# A VULNERBILITY & RISK ASSESSMENT OF SEPTA'S MANAYUNK/NORRISTOWN LINE

Erik Johanson Strategy & Sustainability Planner March 22, 2012



# WHY CLIMATE ADAPTATION? SEPTA SUSTAINABILITY PROGRAM

### **THREE PRINCIPLES**

## Budget-Neutral

- Business Case for Sustainability
- FTA Grant Program Provides
  New Resources

## **Focus on Existing Assets**

 Aging System is Expansive & Increasingly Vulnerable

### Provide Multiple Benefits

 Emergency Preparedness & Response; State of Good Repair; Infrastructure Resiliency



SEPTA: Partnering for Regional Sustainability

SEPTA

### **PROJECT APPROACH**

## ➢ Partnership

- ICF Climate Science & Adaptation Strategy
- DVRPC (MPO) Stakeholder Convening
- SEPTA Engineering & Strategic Planning

### Narrow Scope & Nuanced Criteria

- Single Rail Line
- Inland Region

# Data Collection

- Asset Inventory
- Service Disruptions
- Operational Impacts

# **Stakeholder Participation**

Integrate With Other Regional Initiatives

Sustainability

Partnering for

SEPTA:

Regional



## **STAKEHOLDER GROUP**

### **First Meeting:** March 14

PARTICIPANTS			
FEDERAL	STATE	LOCAL	TRANSIT
EPA – Regional Office	PA DEP – Headquarters	Mayor's Office – Transport & Utilities	NJ Transit
FTA – Headquarters & Regional Office	PA DEP – Regional Office	Mayor's Office – Sustainability	Amtrak
FEMA – Regional Office	Penn DOT	Planning Commissions – City & Suburban Counties	Port Authority Transit
	PEMA	City Water Department	
		City Law Department	
		City Health Department	



### **PROJECT TASKS**

SEPTA: Partnering for Regional Sustainability

- Task 1: Regional Rail Screening & Asset Inventory
  - Convene stakeholders; complete inventory (Feb-Apr)

#### Task 2: Analyze Weather-Induced Service Disruptions

 Catalog & analyze disruptions; contextualize with weather data (Apr-May)

#### > Task 3: Build Scenarios Based on Climate Data & Models

- Analyze historical patterns; develop future scenarios (Jun-Jul)

#### Task 4: Assess Risk & Prioritize Impacts

 ID priority assets & how projected change may increase risk (Aug-Oct)

#### Task 5: Adaptation Efforts

 Integrate findings from Tasks 1-4; recommend adaptation strategies; solicit feedback from stakeholders (Nov-Dec)

#### Task 6: Final Report (Jan-Mar, 2013)



## **ANTICIPATED OUTCOMES**

## Assignment of Cost

- Passenger Delays
- Workforce Impacts
- Capital Infrastructure Repair

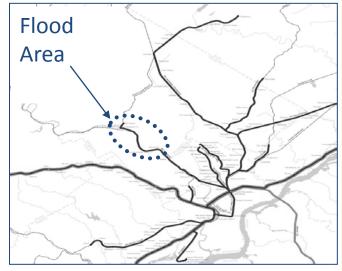
# Practical Guidance

- Inform Adaptation Strategy with Operational Realities
- Scalable, Transferrable
  Model

#### Lasting Partnerships

 Capacity-Building Exercise for Broader Regional Adaptation Initiatives







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