

Constrained List Budget Methodology

CVTPO TTC | December 9, 2021

Agenda

- ▶ Recap
- ▶ Budget Methodology
- ▶ Benchmarking and Validation of Preliminary Budget
- ▶ Next Steps

Recap

- ▶ Connect Central Virginia 2045 is the TPO's Long Range Transportation Plan (LRTP)
 - ▶ Adopted in September 2021
 - ▶ Federally mandated plan that sets a collective vision for the region's future transportation system
 - ▶ Identifies projects that are intended to achieve regional goals and objectives
- ▶ Constrained List
 - ▶ Federal planning regulations require the LRTPs to be fiscally constrained.
 - ▶ The fiscal constraint requirement is intended to ensure that plans reflect **realistic assumptions** about future revenues, rather than merely being “**wish lists.**”
 - ▶ The constrained List consisted only of funded TIP projects

Budget Methodology | Components

- ▶ Time horizons
 - ▶ 2021-2024 (Near-term)
 - ▶ 2025-2045 (Long-term)
- ▶ Modal breakdown
 - ▶ Funding for highway projects
 - ▶ Funding for bike/ped projects included as a subset
 - ▶ Funding for transit projects
- ▶ Inflation adjustment
 - ▶ Applied inflation factors received from VDOT

Budget Methodology | Data Sources

- ▶ **Previous four CVTPO Transportation Improvement Programs (TIP)** (2012-2015, 2015-2018, 2018-2021, & 2021-2024 (current))
 - ▶ Informed highway and transit funding estimates
- ▶ **Reviewed previous four TIPs VDOT FY 2022 Six-Year Improvement Plan (SYIP)**
 - ▶ Informed bike/ped portion of highway projects funding estimates

Budget Methodology | Overview

- ▶ Near-term (2021-2024)
 - ▶ Funding estimates stated in the current (2021-2024) TIP serve as estimates for the constrained list
- ▶ Long-Term (2025-2045)
 - ▶ Derive a baseline yearly funding estimate by averaging yearly funding estimates from previous TIPs
 - ▶ Apply inflation factors to the baseline estimate
- ▶ Subtract the outstanding balances of projects in the current TIP

Benchmarking

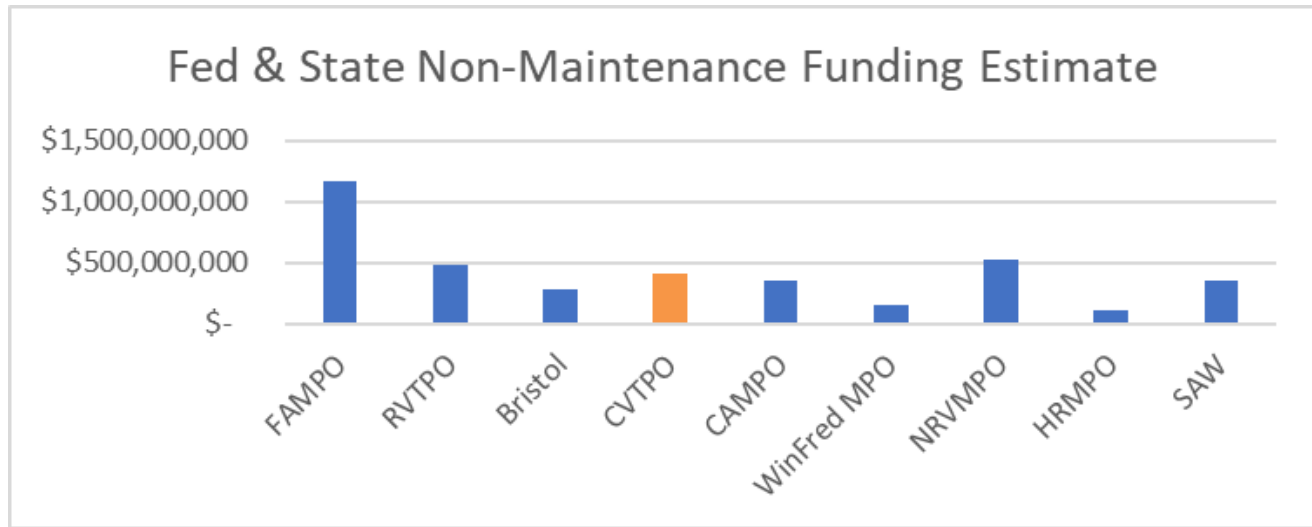
- ▶ This methodology suggests that the TPO can reasonably anticipate **\$409,498,542** in state and federal funding for new highway projects over the 2021-2045 planning horizon
- ▶ Validation
 - ▶ Reviewed comparable estimates in most recent LRTPs of ten MPOs in Virginia:
 - Bristol MPO
 - Charlottesville-Albemarle MPO
 - Fredericksburg Area MPO
 - Staunton-Augusta-Waynesboro MPO
 - Harrisonburg-Rockingham MPO
 - Hampton Roads TPO
 - New River Valley MPO
 - Richmond Regional TPO
 - Roanoke Valley TPO
 - Winchester-Frederick MPO

Benchmarking | Estimates

MPO Name	Horizon Year	Base Year Population	Fed & State Non-Maintenance Funding Estimate
HRTPO	2045	1,725,777	\$ 10,993,000,000
RRTPPO	2045	1,091,680	\$ 14,462,700,000
FAMPO	2045	350,916	\$ 1,171,200,000
RVTPPO	2040	230,457	\$ 485,474,656
Bristol	2040	229,534	\$ 282,293,972
CVTPPO	2045	162,816	\$ 409,498,542
CAMPO	2045	127,659	\$ 354,000,000
WinFred MPO	2040	107,115	\$ 148,397,475
NRVMPO	2045	92,757	\$ 527,270,609
HRMPO	2040	81,409	\$ 108,367,420
SAW	2045	78,794	\$ 358,874,549

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Benchmarking | Estimate Per Capita

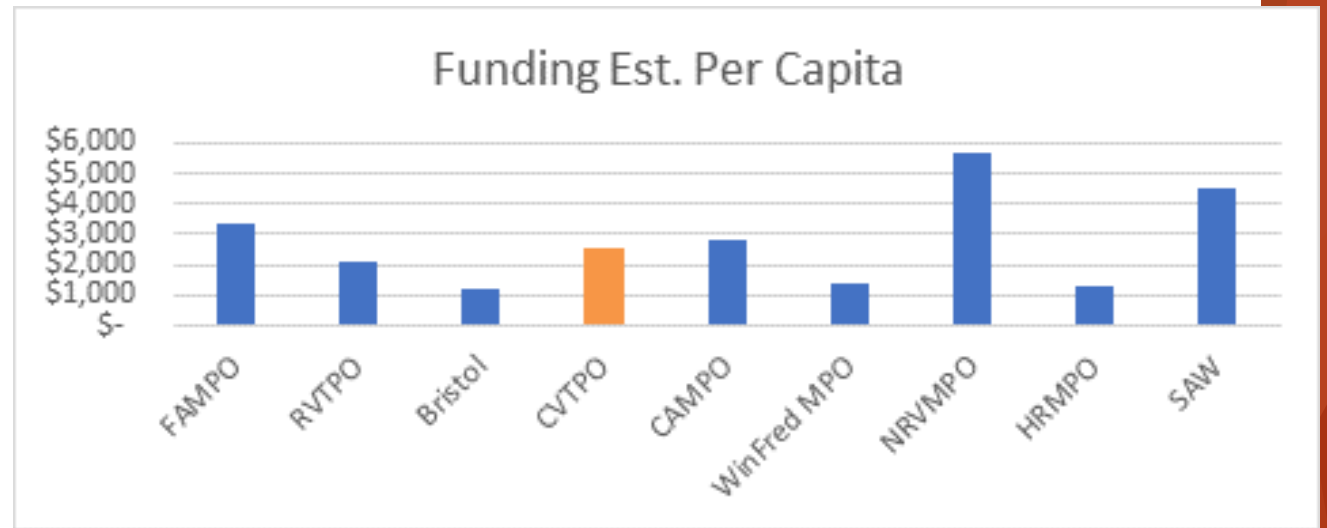
- ▶ Funding Estimate Per Capita = Funding Estimate/Base Year Pop

MPO Name	Horizon Year	Base Year Population	Fed & State Non-Maintenance Funding Estimate	Funding Est. Per Capita
HRTPO	2045	1,725,777	\$ 10,993,000,000	\$ 6,370
RRTPO	2045	1,091,680	\$ 14,462,700,000	\$ 13,248
FAMPO	2045	350,916	\$ 1,171,200,000	\$ 3,338
RVTPO	2040	230,457	\$ 485,474,656	\$ 2,107
Bristol	2040	229,534	\$ 282,293,972	\$ 1,230
CVTPO	2045	162,816	\$ 409,498,542	\$ 2,515
CAMPO	2045	127,659	\$ 354,000,000	\$ 2,773
WinFred MPO	2040	107,115	\$ 148,397,475	\$ 1,385
NRVMPO	2045	92,757	\$ 527,270,609	\$ 5,684
HRMPO	2040	81,409	\$ 108,367,420	\$ 1,331
SAW	2045	78,794	\$ 358,874,549	\$ 4,555

Benchmarking | Estimate Per Capita

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- ▶ Average rate, excluding HRTPO, RRTPO, & CVTPO is \$2,800

Benchmarking | Ratios

- ▶ Population Ratio = Base Year Pop / CVTPO Base Year Pop
- ▶ Estimate Ratio = Funding Estimate / CVTPO Funding Estimate

MPO Name	Horizon Year	Base Year Population	Fed & State Non-Maintenance Funding Estimate	Funding Est. Per Capita	Ratio of CVTPO Population	Ratio of CVTPO Funding Estimate
HRTPO	2045	1,725,777	\$ 10,993,000,000	\$ 6,370	10.6	26.8
RRTPPO	2045	1,091,680	\$ 14,462,700,000	\$ 13,248	6.7	35.3
FAMPO	2045	350,916	\$ 1,171,200,000	\$ 3,338	2.2	2.9
RVTPPO	2040	230,457	\$ 485,474,656	\$ 2,107	1.4	1.2
Bristol	2040	229,534	\$ 282,293,972	\$ 1,230	1.4	0.7
CVTPO	2045	162,816	\$ 409,498,542	\$ 2,515	1.0	1.0
CAMPO	2045	127,659	\$ 354,000,000	\$ 2,773	0.8	0.9
WinFred MPO	2040	107,115	\$ 148,397,475	\$ 1,385	0.7	0.4
NRVMPO	2045	92,757	\$ 527,270,609	\$ 5,684	0.6	1.3
HRMPO	2040	81,409	\$ 108,367,420	\$ 1,331	0.5	0.3
SAW	2045	78,794	\$ 358,874,549	\$ 4,555	0.5	0.9

Benchmarking | Ratios

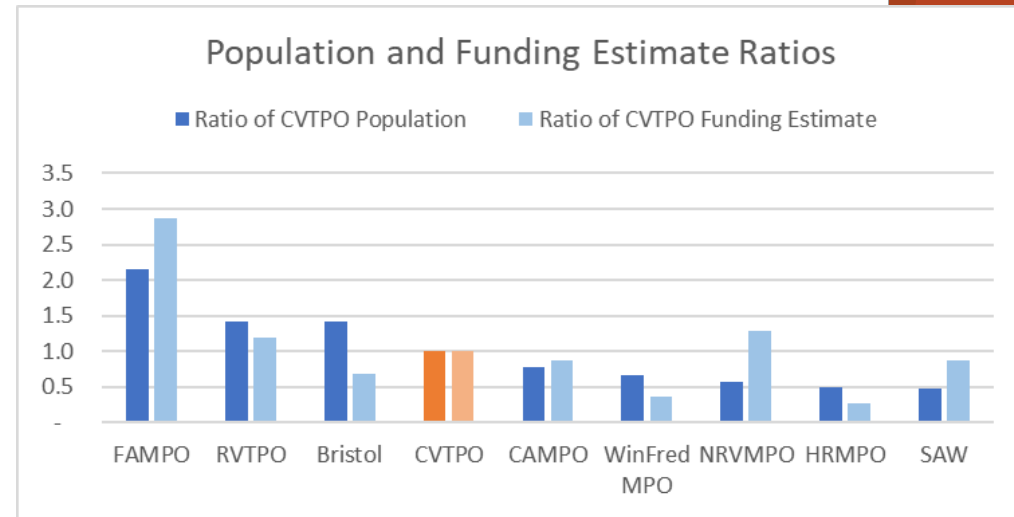
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CAMPO	2045	127,659	\$ 354,000,000	\$ 2,773	0.8	0.9
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SAW	2045	78,794	\$ 358,874,549	\$ 4,555	0.5	0.9



Benchmarking | Outliers

MPO Name	Horizon Year	Base Year Population	Fed & State Non-Maintenance Funding Estimate	Funding Est. Per Capita	Ratio of CVTPO Population	Ratio of CVTPO Funding Estimate	Notes
HRTPO	2045	1,725,777	\$ 10,993,000,000	\$ 6,370	10.6	26.8	Includes CMAQ funding estimates
RRTPO	2045	1,091,680	\$ 14,462,700,000	\$ 13,248	6.7	35.3	Includes CMAQ funding estimates
FAMPO	2045	350,916	\$ 1,171,200,000	\$ 3,338	2.2	2.9	
RVTPO	2040	230,457	\$ 485,474,656	\$ 2,107	1.4	1.2	
Bristol	2040	229,534	\$ 282,293,972	\$ 1,230	1.4	0.7	Includes Tennessee population
CVTPO	2045	162,816	\$ 409,498,542	\$ 2,515	1.0	1.0	
CAMPO	2045	127,659	\$ 354,000,000	\$ 2,773	0.8	0.9	
WinFred MPO	2040	107,115	\$ 148,397,475	\$ 1,385	0.7	0.4	
NRVMPO	2045	92,757	\$ 527,270,609	\$ 5,684	0.6	1.3	Includes \$271mil allocation for the I-81 Improvement Program
HRMPO	2040	81,409	\$ 108,367,420	\$ 1,331	0.5	0.3	
SAW	2045	78,794	\$ 358,874,549	\$ 4,555	0.5	0.9	Includes \$271mil allocation for the I-81 Improvement Program

Next Steps

- ▶ Subtract TIP outstanding balances
- ▶ Use priority rankings and public input to identify projects for the constrained list
 - ▶ Will result in a list of highway projects and a list of bike/ped projects
- ▶ Present constrained list to MPO for approval
- ▶ Create project profiles for constrained list projects
- ▶ Integrate into Connect Central Virginia 2045



▶ Questions?