Delaware River Joint Toll Bridge Commission

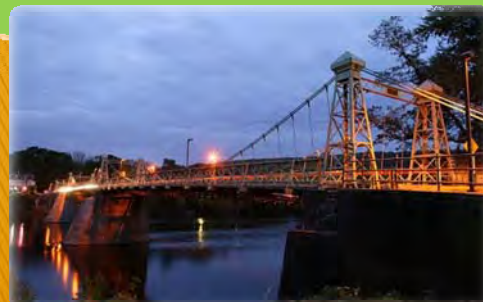
DRJTBC Overview

Delaware Valley Regional Planning Commission

Delaware Valley Goods Movement Task Force Meeting

April 13, 2011

Presented by:
Kevin M. Skeels, PE
Sr. Program Manager



PRESENTATION

1. Commission Overview
2. Capital Program Overview
3. Completed Projects
4. I-95/Scudder Falls Bridge Improvement Project

Delaware River Joint Toll Bridge Commission

Delaware River
Joint Toll Bridge
Commission

DRJTBC Overview

Commission Overview

- Est. in 1934 as a bistate agency
- Operates 7 toll bridges and 13 toll-supported bridges
- Jurisdiction extends 140 miles from Philadelphia/Bucks County line to New York State border
- The jurisdiction includes 8 counties (4 NJ and 4 PA plus a portion of Burlington County)
- Operates all vehicular bridges within our jurisdiction with the exception of Burlington-Bristol Bridge; PA/NJ Turnpike Bridge; and the Dingman's Ferry Bridge
- www.drjtbc.org

Delaware River Joint Toll Bridge Commission

DRJTBC Commissioners – PA & NJ

- A Board of 10 Commissioners: 5 from Pennsylvania and 5 from New Jersey
- The Pennsylvania members are 5 citizens appointed by the Governor of the Commonwealth of Pennsylvania and serve at the pleasure of the Governor.
- The New Jersey members are 5 citizens appointed by the Governor of the State of New Jersey, with the consent of the State Senate for three-year terms. The three-year terms are not concurrent:
  - Two members are appointed in year 1
  - Two members are appointed in year 2
  - One member appointed in year 3

Delaware River Joint Toll Bridge Commission

DRJTBC Toll Bridges

Toll Bridge	Year Built	Route
Trenton – Morrisville	1952	US 1
New Hope – Lambertville	1971	US 202
Interstate 78	1989	I-78
Easton – Phillipsburg	1938	US 22
Portland – Columbia	1953	US 46, PA 611
Delaware Water Gap	1953	I-80
Milford – Montague	1953	US 206

Average Age – 52.6 Years

Delaware River Joint Toll Bridge Commission

DRJTBC Toll Supported Bridges

Toll Supported Bridge	Year Built	Route
Lower Trenton	1927	Local
Calhoun Street	1884	Local
Scudder Falls	1959	I-95
Washington Crossing	1904	Local
New Hope – Lambertville	1904	Local
Centre Bridge – Stockton	1926	Local
Lumberville – Raven Rock	1947	Pedestrian
Upper Black Eddy – Milford	1931	Local
Uhlerstown – Frenchtown	1933	Local
Riegelsville	1904	Local
Northampton Street	1894	Local
Riverton – Belvidere	1904	Local
Portland – Columbia	1957	Pedestrian

Average Age – 89.9 Years

Average Age all Bridges – 76.9 Years

6 Bridges are 100+ Years old!

Average Daily Traffic (ADT)

381,800 Vehicles Use Commission Bridges on an Average Day

Toll Bridge	ADT
Trenton – Morrisville	54,300
New Hope – Lambertville	10,400
Interstate 78	58,700
Easton – Phillipsburg	38,100
Portland – Columbia	7,800
Delaware Water Gap	55,400
Milford – Montague	6,500
Total	231,200

Toll Supported Bridge	ADT
Lower Trenton	20,100
Calhoun Street	10,700
Scudder Falls	**58,200**
Washington Crossing	5,800
New Hope – Lambertville	14,300
Centre Bridge – Stockton	4,800
Uhlerstown – Frenchtown	4,100
Upper Black Eddy–Milford	3,700
Riegelsville	3,100
Northampton Street	21,000
Riverton – Belvidere	4,800
Total	150,600

Delaware River Joint Toll Bridge Commission

2010 Toll Bridge Traffic

- Toll Direction Vehicles by Classification:

Passenger	**33,876,488**
2-Axle Trucks	813,591
3-Axle Trucks	342,575
4-Axle Trucks	290,680
5-Axle Trucks	3,221,119
6-Axle Trucks	79,023
7-Axle Trucks	3,717
Permits	40
Total Trucks	**4,750,745**
Total Toll Vehicles	**38,627,233**

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Delaware River
Joint Toll Bridge
Commission

DRJTBC Capital Program

Capital Improvement Program
A Four Pronged Strategy

- System Preservation
  - Bridge rehabilitation and/or modernization
- System Protection
  - Protect facilities from sabotage and/or terrorism
- System Management
  - Operational and/or service change to optimize capacity
- System Enhancement
  - Expansion and/or construction of new transportation facilities

Delaware River Joint Toll Bridge Commission

Capital Program Statistics

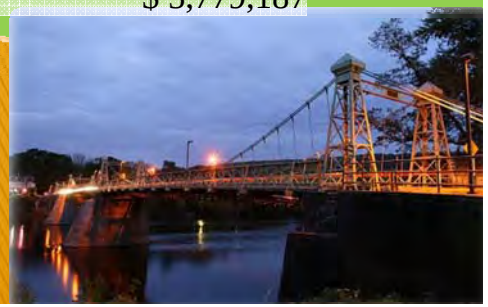
- At the end of 2010:
  - 83 Projects Completed from 2001 – 2010, $311.8M spent
  - 32 Projects currently underway with a value of $508.8M
  - 42 Projects planned for future with a value of $339.1M

Delaware River Joint Toll Bridge Commission

Delaware River Joint Toll Bridge Commission

Completed Projects

Trenton – Morrisville (Route 1) Toll Bridge Rehabilitation + One NB Aux. Lane	$ 104,419,623
I-78 Roadway Rehabilitation	$ 51,007,737
Electronic Surveillance/Detection System	$ 21,778,695
Milford - Montague TB Rehabilitation	$ 19,075,486
E-Z Pass Implementation	$ 18,023,146
Calhoun Street TSB Rehabilitation	$ 11,151,480
I-78 Open Road Tolling (ORT) Lanes	$ 10,250,074
Centre Bridge – Stockton TSB Rehabilitation	$ 9,730,805
New Hope - Lambertville TB Plaza & Bridge Rehabilitation	$ 9,671,373
Riegelsville TSB Rehabilitation	$ 8,043,560
Riverton – Belvidere TSB Rehabilitation	$ 9,258,099
I-80 / DWG Open Road Tolling	$ 7,721,816
New Hope - Lambertville TSB Rehabilitation	$ 7,700,991
Northampton Street Bridge TSB Rehabilitation	$ 7,364,066
Uhlerstown - Frenchtown TSB Rehabilitation	$ 5,779,187



E-Z Pass Implementation

Project: E-Z Pass Implementation

Program Cost: $18.0 Million

Status: Program Manager – Washington Group

Owner's Representative – STV, Inc.

System Integrator – Transcore

Customer Service Center - ACS

Commission Initiative / System-Wide

Project: Electronic Surveillance/Detection System

Contract Costs: $21.8 Million

Status: Program Manager – Edwards & Kelcey

Design/Build – MASS Electric Construction Co.

Trenton – Morrisville Toll Bridge

Project: Rehabilitation of T-M Toll Bridge + One Auxiliary Lane

Program Cost: $104.4 Million

Status: Design/Post Design – The Louis Berger Group, Inc.

CM/CI – Hill International

Construction – Conti Enterprises

New Hope – Lambertville Toll Bridge

Project: New Hope – Lambertville TB Rehabilitation

Program Cost: $9.7 Million

Status: Design/Post Design – Michael Baker, Jr.

CM/CI – Hatch Mott MacDonald

Construction – Road-Con, Inc.

Interstate 78 Toll Bridge

Project: I-78 Roadway Rehabilitation

Contract Costs: $51.0 Million

Status: Design/Post Design – PB Americas, Inc.

CM/CI – Greenman – Pedersen, Inc.

Construction – Tilcon, Inc.

Interstate 78 Toll Bridge

Project: I-78 Open Road Tolling (ORT) Lanes

Program Cost: $10.3 Million

Status: Preliminary Design – HNTB Corp.

CM/CI – Hill International

Design/Build – K.S. Engineers / A.P. Construction, Inc

Interstate 80 / Delaware Water Gap Toll Bridge

Project: I-80 Open Road Tolling

Program Cost: $7.7 Million

Status: Design/Post Design – Stantec Consulting

CM/CI – Greenman-Pedersen, Inc.

Construction – A.P. Construction, Inc.

Milford – Montague Toll Bridge

Project: M-M Toll Bridge Rehabilitation

Program Cost: $19.1 Million

Status: Design/Post Design – Modjeski & Masters

CM/CI – STV, Inc.

Construction – IEW Construction Group

Calhoun Street Toll-Supported Bridge

Project: Calhoun Street TSB Rehabilitation

Program Cost: $11.1 Million

Status: Design/Post Design – TranSystems

CM/CI – Hill International

Construction – Neshaminy Constructors

Riegelsville Toll-Supported Bridge

Project: Riegelsville TSB Rehabilitation

Program Cost: $8.0 Million

Status: Design/Post Design – Ammann & Whitney

CM/CI – STV, Inc.

Construction – Neshaminy Constructors, Inc.

Riverton – Belvidere Toll-Supported Bridge

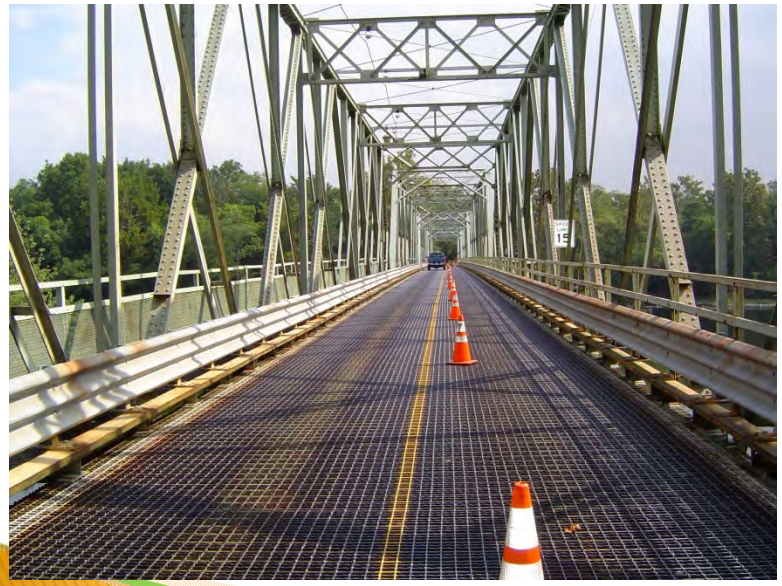
Project: Riverton – Belvidere TSB Rehabilitation

Program Cost: $9.3 Million

Status: Design/Post Design – Greenman-Pedersen (GPI)

CM/CI – French & Parrello, P.A.

Construction – J.D. Eckman, Inc.



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Joint Toll Bridge
Commission

I-95/Scudder Falls Bridge Improvement Project

Project Status Update

I-95/Scudder Falls Bridge Replacement Project – Project Status Update

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Brief Project Overview

- Develop and implement improvements to the Scudder Falls Bridge and I-95 from PA 332 to NJ Bear Tavern Road to meet a Traffic Level Of Service (LOS) D for design year 2030
- Improvements to:
  - PA I-95
  - Taylorsville Road Interchange
  - Scudder Falls bridge
  - NJ 29 Interchange
  - NJ I-95
- Environmental Documentation and Preliminary Engineering funded by DRJTBC

Delaware River Joint Toll Bridge Commission

Project Limits

- **Location:** Lower Makefield Township, Bucks County and Ewing Township, Mercer County
- **Project Length:** 4.4 miles of I-95
- **Current Highway Configuration:**
  - Extends south from Bear Tavern Road as three lanes in each direction
  - Route 29 marks transition to two lanes in each direction, north of and near bridge crossing
  - Southern limit at PA Route 332 Interchange

Delaware River Joint Toll Bridge Commission

I-95/Scudder Falls Bridge
Improvement Project

29

ACCOMPLISHMENTS TO DATE

- Started project July 1, 2003
- Completed assessment of existing environmental resources.
- Developed traffic modeling, projections, and LOS conditions.
- Developed alternatives and options for the corridor including mainline I-95, the Scudder Falls Bridge and Interchanges at Rte 29 and Taylorsville Rd.
- Held Numerous Agency Coordination, Township and Open House Meetings
- December 2009 – Circulated the Environmental Assessment and Draft 4(f) Evaluation Documents for review by the public
- December 2009 – Decided replacement bridge would become a Toll Bridge, using All Electronic CashlessTolling (No Toll Booths)
- January 2010 – Public Hearing held in NJ & PA
- April 2010 – Commission announces inclusion of Pedestrian/Bicycle Facility as part of the new Scudder Falls Bridge
- June 2010 – No Jeopardy determination from NMFS on Section 7 Consultation
- August 2010 – Governors Christie & Rendell direct DRJTBC to investigate the feasibility of pursuing the $321M bridge project as a public private partnership (P3)
- September 2010 – Proposals received for P3 Financial / Legal Advisory Services from ten firms
- November 2010 – Section 106 Cultural Resources Review Programmatic Agreement Executed

Delaware River Joint Toll Bridge Commission

ACTIVITIES IN PROGRESS

- Environmental Documentation Completion:
  - Addendum to the Environmental Assessment
  - Final 4(f) Evaluation Document
  - Coordination with Transportation Agencies
  - NEPA Decision
- Advanced Engineering Services on Priority Tasks:
  - Archaeological Resource Mitigation
  - Stormwater Management Design
  - Site Survey
  - ROW Document Preparation
  - Coordination with Regulatory Agencies
  - Permit Application Preparation and Submittal
  - Public Outreach Program
  - Project Website www.scudderfallsbridge.com

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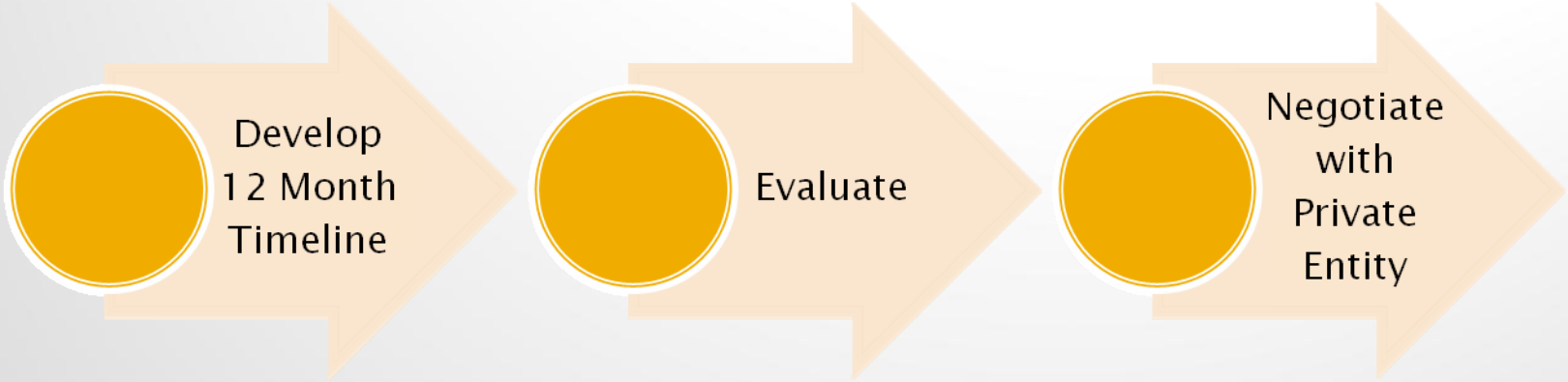
P3 Financial/Legal Advisory Services Scope of Services

- 90-Day 'Go/No-Go' Recommendation
- P3 Market Analysis
- Financial Model
- Financial/Legal Advisory Services



Delaware River Joint Toll Bridge Commission

P3 Financial/Legal Advisory Services List of Interested Firms

1. Castalia Strategic Advisors
2. Grant Thornton, LLP
3. Greenhill & Co.
4. Infrastructure Management Group, Inc.
5. KPMG, LLP
6. Lazard
7. NW Financial
8. The PFM Group
9. Piper Jaffray & Co
10. Scott Balice Strategies LLC

Delaware River Joint Toll Bridge Commission

Questions / Comments

Thank you!

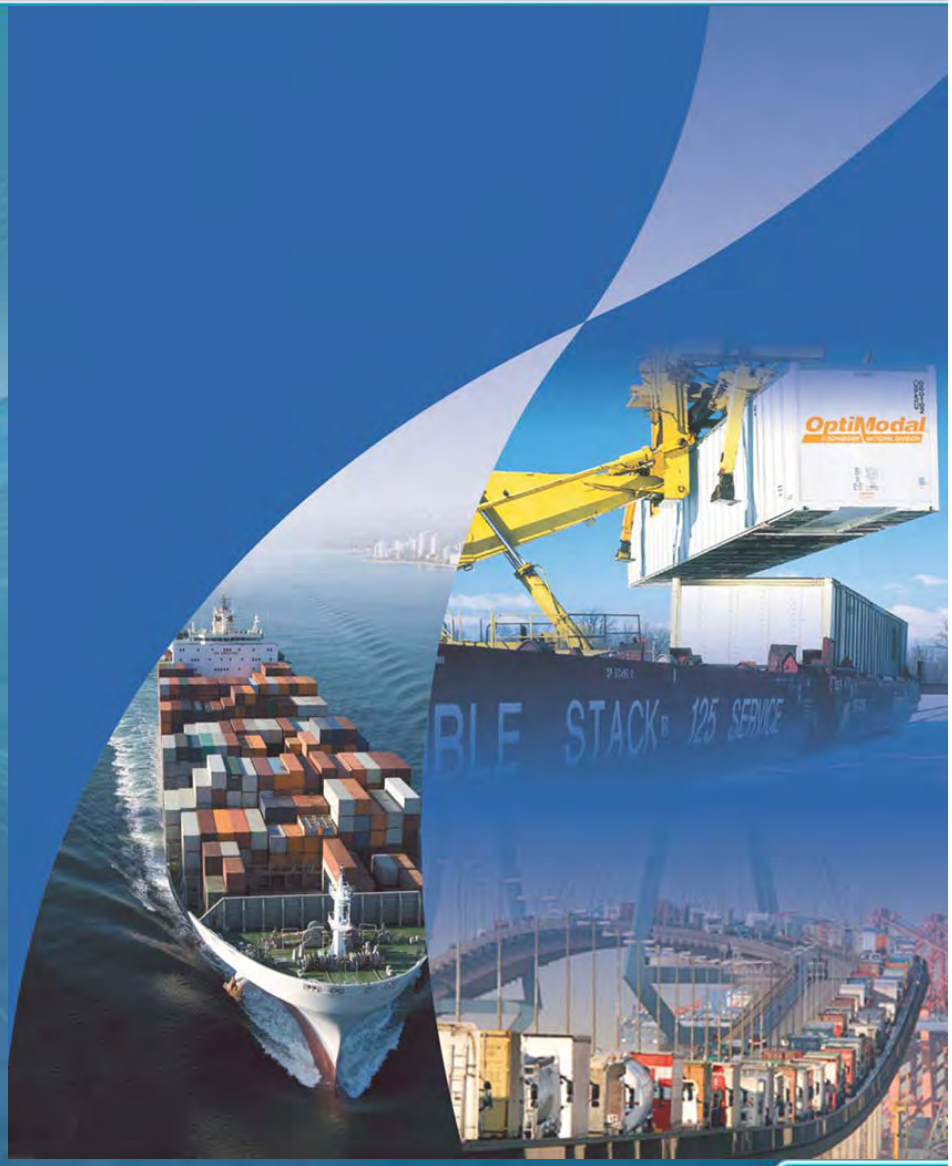
Delaware River Joint Toll Bridge Commission

Halcrow

Developments in Urban Freight Planning

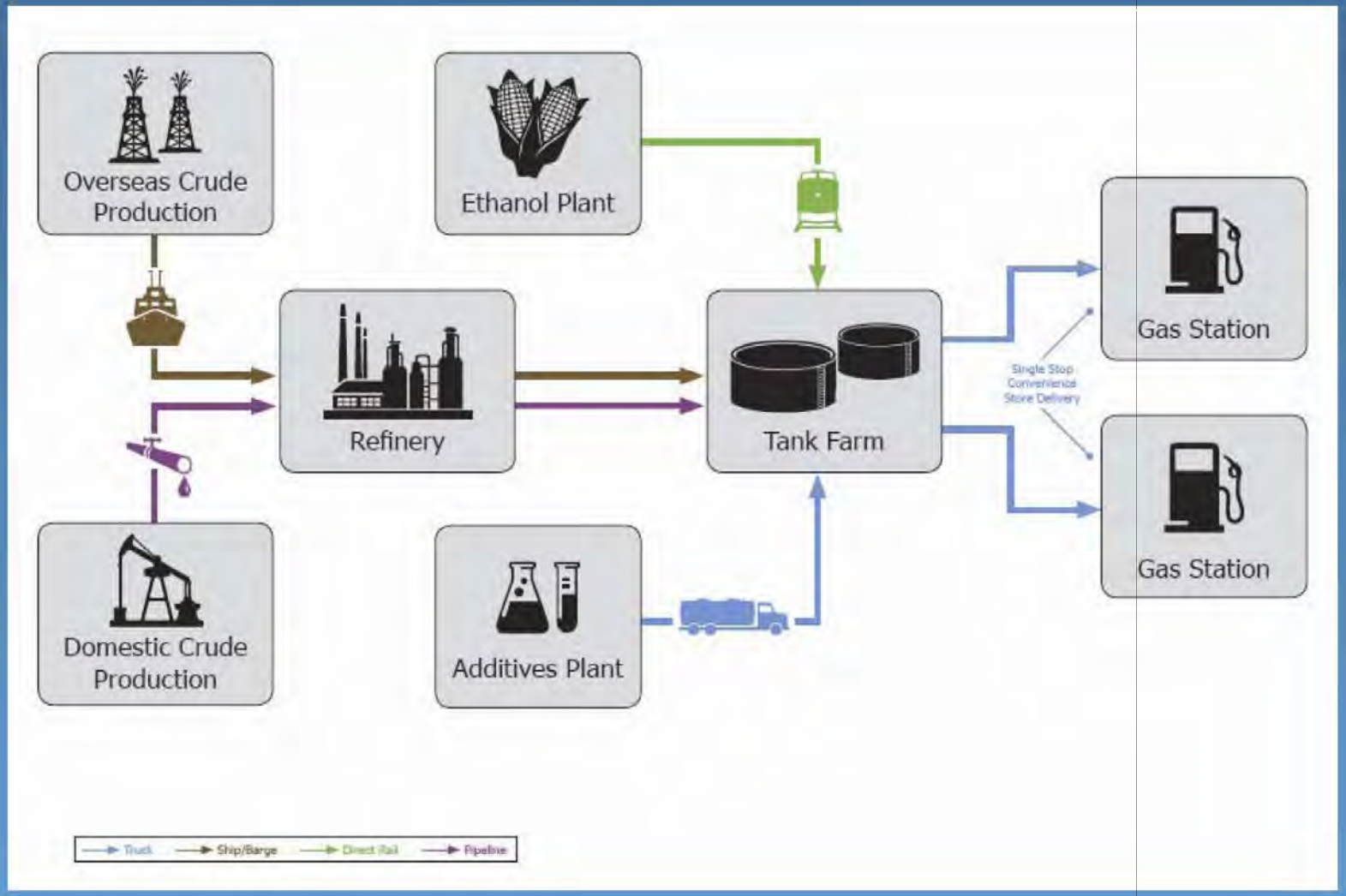
DVRPC Goods Movement Task Force Quarterly Meeting April 2011

Joseph Bryan
Halcrow



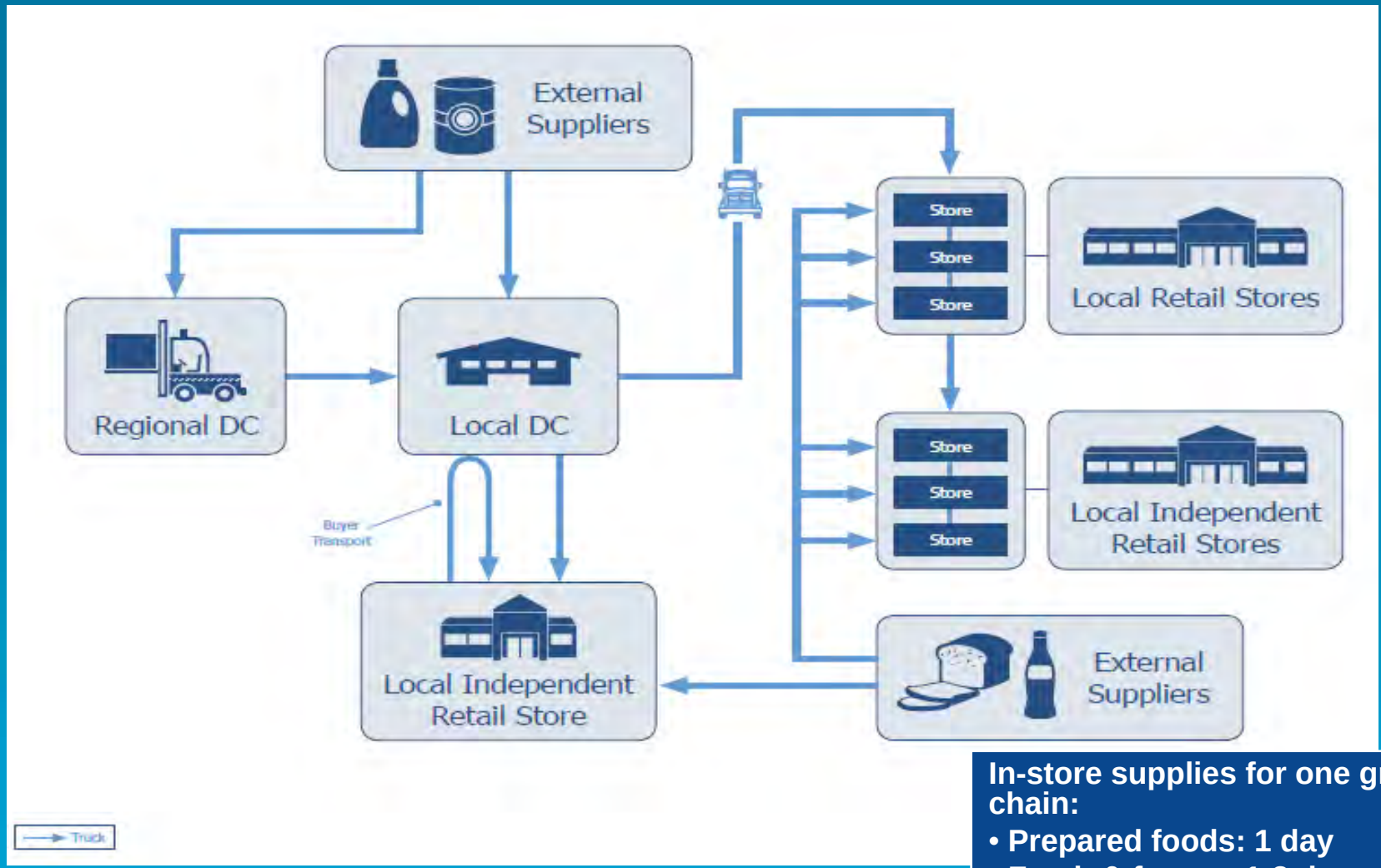
Freight Networks: Supply Chains

Supply Chain: Gasoline



Source:
NCFRP 15

Supply Chain: Supermarket Grocery



In-store supplies for one grocery chain:

- **Prepared foods: 1 day**
- **Fresh & frozen: 1-3 days**
- **Dairy: 2 days**
- **Dry goods: up to 7 days**

Source:
NCFRP 15

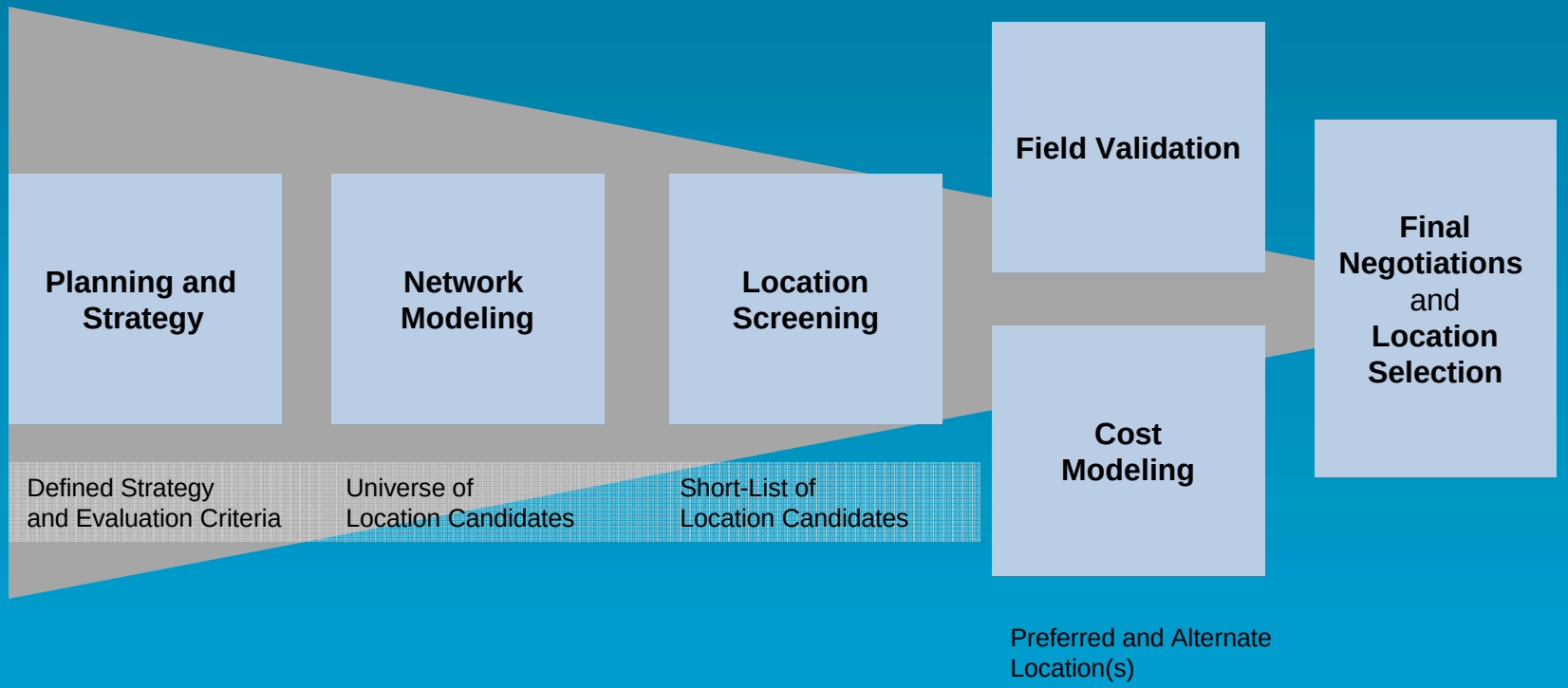
Facility Placement & Priorities

- Locations fit in a network fulfilling a business process
- Network optimizes business drivers to serve a market franchise
- ➡ Location process is expression of network strategy

Source:
NCFRP 23

Location Process

Location Process allows for progressive testing and narrowing of alternatives based on business drivers



Source:
NCFRP 23

Network Structural Design

- Supply chain network models essentially minimize cost, based on:
  - Where customers are
  - Modal portfolio and transport costs
  - Facility operating costs: leasing, labor and skills, utilities, etc.
  - Management preferences

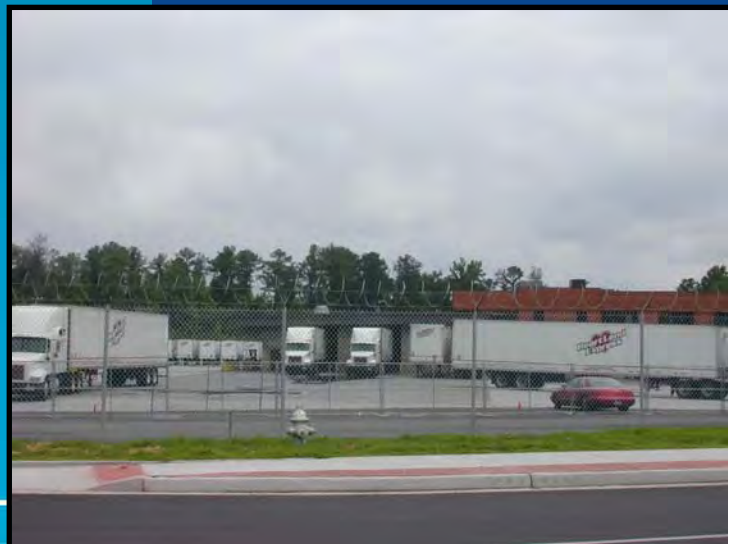
- Tend to add DCs when fuel costs climb
  - Carbon would have same effect, if monetized
- Do not consider congestion, but could
- Trend is to cross-docks: Goods in Motion

Site selection happens afterward, so is constrained by network structure

Freight Operating Networks

- **In facility investment:**
  - **Service performance as important as capacity**
  - ***Competitive* factor**
- **Mobile equipment most common investment**
  - **Operating network**
- **Franchise (market) investment explains and drives facilities and equipment**
  - **Position in network**
- **“Miles top consideration for terminals”**
  - **Service performance, efficiency – and carbon footprint**

Not just capacity: competitiveness



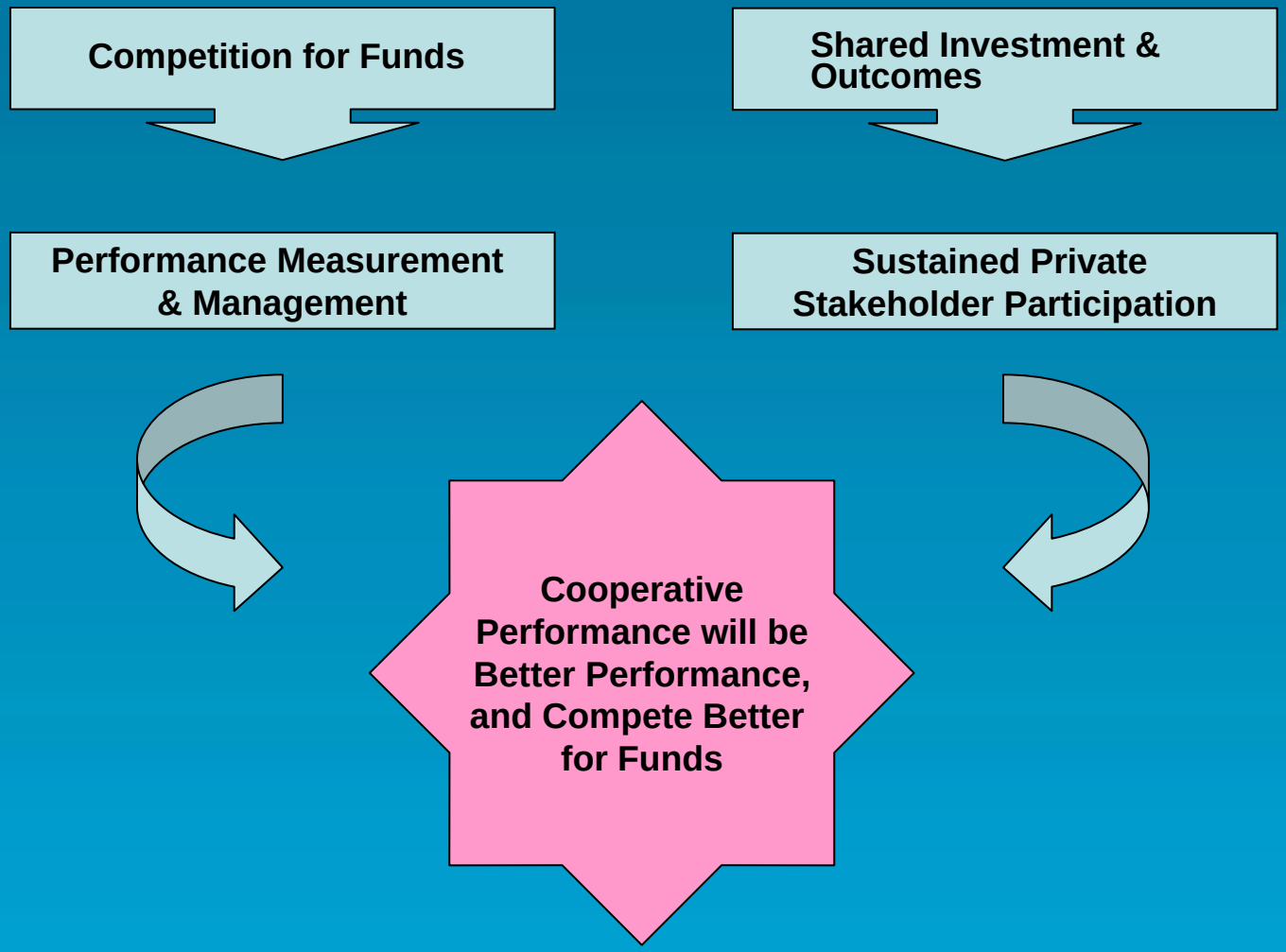
GHG Effect on Freight Sustainability

- GHG elevates 3rd factor in standard tradeoff
  - Miles vs. Time vs. Conditions
- GHGs require *absolute* reduction
  - Cannot export emissions
  - ➡ Circuity costly: every mile counts
- Requires confrontation of structural emissions
  - Land use patterns (long term)
  - Supply chain design (medium term)
  - ➡ Logistics facility retrofit
- Public & private interests coincide
  - Fuel and carbon efficiency
  - Political rationale for freight-friendly policy
  - SmartWay experience

Efficient operations reduce GHG emissions

Freight Networks: Urban

Potential Challenge from Reauthorization



Performance Management from Private Perspective

- Manage reliability and speed, but also:
  - Trips per day
  - Miles between stops and loads [land use]
  - Fuel & carbon economy of routes & access queues
  - So, service quality, but also *productivity* of physical, financial, and human assets
- Manage linehaul [intercity] performance, but *urban* management key
  - The pickup, delivery, & transfer environment
  - Highest disruption risk
  - Least recovery time
  - Harder to measure
- Variable standards by location
  - Observe operating context
  - Expect improvement

Take care of productivity, and service tends to follow

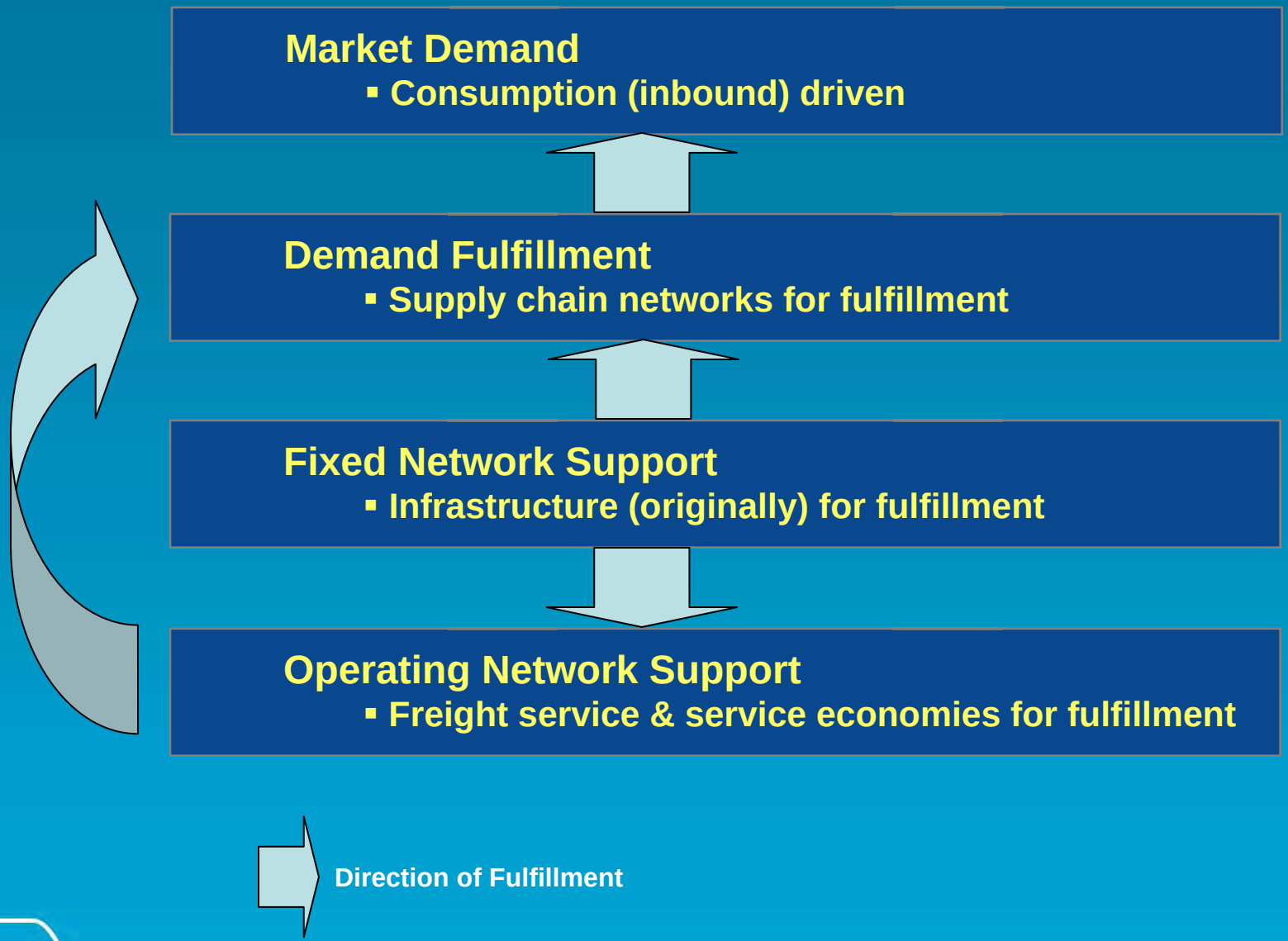
Atlanta Truck Route Master Plan

- Implements key recommendation of Freight Mobility Plan: core freight system (grid)
- Represents fundamental change in understanding purpose of truck routes
  - From prohibition to productivity improvement
  - All counties volunteered *additional* routes
- Objective is service to metropolitan region
  - Crosstown stem and access routes
  - 10-15 minutes from P&D to grid
  - Redefinition of "through" truck
  - Chief challenge: sustained connectivity
- Improves system by improving freight operations

➡ Focuses investment and management

As companies caught on to purpose of Plan, attitudes transformed

Demand Fulfillment

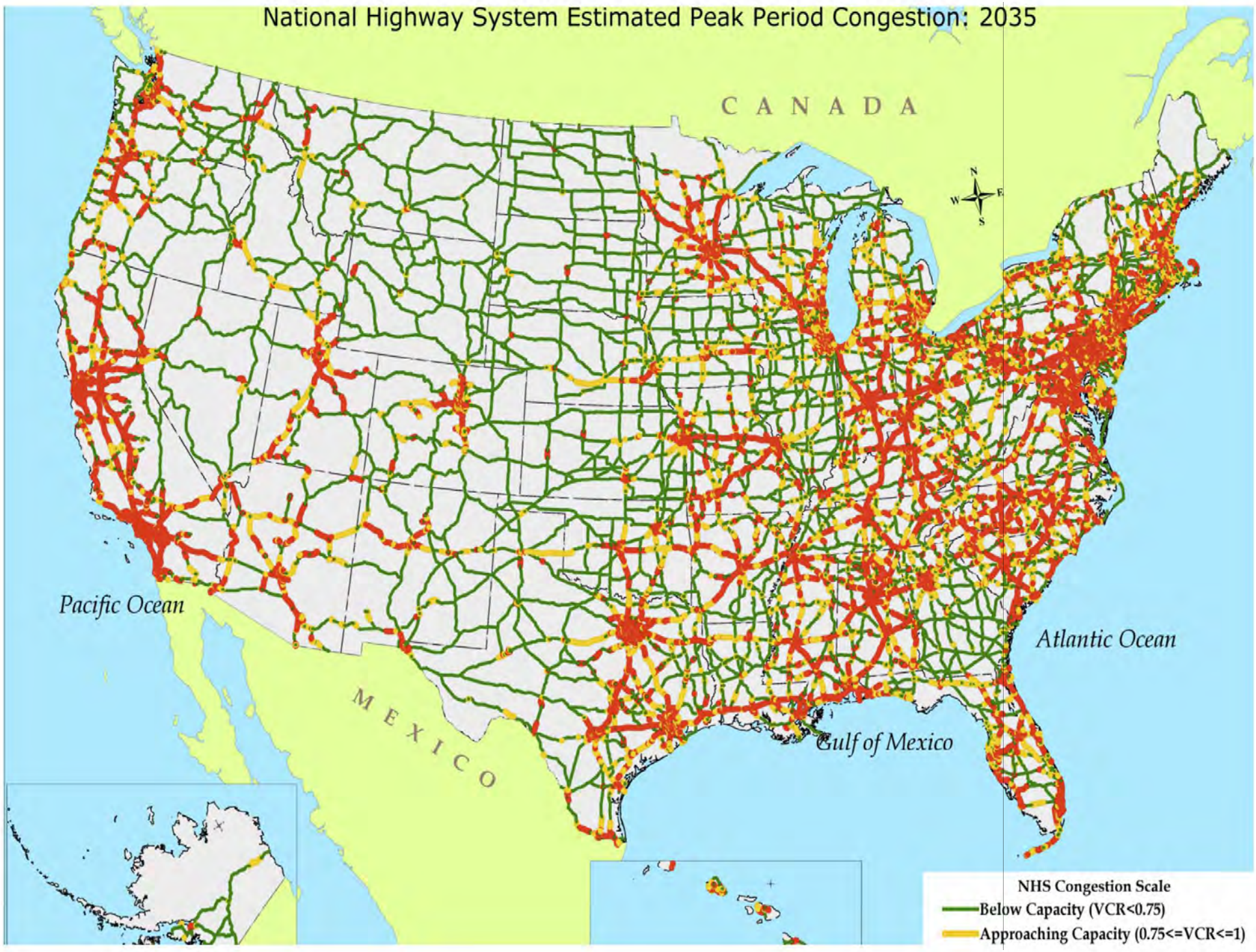


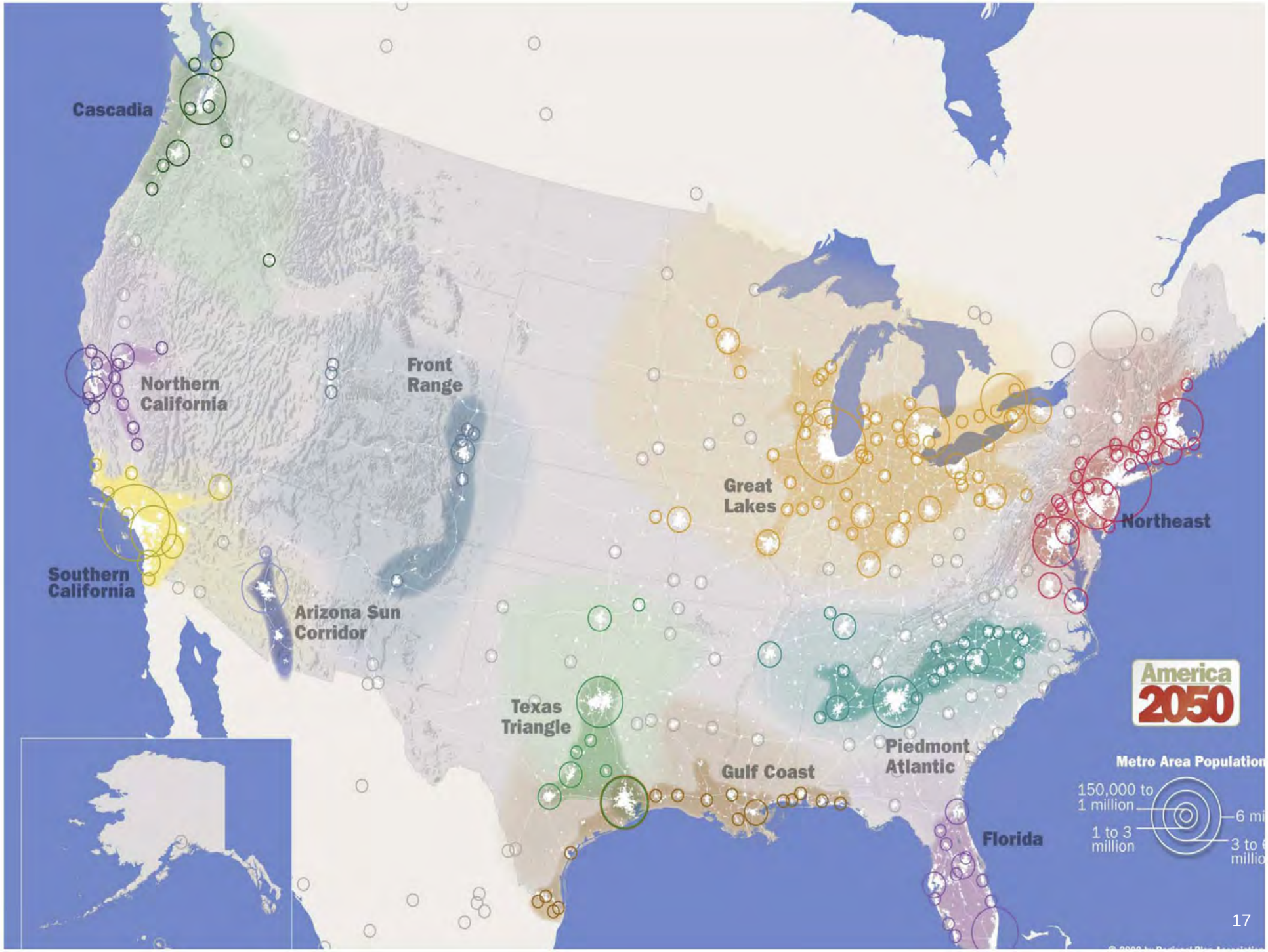
Proposition

- The fixed network tends to be managed for capacity and not competition
  - The flaw in Open Access
- The supply chain and the operating networks ***are*** designed to compete
  - As is the economy
- Missing: the freight operational facet to drive competitive performance
  - Follow the Fulfillment arrow
- Method: use freight operations to manage fixed network to meet competitive demand requirements

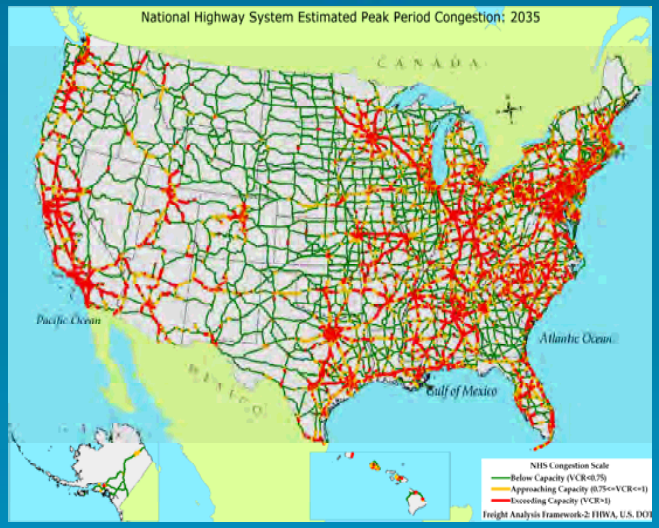
Reflections on Management

- Tend to Intercity transport *and* P&D for functioning system
  - Full realization of productivity & performance gains that produce economic advantage
- National, regional, state, city: single organism with various management & funding
- No one responsible for total performance
  - Like supply chain with no controlling party
- Needs better institutional mechanisms probably *not* needed for passenger
- Carriers don't approach agencies as interdependent partners in performance
  - Adapt to what's given


National Highway System Estimated Peak Period Congestion: 2035
CANADA
Pacific Ocean
MEXICO
Gulf of Mexico
Atlantic Ocean
N
W
E
S
NHS Congestion Scale
Below Capacity (VCR<0.75)
Approaching Capacity (0.75<=VCR<=1)


Cascadia
Northern California
Front Range
Great Lakes
Northeast
Southern California
Arizona Sun Corridor
Texas Triangle
Gulf Coast
Piedmont Atlantic
Florida
America 2050
Metro Area Population
150,000 to 1 million
1 to 3 million

Needs in Management



- **The emerging economic units are all riddled with congestion**
  - **Not unique to any city – or to US**
- **Regions will compete on ability to raise performance in teeth of this**
- **US needs American solution to problem of transportation improvement**
  - **Overarching institutions without adding to government**
  - **Authority in policies, priorities, and money**
  - **Joint action with private operators**
  - ➡ ***Because performance is a joint result***

Halcrow

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Thank you!

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About Halcrow







Halcrow is a global engineering and consulting firm in business since 1868.

We provide professional planning, design, project delivery and management services for infrastructure development and the built environment worldwide.

Halcrow has 3 principal business groups:

- **Transportation**
- **Natural Resources**
- **Development**

Transportation: Freight & Logistics

- Urban Freight Planning
- Freight Policy
- Port Inland Freight Integration
- Corridor Planning
- Economic & Financial Analysis
- Market Assessment

CONNECTIONS

THE REGIONAL PLAN FOR A SUSTAINABLE FUTURE

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

Implementing Connections: The Benefits for Greater Philadelphia

Delaware Valley Goods Movement Task Force

April 13, 2011

CONNECTIONS

THE REGIONAL PLAN FOR A SUSTAINABLE FUTURE

THE LONG-RANGE PLAN FOR THE GREATER PHILADELPHIA REGION

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

Core Plan Principles

Framework for a More Sustainable Future

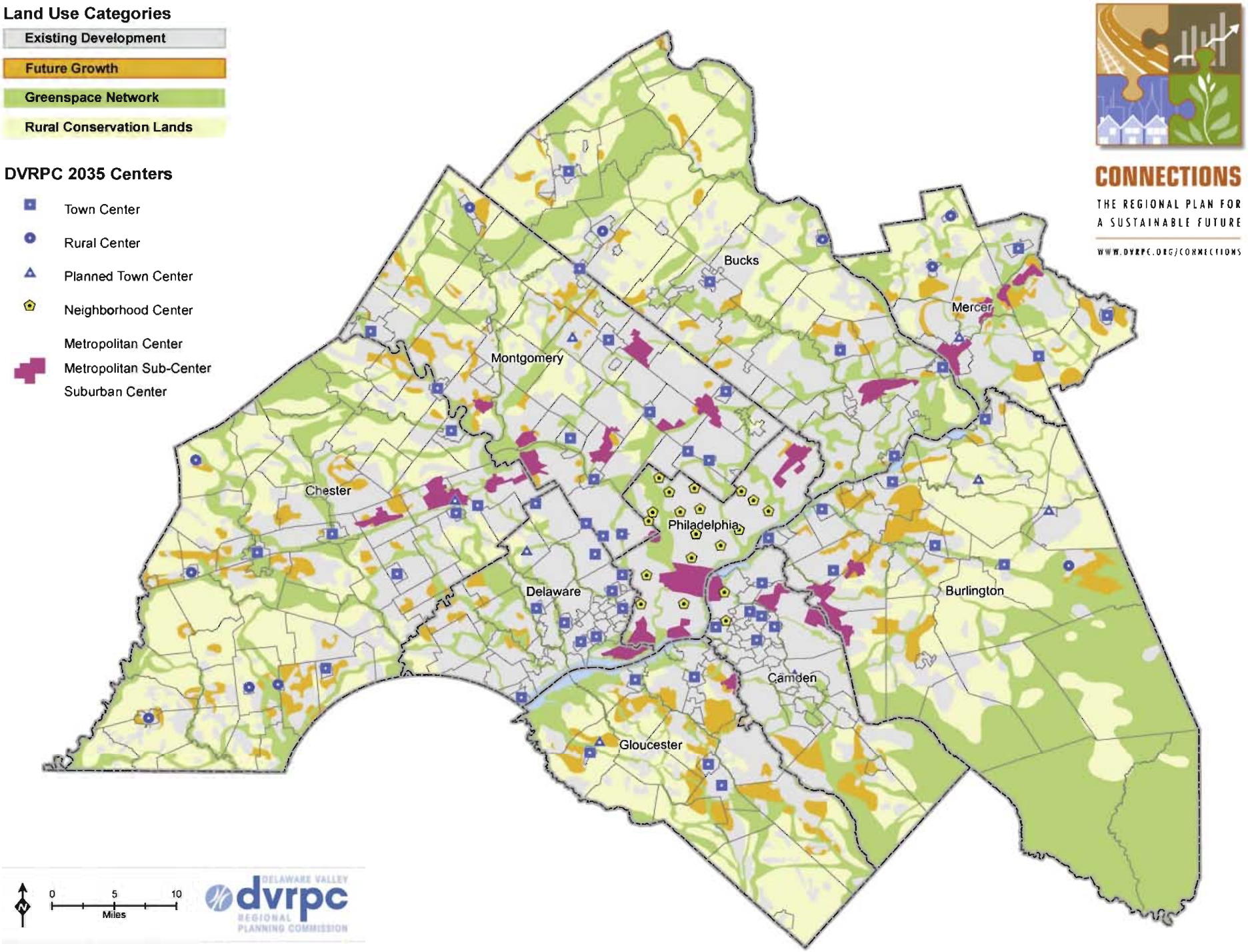
Manage Growth & Protect Resources

Create Livable Communities

Build an Energy-Efficient Economy

Modernize the Transportation System

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION


Land Use Categories
Existing Development
Future Growth
Greenspace Network
Rural Conservation Lands
DVRPC 2035 Centers
Town Center
Rural Center
Planned Town Center
Neighborhood Center
Metropolitan Center
Metropolitan Sub-Center
Suburban Center
CONNECTIONS
THE REGIONAL PLAN FOR A SUSTAINABLE FUTURE
WWW.DVRPC.ORG/CONNECTIONS
Bucks
Mercer
Montgomery
Chester
Philadelphia
Delaware
Burlington
Camden
Gloucester
0
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Miles
DELAWARE VALLEY
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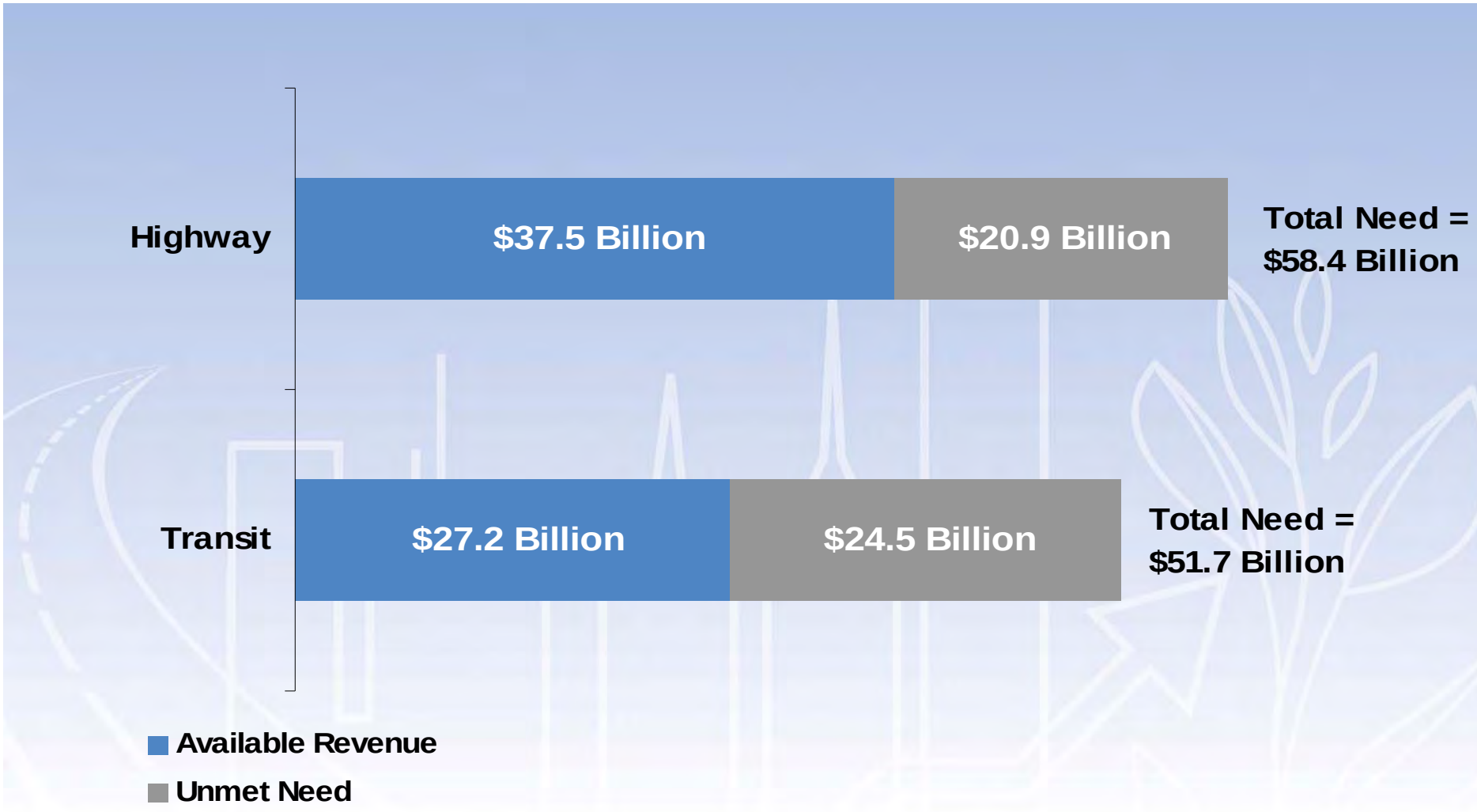
Connections Financial Plan



Regional Funding Options

- Increased Taxes or Fees, such as
  - Gas Tax or Fuel Sales Tax
  - Title and Registration
  - VMT Fee
  - Tire tax, etc.
- Tolling
- Bonds
- Public-Private Partnerships

Implementing Connections:
The Benefits for Greater Philadelphia

- Current 2010 Conditions
- Business As Usual Scenario
- Implemented Plan Scenario
  - Based on Policies and Goals in *Connections* Plan
  - Quantifies the Benefits of the *Connections* Plan

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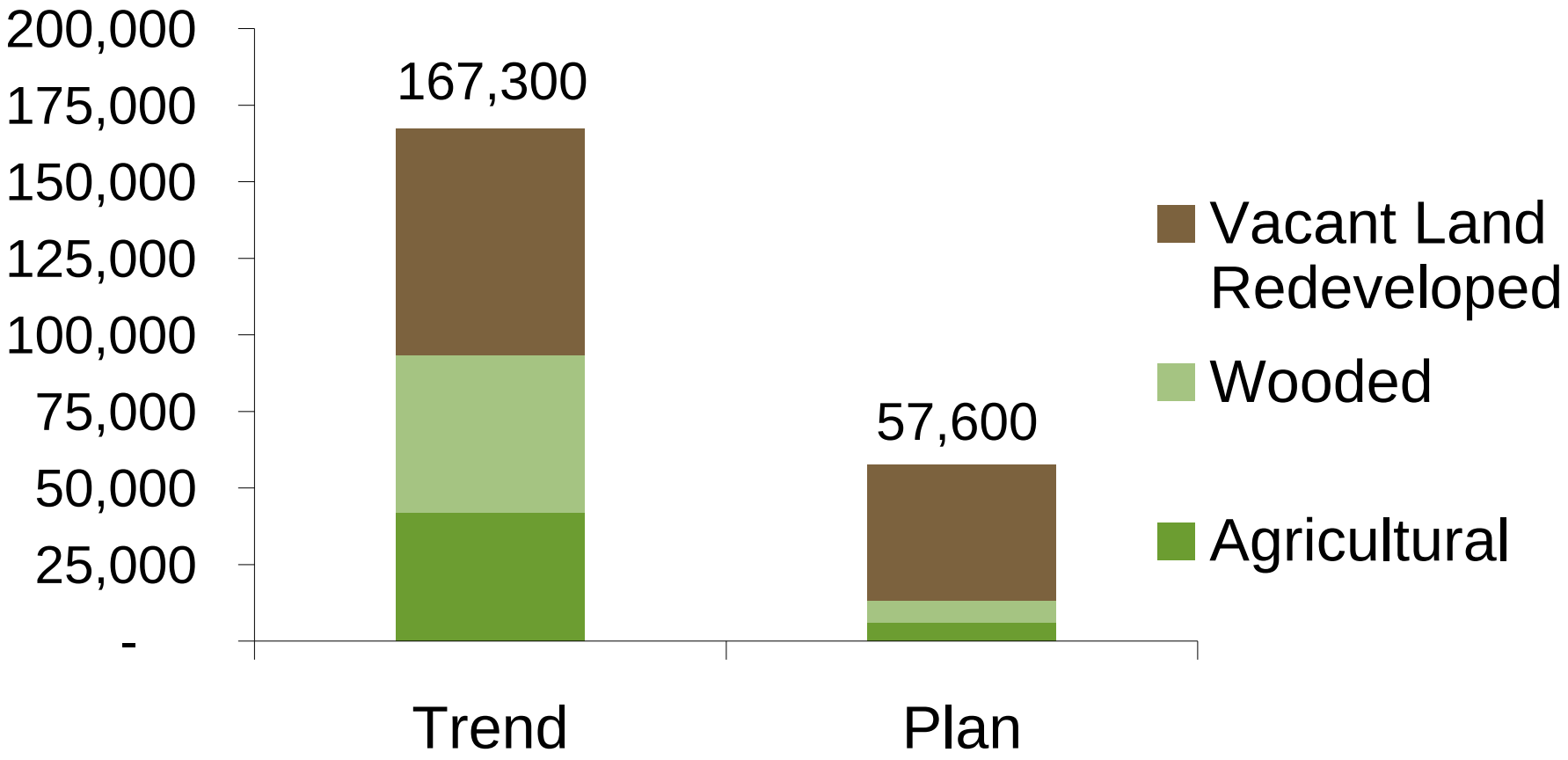
Manage Growth & Protect Resources

Land Development 2005 - 2035



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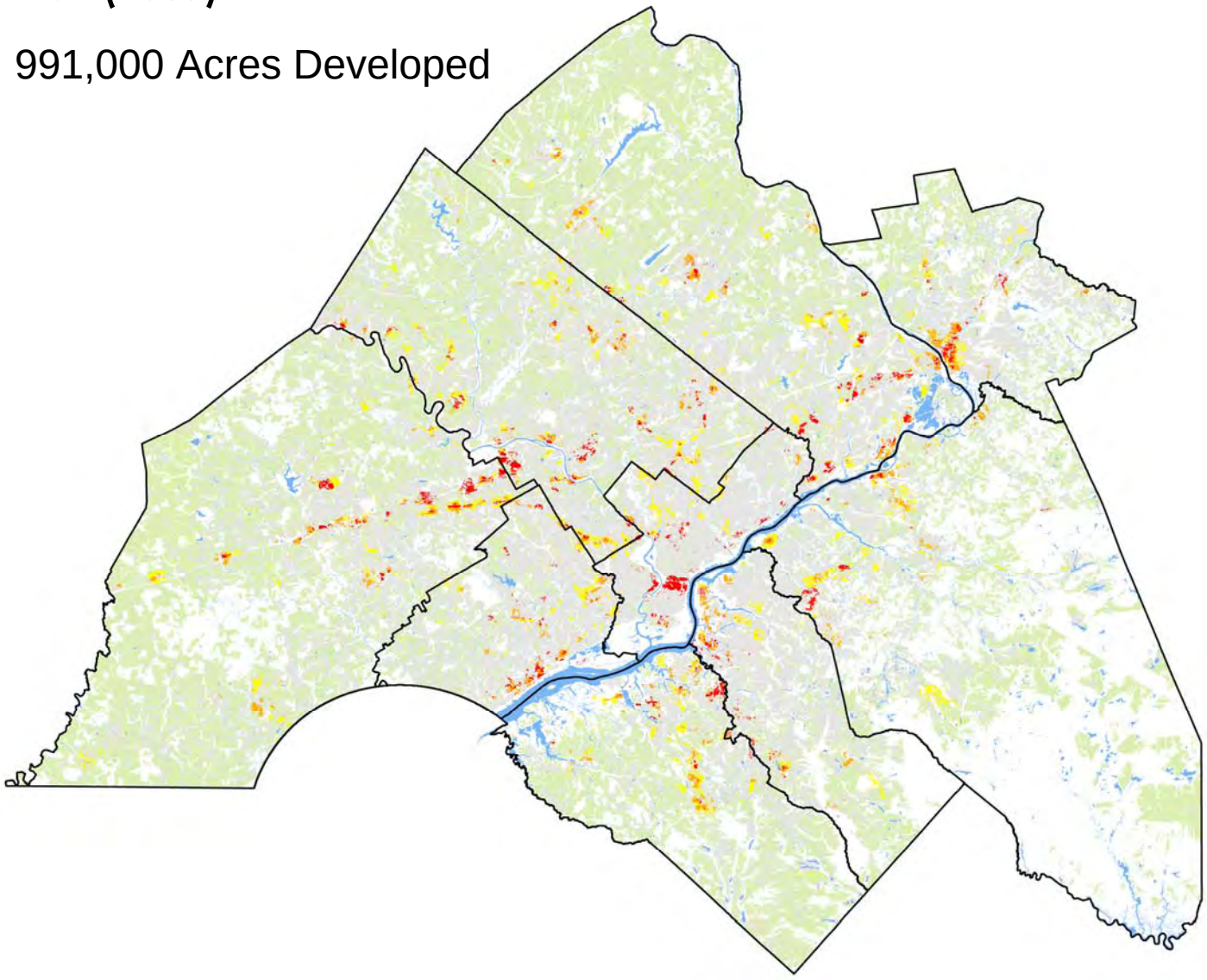
Plan (2035)

991,000 Acres Developed



Type of Future Development

Low Density Residential

Medium- to High-Density Residential

Nonresidential

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Create Livable Communities

Centers and Transit Accessibility

Marginal Change 2010-2035	Trend	Plan
Population in Centers	+50,000	+220,000
Employment in Centers	+120,000	+330,000
Population with Transit Access	+120,000	+240,000
Employment with Transit Access	+220,000	+340,000

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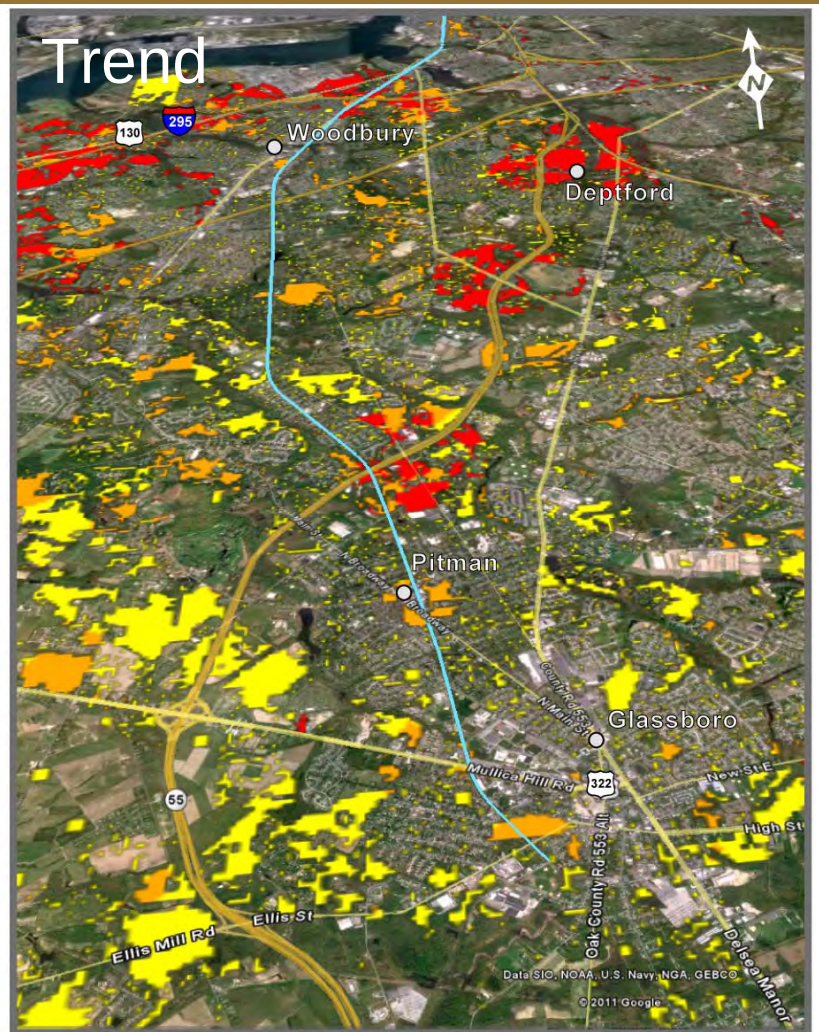
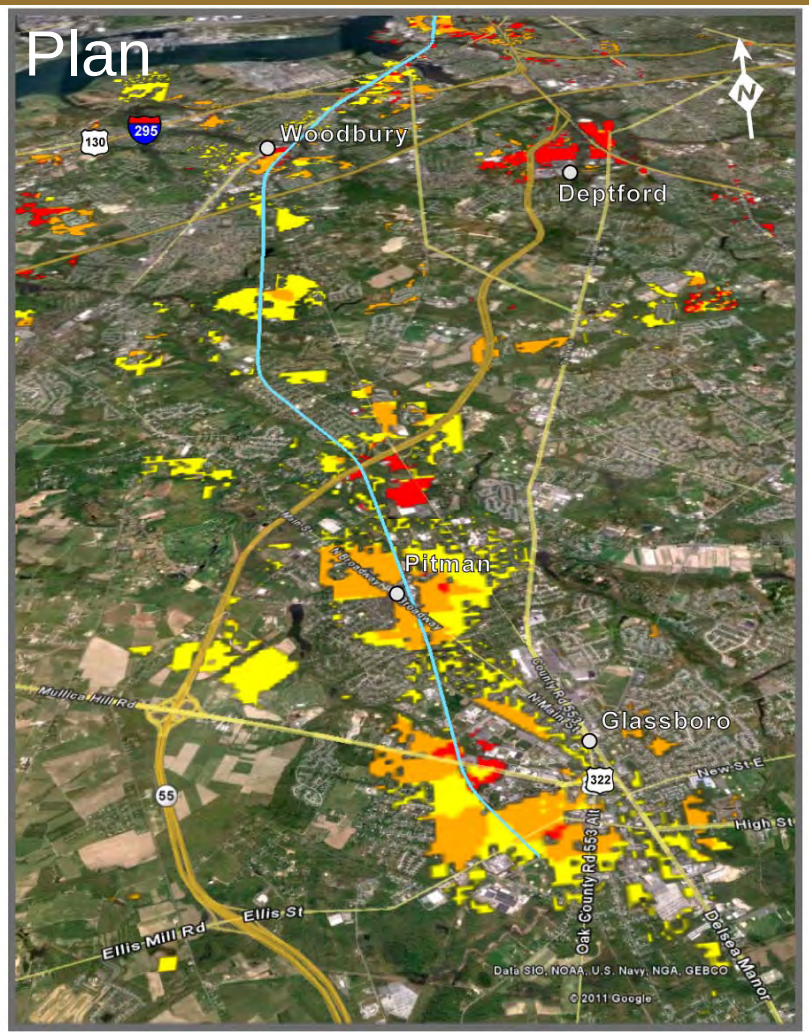
Create Livable Communities

Gloucester Rail Line Corridor





Low-Density Residential Medium- to High-Density Residential Nonresidential

Create Livable Communities

Supportive Infrastructure Cost

Infrastructure	Trend	Plan
Sewer and Water (billions)	$7.4	$4.3
Roads (billions)	$2.7	$1.9
Schools (billions)	$2.4	$2.5
Total Cost (billions)	**$12.4**	**$8.7**
Cost per New Housing Unit	**$48,000**	**$33,700**

All Figures in 2010 Dollars

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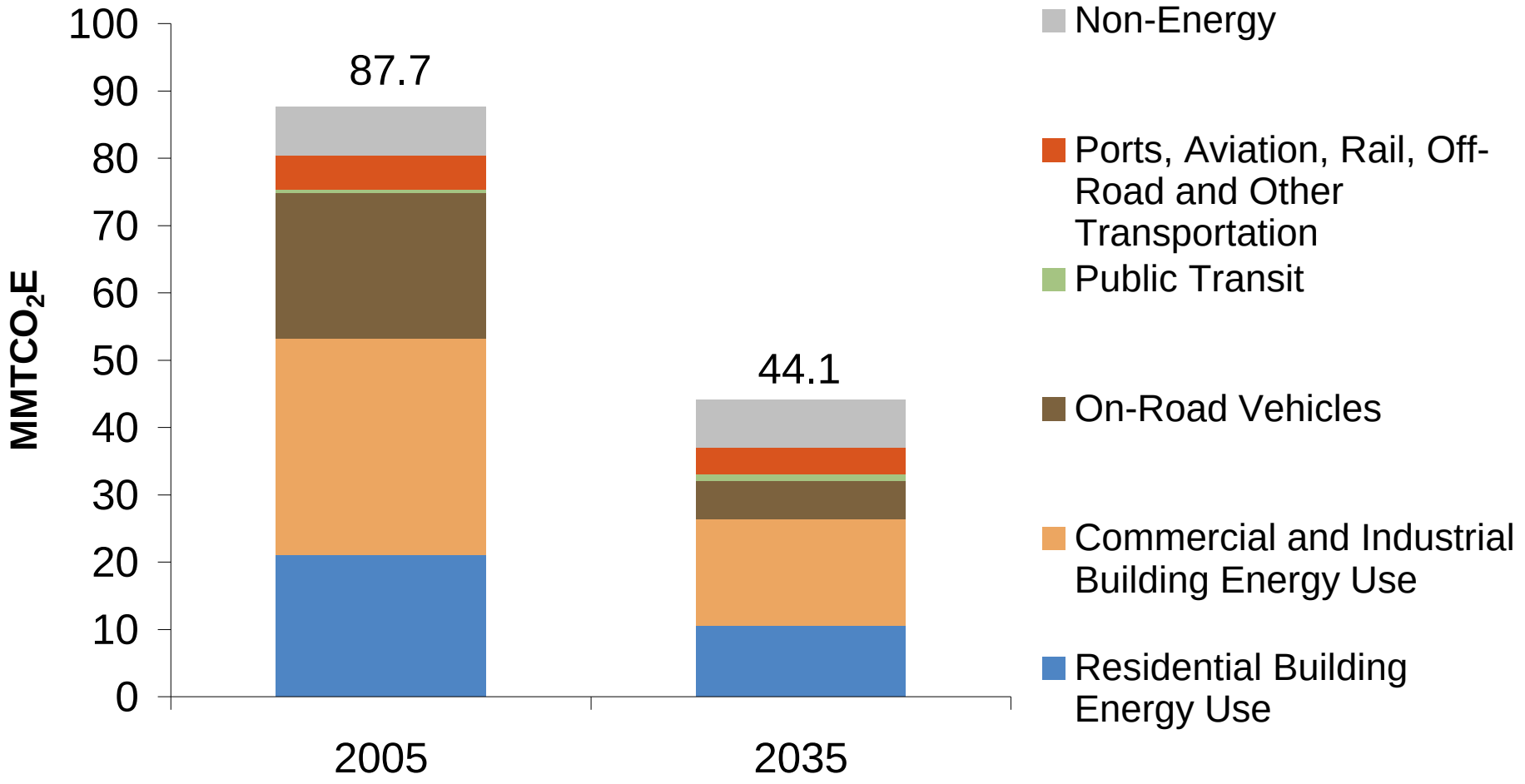
Build an Energy-Efficient Economy
Reduce GHG Emissions by 50%



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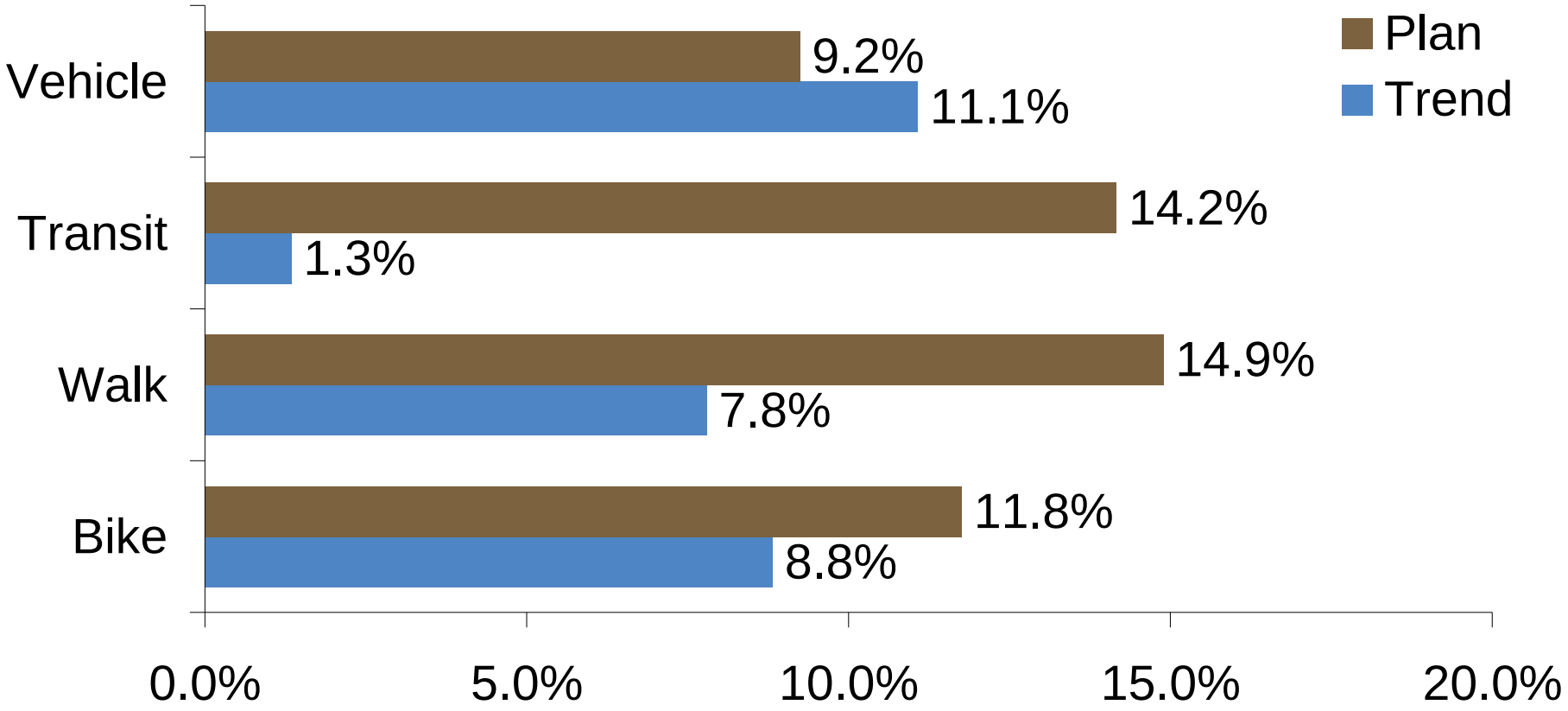
Modernize the Transportation System

Change in Number of Trips by Mode 2010 to 2035



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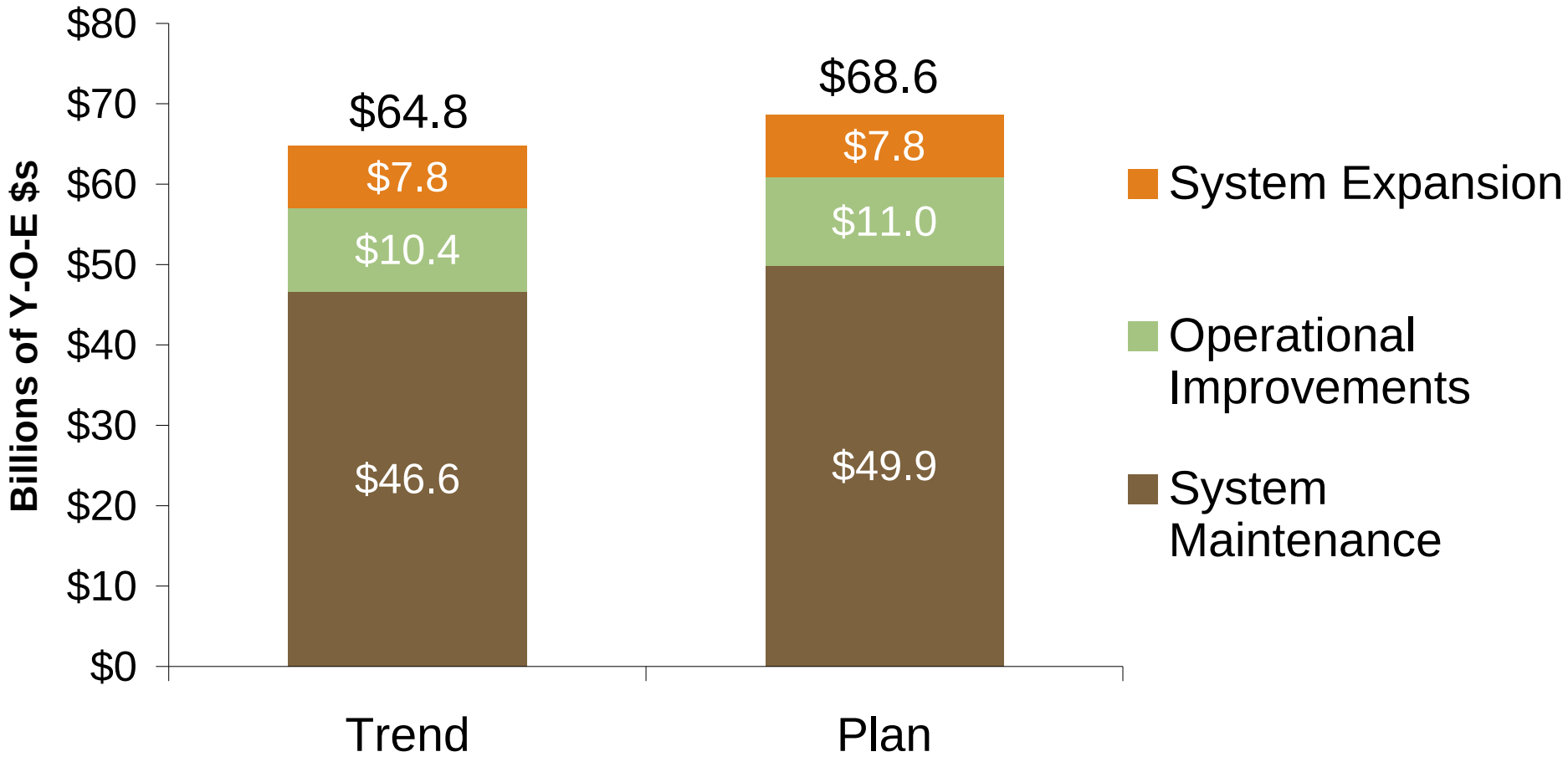
Modernize the Transportation System
Financial Plan – Estimated Revenue



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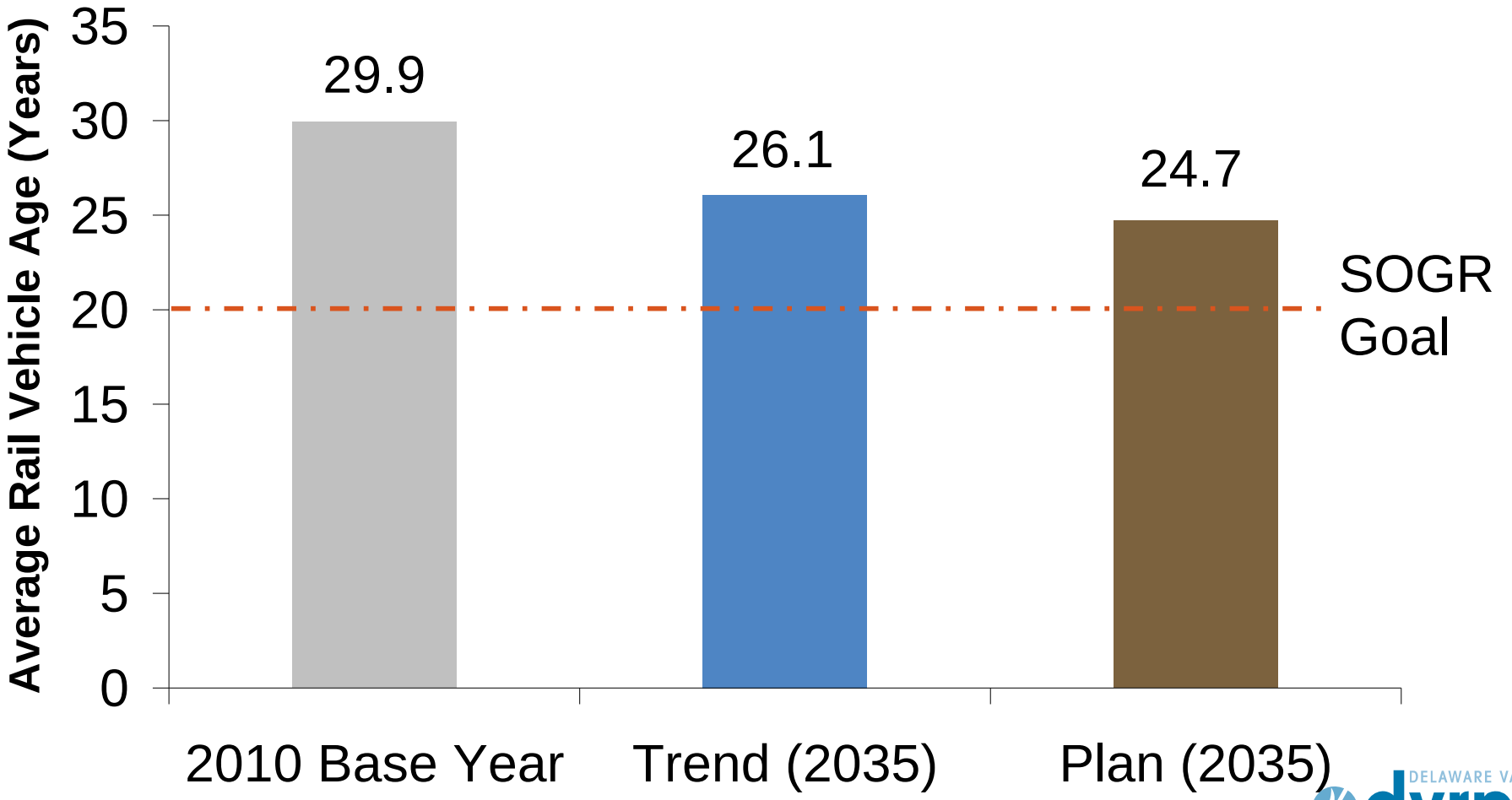
Modernize the Transportation System

Transit Rail Vehicle Age



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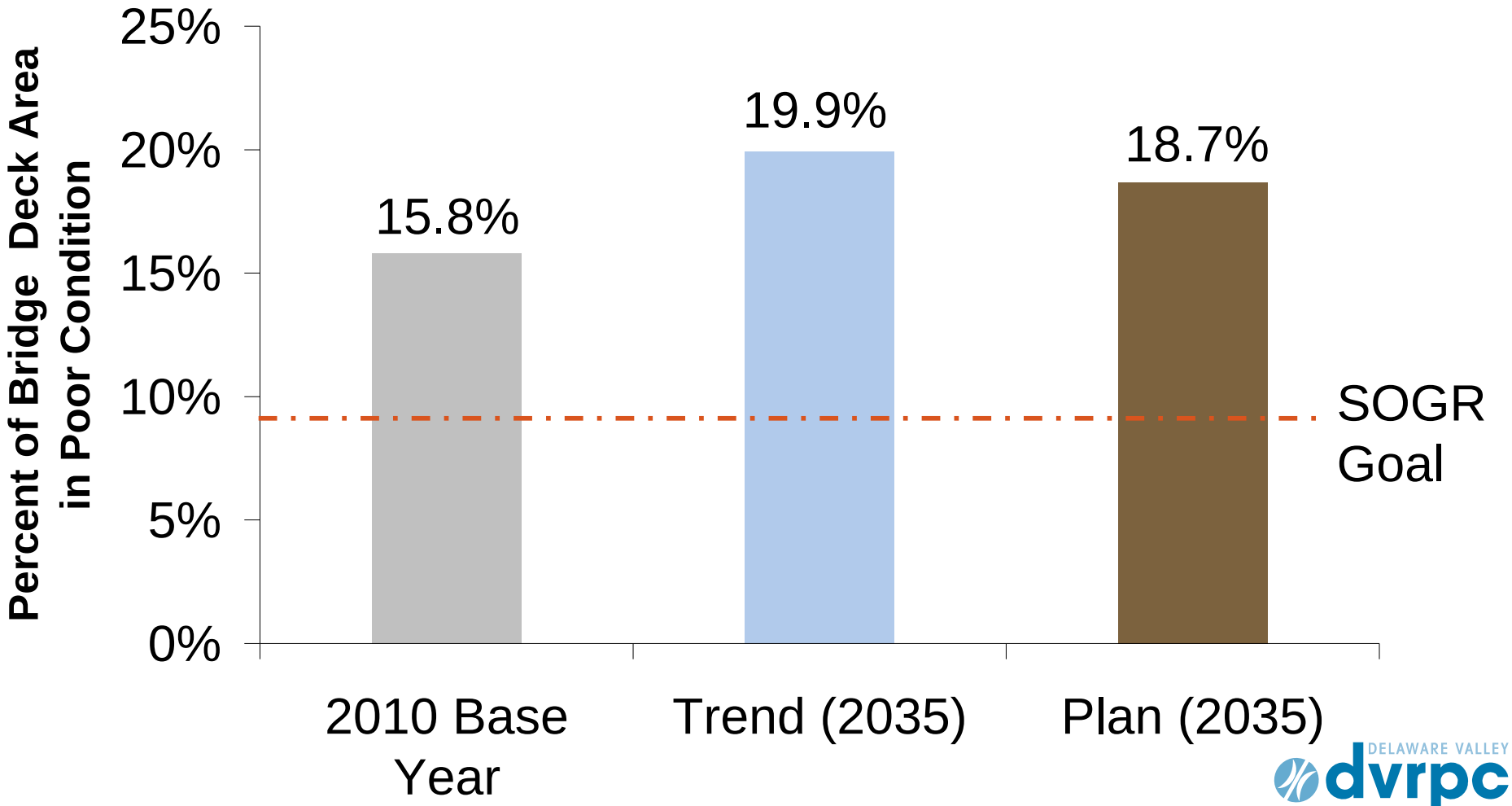
Modernize the Transportation System
Bridge Deck Area in Deficient Condition



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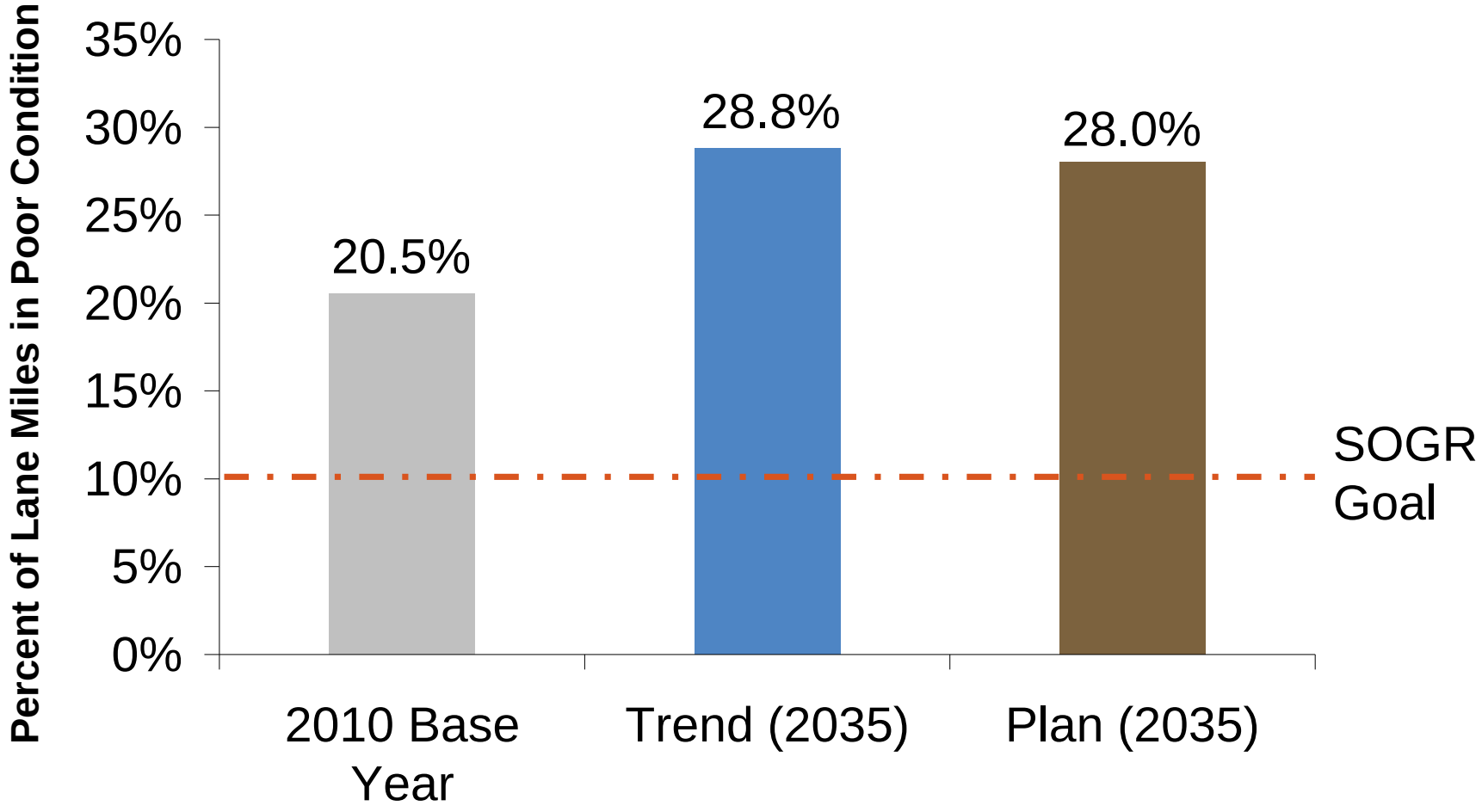
Modernize the Transportation System
Lane Miles of Deficient Pavement



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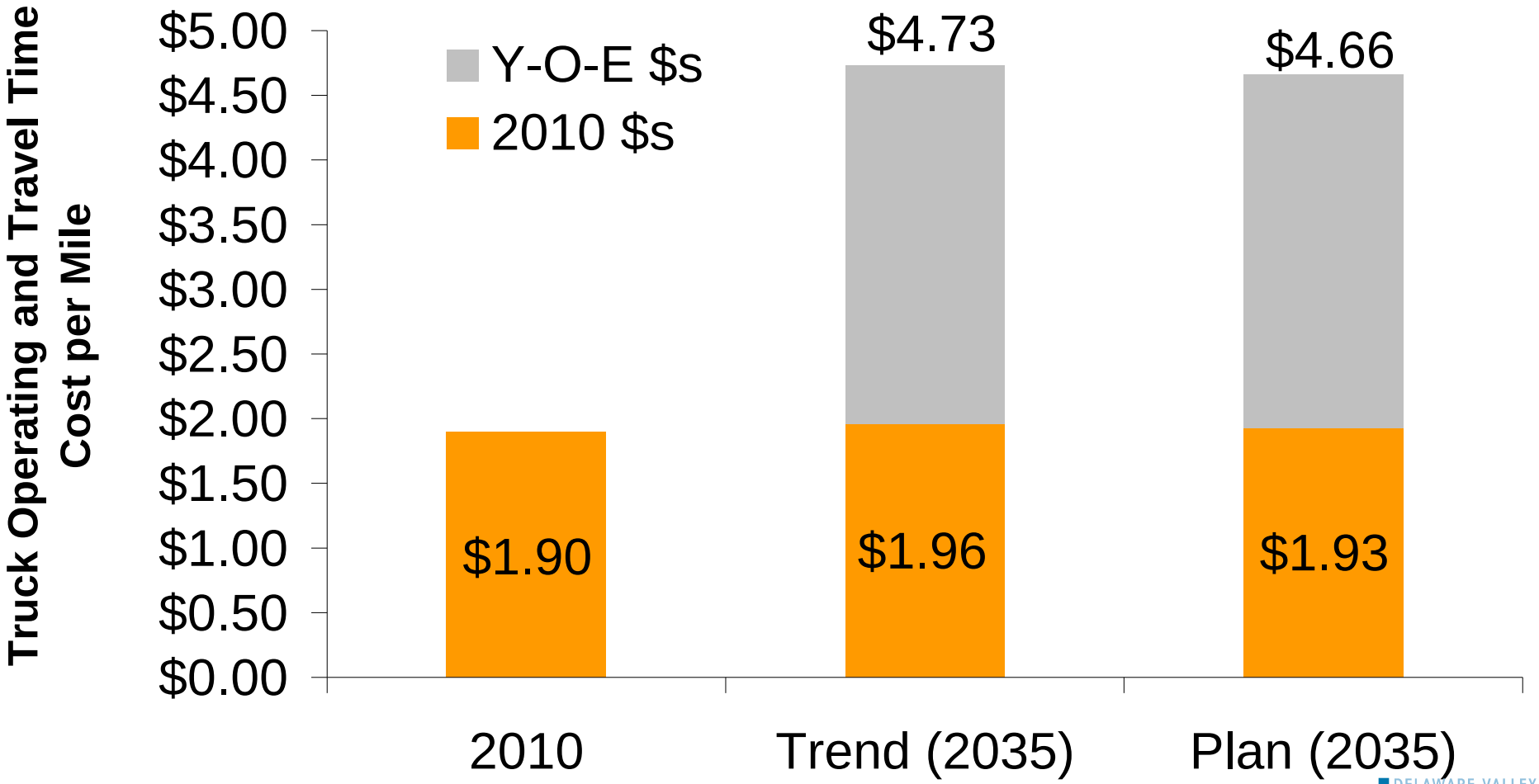
Modernize the Transportation System
Annual Truck Operating and Travel Time Costs



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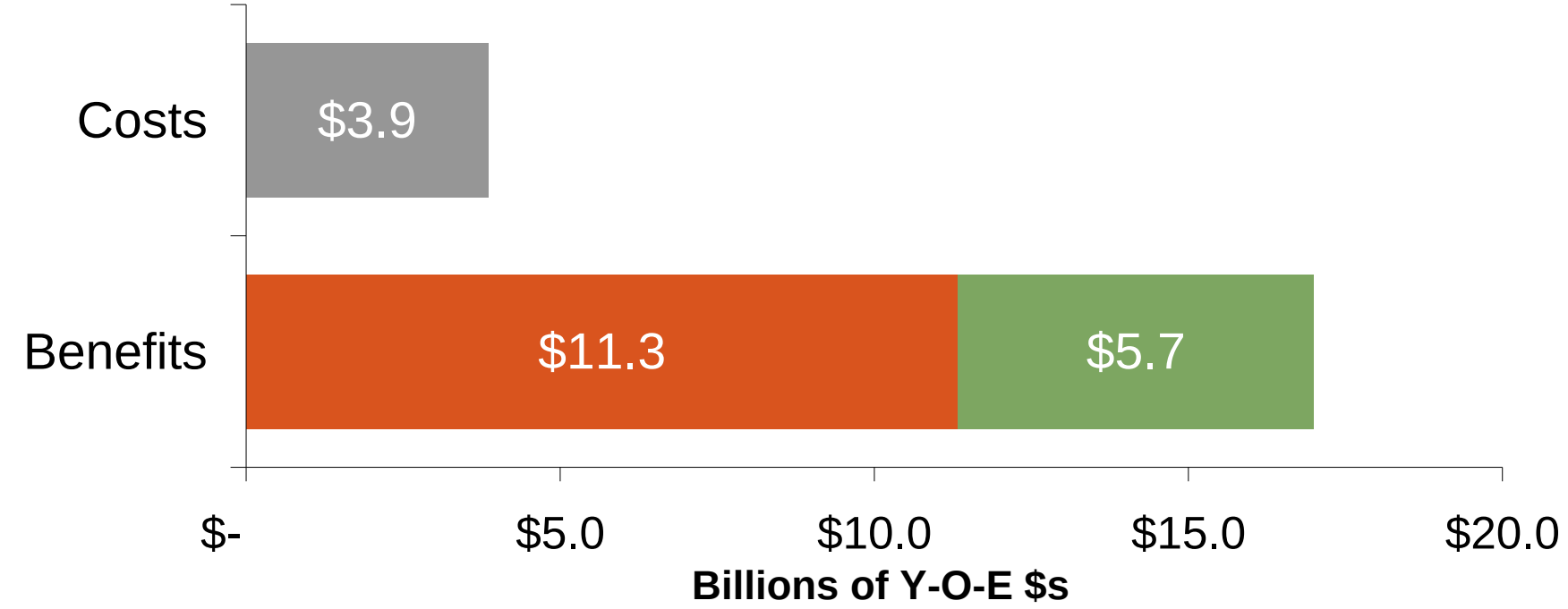
Modernize the Transportation System
Additional Local Funding Costs & Benefits



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Implementing Connections

- Ongoing outreach with Plan stakeholders
  - Federal, State, Local Governments
  - Private Sector
  - General Public
- Updating Tracking Progress Indicators
- Funding Scenarios
- Next Plan update due by June 2013

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Implementing Connections

Action Item:

That the Delaware Valley Goods Movement Task Force endorse the findings, tenets, and recommendations of the *Implementing Connections* report.

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CONNECTIONS

THE REGIONAL PLAN FOR
A SUSTAINABLE FUTURE

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

WEB: **www.dvrpc.org/connections**

E-MAIL: **plan@dvrpc.org**
bfusco@dvrpc.org

INDUSTRIAL LAND & MARKET STRATEGY

City of Philadelphia
LIFE • LIBERTY • AND YOU™

PIDC

Industrial Land & Market Strategy

Collaboration among Planning Commission, Commerce Department, and PIDC

4 components of the study:

1 Snapshot of current industrial activity in the City
2 Land use and real estate survey
3 Cluster-based market strategy
4 Recommendations

Consultant team

ERA

ICIC
Initiative for a Competitive Inner City

_ INTERFACE STUDIO LLC

Modern Industry:
Technical Definition

SUPER-SECTOR	SUB-SECTORS (71 NAICS Codes)
Agriculture/Forestry/Fishing/Hunting	All
Construction	All
Manufacturing	All
Trade, Transportation, and Utilities	Utilities, Transp/Warehsg, Wholesale, some Retail
Information	Publishing, Film/Video, Broadcasting, Telecom
Financial Activities	Storage, Truck Leasing
Professional and Business Services	Testing Labs, Veterinary, Security, Waste Mgmt
Education and Health Services	Ambulance Services, Blood/Organ Banks
Leisure and Hospitality	Caterers, Mobile Food Service
Other Services	Repair / Maintenance

Modern Industry:
Easy-to-Remember Version

1. If it involves:
   - Making
   - Moving or
   - Mending Goods, then it's industrial

2. Not your grandparents industry

3. Increasingly clean & green

Significance of Philadelphia's Industrial Sector

104,300 industrial jobs, approximately **one out of every five jobs in Philadelphia**

Industrial jobs employ a range of Philadelphians – highly skilled, technical positions to entry-level apprenticeships to **career-path positions** for unskilled and semiskilled workers

Industry provide family sustaining jobs with benefits

Average **wages** for industrial jobs in the city are nearly **$50,000**

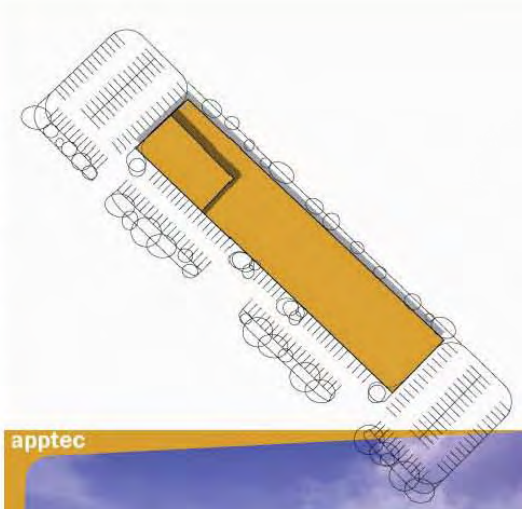
Annual payroll of over $5 billion; direct economic output $47.8 billion

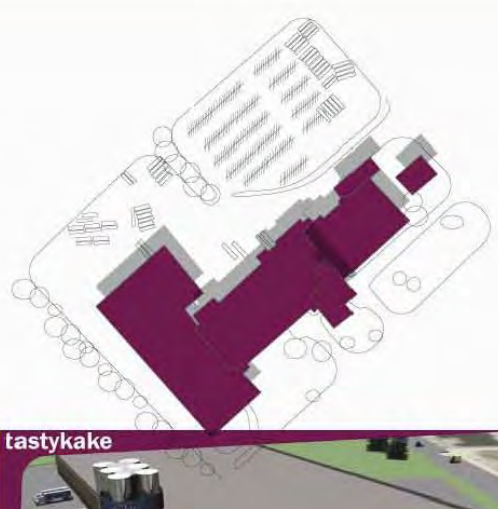
Annually contributes **$323 million in taxes** (BPT, property, wage, and sales)

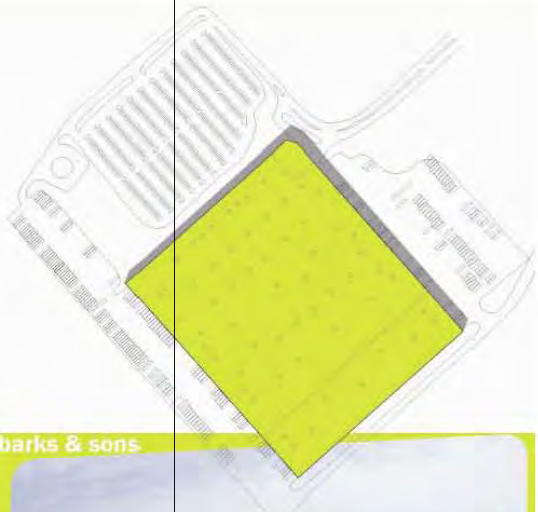
Real Estate Requirements of Modern Industry

- Modern building
- Zoning certainty
- Infrastructure access
  - Primarily highways, but also rail, airports & ports
- Workforce access
- Clustering and agglomeration
- Distance from residential areas

Industrial Building Types







flex
FAR .24

heavy industrial
FAR .27

warehouse distribution
FAR .29

Target Clusters

11 Target Clusters

Apparel

Biopharma

Building Fixtures & Equipment

Construction & Real Estate

Energy

Food Processing

Medical Devices

Metal Fabrication

Publishing & Printing

Transportation

Wholesale

3 Primary Categories

Traditional Manufacturing

Apparel
Building Fixtures & Equipment
Construction & Real Estate
Food Processing
Metal Fabrication
Printing & Publishing

Advanced Manufacturing

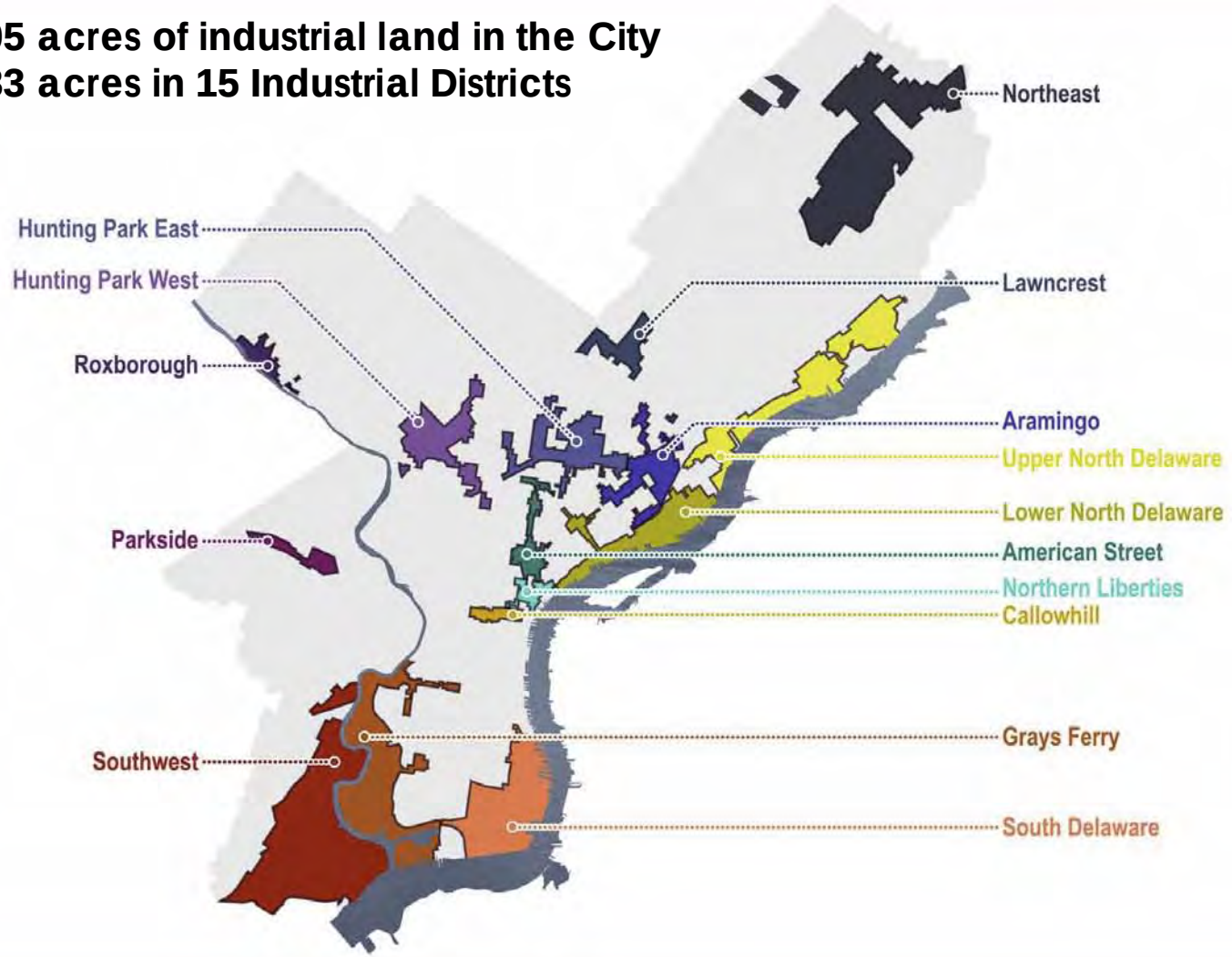
BioPharma
Medical Devices
Energy

Transportation

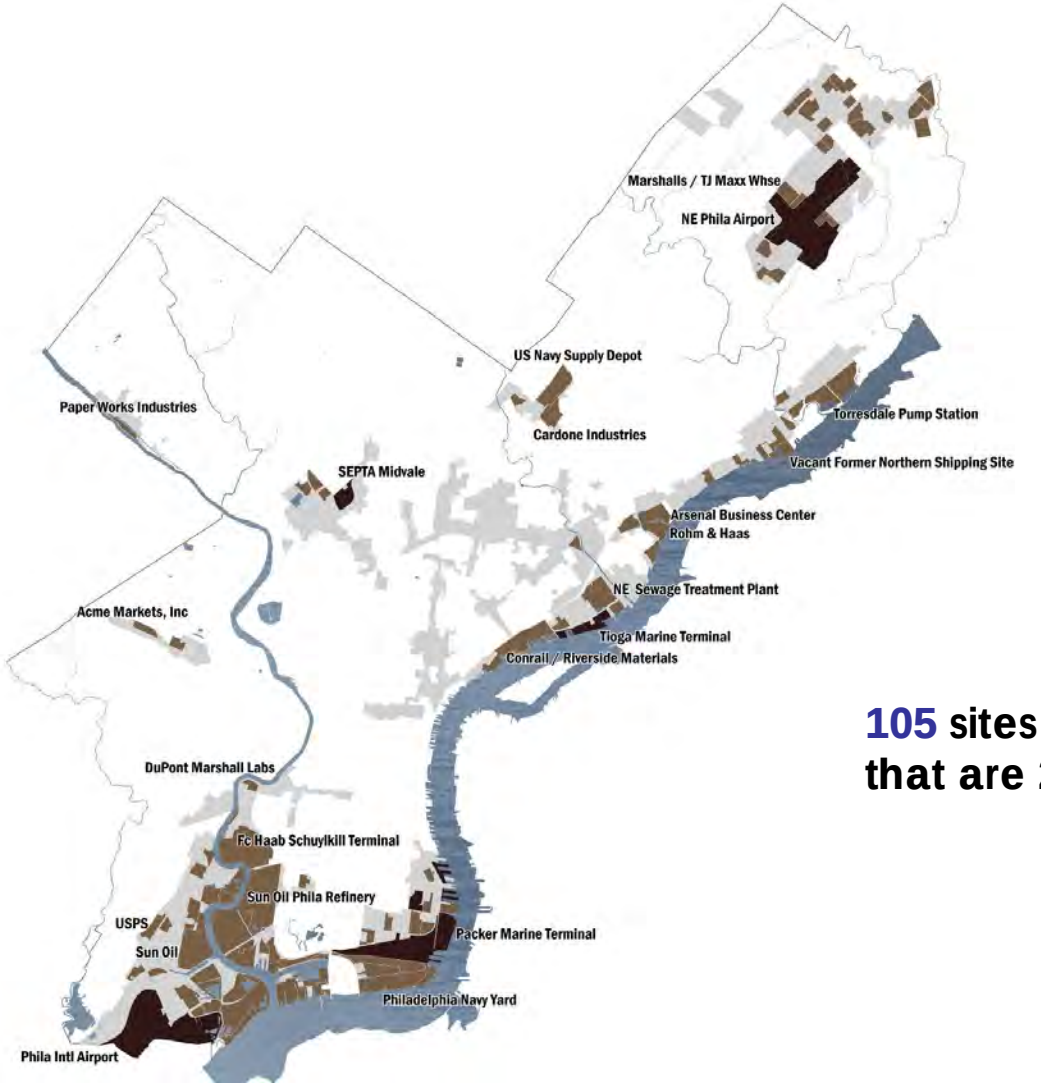
Transportation
Wholesale

Industrial Districts

17,805 acres of industrial land in the City
15,433 acres in 15 Industrial Districts



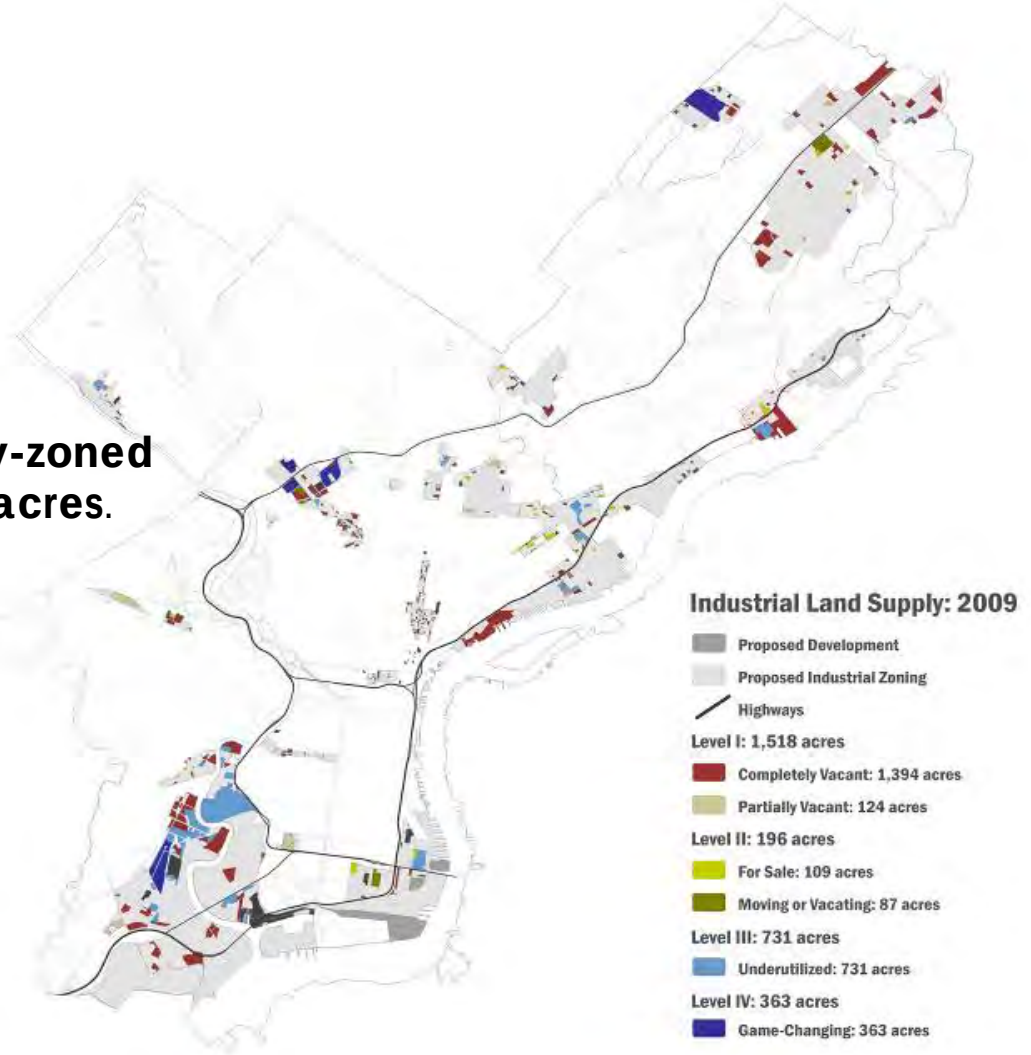
Constrained Supply of Land Suitable for Modern Industry



105 sites in Philadelphia that are 20+ acres in size

Severe Shortage of Developable Industrial Sites

PIDC owns 7 industrially-zoned parcels larger than 20 acres.



Industrial Land Strategy Impacts

- Over the next 20 years:
  - A target of 22,000 new jobs to be created
  - $1 billion in additional annual wages
  - $68 million in additional annual City tax revenue

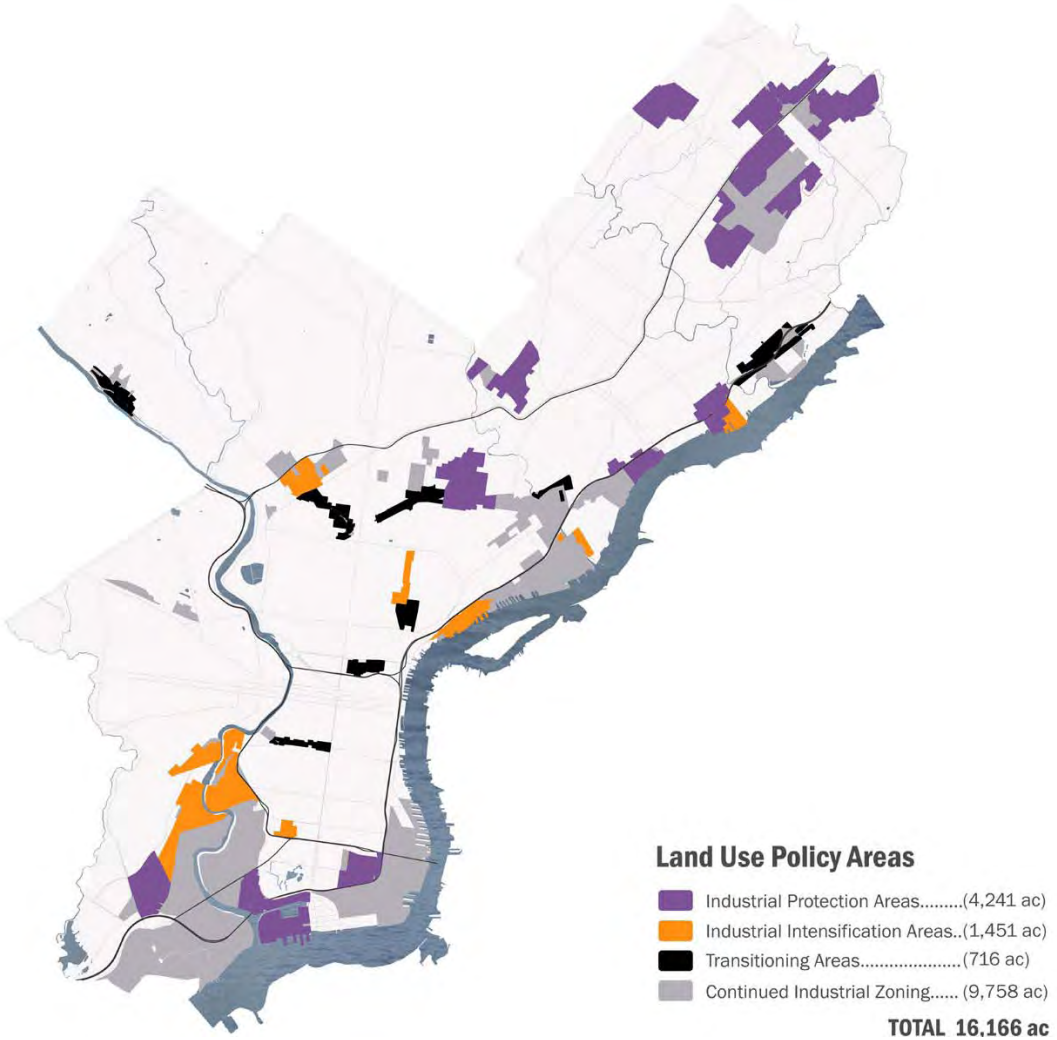
Industrial Land Strategy will require 2,400 acres of developable industrial land

- Upgrade vacant or underutilized industrial land
- Redevelop existing industrial sites
- No significant re-zoning of non-industrial sites

Recommendations – Zoning Consolidation

Classification	Uses	Impacts
Heavy Industrial	▪Least restrictive – Petroleum processing, storage, terminals	▪Most permissive - high noise, odor
Medium Industrial	▪Manufacturing, distribution, processing	▪Permissive – noise, odor, hours, traffic
Light Industrial	▪Assembly, light fabrication, office, R&D	▪Localized noise, traffic, activity
Utilities & Transport	▪Power plants, water, waste treatment; rail yards, ports, airports	▪Fixed impacts – includes odor, traffic, noise, high activity
Commercial Mixed-use	▪Mix of small industrial and commercial	▪Localized noise, traffic, activity
Residential Mixed-Use	▪Workshop, small manufacturing & fabrication compatible with traditional neighborhood residential	▪Minimal

Recommendations – Industrial Land Use Policies



Increase Industrial Intensity along Lower Schuylkill River

Ⓐ DUPONT CRESCENT
TIME TO UNIVERSITY CITY: 4 MINUTES
TIME TO PHL AIRPORT: 10 MINUTES
OPPORTUNITY: RESEARCH/MIXED-USE
52 ACRES

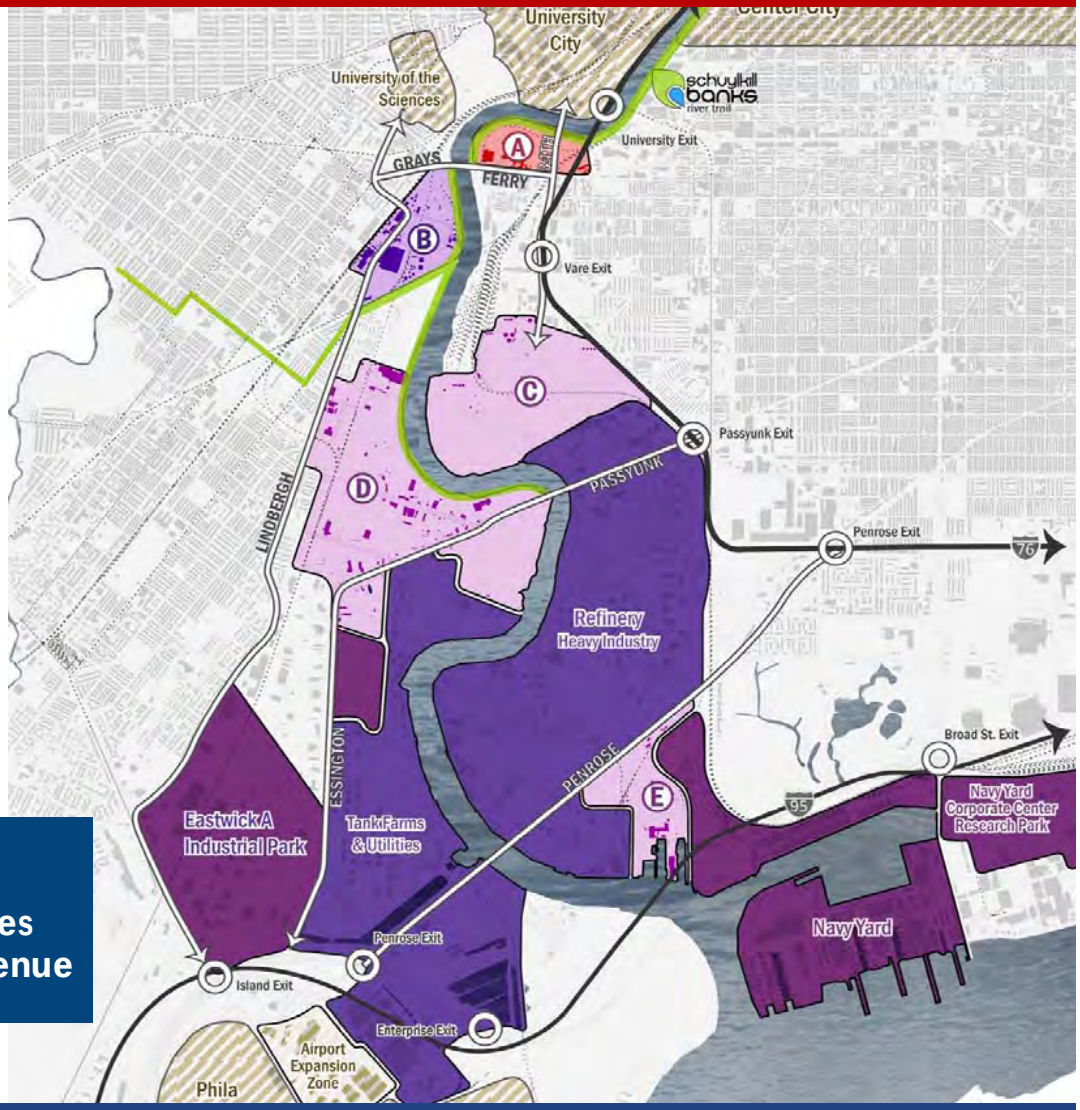
Ⓑ BOTANIC AVENUE
TIME TO UNIVERSITY CITY: 6 MINUTES
TIME TO PHL AIRPORT: 12 MINUTES
OPPORTUNITY: ADVANCED MANUFACTURING
46 ACRES

Ⓒ SUNOCO NORTH YARD
TIME TO UNIVERSITY CITY: 9 MINUTES
TIME TO PHL AIRPORT: 11 MINUTES
OPPORTUNITY: PRODUCTION/DISTRIBUTION
254 ACRES

Ⓓ EASTWICK B
TIME TO UNIVERSITY CITY: 8 MINUTES
TIME TO PHL AIRPORT: 9 MINUTES
OPPORTUNITY: PRODUCTION/DISTRIBUTION
363 ACRES

Ⓔ NAVY YARD EXPANSION
TIME TO UNIVERSITY CITY: 15 MINUTES
TIME TO PHL AIRPORT: 5 MINUTES
OPPORTUNITY: PRODUCTION/DISTRIBUTION
102 ACRES

Impacts:
3,700 jobs -$170 million in wages
$17 million in annual City tax revenue



Thank You

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