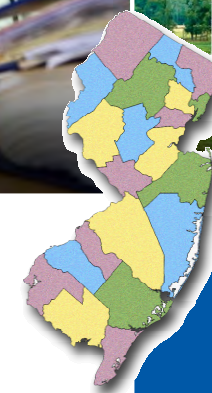
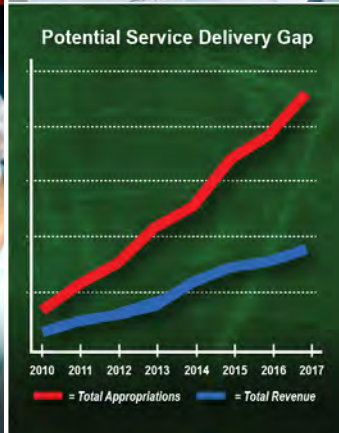
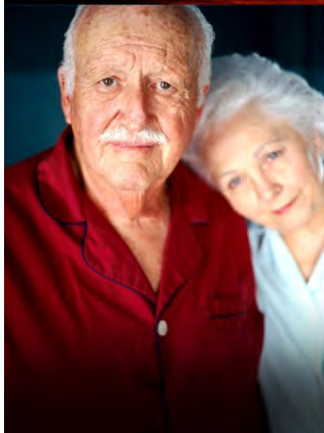
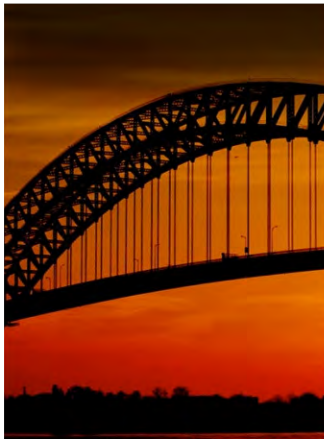


A p r i l 2 0 1 3

Infrastructure Investments Necessary for Economic Success

F a c i n g O u r **FUTURE**



**New Jersey Association of Counties**  
Annual Conference Seminar  
May 10, 2013



## Agenda

- Introductions
- *Facing Our Future: The Initiative*
- Infrastructure and Economic Success
- Electric Power
- Transportation
- Water Systems Infrastructure
- Conclusion
  - What Can County Government Do?
  - Q&A and Contacts



## Facing Our Future: The Initiative

- What is *Facing Our Future*?
  - Organized, independent and nonpartisan/bipartisan effort
    - Offers insight and analysis from volunteer Leadership Group of nearly 20 former gov't cabinet officers, senior gov't executives and public servants
    - Builds understanding about New Jersey's systemic fiscal problems
  - Fosters environment of informed public discussion – and future of NJ
  - Conducted without bias, hidden agenda, partisanship or political motivation

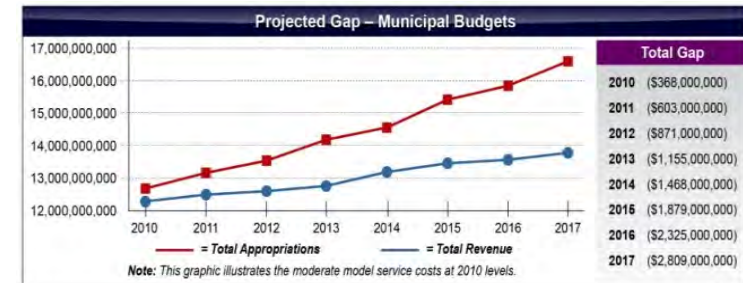
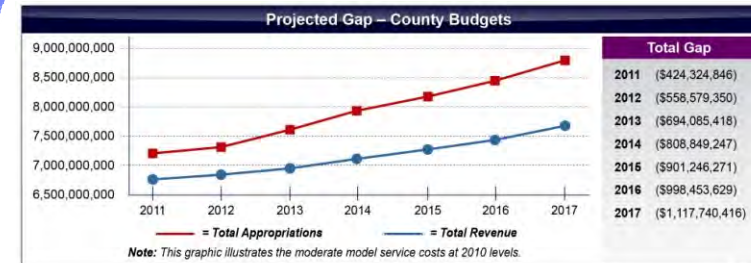
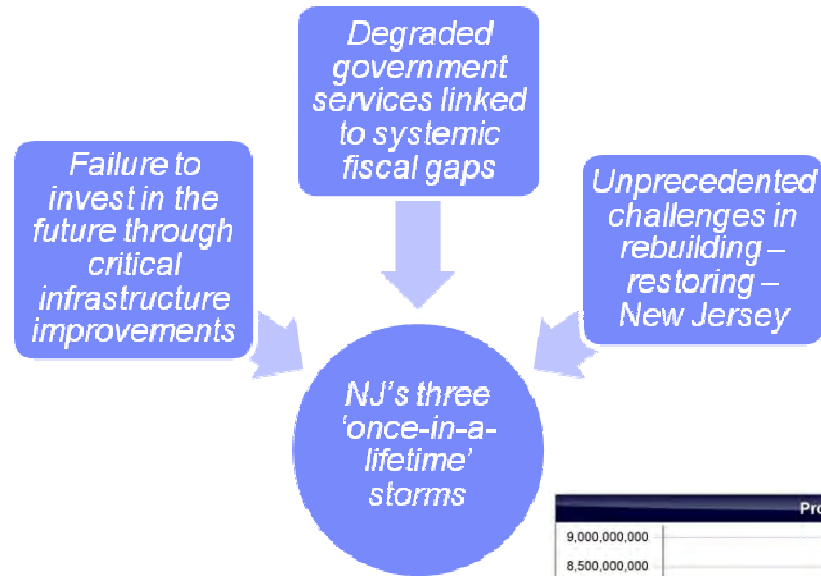
### ***Facing Our Future* Leadership Group Members**

Nancy Becker  
William H. Byrnes  
Raphael "Ray" Caprio  
Michael Catania  
Sam Crane  
Kathy Crotty  
Christopher J. Daggett  
Robert Del Tufo  
John Farmer  
Gwendolyn Harris  
Michael M. Horn  
Feather O'Connor Houstoun  
Robert Hughey  
Jack Lettiere  
Marc Pfeiffer  
Deborah T. Poritz  
Ingrid Reed  
Robert L. Smartt  
Charles Venti



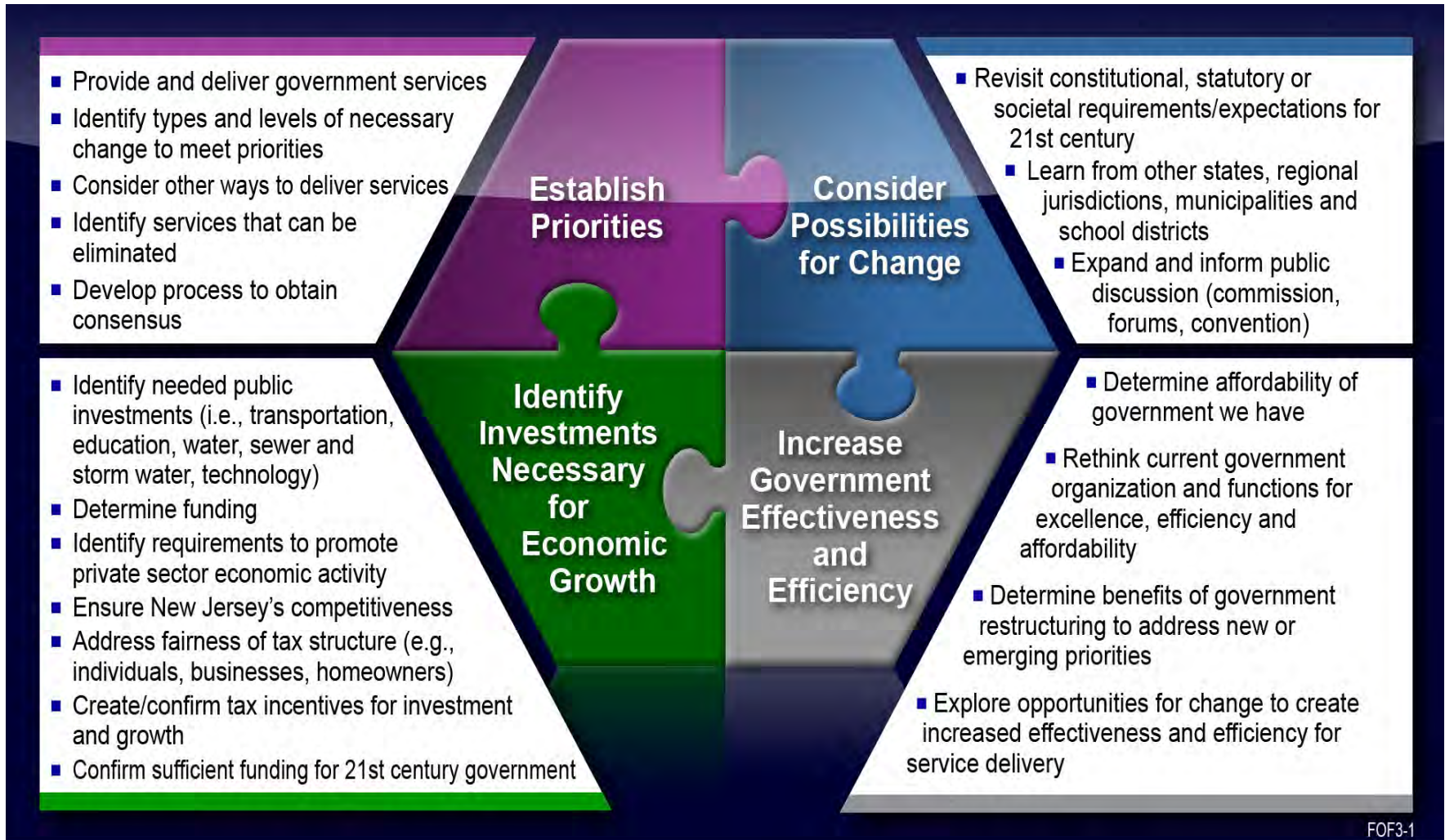
# Infrastructure and Economic Success: The Problem

- Absence of integrated approach
- Inability to maintain current infrastructure
- Failure to fund adequate investment to spur economic growth
- Deterioration of primary drivers re: economic competitiveness – power, transportation and water
- Projection of growing, systemic fiscal gaps at all levels of NJ gov't





# Infrastructure and Economic Success: NJ's Complex Puzzle





## Infrastructure and Economic Success: Impact of Inattention

- NJ's situation:
  - Complicated by history of underinvestment
    - Avoidance of routine maintenance and deferral of preventative maintenance
  - Widespread and cumulative impact
  - Inability of infrastructure to support economic growth
  - Results of deferred investment often unconnected to super-size or extraordinary weather events



FOF3-21a



# Infrastructure and Economic Success: Two Views of NJ's Needs

Report of the American Society of Civil Engineers – NJ Section	Grade	Risk
Wastewater	D	
Drinking Water	C	
Dams	C-	
Energy	C+	
Roads	D	
Bridges	D	
<b>Overall</b>	<b>C-</b>	

FOF3-9a

ASCE 2009 Report:  
Overall National Grade: D  
NJ Grade: C-

Facing Our Future:  
Significant  
investment needed  
over 5, 10, 20  
years or more

**Transportation** investment needs – estimate of **\$21.3 billion** over the period 2014-2018 just to cover short term state critical needs...presumes level of federal and state funding that is unlikely and unpredictable...an additional \$514 million per year needed to meet county and municipal transportation needs.



**Electric Power** investment needs – estimate of **\$8.9 billion**...what utilities have invested/are planning to invest over the next 15 months to up to 10 years...estimates are based upon needs of the distribution system and improvements resulting in increased system reliability.




**Water Systems Infrastructure** (including wastewater and storm water) – estimate of **\$40.7 billion**...includes drinking water infrastructure, wastewater and open space preservation over next 5-20 years.



FOF3-7c



## Electric Power



### Electric Power Infrastructure Investment Considerations

- Energy resources can change globally
- Unreliable power distribution hampers long-term economic prospects and development
- Infrastructure increasingly unable to withstand age and extreme weather
- Investments come principally from private sector; government influences/regulates only through state and federal laws
- Ratepayers bear the cost of investment, whether by rate increases or incentives promoted by state government (e.g., clean energy)
  - Balance how utilities can manage risk against what ratepayers are willing to pay to increase reliability
- Monitor ongoing investment and rate increases to ensure that both ratepayers, and not only shareholders, derive benefit
- Consider 21st century need for reliable power, digital economy requirements, growing losses from power failures, increased demand from residential customers (i.e., more home computing and communication devices, multiple digital televisions)
- Assume growing demand
  - From 1949 to 2011, primary energy consumption in the United States tripled. In all but 17 of those years, primary energy consumption increased over the previous year.



FOF3-11b

### Key Points for NJ:

*Investments come principally from private sector*

*Ratepayers bear cost of investment*





## Electric Power: NJ's Considerations

- New Jersey's retail electric rates – the costs charged to businesses – are among the most expensive in the nation
- In order for New Jersey's economy to grow, electric rates must be competitive with other rates within the region and preferably comparable to other places in the United States
- Unreliable power distribution hampers long-term economic prospects and development
  - Utilities need to manage risk while increasing reliability
  - Reliability must be balanced against cost, and ratepayers need to determine whether they are willing to accept an increase in utility rates if that increase can be dedicated to improved reliability

*To put it simply: what is the balance between reliability and rates?*



## Electric Power: Recommendations

- **Redefine the mission of the BPU** to be proactive in long-term planning of the electric power system. The New Jersey Energy Master Plan can and should be a document that both guides private investment and allows the BPU to articulate what needs to be done to insure the reliability of utility service
- **Acknowledge and address the need for long-term stability** among the executive leadership and the politically appointed membership of the BPU
- Require that appointees to the BPU **include individuals with relevant government, scientific, legal or academic experience**
- Restructure the compensation policy for professional BPU employees in order to **attract and retain individuals with appropriate academic training and/or experience** in public policy, economics, law and related scientific fields
- **Adopt post-employment restrictions** to prevent a brain drain of BPU employees to the benefit of the state's public utility companies or their legal advisors and consultants
- Require the BPU to **develop specific performance standards for the EDCs for each sector of the distribution system**, including the protection of critical infrastructure, emergency preparedness and operations, facilities design and operations, communication coordination, personnel performance and training and system restoration



# Transportation

- Vision NJ's transportation infrastructure
  - Attain condition of good repair for all components of NJ's transportation system
  - Eliminate commuter and goods transport delays during peak travel periods
  - Zero-fatalities: a goal NJ can live with
  - Implement the most effective business model
    - Provide reliable transportation services at lowest possible costs for customers
- Understand transportation as a business
- Change the transportation business model

**Major New Jersey Transportation Organizations**

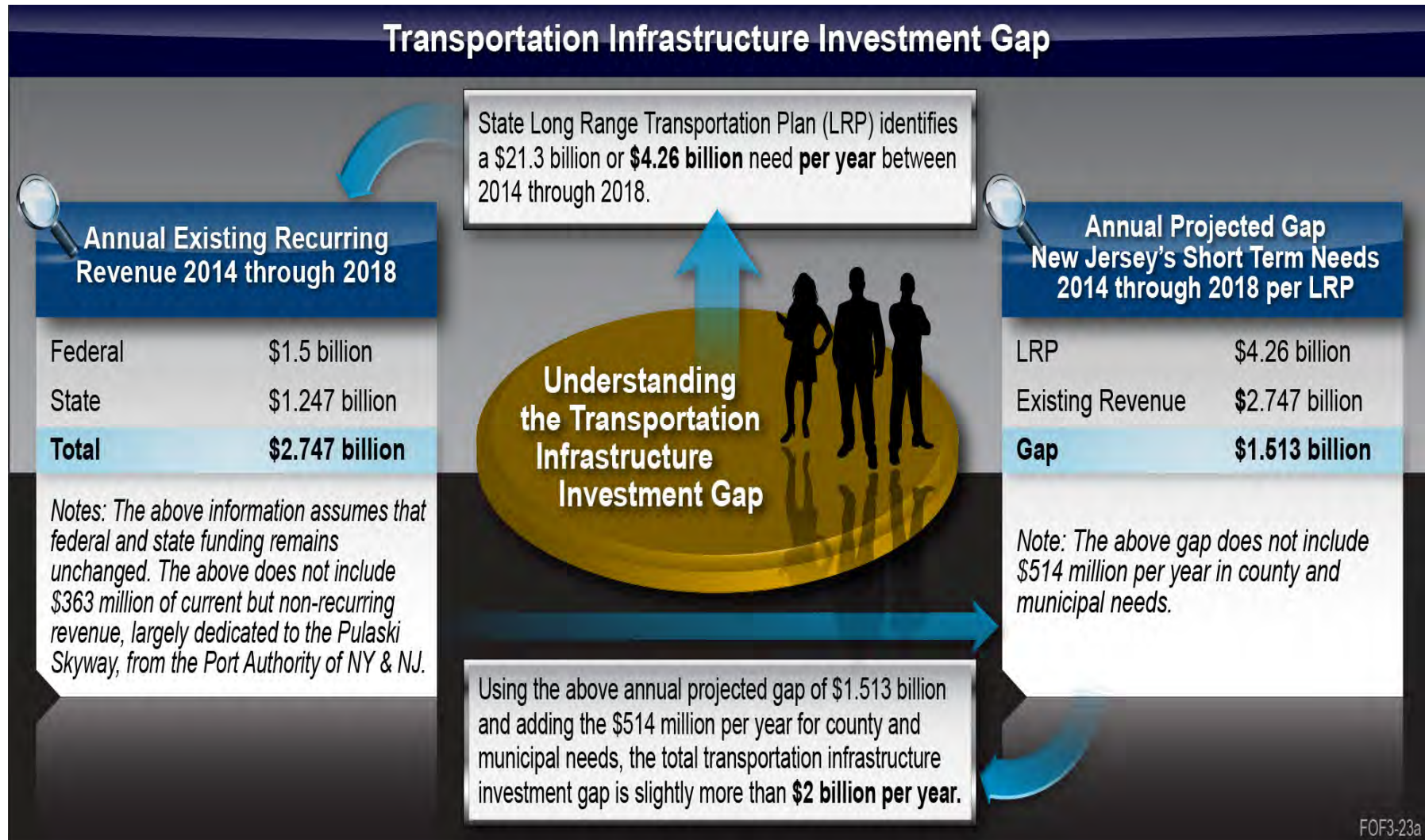
	NJ Department of Transportation (NJDOT)
	NJ Transit
	NJ Turnpike Authority
	South Jersey Transportation Authority (SJTA)
	New Jersey Motor Vehicle Commission (MVC)
	NJ Transportation Trust Fund Authority
	Port Authority of NY & NJ

The infographic also includes a map of New Jersey on the right side, showing major transportation routes and locations like Newark, Jersey City, and various parks and roads.

FOF3-22b



# Transportation: The Existing Infrastructure Investment Gap



FOF3-23a



## Transportation: Changing the Business Model

### Changing the Transportation Business Model

#### *Innovation is key to our business turnaround*

- Lower unit cost of production
  - Encourage production standardization
  - Ask “Are there better and faster ways for construction? Are there new materials being developed that could be used? Does anything have to be custom made to meet the apparent differences in needs among agencies? Can more standardization be incorporated into purchasing by agencies to speed delivery and lower unit cost?”
- Upgrade/update delivery systems
- Expedite production/construction techniques
- Improve joint land use/transportation planning
- Assimilate goals/practices of Federal Highway Administration (FHWA) – “Every Day Counts” initiative – identify and deploy innovation aimed at shortening project delivery, enhancing the safety of our roadways, and protecting the environment

FOF3-14a

#### **Key Points for NJ:**

*Rethink and change the transportation business model to support economic growth*

*Consider transportation as a public benefits corporation, regulated by an independent/appointed Board*



## Transportation: Recommendations....

- **Commit to a comprehensive and updated look at transportation needs.**  
Transportation investments should be determined not just through individual plans, but should reflect a coordinated state and local government approach along with long-term economic goals contained in an updated State Strategic Plan.
- Identify ways in which transportation can better connect with customers. It is time to **look at transportation as a business**, and determine how to provide services at the lowest cost.
- Consider viewing transportation as a public utility or a public benefits corporation, treating transportation as a commodity or business service. This **new organizational approach can lead to cost effective planning and efficient provision of transportation services, and also to the funding necessary to maintain and expand transportation services.**
- **Replenish funding** for New Jersey's Transportation Trust Fund
- **Anticipate and adapt to funding changes.**



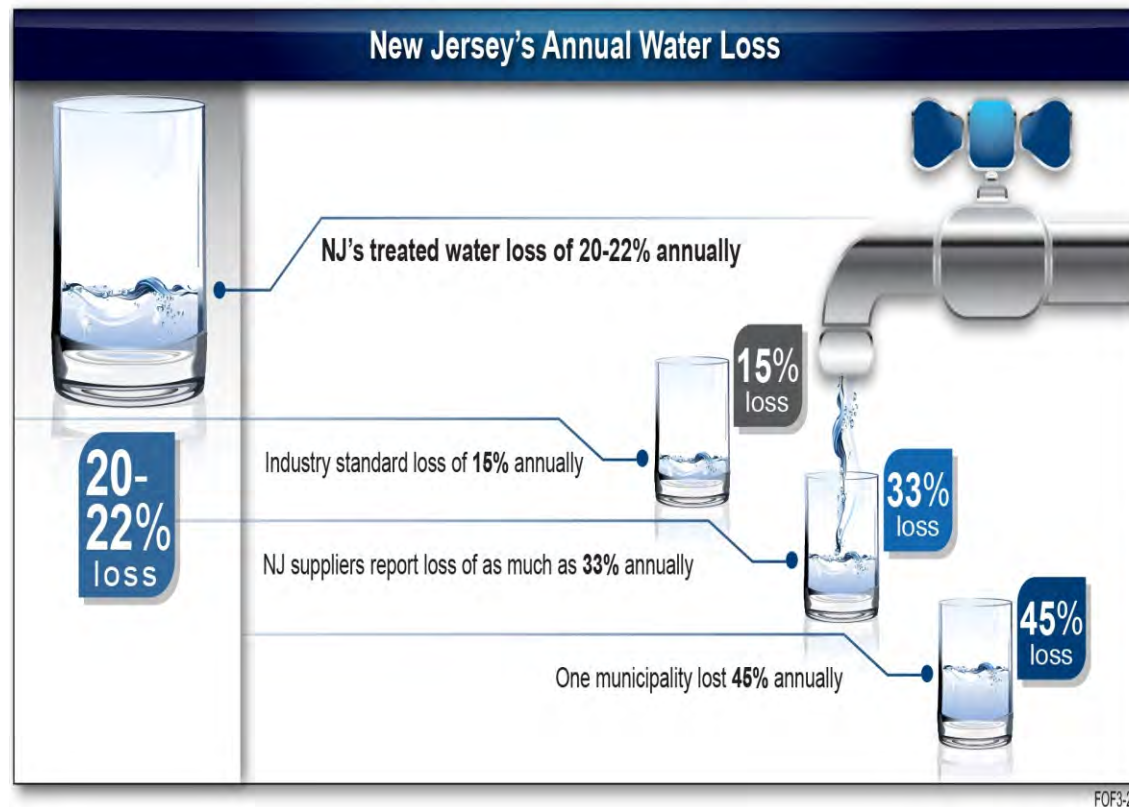
## Transportation: Recommendations (cont'd)

- **Replenish funding** for New Jersey's Transportation Trust Fund
  - Discontinue use of the Transportation Trust Fund to balance the State Budget
  - Renew the Transportation Trust Fund in FY 2017 for at least \$8 billion over five years
  - Raise the motor fuels tax
  - Explore and adopt more elastic sources of revenue
  
- **Anticipate and adapt to funding changes.** *Why?*
  - All of the funding projections required for transportation infrastructure investment assume a level of both federal and state funding that is unlikely and unpredictable
  - Currently, New Jersey receives approximately \$1.5 billion annually in transportation funding from the federal government
  - Reductions in traditional sources of funding further imperils the ability of transportation to support future economic competitiveness



## Water Systems Infrastructure

- Visioning NJ's water systems infrastructure
  - Ensure safe and adequate supply of public drinking water
  - Provide water supplies and wastewater treatment capacity to foster economic growth
  - Make the public and private investments today to avoid significantly higher costs tomorrow







## Water Systems Infrastructure: NJ's Needs....

*By the numbers, New Jersey's water and water-related infrastructure **needs** are ranked nationally as....*

<b>1st</b>	by a wide margin in Storm Water Management needs (\$15.6 billion)
<b>2nd</b>	in Combined Sewer Outflow Correction needs (\$9.3 billion)
<b>3rd</b>	in Decentralized Wastewater Treatment needs (\$2.2 billion)
<b>4th</b>	needs to repair and improve its Secondary Treatment and Advanced Treatment infrastructure (\$6.3 billion)
<b>4th</b>	in Nonpoint Source Pollution Control needs (\$1.8 billion)

FOF3-19a

*'NJ aging infrastructure is an area for concern.....'*

American Water Works Association  
American Society of Civil Engineers  
US Environmental Protection Agency  
numerous public advocacy watchdog groups



## Water Systems Infrastructure: NJ's Needs (cont'd)

**New Jersey 20-Year Need Reported by Project Type**

Project Type	Amount (\$ in millions)
Transmission and Distribution	\$4,722.9
Source	307.1
Treatment	1,850.4
Storage	1,056.7
Other	24.7
<b>Total</b>	<b>\$7,961.8 Billion</b>

FOF3-20

Category	Need \$ (millions)
Wastewater treatment	\$6,299
Pipe repair and new pipes	2,308
Recycled water distribution	99
Combined sewer overflow correction	8,176
<b>Subtotal Wastewater Treatment Needs</b>	<b>\$16,882</b>
Conveyance infrastructure	\$483
Treatment systems	\$107
Green Infrastructure	\$14,928
General Stormwater Management	\$108
<b>Subtotal Stormwater Management Needs</b>	<b>\$15,626</b>
<b>TOTAL</b>	<b>\$32,508</b>

***Add a minimum of \$250 million over the next five years for open space to arrive at the \$40.7 billion needed to meet NJ's water infrastructure needs over the next 5-20 years***



## Water Systems Infrastructure: Recommendations

- **Update the New Jersey Water Supply Master Plan**
- **Strengthen the water systems infrastructure capital planning process** at the state, county and local levels of government
- **Obtain and increase funding for open space preservation** to protect and preserve watershed lands to assure water supply and quality
- **Maintain and expand regulatory efforts** to preserve and enhance water quality in order to avoid a future need for building expensive filtration and treatment systems
- **Upgrade outmoded and inadequate water systems infrastructure** through support for initiatives undertaken by private and public water companies through increased fees
- **Consider joint land-use planning** as a shared municipal service for post-Sandy redevelopment; use this opportunity to rethink what is needed and what can be supported by public funds available for rebuilding
- **Expand buy-outs of flood-prone vulnerable properties** to minimize future damages and create natural buffer areas to protect infrastructure and developed areas
- **Encourage the broader use of “green infrastructure”**, including rain gardens, green roofs, pervious pavement, as well as a variety of restoration projects, to help address both stormwater management and water quality issues





## Conclusion: What Can County Government Do?

- **Support clear, targeted infrastructure investments** – and prioritize them according to updated, long-term plans
- Encourage coordination of plans across levels of government and public interests – **break down the siloed approach to investments**
- Recognize that **infrastructure must be funded** and that such funding will require new sources
- **Consider different ideas that are in place elsewhere** in New Jersey, or even at other levels of government or in other places
- Ask **how planning and implementation can be shared or coordinated across levels of government** or across different jurisdictions. Continue dialogue and discuss a sensible course of action to address our long-standing, historic and future storms



## Conclusion: Q&A and Contacts....

- *Facing Our Future* report
  - Highlights NJ's long failure to maintain and invest adequately
  - Identifies long-term infrastructure needs that drive economic competitiveness
  - Includes specific recommendations on funding needs and sources
  - Provides fact-based, no-blame opportunity to understand and explore relationship across areas of infrastructure investment and with economic success

### Keys to Successful Infrastructure Investment

View comprehensively rather than as discrete, disconnected areas

Support consistency – and prioritization – in conjunction with long-range economic plans

***NJ's infrastructure – a legacy from past generations – decays from delayed repairs and deferred maintenance. This was our perfect storm before Sandy – and it remains today as we recover and rebuild.***



## Conclusion: Q&A and Contacts (cont'd)

- Sign up for the regular news brief “Options in Action”
- Email *Facing Our Future* at [facingourfuture@cnjg.org](mailto:facingourfuture@cnjg.org)
- Follow us on Facebook
- Learn more about *Facing Our Future* at [www.facingourfuture.org](http://www.facingourfuture.org)

Thank You

[Read Facing Our Future's 2013 Report:  
Infrastructure Investments Necessary for Economic Success](#)

***available at [www.facingourfuture.org](http://www.facingourfuture.org)***