CMAQ Performance Targets and Interim Performance Plan
Background

What is CMAQ?
- Federal program to fund projects that reduce congestion and improve air quality

MAP-21 required US DOT to establish Transportation Performance Measures for the CMAQ program
- Known as PM3 regulation
  - Subpart G – Congestion Measures
  - Subpart H – On-Road Mobile Source Emissions
Today’s Presentation

• PM3 Requirements
• Performance Measures
• Interim Performance Plan
• Requested Action
FHWA PM3 Rule Requires...

1. Establishment of 2-and 4-year Targets (Regions >1M people and in NAA)
   - Congestion Measures for UZA
   - CMAQ Emissions Reductions Measures for MPO region and state
2. Interim Performance Plan
   - Provides the opportunity to adjust targets
3. Performance reports from states due to FHWA by October 1, 2020
What are the Congestions Measures?

Unified targets for entire UZA

1. Peak Hour Excessive Delay (PHED)
   - Annual per capita delay on the NHS system
   - Data extracted from RITIS Probe Data Analytics Suite

2. Percent Non-SOV travel
   - U.S. Census 5-Year Estimates
How Were the Targets Established?

Discussion and Collaboration

- MPOs and DOTs in affected UZAs held a series of meetings in spring of 2018 and summer of 2020
- Targets established by consensus
## Congestion Targets and 2-Year Performance - PHED

<table>
<thead>
<tr>
<th></th>
<th>Baseline (annual hours per capita)</th>
<th>Two-Year Target Optional (annual hours per capita)</th>
<th>Two-Year Performance Measurement (annual hours per capita)</th>
<th>Four-Year Target (annual hours per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Philadelphia UZA</strong></td>
<td>16.8</td>
<td>17.0</td>
<td>14.6</td>
<td>17.2</td>
</tr>
<tr>
<td><strong>New York-Newark UZA</strong></td>
<td>20.0</td>
<td>N/A</td>
<td>22.2</td>
<td>22.0</td>
</tr>
</tbody>
</table>

*Source: DVRPC and NJTPA 2020*
### Congestion Targets and 2-Year Performance – Percent Non-SOV Travel

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Two-Year Target</th>
<th>Two-Year Measurement</th>
<th>Four-Year Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Philadelphia UZA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.9%</td>
<td>28.0%</td>
<td>28.2%</td>
<td>28.1%</td>
<td></td>
</tr>
<tr>
<td><strong>New York-Newark UZA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.6%</td>
<td>51.6%</td>
<td>51.7%</td>
<td>51.7%</td>
<td></td>
</tr>
</tbody>
</table>

*Source: DVRPC and NJTPA 2020*
Performance Results

Two-Year Performance surpassed or is meeting two- and four-year targets for Philadelphia and New York-Newark UZAs.
Adjusting the Targets

• MPOs and state DOTs in each UZA reviewed performance measures and targets
• Have agreed to NOT ADJUST 4-year congestion targets
  – Data issues
  – Uncertainty of future travel patterns due to COVID-19 pandemic
Emissions Performance Measure

CMAQ Program Eligibility

– Projects must show emissions reductions
– DOTs report emissions benefits for authorized projects in annual report to FHWA
– Data is stored in FHWA CMAQ Public Access System (PAS)
Emissions Reductions Requirements

Targets

– DOTs must set statewide 2- and 4-Year Targets for emissions reductions from CMAQ funded projects
– MPOs must either develop targets or adopt state targets for MPO area
– DVRPC is adopting state developed targets
How Were the Targets Established?

• **Discussion and Collaboration**
  – MPOs and DOTs collaborated on Emissions Measure for regional and statewide emissions targets and performance
  – Statewide targets incorporate MPO targets
## Results (DVRPC Performance Pennsylvania)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions Reduction (Kg/day)</th>
<th></th>
<th></th>
<th>2020-2021 4-year Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018-2019 2-year Target</td>
<td>2-Year Performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Emissions</td>
<td>37.61</td>
<td>142.8</td>
<td></td>
<td>69.31</td>
</tr>
<tr>
<td>NO\textsubscript{x} Emissions</td>
<td>23.42</td>
<td>652.4</td>
<td></td>
<td>42.50</td>
</tr>
<tr>
<td>PM\textsubscript{2.5} Emissions</td>
<td>1.08</td>
<td>24.21</td>
<td></td>
<td>2.06</td>
</tr>
<tr>
<td>CO Emissions</td>
<td>282.74</td>
<td>NA</td>
<td></td>
<td>NA</td>
</tr>
</tbody>
</table>

*Source: PennDOT 2020*
## Results (DVRPC Performance New Jersey)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions Reduction (Kg/day)</th>
<th></th>
<th>2-Year Performance</th>
<th>2020-2021 4-year Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC Emissions</td>
<td>1.45</td>
<td>142.8</td>
<td>2.864</td>
<td></td>
</tr>
<tr>
<td>NO\textsubscript{x} Emissions</td>
<td>7.453</td>
<td>652.4</td>
<td>14.861</td>
<td></td>
</tr>
<tr>
<td>PM\textsubscript{2.5} Emissions</td>
<td>2.627</td>
<td>24.21</td>
<td>5.253</td>
<td></td>
</tr>
<tr>
<td>CO Emissions</td>
<td>N/A</td>
<td>NA</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Source: NJ DOT 2020
Performance Results

• Two-Year Performance surpassed two and four-year targets for PA and NJ
  – Transit flex emissions benefits included in PAS for first time in 2018
  – TDM projects that were expected to be listed as “recurring” were counted in 2018
  – In NJ, Statewide projects contributed to regional goals
Adjusting the Targets

• Pennsylvania
  – DVRPC not adjusting regional targets but removing CO (no longer applicable)
  – PennDOT adjusting statewide targets due to issues in other regions

• New Jersey
  – NJDOT and MPOs agreed to not adjust targets
Performance Plan

Applicability and Requirements

- All measures
  - Two-year performance
    - Congestion measures for UZA (Philadelphia and NYC-Newark)
    - Mobile Source Emissions for MPO area separated by state
  - Adjusted Targets
- Emissions measures
  - List projects contributing to performance
  - Identify projects that have changed, been added, or deleted
  - Identify projects that support 4-year targets
  - Narrative description of programmed projects and benefits
Action Proposed

That the DVRPC Board adopt the Subpart H mobile-source emissions performance targets established by PennDOT and NJDOT in 2020 and approves DVRPC to submit the CMAQ Interim Performance Plan for 2018-2019 to the state DOTs for submission to FHWA.
Thank You!

Questions?
Sean Greene | sgreene@dvrpc.org
FEDERAL FUNCTIONAL CLASS
SYSTEM CHANGES

East Bradford Twp, Chester County
1. Business 322 from US 322 Bypass to PA 162
2. Birmingham Road from PA 52 to Sconnelltown Road
3. Sconnelltown Road from Birmingham Road to PA 842
East Bradford Township
Federal Functional Classification Changes

• Change from Other Principal Arterial (FC 3) to Minor Arterial (FC 4)
  – Business 322 (SR 3072) Segments 0010-0012 (1.00 miles)

• Change from Major Collector (FC 5) to Local Road (FC 7) and remove from Federal-Aid System
  – Birmingham Road (SR 2001) Segment 0070 (0.70 miles)
  – Sconnelltown Road (SR G106) Segments 0010-0020 (1.10 Miles)
Action Requested

• That the Board approve the Federal Functional Classification changes in East Bradford Township, Chester County
- 1. Basin Bridge Road
- 2. Constitution Avenue
- 3. South 21st
- 4. Kitty Hawk Avenue
- 5. South Broad Street
- 6. Kitty Hawk Avenue
- 7. League Island Boulevard
Navy Yard
Federal Functional Classification Changes

- Change from Local Road (FC 7) to Minor Arterial (FC 4)
  - South Broad St from Intrepid Ave to Kitty Hawk Ave (0.20 miles)
  - League Island Blvd from Kitty Hawk Ave to S. Broad St (0.70 miles)

- Change from Local Road (FC 7) to Major Collector (FC 5)
  - Basin Bridge Rd (S. 26th St) from Langley Ave to Constitution Ave (0.20 miles)
  - Constitution Ave from Basin Bridge Rd to S. 21st St (0.20 miles)
  - S. 21st St from Constitution Ave to Kitty Hawk Ave (0.10 miles)
  - Kitty Hawk Ave from S. 21st St to S. Broad St (0.60 miles)
  - Kitty Hawk Ave from S. Broad St to League Island Blvd (0.70 miles)
Action Requested

• That the Board approve the Federal Functional Class changes in Philadelphia County’s Navy Yard
COMMUNITY IMPACTS OF MULTIFAMILY DEVELOPMENT

Office of Smart Growth
Andrew Svekla, Associate Manager
Derek Lombardi, Planner
COMMUNITY IMPACTS OF MULTIFAMILY DEVELOPMENT

STUDY GOAL

Improve our understanding of the local impacts and benefits of higher density residential development in communities throughout Greater Philadelphia.
Why does DVRPC care about multifamily housing?

HOW CAN WE GROW RESPONSIBLY?

Manage growth and development while protecting our natural resources.

Our region is home to breathtaking beauty, but sprawling development patterns threaten our region’s natural landscapes and resources. Our land is a source of local food, jobs, and outdoor recreational opportunities. It also saves us money by naturally cleaning our air and water, mitigating flooding, improving our health, and enhancing our quality of life.

Connections 2040 outlines strategies to preserve an additional 450,000 acres of farmland and open space by 2040 to help reach a goal of one million permanently protected acres in our region. Greater Philadelphia has already made progress having preserved more than 75,000 acres over the past five years. The Plan’s land use vision continues this progress.

BALANCING GROWTH WITH PRESERVATION.

Development and environmental protection must be balanced. Growth should be encouraged where infrastructure already exists to limit the cost of new transportation facilities and reduce energy use and environmental impacts.

The Land Use Vision Map defines areas for open space preservation (Rural Resource Lands and Greenspace Network) as well as development (Centers, Infill and Redevelopment, and Emerging Growth).
Why do our planning partners care about multifamily housing?
Organizing the **potential impacts** of development

**DEVELOPMENT PROPOSAL**

**ECONOMIC**
- Infrastructure Costs
- Locally-Provided Services
- Tax Revenue
- Property Values

**TRANSPORTATION**
- Traffic and Congestion
- Parking Demand and Supply
- Traffic and Safety

**COMMUNITY**
- Public Safety
- Community Character

**CONSTRUCTION PROJECT**
1. Interviewing local developers
2. Documenting housing and real estate trends
3. Reviewing academic and professional housing literature
4. Generating localized demographic multipliers and statistics
5. Observing trip generation patterns for local apartment buildings
Community Impacts of Multifamily Development

The demand for multifamily housing has surged in recent years. While planners often tout the virtues of higher density development as part of a smart growth approach to land use and development, proposals to build new apartments are frequently met with opposition based on concerns about local traffic, municipal finances, and community character.

When it comes to new multifamily development, municipal planners, elected officials, and citizens may want to know:

- Who will live in this property?
- Will new apartments be a drain on our town's municipal budget?
- What impact will this development have on local traffic conditions?
- How will this development affect enrollment at local schools?
- How will new higher density development impact the character of the neighborhood?
Community Impacts of Multifamily Development

Project Resources

- Multifamily Housing Impact Literature Review [0.3 MB pdf]
- Multifamily Housing Research Summary [3.2 MB pdf]
- Demographic Multipliers and Summary Statistics for Residents of Multifamily Housing (Digital Product) [1 MB xlsx]
- Methodology of Demographic Multipliers for the DVRPC Region [0.5 MB pdf]
- Multifamily Trip Generation Research Summary [1.1 MB pdf]
- Local Trip Generation Adjustments for Transit-Oriented Development (TOD)
Luxury apartments finished near Lansdale SEPTA station; stores and restaurants coming

by Katie Park, Updated: January 16, 2020
Coronavirus Crisis Threatens Push for Denser Housing

Transit-oriented developments were seen as a solution to severe housing shortages, but experts say developers need to rethink the design for a post-pandemic world.
Development Matters

Understanding the Opportunities and Implications of Multifamily Development
Key Finding 1

The construction of multifamily housing in Greater Philadelphia has surged in recent years.
Key Finding 1

The construction of multifamily housing in Greater Philadelphia has surged in recent years

Figure 2: Multifamily Rental Developments Constructed by Decade in Greater Philadelphia

Source: CoStar Realty Information, Inc.
Key Finding 1:
The construction of multifamily housing in Greater Philadelphia has surged in recent years.

Figure 3: Multifamily Rental Units Constructed in Greater Philadelphia (2000 to 2019)

- **High:** 6,755 (2017)
- **2019:** 5,359

Source: CoStar Realty Information, Inc.
Key Finding 2
The multifamily construction boom has reached the suburbs

Figure 4: Building Permits Issued for Structures with Five or More Units (2010–2018)

Source: U.S. Census Bureau, Residential Construction Statistics Division
Key Finding 4

The apartments being constructed today differ from their predecessors in some important ways.

Figure 7: Number of Developments Completed by Style and Decade

Source: CoStar Realty Information, Inc.
Figure 7: Number of Developments Completed by Style and Decade 2010–2019

- **GARDEN**: 1–3 stories, 4 or more buildings
- **LOW-RISE**: 1–3 stories, 1–3 buildings
- **MID-RISE**: 4–14 stories, 1 or more buildings
- **HIGH-RISE**: 15+ stories, 1 or more buildings
Figure 9: Average Height of New Apartment Developments by County 2000–2019

- Philadelphia: 5.4
- Montgomery: 3.9
- Delaware: 3.7
- Chester: 3.6
- Burlington: 3.3
- Camden: 3.3
- Bucks: 3.1
- Mercer: 3.1
- Gloucester: 2.8

Source: CoStar Realty Information, Inc.
Key Finding 5

Multifamily households are smaller and generate fewer school-age children than those of other housing types

Figure 10: Estimates of the Number of School-Age-Children Generated by 100 Units of Housing

DVRPC Estimates All Housing Units

<table>
<thead>
<tr>
<th>Detached</th>
<th>Attached</th>
<th>Multifamily Rentals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td>64</td>
<td>16</td>
</tr>
<tr>
<td>Attached</td>
<td>61</td>
<td></td>
</tr>
</tbody>
</table>

Source: DVRPC, ESI
**Key Finding 5**

Multifamily households are smaller and generate fewer school-age children than those of other housing types.

**Figure 10: Estimates of the Number of School-Age-Children Generated by 100 Units of Housing**

<table>
<thead>
<tr>
<th>DVRPC Estimates All Housing Units</th>
<th>External Estimates Newly Constructed Apartments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DETACHED</strong></td>
<td><strong>MULTIFAMILY RENTALS</strong></td>
</tr>
<tr>
<td>Single-Family</td>
<td>Montgomery County Planning Commission¹</td>
</tr>
<tr>
<td><strong>ATTACHED</strong></td>
<td>Center for Real Estate at Rutgers Business School²</td>
</tr>
<tr>
<td>Multifamily Rentals</td>
<td>Real Estate Institute at Stony Brook School of Business³</td>
</tr>
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</table>

<table>
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</tr>
<tr>
<td>Multifamily Rentals</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: DVRPC, ESI
Key Finding 6

Multifamily residents travel less and own fewer cars than their single-family peers

Figure 11: Daily Vehicle Trip Generation Rates per Dwelling Unit

<table>
<thead>
<tr>
<th></th>
<th>SINGLE-FAMILY DETACHED</th>
<th>LOW-RISE 1-2 stories</th>
<th>MID-RISE 3-10 stories</th>
<th>HIGH-RISE 11+ stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIPS PER DAY</td>
<td>9.54</td>
<td>7.32</td>
<td>5.44</td>
<td>4.45</td>
</tr>
</tbody>
</table>

Sources: Institute of Transportation Engineers, Trip Generation Manual, 10th Edition; DVRPC
Key Finding 6
Multifamily residents travel less and own fewer cars than their single-family peers

Figure 11: Daily Vehicle Trip Generation Rates per Dwelling Unit

<table>
<thead>
<tr>
<th></th>
<th>ITE TRIP GENERATION DATA</th>
<th>DVRPC DATA</th>
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</thead>
<tbody>
<tr>
<td>SINGLE-FAMILY</td>
<td></td>
<td>MULTIFAMILY</td>
</tr>
<tr>
<td>DETACHED</td>
<td>LOW-RISE 1-2 stories</td>
<td>MID-RISE 3-10 stories</td>
</tr>
<tr>
<td></td>
<td>9.54</td>
<td>5.44</td>
</tr>
<tr>
<td></td>
<td>TRIPS PER DAY</td>
<td>Have the highest trip generation rates.</td>
</tr>
<tr>
<td>MULTIFAMILY</td>
<td></td>
<td>Recently built suburban mid-rise apartments near transit</td>
</tr>
</tbody>
</table>

Development matters. Planning for growth and prosperity requires honest conversations about the types of communities we should be building.
Dispatches from Alternate Futures:
Exploratory Scenarios for Greater Philadelphia

Jackie Davis

September 2020 Board Meeting
Scenarios and Long-Range Planning

Where Are We Today?

Scenario A

Where Are We Going?

Scenario B

Where Do We Want To Go?

Scenario C
Current Tipping Points
“Characterize and test uncertainty from societal, technological, economic, environmental, and political trends and forces in Greater Philadelphia between the present and 2050, which may: pose new opportunities and risks; affect predictability in regional demographics, economy, land use, infrastructure, and travel patterns; and impact the region’s ability to achieve its vision.”
Dispatches from Alternate Futures: Exploratory Scenarios for Greater Philadelphia is the result of the second exploratory scenario development process for the Greater Philadelphia region and is a key step in the development of the Connections 2050 Long-Range Plan for Greater Philadelphia. Policymakers and public- and private-sector leaders collaborated to develop the scenarios and the forthcoming Long-Range Plan to make informed decisions that help guide the region toward more preferable options that align with the Plan’s vision.

For Connections 2050 products as the Plan is developed, please visit: www.dvrpc.org/LongRangePlan

DVRPC
Regional Planning Commission

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Philadelphia, PA 19106-1520
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www.dvrpc.org

Connect With Us!

July 2020

Exploratory Scenarios for Greater Philadelphia

Dispatches from Alternate Futures

Delayed Expectations
A world overcome by climate change and economic slowdown

People Power
Grassroots movement to a more just and sustainable future

Technology in the Driver’s Seat
Big Tech takes control

Inclusive Tech
A new equitable economy emerges through open source technologies

In This Issue
COVID-19
Breaking News
See pages 26, 40, 54, and 68
FOUR SCENARIOS

TECHNOLOGY

INCREMENTAL CHANGE

TRANSFORMATIVE CHANGE

PEOPLE POWER

Grassroots democracy gives citizens more input into the development of their communities and the economy, while readily available technologies are deployed to fight climate change.

INCLUSIVE TECH

A collaborative, networked, open source economy of abundance emerges from societal efforts to make technological advances more sustainable and equitable.

DELAYED EXPECTATIONS

Climate change, sharp political swings, ongoing civil discord, and a slowdown in innovation lead to a lack of direction and economic stagnation.

TECHNOLOGY IN THE DRIVER’S SEAT

Markets drive economic growth through Big Data, algorithms, and innovation.

POLITICAL WILL / COLLECTIVE ACTION

MARKET FORCES / INDIVIDUAL RESPONSIBILITY
January 14, 2024
Climate Refugees Compound Crisis on Southern Border

January 31, 2035
Gig Economy All That's Left?

March 9, 2041
2040 Census: Greater Philadelphia Population Declines Amidst Undercount, Hurricane, & Pandemic Concerns
FOUR SCENARIOS

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TECHNOLOGY IN THE DRIVER’S SEAT

Markets drive economic growth through Big Data, algorithms, and innovation.
Antitrust Suit Brought Against Amazon

Transit Renaissance Continues as SEPTA Regional Rail Returns to West Chester

2040 Census: Greater Philadelphia Still Growing Slowly
FOUR SCENARIOS

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TRANSFORMATIVE CHANGE

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Markets drive economic growth through Big Data, algorithms, and innovation.

CLIMATE CHANGE & EQUITY

POLITICAL WILL / COLLECTIVE ACTION

MARKET FORCES / INDIVIDUAL RESPONSIBILITY
February 27, 2023
Ready or Not, the Automated Vehicle Race Arrives in Philly Area

November 3, 2035
Ubiquitous Cryptocurrency Undermining the U.S. Dollar

March 9, 2041
2040 Census: Greater Philadelphia Growth Shifts to the Suburbs
A collaborative, networked, open-source economy of abundance emerges from societal efforts to make technological advances more sustainable and equitable.

**People Power**
Grassroots democracy gives citizens more input into the development of their communities and the economy, while readily available technologies are deployed to fight climate change.

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A collaborative, networked, open-source economy of abundance emerges from societal efforts to make technological advances more sustainable and equitable.

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Climate change, sharp political swings, ongoing civil discord, and a slowdown in innovation lead to a lack of direction and economic stagnation.

**Technology in the Driver’s Seat**
Markets drive economic growth through Big Data, algorithms, and innovation.
June 25, 2025
End of the Road for Brick-and-Mortar Retail?

December 16, 2036
Push for Programmable Roads as Carbon Tax Dwindles

March 9, 2041
2040 Census: Greater Philadelphia Growth Still Driven by Foreign Immigration
2020s TECHNOLOGY IN THE DRIVER’S SEAT

The COVID-19 outbreak leads to increased investment in biotech research, which yields major healthcare advances. It also strengthens the Big Tech companies, who control proprietary video conferencing, remote working software, and holograms. As public health surveillance gains acceptance, tech giants increase their personal data collection and targeted advertising. The crisis propels automation, AI, and other disruptive technologies, which catapult the global economy into a new era of industry and post-pandemic progress.

Big Tech companies use their political clout to end net neutrality, allowing internet providers to wall off information and services. “Buyer, beware” approaches to regulation mean all kinds of questionable products are readily available for consumption. Fossil fuel companies increase their research and development in the areas of renewable energy generation and carbon capture to protect their business interests, even though the climate has been surprisingly stable. This allows those who denigrate climate change to promote business-as-usual practices.

China’s DrivePower is the latest company to make highly autonomous vehicles (HAVs) available to consumers. These HAVs can operate only in specific areas, such as limited-access highways and some major arterials, and in good weather conditions. While some manufacturers promise full HAVs that can go anywhere in any condition within a few years, others cautiously warn that this may take decades due to the need for advances in computing power and artificial intelligence.

The race to deploy HAVs began to heat up with the passage of the ROBOTIC DRIVING Act of 2022, aimed at speeding up HAV deployment in the wake of the COVID-19 pandemic. This legislation removed all vehicle safety regulations for HAVs and directed the National Highway Traffic Safety Administration (NHTSA) to create a new regulatory structure for them, limited the ability of state and local governments to restrict HAVs on their roadways, granted states the right to apply congestion pricing on interstates and other highways, and required manufacturers to develop plans for collecting data while ensuring privacy and communicating this to consumers. While DrivePower faces stiff competition, bigger questions remain about what this means for Greater Philadelphia’s fast-changing transportation system. The public has had little opportunity to weigh in on their wants and needs for these vehicles, or to help shape the newly emerging transportation system.
What do you value most in Greater Philadelphia today?

What concerns you the most when thinking about Greater Philadelphia in the future?

What is your vision and/or goals for the region?
1. Where Are We Today?

2. Where Are We Going?
   - Scenario A: Adaptive / Contingent Actions
   - Scenario B: Informing Strategies
   - Scenario C: Universal Strategies

3. Where Do We Want To Go?

4. How Do We Get There?
Timeline

**SPRING-SUMMER 2019**
Scenario Planning

**WINTER 2020**
Current Conditions

**SPRING-SUMMER 2020**
Visioning

**FALL-WINTER 2020**
Strategies

**SUMMER 2021**
Public Comment

**FALL 2021**
Present the Plan to the DVRPC Board for Adoption
EXPLORATORY SCENARIOS FOR GREATER PHILADELPHIA

DISPATCHES from

ALTERNATE FUTURES

DELAYED EXPECTATIONS
A world reinvented by climate change and economic slowdown

PEOPLE POWER
Growth as a movement to a more just and sustainable future

TECHNOLOGY IN THE DRIVER'S SEAT
Big Tech takes control

INCLUSIVE TECH
A new equitable economy emerges through inclusive technologies

IN THIS ISSUE

COVID-19 BREAKING NEWS
See pages 56, 60, 64, and 68

dvrpc.org/LongRangePlan/FuturesGroup/
THANK YOU!

Jackie Davis
jdavis@dvrpc.org