

National Association of Clean Water Agencies  
Summer 2008 Conference  
July 17, 2008

# Recognizing Sustainability Factors: Improved Prioritization of Water Quality Investments

Eric Rothstein, CPA  
Principal  
Galardi Rothstein Group



# Presentation Outline

- 💧 Prospective sustainability challenge
- 💧 Prioritization framework
  - **Reminder:** Financial capability assessments
  - **Extension:** Sustainability factors
- 💧 Potential implications
- 💧 Global perspective

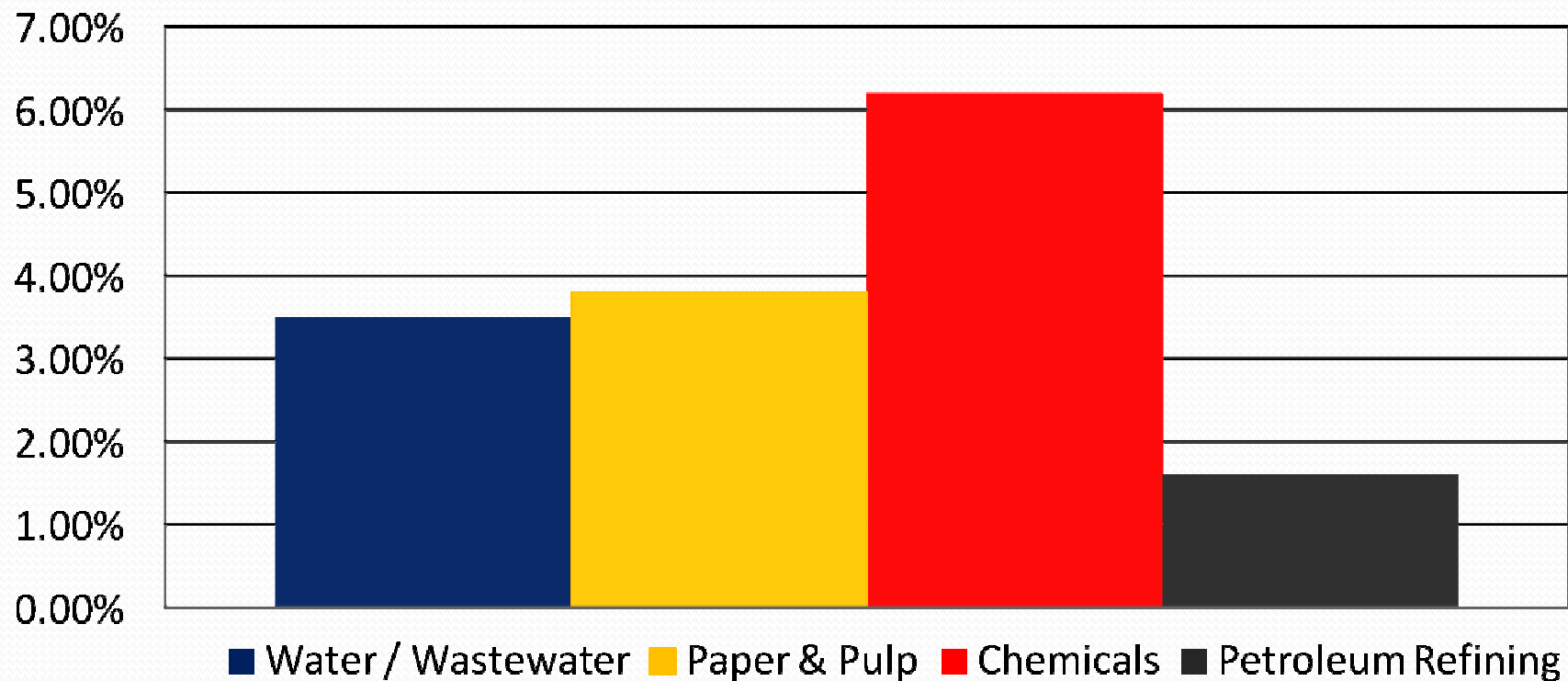


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# Water and wastewater sector has a significant environmental impact

Percent of U.S. Electricity Consumption by Sector\*



\* EPRI 2002, EIA 1998

# Prospective Sustainability Challenge – *Technical & Reporting*

## ◆ Sustainability factors in project evaluations

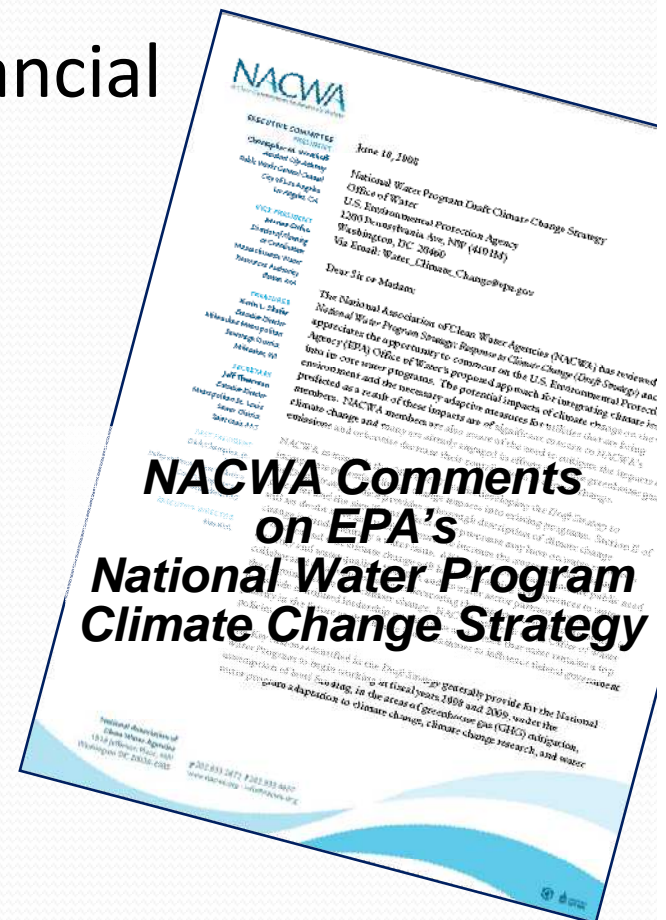
- Carbon footprint: Capital projects, treatment, operations
- Water supply preservation / extension
- Supplies & materials – content & transport
- Low-impact development & sustainable land use

## ◆ Accounting for, and reporting on, environmental impacts



# Prospective Sustainability Challenge – *Policy & Stakeholder Engagement*

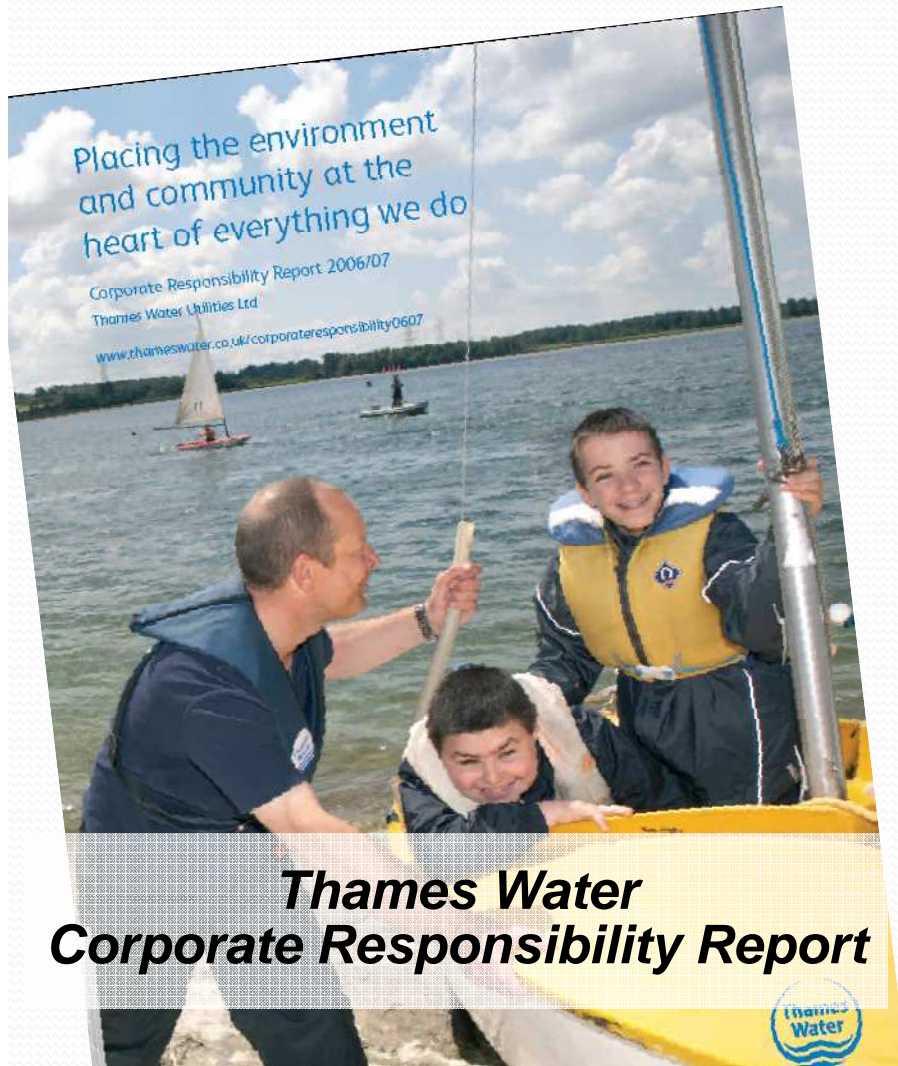
- 💧 Incorporating sustainability in financial & risk management strategies
- 💧 Addressing limitations of current regulatory infrastructure
  - **EX: EPA focus on point sources**
- 💧 Balancing of ecological & social sustainability considerations
  - Corporate Social Responsibility



# Prospective Sustainability Challenge – *Corporate Responsibility Reporting & Tracking*

## Top-priority issues:

- 💧 Water resources
- 💧 Wastewater
- 💧 Climate change & energy
- 💧 Customers
- 💧 Finance



**Thames Water  
Corporate Responsibility Report**





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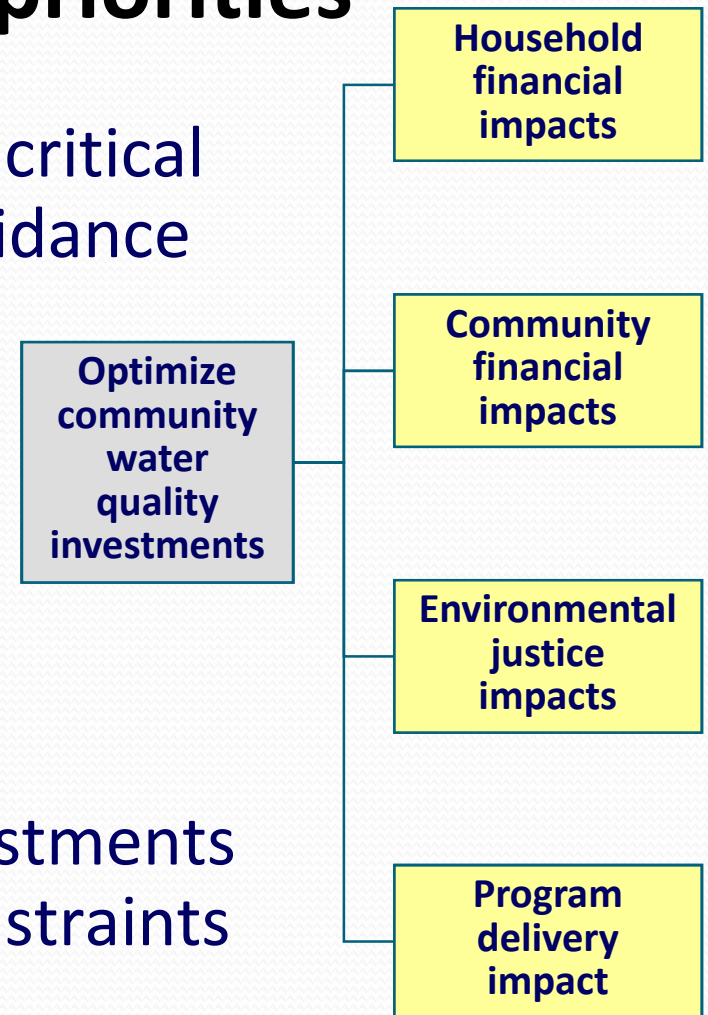
## Reminder: Financial capability assessment requires fundamental change



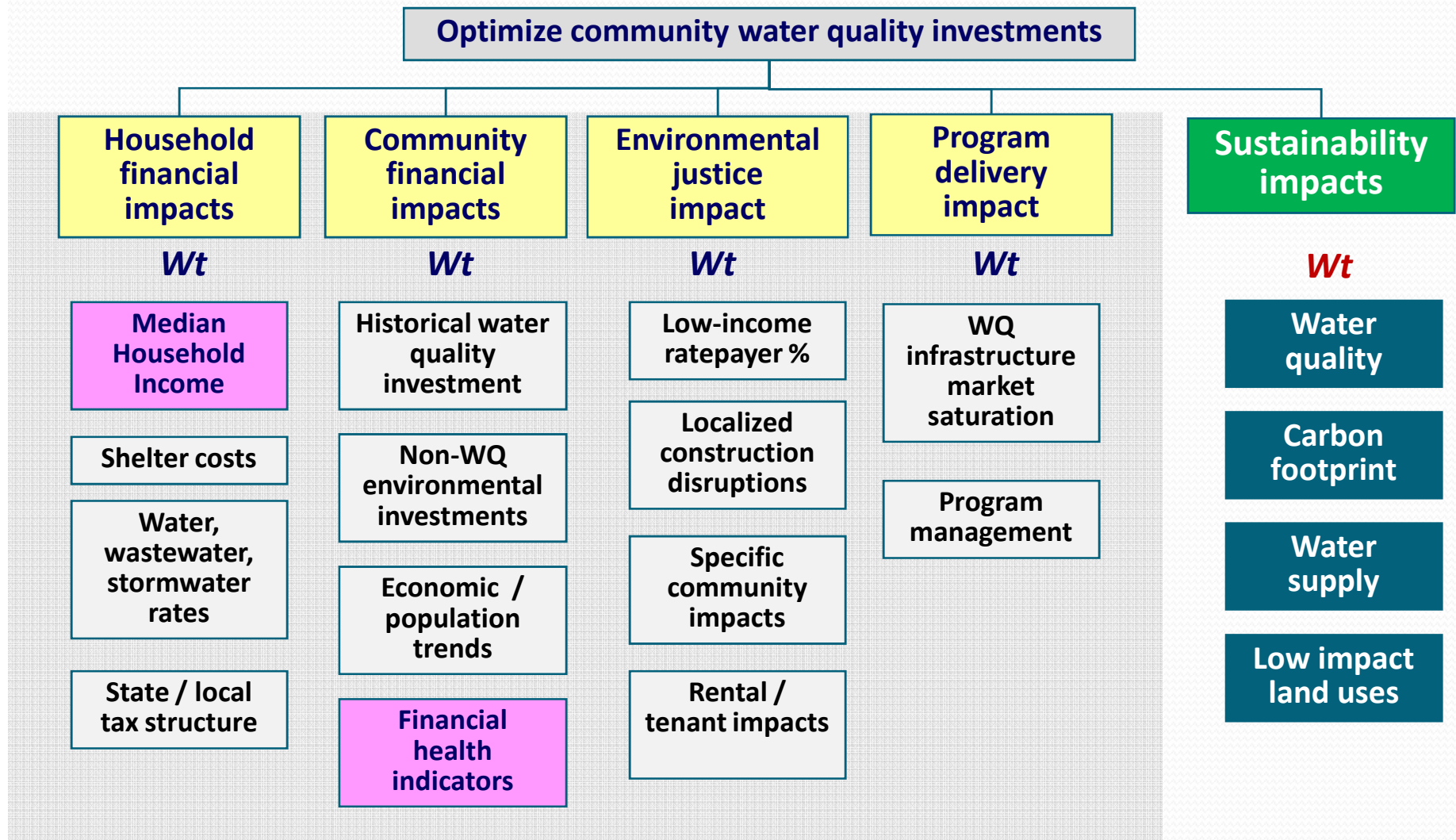
- ◆ Current regulatory and environmental policies are of **questionable merit** given impacts that:
  - challenge communities' financial capabilities
  - lead to sub-optimal resource investments
  - may deprive services to economically disadvantaged
- ◆ An alternative approach to environmental investments is warranted
  - Limited adjustments to flawed, prescriptive methodology will defeat public policy objectives

# **Reminder: Portfolio management principles recognize local factors and priorities**

- ◆ Analytical framework addresses critical factors not addressed by EPA guidance
- ◆ May be tailored for local considerations
  - Weighting systems
  - Performance metrics / scales
- ◆ Facilitates prioritization of investments subject to defined financial constraints

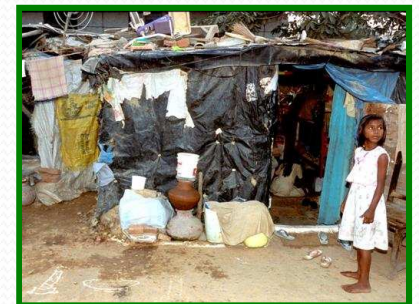


# Extension: Portfolio management framework enables balancing of sustainability factors



# Portfolio management framework prioritizes across competing objectives

- 💧 Avoids myopic focus of “threshold-based” regulation
  - **Unaffordable & unsustainable water quality compliance requirements**
- 💧 Decision-making framework involves accounting / reporting on environmental impacts
- 💧 Puts ecological sustainability in appropriate context
  - **Balancing of social & economic considerations**





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# Recognition of sustainability factors may result in selection of different projects

- ◆ Marginal (though potentially mandated) water quality investments may be found uneconomic
- ◆ Adoption of alternative approaches:
  - Treatment process alternatives
  - Decentralized wastewater treatment (and field operations)
  - Water supply augmentation:
    - ❖ Wastewater re-use
    - ❖ Stormwater capture / management





# Beyond project selection, sustainability role reflects evolving agency role







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# Global Perspective

- ◆ U.S. federal & state regulations will impose billions in water quality investment
- ◆ Net environmental benefit reduced if compliance imposes secondary impacts
- ◆ Higher yield **environmental** investments may be realized through global investment
  - **EX: World Bank sustainability banking**
- ◆ Higher yield **human** investment may be realized through global investment





# Conclusions

- ◆ Sustainability has the potential to become the next “all-inclusive” trend (e.g., asset management)
- ◆ Recognizing sustainability factors changes the dynamics of resource allocation decisions
  - Sustainability factors must be included in project evaluations
  - Expansion of existing prioritization frameworks may enable *sustainable portfolio management*
- ◆ Social responsibility planning & sustainability reporting are a natural extension of financial planning & reporting





***"In matters of race,***

***In matters of decency,***

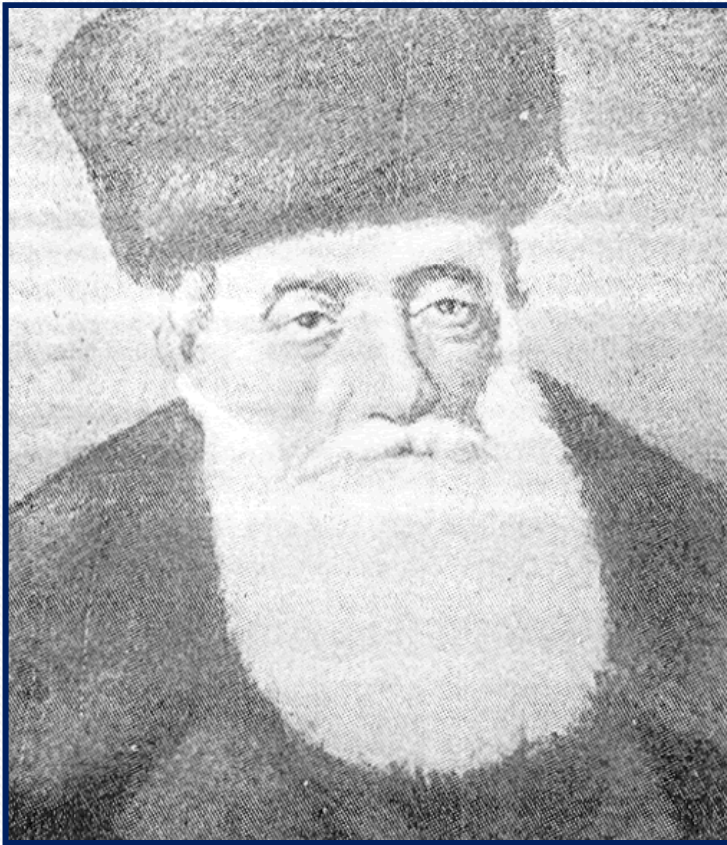
***Baseball should lead the way."***

**- A. Bartlett Giamatti**

***Former President of Yale University  
and Commissioner of Major League Baseball  
(1938-1989)***



...and, if the wisdom of baseball is not sufficiently compelling:



If I am not for myself,  
who will be for me?

If I am not for others,  
what am I?

And if not now, when?

- **Rabbi Hillel**  
(110BCE-10CE)

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