thing is to include resiliency as one of the metrics in prioritizing projects.

Thomas Peterson said this is very important work and the beginning of what could lead to broader efforts to incorporate mainstream resilience into the planning and assessment activities for TPB. He said he had two technical questions. He asked whether there has been some review and assessment of the degree to which natural hazards are changing. He asked, "are we seeing increases in heat and flooding, for instance?" He asked how do they compare against some prior period of normal. He asked if the exposure we're seeing an increase incrementally over a baseline. He said as you're looking at interventions, the low- and high-cost scenario interventions, one of the things that's important to recognize is the degree to which these are building on interventions that already exist, what we call adaptive capacities. He said it would be helpful to know whether the assumptions in the analysis are looking at investments and interventions that would be above and beyond what we're already doing or whether this is just recapitulating the effectiveness of what we are already doing.

Katherine Rainone said she would follow up via email. Vice Chair Frumin asked to be included. He said he is assuming other potential incidental benefits are not being taken into account. He said one of the high-cost examples was adding foliage, which has an aesthetic benefit but may not be built into the numbers. He asked for clarification on this point, because a choice between a high-cost and a low-cost option could be affected by other factors.

David Ryder said there are definitely some co-benefits that weren't captured as part of the study, since it was specifically looking at the heat-related impacts for that bus stop location.

12. ADJOURN

Vice Chair Frumin stated that the next meeting is scheduled for Wednesday, July 15, 2026, and it will be at the National Capital Planning Commission Building. There being no other business, the meeting was adjourned at 2:02 PM.