

# **The Cross Harbor Rail Freight Tunnel**

## **A Critical Transportation Project for the New York Region's Future**



**National Urban Freight Conference**

**February 2, 2006**

# Presentation Outline

**Project Context & Goals**

**Economic & Transportation Benefits**

**Local Impacts**

**Costs & Funding**

**Advocacy Strategies**

**Project Status**

# Project Context: Need to Improve Freight Movement

- New York Metropolitan region is largest consumer market in the nation

## *However...*

- Region is underserved by current rail freight transportation system.
- Freight volumes will increase 70% by 2025
- Region's highways are at or near capacity
- Need to divert freight from trucks and highways

# Regional Transportation Imbalance



**The regions main truck routes are chronically congested.**

More than 30,000 tractor-trailers cross the Hudson River and New York Harbor daily.

**By 2020, highway congestion is expected to increase 50%.**

Freight volumes are also projected to increase 70% in this time.

**92% of the 30-County  
Region goods' are  
transported by truck**

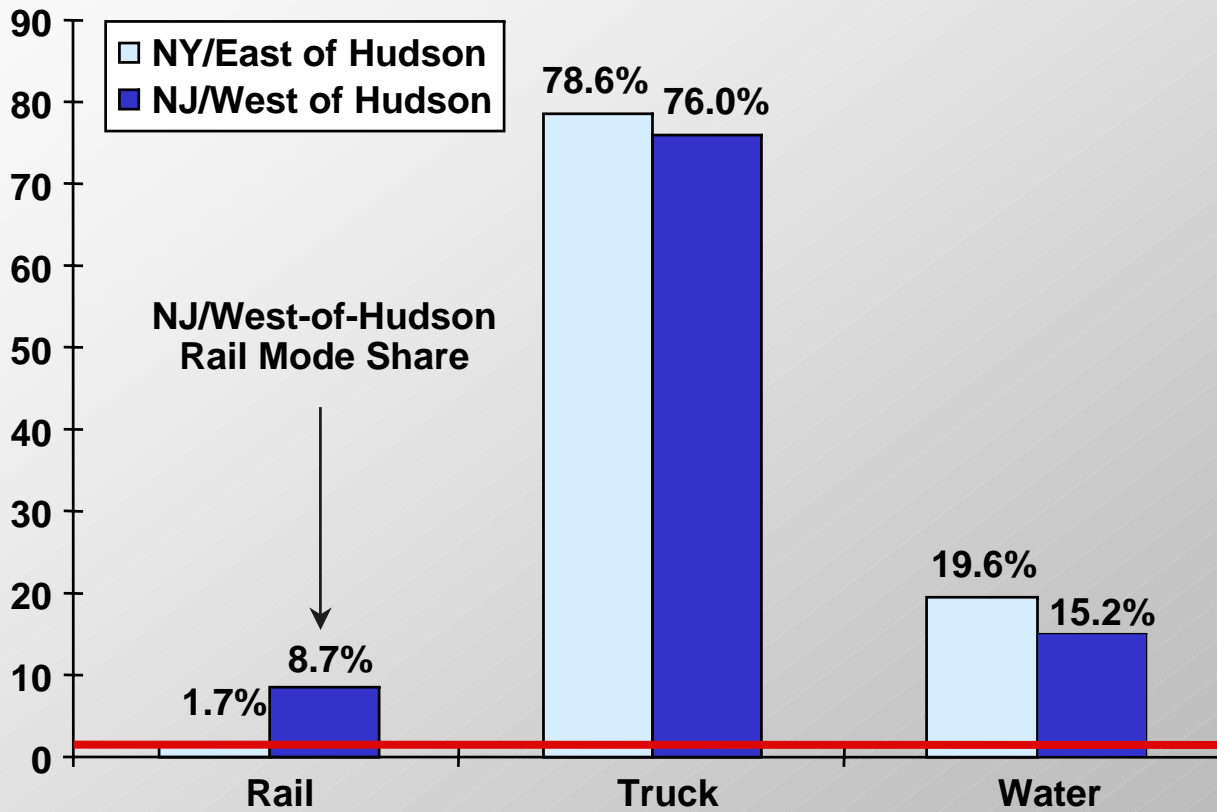
**VS.**

**60% of all other major  
metropolitan regions**



# Under 2% of Freight Destined for East-of-Hudson Markets (New York) is Transported by Rail

Mode Share (Percent)



## Why?

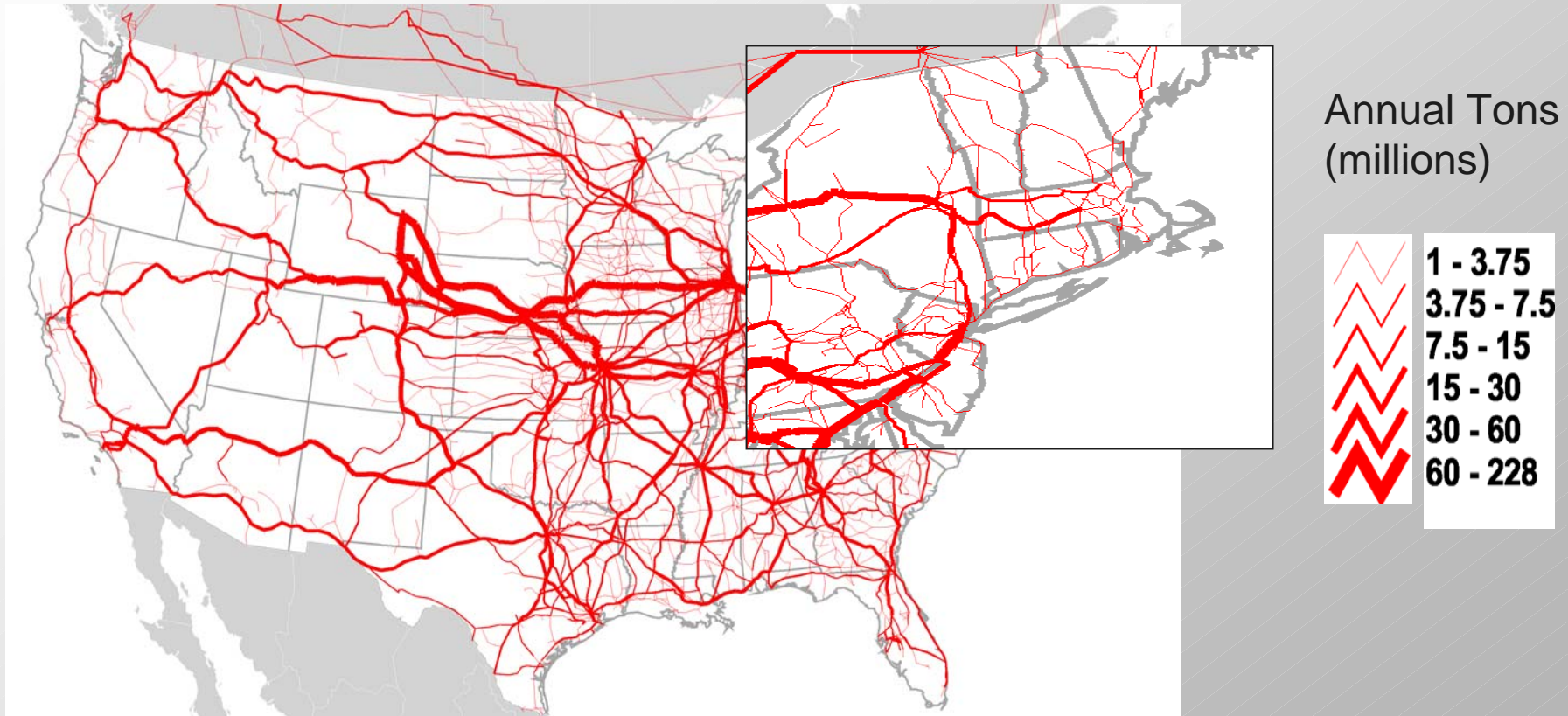
Inadequate regional rail connections and clearances causes over reliance on trucks

# Lack of Cross Harbor Rail Freight = Most of NYC's Freight is Transported by Truck

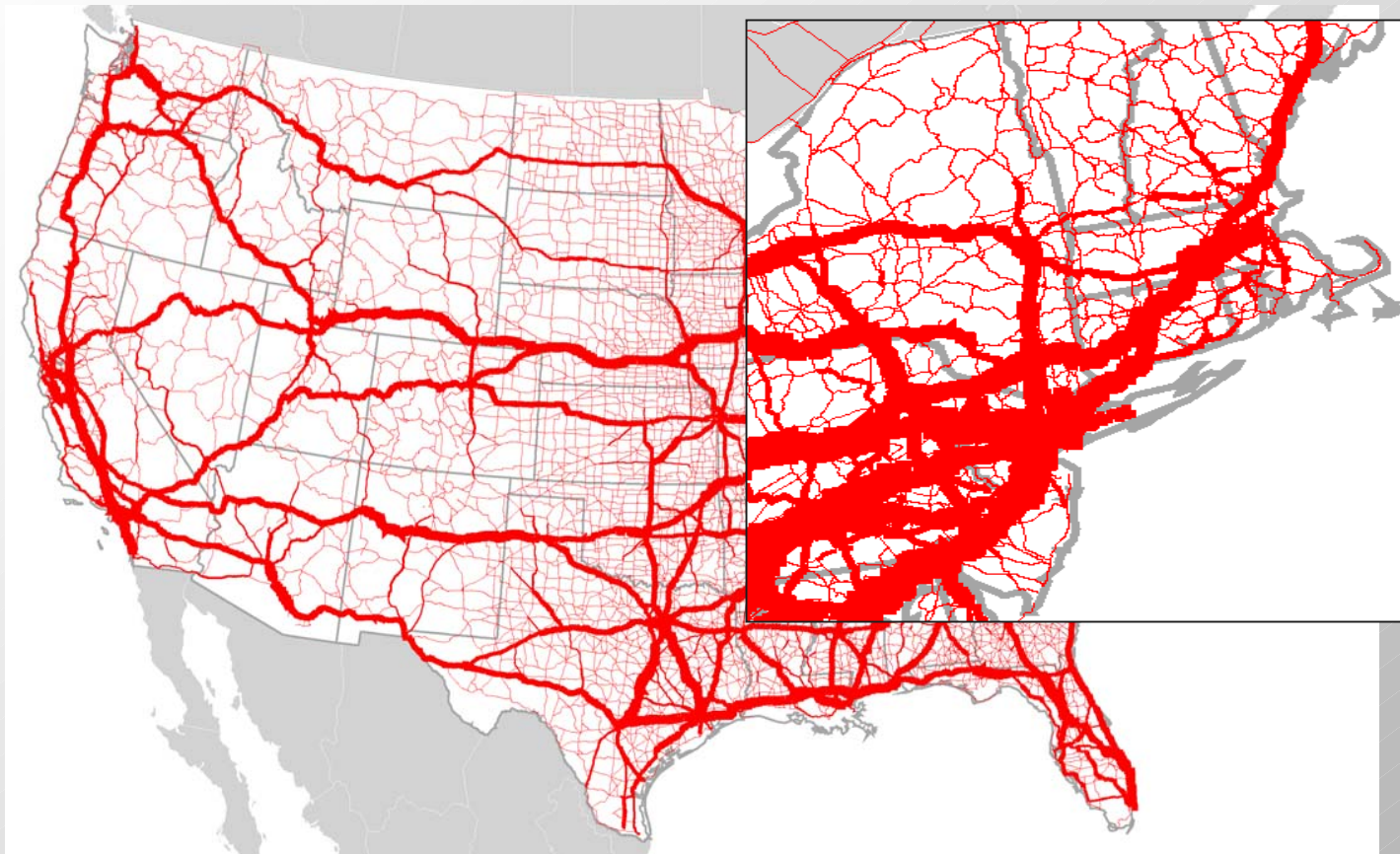


- No Hudson River rail crossing in downstate region
- Freight trains are forced to go 140 miles north to Selkirk *JUST TO CROSS THE HUDSON RIVER!*
- East of Hudson River
  - **78.6% by truck**
  - 19.6% by water
  - **1.7% by rail**

# National Rail Freight Network



# National Highway Freight Network



# Why Divert Freight from Trucks & Highways?

## Because Our Reliance on Trucks:

- Increases traffic congestion
- Raises costs of shipping materials for businesses and consumers
- Slows economic growth
- Exacerbates expensive wear and tear on the region's roadways and streets
- Worsens air pollution and quality of life
- Adds to energy consumption

# Rail Transportation is Cheaper Than Truck

- Intermodal rail is 40% cheaper than truck
- Bulk commodities shipped by rail are 50% cheaper than truck. Tradeoff is in slower shipping times
- Largest intermodal rail customers
  - UPS
  - United States Postal Service
  - Home Depot
  - Toys R' Us

# Efficiency of Freight Railroads vs. Diesel Trucks

Mode	Fuel Consumption	Infrastructure Capacity <sup>1</sup>	Cost <sup>2</sup>	Safety <sup>3</sup>
Railroad	455 ton-miles per gallon	216 million annual tons per track	2.7¢ per ton-mile	0.61 fatalities per billion ton-miles 12.4 incidents <sup>4</sup> per billion ton-miles
Truck	105 ton-miles per gallon	37.8 million annual tons per lane	5.0¢ per ton-mile	1.45 fatalities per billion ton-miles 36.4 injuries per billion ton-miles

<sup>1</sup> Theoretical capacity calculation assuming maximum density freight use

<sup>2</sup> Based on latest available AAR and ATA national revenue and volume statistics

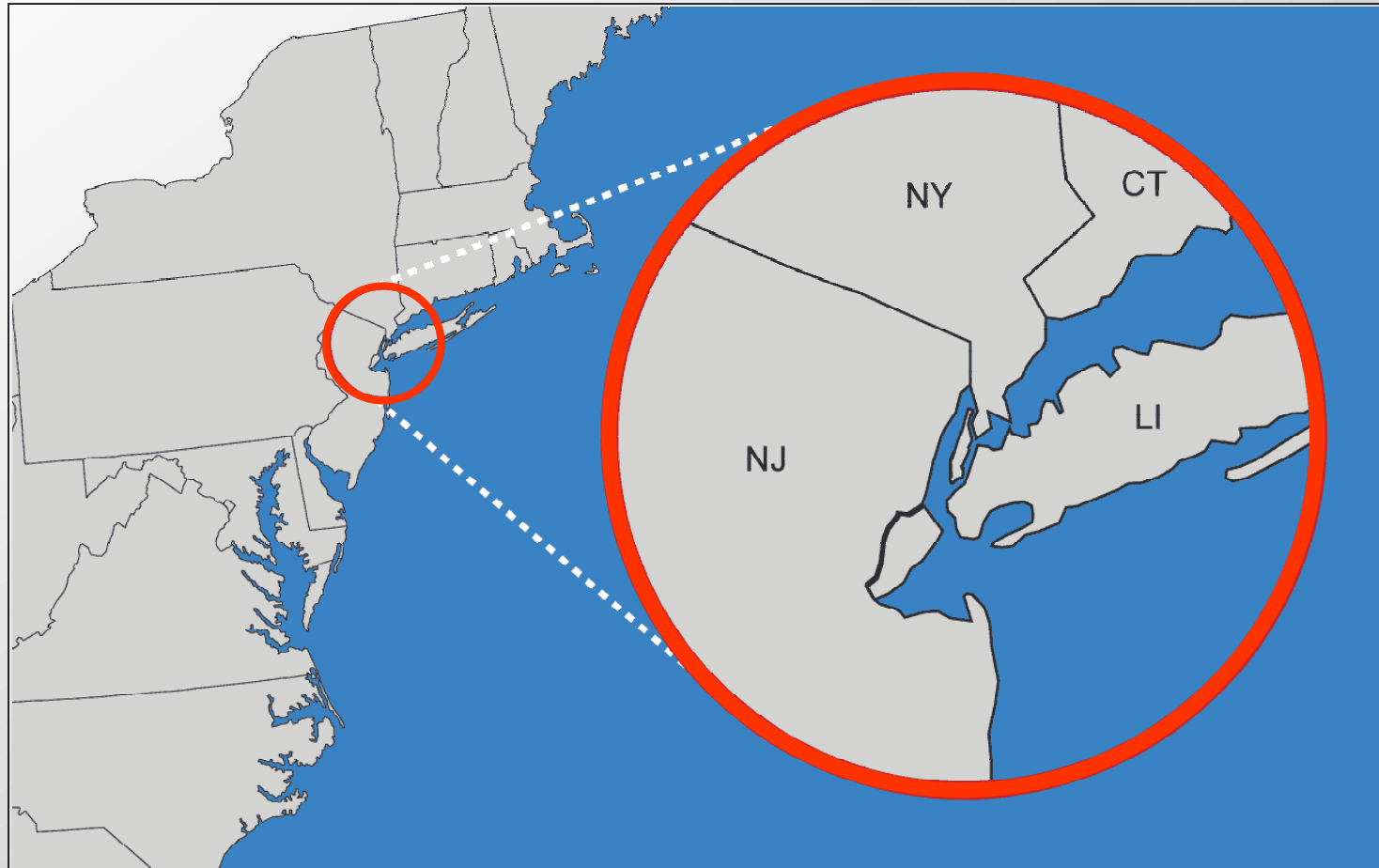
<sup>3</sup> Based on 2001 FMCSA and AAR safety statistics

<sup>4</sup> "Incidents" include all non-fatal injuries and property damage accidents

# Project Goals

- Improve goods movement into, out of and through the New York City/Northern New Jersey region
- Promote economic development through a more efficient goods movement system
- Protect region's environmental quality by diverting freight movement to less polluting modes of transportation
- Provide additional Hudson River Crossing for critical goods movement in case of emergency

# Beneficiaries of the Cross Harbor Rail Freight Tunnel



# Cross Harbor Rail Tunnel Components

- Rail freight tunnel under New York Harbor connecting Greenville Yard, Jersey City to Bay Ridge Branch in Sunset Park, Brooklyn
- Clearance improvements to 22'-6" along the Bay Ridge and Montauk Branches (allows for "doublestack" service)
- New intermodal facility in Maspeth, Queens
- Either Single or Double Tunnel System

# Rail Freight Tunnel – New Jersey to Brooklyn

## Rail Freight Tunnel Alternative-- Jersey City to South Brooklyn Alignment

**Legend**

- Existing Freight Rail Lines
- Existing Yard/Intermodal Terminal

**Improvements**

- - - Cross Harbor Tunnel
- Cleared for Doublestack Service (22'-6")
- Cleared for TOFC Service (17'-6")
- Proposed Intermodal Yard



# The Cross Harbor Tunnel: Regional & Local Benefits

- Fewer trucks on the region's roads and bridges
- Reduced traffic congestion throughout region
- Improved air equality & environmental health
- New jobs and economic growth
- Increased security through cross-Hudson transportation redundancy

# Tunnel Will Have Regional Impact

<b>Benefit (for year 2025)</b>	<b>Single Tunnel</b>	<b>Double Tunnel</b>
<b>Long Term Employment*</b>	<b>16,900</b>	<b>29,890</b>
<b>Reduced Air Pollution (per year)</b>	<b>62,085 tons of emissions</b>	<b>121,516 tons of emissions</b>
<b>Additional Disposable Income (millions of 02 dollars)</b>	<b>\$890</b>	<b>\$1,600</b>
<b>User and Societal Benefits (millions per year)**</b>	<b>\$15.1</b>	<b>\$44.6</b>
<b>Benefit/Cost ratio (NY region)</b>	<b>1.9</b>	<b>2.2</b>

\*Does not include construction jobs as a result of the tunnel project. Employment includes freight-related jobs as well as job creation resulting from increased travel efficiencies that help business grow. Figure reflects gains from transportation efficiency, reduced costs and improved competitiveness for local businesses, as well as business attraction for warehousing, distribution and manufacturing companies benefiting from vastly improved freight service.

\*\* Time saved traveling, reduced roadway maintenance costs, accidents and air pollution.

# The Tunnel Means More Freight Moves By Rail And Fewer Trucks on Roads



This is how many millions of tons of freight will be taken off the roads if the tunnel is built:

*Single Tunnel*

9.4 million tons

*Double Tunnel*

14.9 million tons

\* Annual figures for 2025

# Annual Change in Freight Trips at Hudson River Bridge Crossings year 2025

<b>Bridge Crossings</b>	<b>Single Tunnel</b>	<b>Double Tunnel</b>
<b>George Washington</b>	141,000	333,000
<b>Verrazano Narrows</b>	259,000	330,000
<b>All Other H.R. Crossings</b>	121,000	367,00
<b>TOTAL</b>	<b>521,000</b>	<b>1,030,000</b>

# The Tunnel Means More Freight Moves By Rail And Fewer Trucks on Roads year 2025

	Single Tunnel System		Double Tunnel System	
	Change in Miles	Percent Change	Change in Miles (000)	Percent Change
Northern NJ	19,813 (48% of total)	-3	30,185 (49% of total)	4
Manhattan	287	-2	750	-6
Queens	80	-0	+1,372	+4
Bronx	960	-3	1,319	-4
Brooklyn	1,638	-7	1,613	-7
Staten Island	2,897	-13	3,529	-16
Long Island	1,085	-2	696	-1
Hudson Valley	12,466	-4	20,364	-6
Southwest Connecticut	2,063	-2	4,926	-4
	<b><u>Totals</u> 41, 289</b>		<b>62,010</b>	

# Regional Air Quality Analysis

## *Tons per Year*

	Single Tunnel	Double Tunnel
VOC	-18	-38
CO	<b>-1,332</b>	<b>-2,505</b>
NO <sub>x</sub>	-20	-46
PM <sub>10</sub>	-6	-12
CO <sub>2</sub>	<b>-62,085</b>	<b>-121,516</b>

- *Substantial reductions in VOC, CO, and the greenhouse gas CO<sub>2</sub>*
- *Modeling reflects new more stringent NOX emission standards for locomotives*

# Economic Impact of Tunnel

<b>Long-Term Employment</b>	<b>Single Tunnel</b>	<b>Double Tunnel</b>
New York City (5 Boroughs)	12,570	23,220
Long Island (Suffolk & Nassau Counties)	2,670	3,650
Hudson Valley	370	600
Southwest Connecticut	400	730
Northern New Jersey	950	1,690

# Construction Jobs

- Engineering & design process: 2 years
- Construction of Cross Harbor Tunnel, all components: 5-6 years
- More than **6,500** direct construction jobs created
- As many as **12,600** construction-related jobs created

# Costs to Construct & Operate Rail Freight Tunnel

<b>COSTS</b>	<b>Single Tunnel</b>	<b>Double Tunnel</b>
<b>Capital Costs* (2002 dollars)</b>	<b>\$4.78 billion</b>	<b>\$7.35 billion</b>
<b>Operations and Maintenance</b>	<b>\$20.4 million/year</b>	<b>\$29.9 million/year</b>

*\*Includes construction, property acquisition, agency costs, engineering, construction management, owner's administrative costs, and 5% contingency.*

# Potential Funding

## Federal Funding (80%)

- Transportation Bill (SAFE TEA-LU) 2005
- Next Reauthorization 2009



## Local Funding (20%)

- State or Local Authority

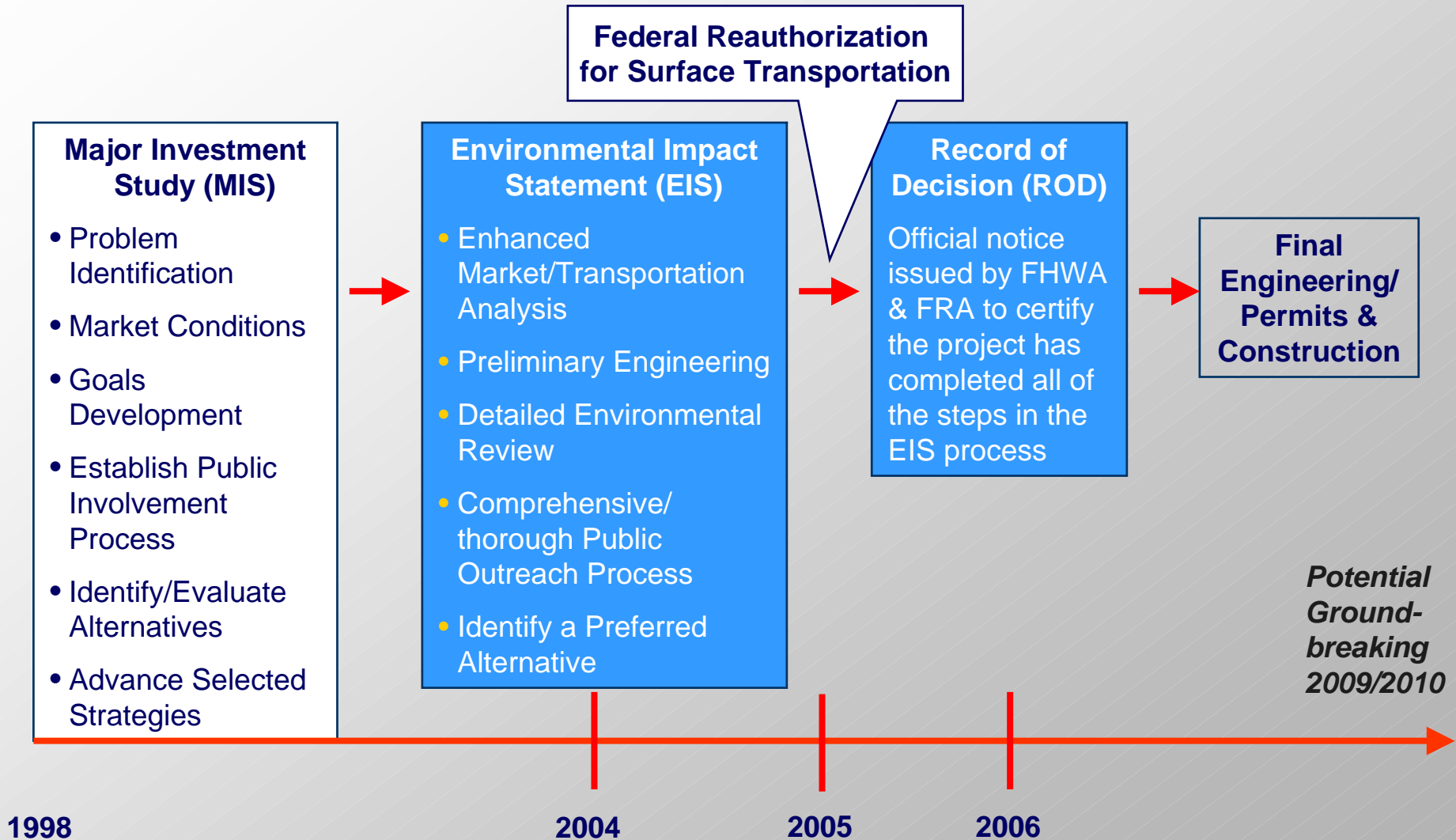
# Advocacy Strategies

- **Government Relations: Elected official and agency outreach**
- **Creation of Farm Team: Prominent local and regional advocates speaking to media, organizing rallies, providing testimony, meetings with elected officials**
- **Media Relations: Op-Eds, Letters to the editor, national & local papers**
- **Community Outreach: Dialogue with stakeholders and local communities & education of project's benefits**

# Project Status

- All major NY papers and over 200 elected officials & organizations agree that the tunnel is critical for region's future
- Federal Transportation Bill August 2005 included historic \$100 million for this essential regional & national transportation project
- Environmental Impact Statement finalized 2006
- Engineering & Design 2007 & 2008
- Potential Groundbreaking 2009/2010

# Project Timeline



# Move NY & NJ: The Cross Harbor Tunnel Coalition



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