



FAMPO: 2050 CLRP UPDATE

Transportation Advisory Committee

November 4, 2019

Call for Projects - Update

- 17 new projects were submitted for consideration in the 2050 CLRP Process.
- 10 had cost estimates totaling an estimated \$138,841,000
- The 7 currently lacking cost estimates include project ideas for:
 - A westerly bypass
 - Road widening
 - Bridge widening
 - Bridge replacement
 - Commuter rail and bus systems, etc.
- We are expecting the cost estimate to noticeable increase when cost estimates are developed.

Call for Projects – continued

- 5 projects in the current 2045 CLRP have changes in scope primarily due to better information from STARS studies.
- At least 41 projects from 2045 CLRP are proposed to stay on 2050 CLRP by local governments.
- Only 5 projects were reported as “completed” and don’t need to be included in 2050 CLRP:
 - Mt. Olive over N. Anna River Bridge Replacement
 - I-95 Exit 118 Interchange Improvements
 - Route 608 Culvert replacement over Massaponax Creek.
 - Route 3 Signal Optimization, UPC 100450
 - I-95 Safety Improvements at Route 3, UPC 107715

Financial Constraint

- The following information is a stand-in. We are awaiting new information from VDOT.

Table 7.1: State, Federal and Local Projected Revenues 2018-2045 (millions)

Program		2018-2030	2031-2045	Total
Highway Capacity 2018-2023*	\$309.9			
Highway Capacity 2023-2030*	\$232.2			
Highway Capacity Expansion*		\$542.1	\$219.1	\$761.2
Highway Maintenance*		\$1,072.5	\$1,692.8	\$2,765.3
Transit Capital and Operating*		\$50.7	\$61.1	\$111.8
Stafford Transit/Highways		\$88.7	\$104.0	\$192.7
Fredericksburg Transit/Highways		\$48.8	\$57.2	\$106.0
Spotsylvania Transit/Highways		\$75.7	\$92.0	\$164.7
GWRC Transit (Section 5307)		\$13.9	\$16.3	\$30.2
Total		\$1,894.4	\$2,242.4	\$4,136.8

* state and federal sources

Project Selection – Step 1 Screening Tool

- A two-step process:

- Project Screening – Step 1

- Project Evaluation – Step 2

Performance Category	Proposed Performance Measure	Scoring
Congestion	Projects diverts traffic from or adds capacity to a congested roadway segment (volume-to-capacity ratio, V/C \geq 0.8) under 2015 conditions in the WinFred MPO travel demand model	Yes = 2 pts No = 0 pts (Max 2 pts)
Multimodal Accessibility	Project includes pedestrian, bike, and/or transit mode component	2+ modes = 2 pts 1 mode = 1 pt 0 modes = 0 pts (Max 2 pts)
Safety	Project diverts traffic from or overlaps a roadway segment or intersection identified in VDOT's Potential for Safety Improvement (PSI) list	3+ PSI locations = 3 pts 2 PSI locations = 2 pts 1 PSI location = 1 pt 0 PSI locations = 0 pts (Max 3 pts)
Economic Development	Distance decay weighted quantity of 2015-2040 job growth adjacent to the project using assumptions in the WinFred MPO travel demand model	Top 1/3 = 3 pts Middle 1/3 = 1 pt Bottom 1/3 = 0 pts (Max 3 pts)
Magnitude of Cost	Planning level cost per mile multiplied by project length	Divide by Cost

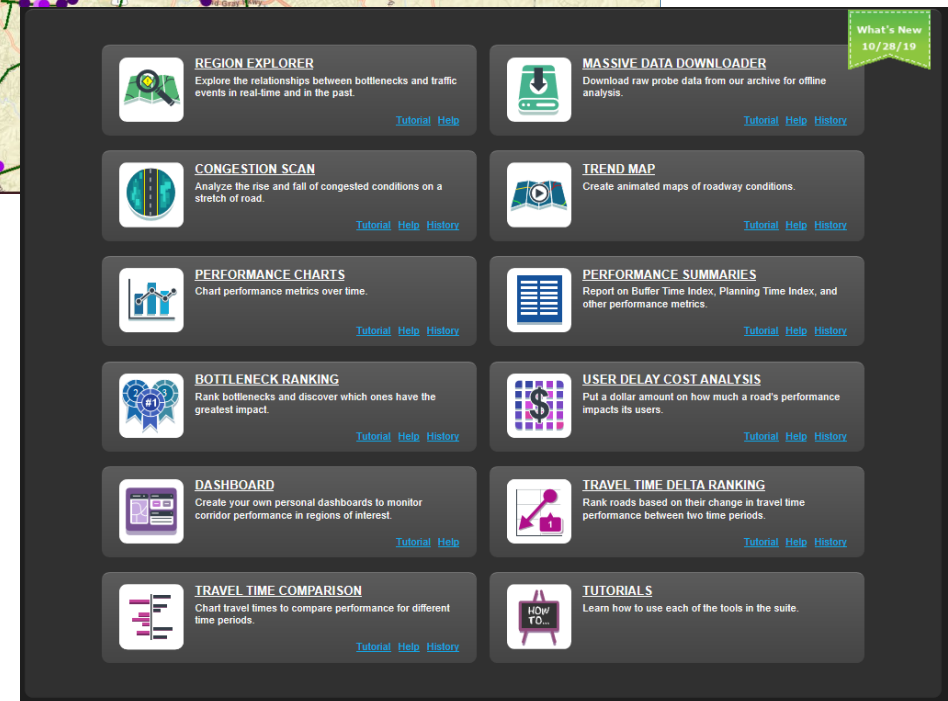
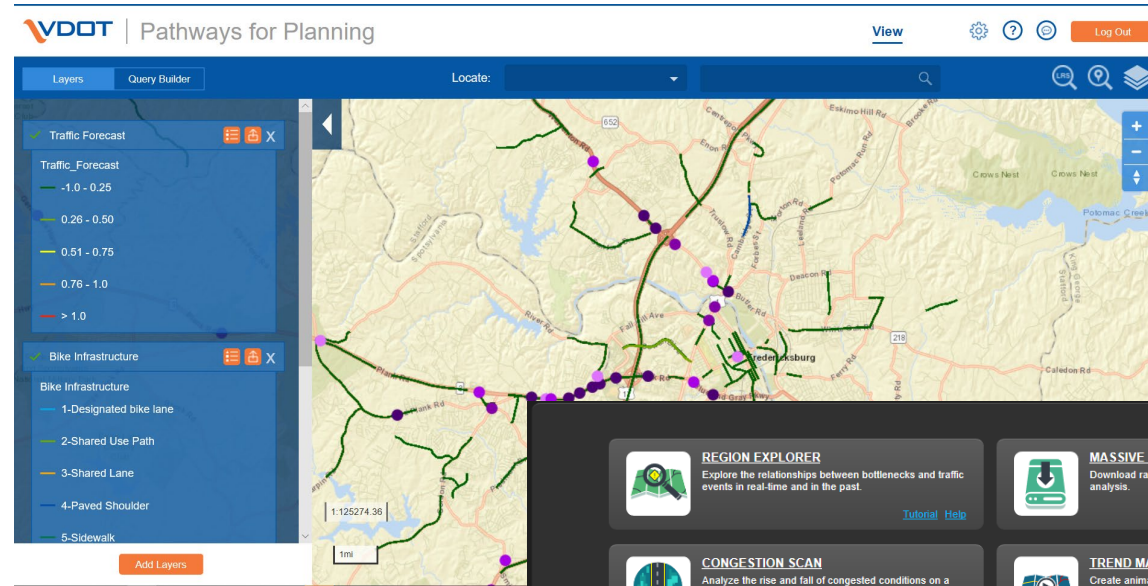
Project Selection – Step 2 Evaluation

- Inspired by Win-Fred MPO process – We are customizing

Smart Scale Scoring Measure (Category C Weight)	SMART SCALE Metric (Measure Weight)	Proposed Performance Metric (Measure Weight)
Congestion Mitigation (15%)	Increase in peak period person throughput, 2017 conditions (50%)	Reduction in network vehicle hours traveled (VHT) using WinFred MPO travel demand model, 2015 conditions (100%)
	Reduction in peak period delay, 2017 conditions (50%)	
Safety (25%)	Reduction in equivalent property damage only (EPDO) of fatal and injury crashes (50%)	Rank-weighted sum of segments and intersections identified in VDOT's Potential for Safety Improvement (PSI) list (100%)
	Reduction in EPDO of fatal and injury crash rate (50%)	
Accessibility (25%)	Increase in average job accessibility per resident (60%)	Increase in average job accessibility per resident (60%)
	Increase in average job accessibility per resident for disadvantaged populations (20%)	Increase in average job accessibility per resident for disadvantaged populations (20%)
	Increase in access to multimodal travel choices (20%)	Increase in access to multimodal travel choices (20%)
Economic Development (25%)	Square feet of commercial/industrial development supported (60%)	Decay weighted job growth adjacent to project, 2015-2040 by TAZ (70%)
	Intermodal access and efficiency / tons of goods impacted (20%)	Intermodal access and efficiency/tons of goods impacted (30%)
	Improvement to travel time reliability (20%)	
Environmental Quality (10%)	Potential to improve air quality/ environmental effect (50%)	Potential to improve air quality/ environmental effect (100%)
	Natural and cultural resources scaled by potential acreage impacted (50%)	

Customization to fit FAMPO

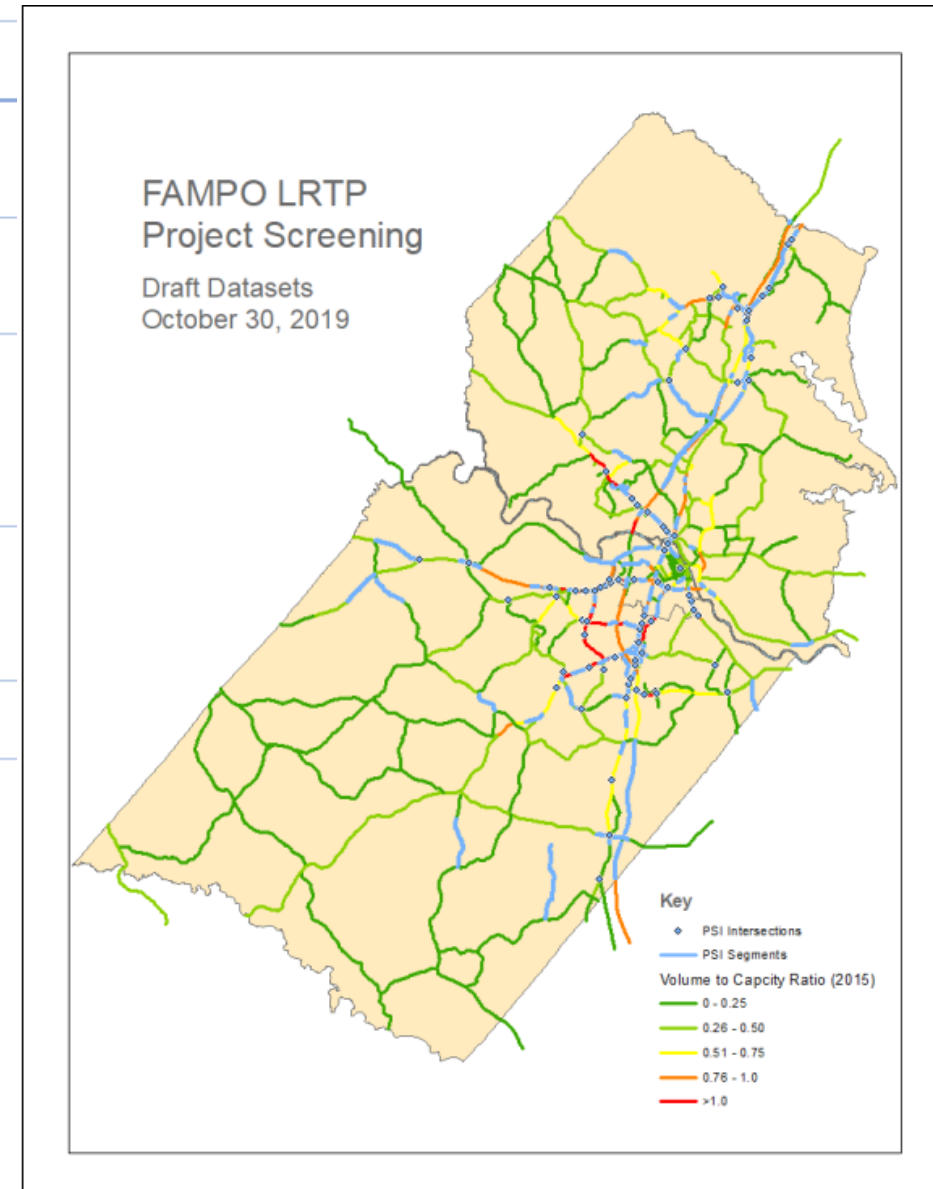
- Using VDOT's new Pathways for Planning tool and possibly the Multi-state Regional Integrated Transportation Information System (RITIS) tool to streamline Step 1 and Step 2.



Early example of Pathways for Planning customization.

Project Screening – Draft

Performance Category	Performance Measure	Data set (and source)	Scoring
Congestion	Project diverts traffic from or adds capacity to a congested roadway segment (V/C ratio ≥ 0.8)	Volume to Capacity Ratio (Pathways for Planning)	Yes = 2 pts No = 0 pts
Multimodal accessibility	Project includes pedestrian, bike, and/or transit mode component	Project application (applicants)	2+ modes = 2 pts 1 mode = 1 pt 0 modes = 0 pts
Safety	Project diverts traffic from or overlaps a roadway segment or intersection identified in VDOT's Potential for Safety Improvement (PSI) list	PSI intersections (Pathways for Planning), PSI segments (Pathways for Planning)	3+ PSI locations = 3 pts 2 PSI locations = 2 pts 1 PSI location = 1 pt 0 PSI locations = 0 pts
Economic Development	Distance decay weighted quantity of 2015-2040 job growth adjacent to the project using assumptions in the FAMPO travel demand model	TBD	Top 1/3 = 3 pts Middle 1/3 = 1 pt Bottom 1/3 = 0 pts
Magnitude of Cost	Planning level cost per mile multiplied by project length	Project application (applicants)	Divide by cost



Next Steps

- Fiscal Constraint
- Finalize Cost Estimates
- Initial Screening – Step 1
 - Report to TAC, CTAC and PC (email)
- Finalize Candidate Projects (November 29, 2019)
- Proceed to Step 2 (December 2019)
- Report evaluation scores TAC, CTAC and PC (January 2020)
- Draft Financially Constrained List (January 2020).

2050 CLRP - Schedule

	A	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX															
		November			December			January				February			March			April			May			June			July																											
		3-7	10-14	17-21	24-28	2-6	9-13	16-20	23-27	30-3	6-10	13-17	20-24	27-31	3-7	10-14	17-21	24-28	2-6	9-13	16-20	30-3	6-10	13-17	20-24	27-1	4-8	11-15	18-22	25-29	31-5	8-12	15-19	22-26	29-3	6-10	13-17	20-25	27-31															
2050 LRTP Update / 2021-2024 TIP Amendment																																																						
Draft 2050 LRTP Update narrative																																																						
Final 2050 LRTP Update for public comment																																																						
Revised Final 2050 LRTP Update for adoption																																																						
Automated Vehicle Scenario																																																						
New Project Prioritization/Performance Measures																																																						
Draft 2018-2021 TIP Amendment narrative																																																						
Final 2018-2021 TIP Amendment for public comment																																																						
Revised Final 2018-2021 TIP Amendment for adoption																																																						
Air Quality Conformity																																																						
Review/research for LRTP changes/additons																																																						
Peer MPO review																																																						
CMP Review																																																						
CMP Integration into Draft LRTP																																																						
SMART Scale Round 4																																																						
VDOT 2030 Needs Assessment																																																						
Coordinated Public Transit-Human Services Transportation Plan																																																						
Bike/Ped and TDM Plan Coordination																																																						
Cambridge Systematics Deliverables/Performance Measures																																																						

Questions

