

REGIONAL BUS SERVICE PROVISION STUDY

Update

Arianna Koudounas
Transportation Planner

TPB Regional Public Transportation Subcommittee
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Regional Bus Service Provision Study

- Staffing
- Scope
- Schedule
- Outreach
- Data Collection & Analysis
- Next Steps



Staffing: Clients and Consultants

Client Staff (COG-TPB)

- Tim Canan (Project Manager) tcanan@mwkog.org
- Eric Randall (Support) erandall@mwkog.org
- Arianna Koudounas (Support) akoudounas@mwkog.org

Consultant Staff

Foursquare ITP

- David Miller (Primary Contact) dmiller@foursquareitp.com
- Lora Byala (Support) lbyala@foursquareitp.com

AECOM

- Dalia Leven (Secondary Contact) dalia.leven@aecom.com
- Robert Peskin (Support) robert.peskin@aecom.com



Staffing: Funding Partners

DRPT: Todd Horsley todd.horsley@drpt.virginia.gov

MDOT: Kari Snyder ksnyder3@mdot.state.md.us

VDOT: Heidi Mitter Heidi.mitter@vdot.virginia.gov

WMATA:

Allison Davis adavis5@wmata.com

Al Himes ahimes@wmata.com



Scope of Work

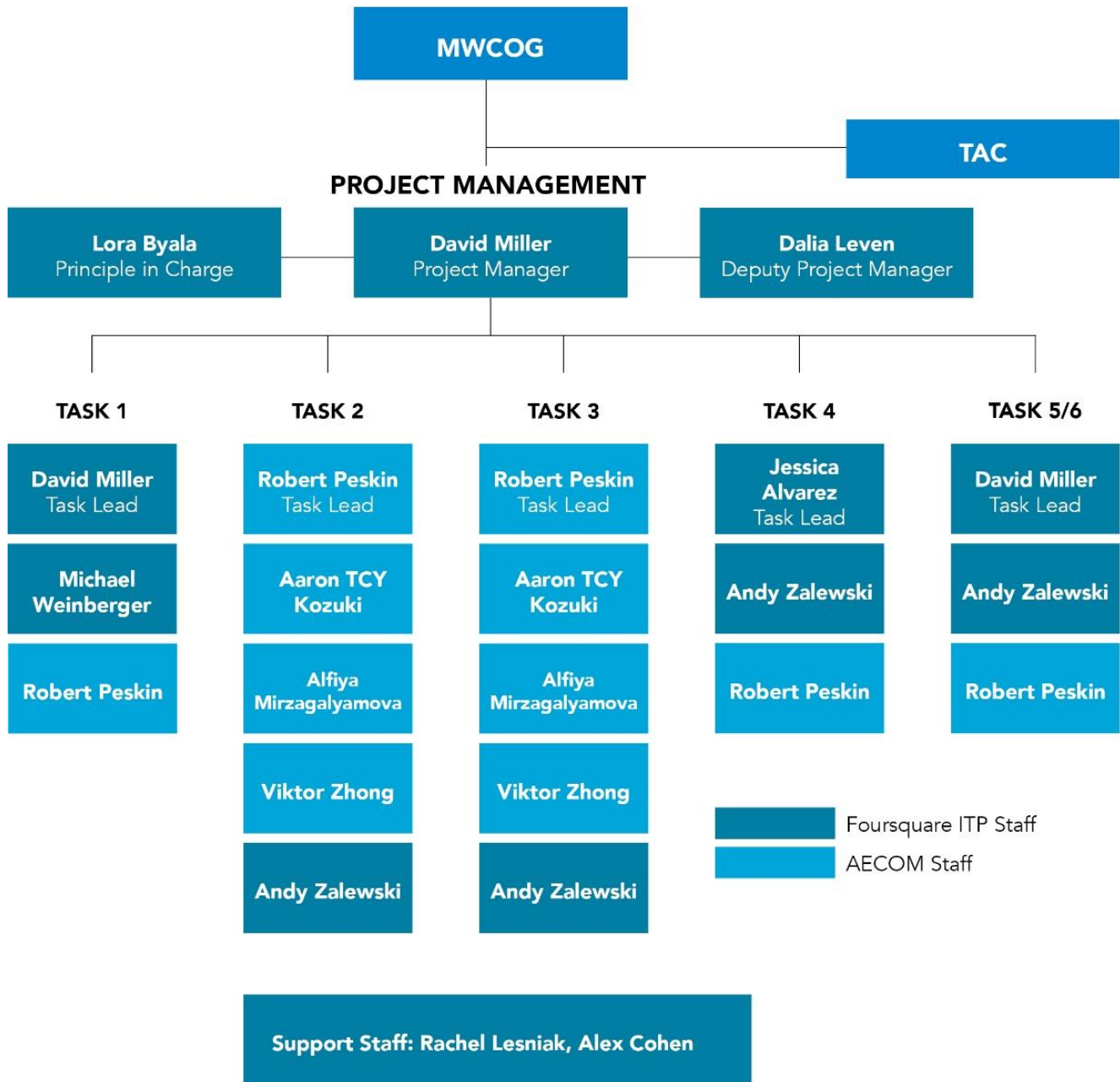
Phase I – Cost Accounting of Bus Service

- Task 1 – TAC Meetings/Activities
- Task 2 – Inventory of regional cost components
- Task 3 – Analysis of regional bus service provision cost factors

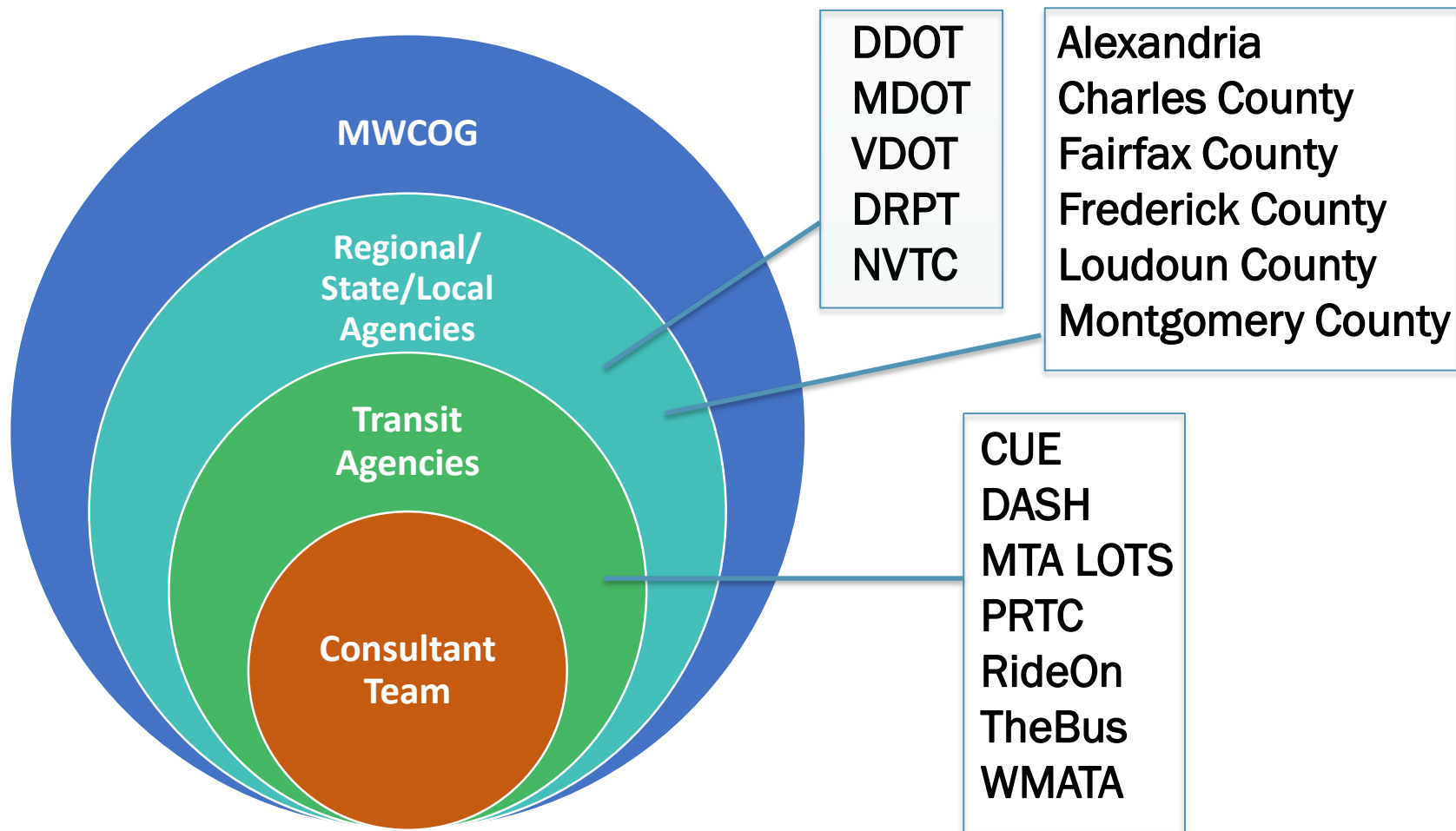
Phase II – Identify Regional Options for Efficiency

- Task 4
 - Analysis of cost factors and potential strategies
 - Recommendations framework
 - Scenario development and evaluation
 - Conclusions
- Task 5 – Draft report
- Task 6 – Final report

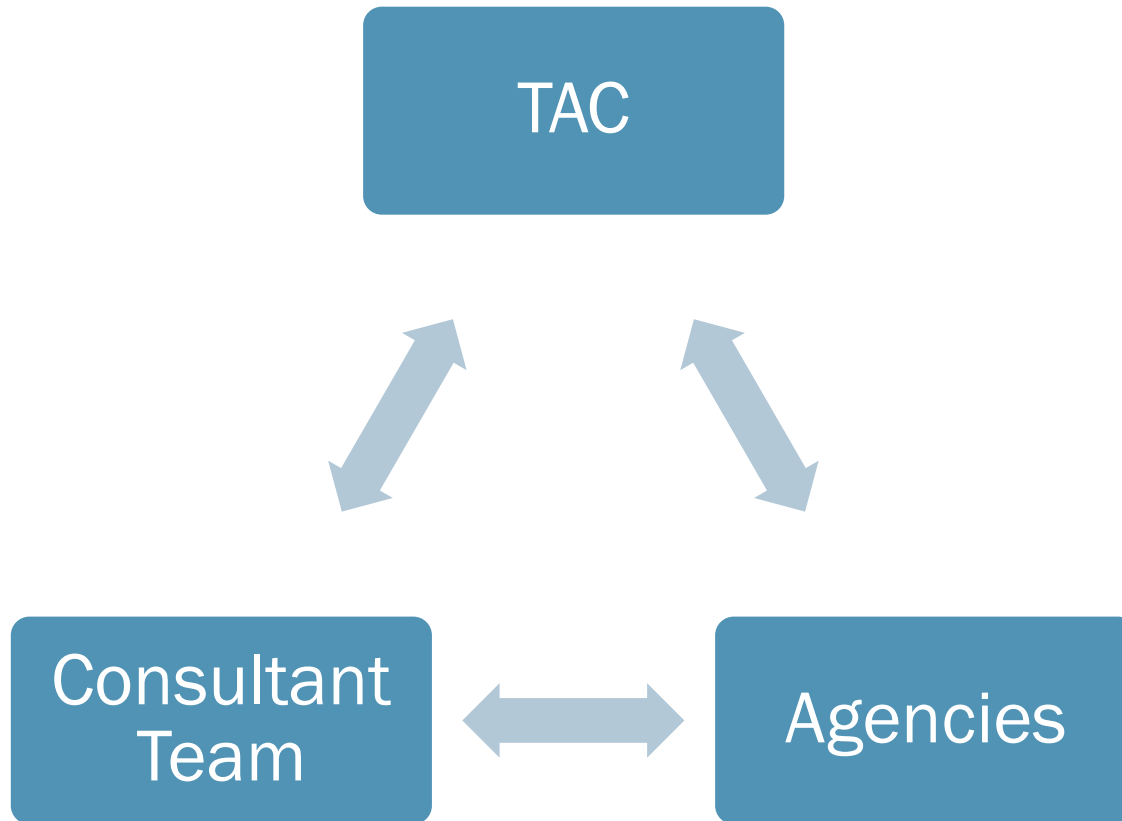




Technical Advisory Committee Members



Overall Project Structure



Schedule

| Task | Description | Dec. | | | | Jan. | | | | | Feb. | | | |
|------|--|------|----|----|----|------|---|----|----|----|------|----|----|----|
| | | 4 | 11 | 18 | 25 | 1 | 8 | 15 | 22 | 29 | 5 | 12 | 19 | 26 |
| 1 | TAC | | | | | | | | | | | | | |
| 1.1 | Kick-off and Plan | | | | | | | | | | | | | |
| 1.2 | Coordination | | | T | | | | | | T | | | | T |
| 1.3 | Project Management | C | | | | C | | C | | C | | C | | C |
| 2 | Inventory of Cost Components | | | | | | | | | | | | | |
| 2.1 | Common Cost Data Structure | | D | | | | | | | | | | | |
| 2.2 | Common Cost Data Collection | | | | | | | D | | | | | | |
| 2.3 | Common Cost Calculator | | | | | | | | | D | | | | |
| 3 | Analysis of Cost Factors | | | | | | | | | | | | D | |
| 4 | Opportunities for Improved Regional Efficiencies | | | | | | | | | | | | | |
| 4.1 | Regional Transit Delivery | | | | | | | | | | | | | |
| 4.2 | Recommendations | | | | | | | | | | | | | |
| 5 | Draft Report | | | | | | | | | | | | | |
| 5.1 | Draft Report | | | | | | | | | | | | | |
| 6 | Final Report | | | | | | | | | | | | | |
| 6.1 | Final Report and Presentations | | | | | | | | | | | | | |

C = PMT Coordination D = Deliverable P = Plan PR = Presentation Plan T = TAC Meeting



Schedule

| Task | Description | Mar. | | | | Apr. | | | |
|------|---|------|----|----|----|------|---|----|----|
| | | 5 | 12 | 19 | 26 | 2 | 9 | 16 | 23 |
| 1 | TAC | | | | | | | | |
| 1.1 | Kick-off and Plan | | | | | | | | |
| 1.2 | Coordination | | | | T | | | | T |
| 1.3 | Project Management | | C | | C | | C | | C |
| 2 | Inventory of Cost Components | | | | | | | | |
| 2.1 | Common Cost Data Structure | | | | | | | | |
| 2.2 | Common Cost Data Collection | | | | | | | | |
| 2.3 | Common Cost Calculator | | | | | | | | |
| 3 | Analysis of Cost Factors | | | | | | | | |
| 4 | Opportunities for Improved Regional Efficiencies | | | | | | | | |
| 4.1 | Regional Transit Delivery | | | | | | | | |
| 4.2 | Recommendations | | | | | | | | D |
| 5 | Draft Report | | | | | | | | |
| 5.1 | Draft Report | | | | | | | | |
| 6 | Final Report | | | | | | | | |
| 6.1 | Final Report and Presentations | | | | | | | | |

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Schedule

| Task | Description | May | | | | | Jun. | | | |
|----------|---|-----|---|----|----|----|------|----|----|----|
| | | 30 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 |
| 1 | TAC | | | | | | | | | |
| 1.1 | Kick-off and Plan | | | | | | | | | |
| 1.2 | Coordination | | | | | T | | | | |
| 1.3 | Project Management | | C | | C | | C | | C | |
| 2 | Inventory of Cost Components | | | | | | | | | |
| 2.1 | Common Cost Data Structure | | | | | | | | | |
| 2.2 | Common Cost Data Collection | | | | | | | | | |
| 2.3 | Common Cost Calculator | | | | | | | | | |
| 3 | Analysis of Cost Factors | | | | | | | | | |
| 4 | Opportunities for Improved Regional Efficiencies | | | | | | | | | |
| 4.1 | Regional Transit Delivery | | | | | | | | | |
| 4.2 | Recommendations | | | | | | | | | |
| 5 | Draft Report | | | | | | | | | |
| 5.1 | Draft Report | | | | | D | | | | |
| 6 | Final Report | | | | | | | | | |
| 6.1 | Final Report and Presentations | | | | | | | D | | PR |

C = PMT Coordination D = Deliverable P = Plan PR = Presentation Plan T = TAC Meeting



Schedule (October 2017 – June 2018)

- **October:** kick-off meeting with funding partners
- **October-December:** Technical Advisory Committee (TAC) formed
- **December:** TAC meeting #1
 - Introductions and information sharing
- **February:** TAC meeting #2:
 - Share initial findings from data collection/analysis, literature/peer review, and local examples of potential strategies
- **March:** TAC meeting #3:
 - Share key takeaways from data analysis, existing conditions analysis, and proposed methodology for evaluating strategies
- **April:** TAC meeting # 4: share evaluation results
- **May:** TAC meeting #5: share draft report
- **June:** Final Report complete



Data Collection (all data 2006 – 2017)

- Unit Cost Per Vehicle Revenue Hour (including General Administration)
- Unit Cost Per Vehicle Revenue Mile (including GA)
- Unit Cost Per Vehicle Operated in Maximum Service (including GA)
- Average Annual Vehicle Speed
- General Administration as a Percentage of Direct Cost
- Unit Cost Per Vehicle Revenue Hour (excluding GA)
- Unit Cost Per Vehicle Revenue Mile (excluding GA)
- Unit Cost Per Vehicle Operated in Maximum Service (excludes GA)



Data Collection: FY17 Data Received

| Agency | F-30 | S-10 | Data Forms |
|---------------------|------|------|------------|
| WMATA | ✓ | ✓ | ✓ |
| DDOT | ✓ | ✓ | ✓ |
| Montgomery Co. | | | |
| Prince George's Co. | ✓ | ✓ | |
| Charles Co. | ✓ | ✓ | ✓ |
| Frederick Co. | | | ✓ |
| MDOT MTA | | | |
| Arlington Co. | ✓ | ✓ | ✓ |
| City of Alexandria | ✓ | ✓ | |
| Fairfax Co. | ✓ | ✓ | |
| City of Fairfax | ✓ | ✓ | |
| Loudoun Co. | ✓ | ✓ | ✓ |
| PRTC | ✓ | ✓ | |



Initial Analysis of National Transit Database (NTD) Data

- Form F-30 reports operating expenses by function (Vehicle Operations, Vehicle Maintenance, Non-Vehicle Maintenance, General Admin) and by object class (Wages, Fringes, Fuel, Parts, Services, etc.)
- Form S-10 reports cost drivers (Peak Vehicles, Annual Vehicle Revenue Hours, Annual Vehicle Revenue Miles)
- Analysis derived unit costs for
 - Vehicle operations cost per vehicle revenue hour (costs for operators, street supervision, fuel)
 - Vehicle maintenance cost per vehicle revenue mile (costs for vehicle maintenance labor, parts, services)
 - Non-vehicle maintenance cost per peak vehicle (costs for other maintenance labor, parts, services)
- Above analysis was done with & without General Administration costs



Customer Oriented Strategies

Schedule Coordination

- Bus-to-bus, bus-to-rail, along corridors
 - DASH with VRE, especially for off-peak and weekend trips
 - PRTC may also perform similar coordination

Shared Passenger Facilities

- Metrorail Stations
 - MARC train connections: Rockville and Silver Spring Stations
- Lakeforest Transit Center
- Mark Center Transit Center
- Pentagon Transit Center
- Seven Corners Transit Center
- Shirlington Transit Center
- Southern Towers (Alexandria) – multiple providers
- Takoma/Langley Transit Center
- Westfield Montgomery Mall



Customer Oriented Strategies

Regional Fare Structure/Fare Media

- SmartTrip
- DC Region DCU3 farebox upgrade contract
- All providers recognize a 2-hour transfer credit
- NVTC currently conducting a study on fare structure

Information/Data Coordination



Agency Oriented Strategies

Joint Procurement

- Virginia State Bus Procurement
- MTA piggybacking on WMATA vehicle procurement
- WMATA procured DC Circulator buses - Connecticut procurement
- Arlington utilizing a Fairfax tire contract

Merge Duplicative Routes

- Fairfax County and Arlington County have both “taken over” WMATA routes that are now operated, largely the same as before, as local services
- Arlington TDP identifies a network of frequent WMATA corridor services, with ART providing local services
- WMATA line studies can recommend discontinuation of service where overlaps occur
- BRT corridors in Montgomery County likely adjusting service



Agency Oriented Strategies

Joint Maintenance, Storage, and Other Facilities

- WMATA and Fairfax share West Ox facility
- Fairfax performs bus acceptance and maintenance audits for smaller providers (ART)

Shared Infrastructure

- Metroway (BRT in Montgomery County, VA-7)

Coordinated Marketing and Communications

- Shared commuter stores and associated marketing

Joint Staff Training

- WMATA and Maryland MVA license CDL drivers through a training program
 - DDOT would like to join the partnership and thinks it would be useful for other providers also



Agency Challenges and Opportunities

What challenges is your agency facing in meeting demand?

Procurement

- Value in improving these processes is time, not money
- Agency input is key: Virginia's bus procurement was done without input from DRPT, resulting in less utility for agencies

Facilities

- Maintenance
- Fueling
- Finding land for maintenance facilities in relative proximity to the service areas



Agency Challenges and Opportunities

What challenges is your agency facing in meeting demand?

Funding and Capacity

- More vehicles/revenue hours
 - Having enough buses in reserve to support major WMATA planned closures
- Management/support staff



Agency Challenges and Opportunities

What opportunities do you believe have the most potential?

Joint facilities

- Maintenance
 - Piggyback on WMATA's bus acceptance and maintenance audit facilities, plus bus disposal and auctioning; would benefit smaller agencies
- Fueling

Joint procurement

- Florida DOT has a statewide bus procurement

Reducing overlap/right-sizing

- Flex services to replace underperforming fixed routes

Joint training

- Clever Devices training
- Electric bus procurement/deployment training
- A regional Bus Roadeo:



Agency Challenges and Opportunities

What opportunities do you believe have the most potential?

Shared technology

- Collaboration on general transit feed specification (GTFS)/Bus ETA/real-time passenger information (RTPI) signs/transit signal priority (TSP)

Shared infrastructure

Shared administrative services

Coordinated information sharing and communications

- Coordination on website integration and information sharing for the public, especially related to Metrorail planned construction
- Developing shared customer service studies like mystery rider and on-board surveys



Next Steps

- Complete data collection / analysis (March)
- Complete research: literature / peer review / local examples (March)
- Complete analysis of existing and planned services (March)
- Develop methodology to analyze potential strategies (March)
- Apply methodology to analyze benefits from various potential strategies (April)
- Draft Report (May)
- Final Report (June)



Tim Canan, AICP

Planning Data and Research Program Director

Department of Transportation Planning

202.962.3280

tcanan@mwkog.org

Arianna Koudounas

Transportation Planner

Department of Transportation Planning

202.962.3312

akoudounas@mwkog.org

mwkog.org/tpb

Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002



National Capital Region
Transportation Planning Board