



City of Atlanta
Mayor Kasim Reed

Department of Watershed Management

Water Utility of the Future

Charting the Evolution from Consent Decree and Beyond

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Commissioner

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Agenda

- **Where we've been**
- **The complication**
- **Further transformation steps**
- **Enablers for industry evolution**

DWM faced tremendous challenges



**Lawsuit brought by EPA and environmental
NGO led to two Consent Decrees**



Significant accomplishments to date!

Consent decree implementation, Economic stimulation

Consent decree success

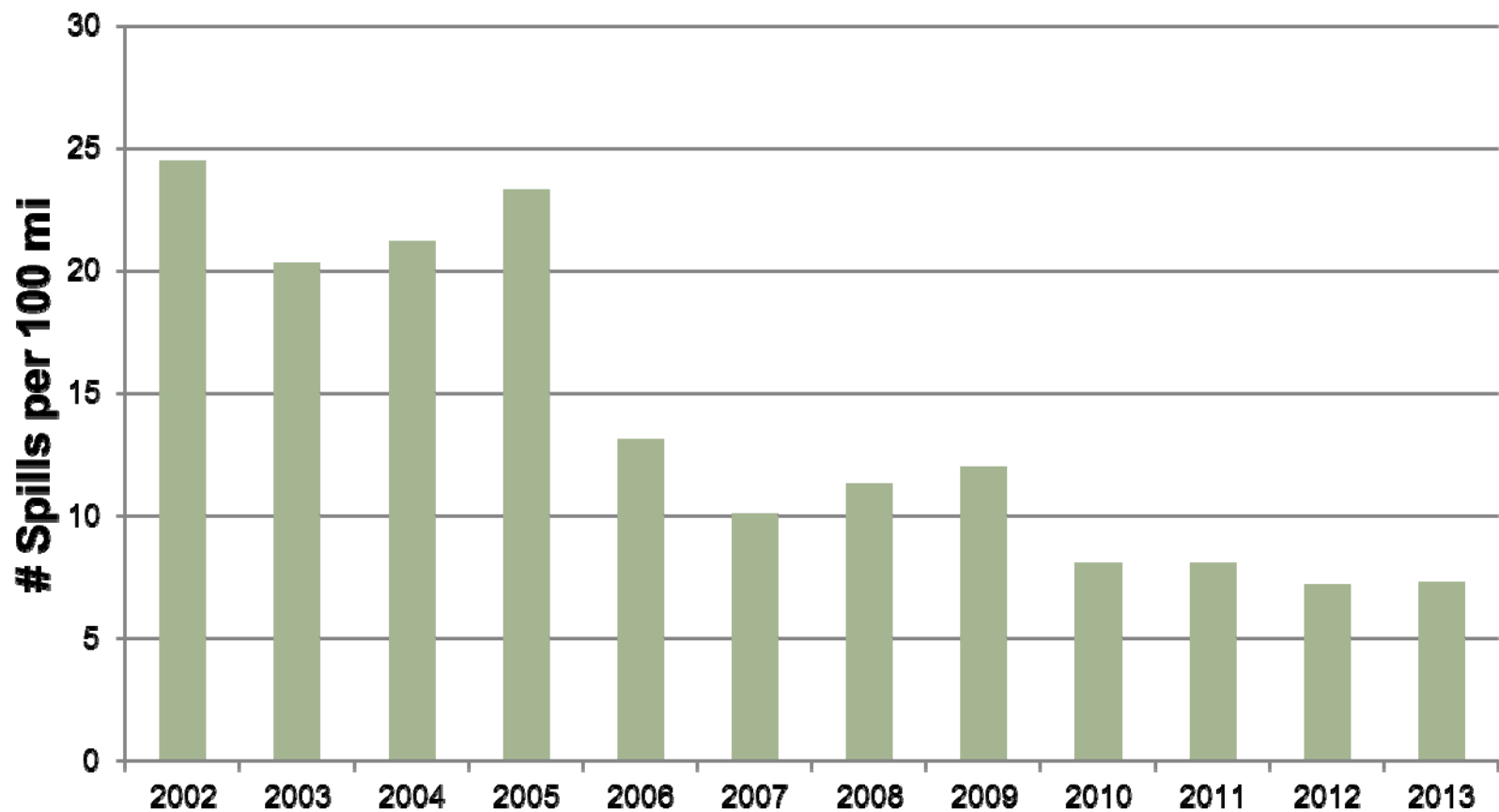
- ✓ Successfully met all 1,064 milestones
- ✓ Saved \$600+M (18%) from baseline using innovative approaches
- ✓ Earned trust of regulators
→ 13-year extension

Local economic impact

- ✓ Significant local small business development
(100 minority-owned small businesses involved)
- ✓ Program prioritization enabled ongoing growth, net economic impact of \$17.7B

Clear progress made against consent decree objectives...

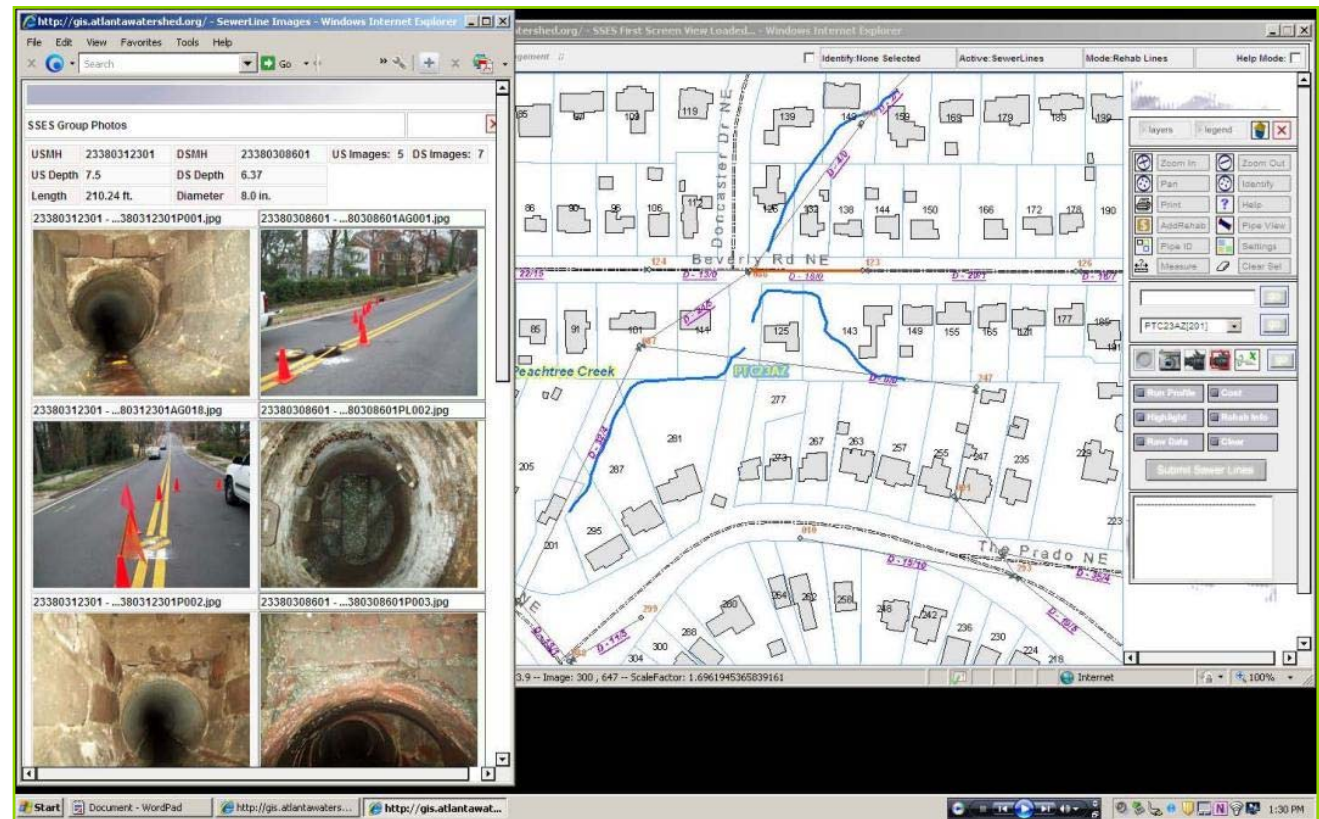
Total Public Spills/SSOs per 100 miles of pipe



...Driven by number of program innovations

Example: Rehabilitation Decision Support System

- ✓ Project data visually linked
- ✓ Predefined criteria promote consistency and speed
- ✓ Photos and/or video tagged to the asset ID number



Software application created to automate the sewer rehabilitation design process



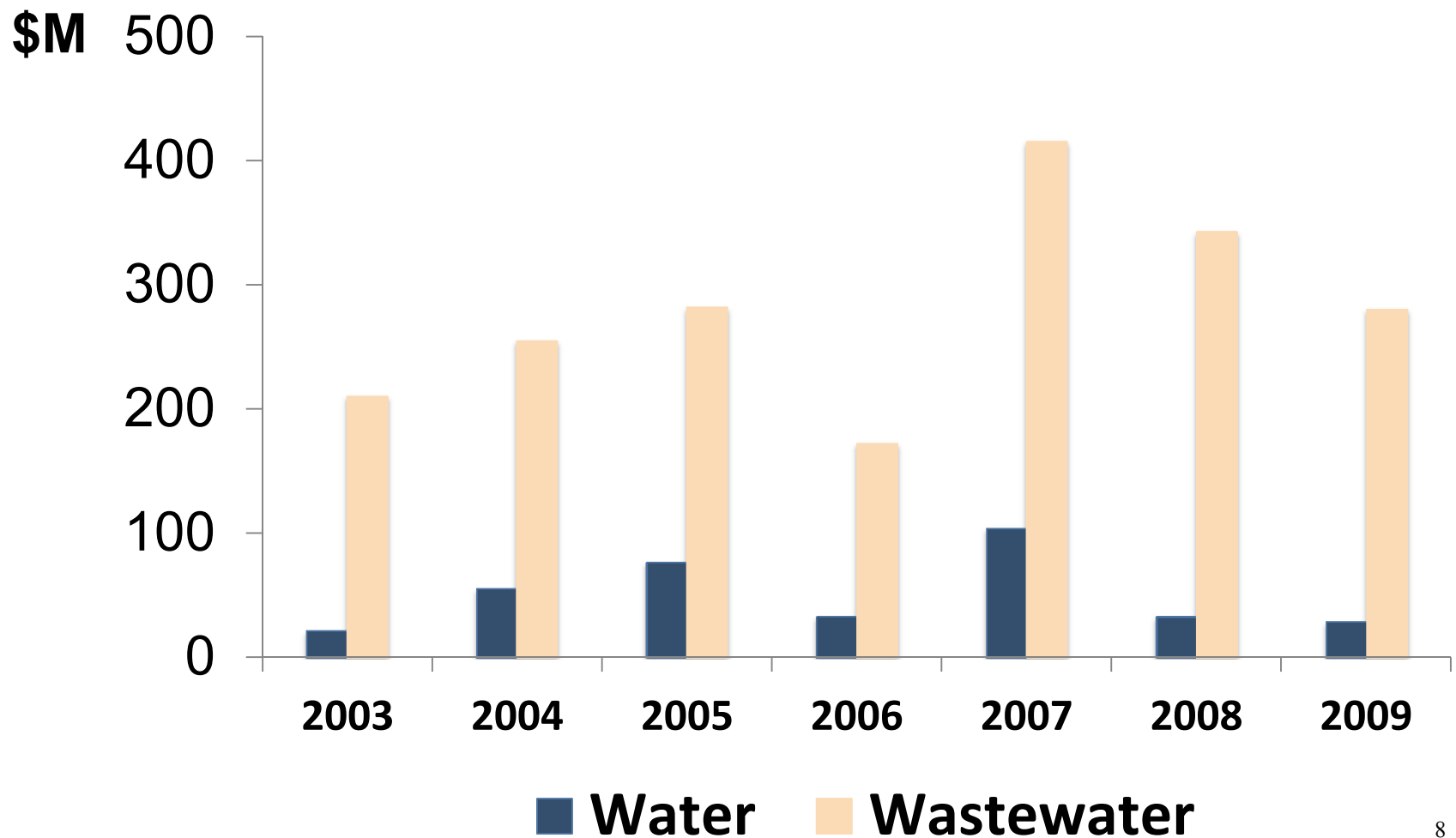
The Complication...

While these steps were necessary, they are not enough

- **Financial pressures intensifying**
 - Highest rates in the nation
 - 40% debt service
- **Areas of prior under-investment requiring attention**
- **Workforce succession**

A consequence of prior phase: imbalanced investment

DWM System Capital Improvements, by type



Asset Conditions: Auto Care Analogy

**Chattahoochee
WTP
(1960)**

Muscle car/stylish, with high horsepower

Good performance



56 Chevy

**Hemphill WTP
(1890/2012)**

Drive with pride; classic with new engine

Good performance but plan for
replacement in long-term



Studebaker

**Combined
Sewer
Facilities**

Sometimes you need to pull over and tinker

Upgrades planned now



"Old"smobile

Asset Conditions: Auto Care Analogy

South River
WRC
(1936)

Manual transmission; burns oil

Upgrades planned in next few years



F-150 Pickup

R.M. Clayton
WRC
(1935/1950s)

*Odometer has turned a few times;
Exhaust problems (incinerator)*

Upgrades planned in next few years,
incinerator to be decommissioned



1950 Oldsmobile

Utoy WRC
(1936/2000)

*Good performance; Exhaust problems
(incinerator)*

Incinerator to be decommissioned



Thunderbird

Intrenchment
WRC
(1910/1982)

*They don't make 'em anymore; time to
retire*

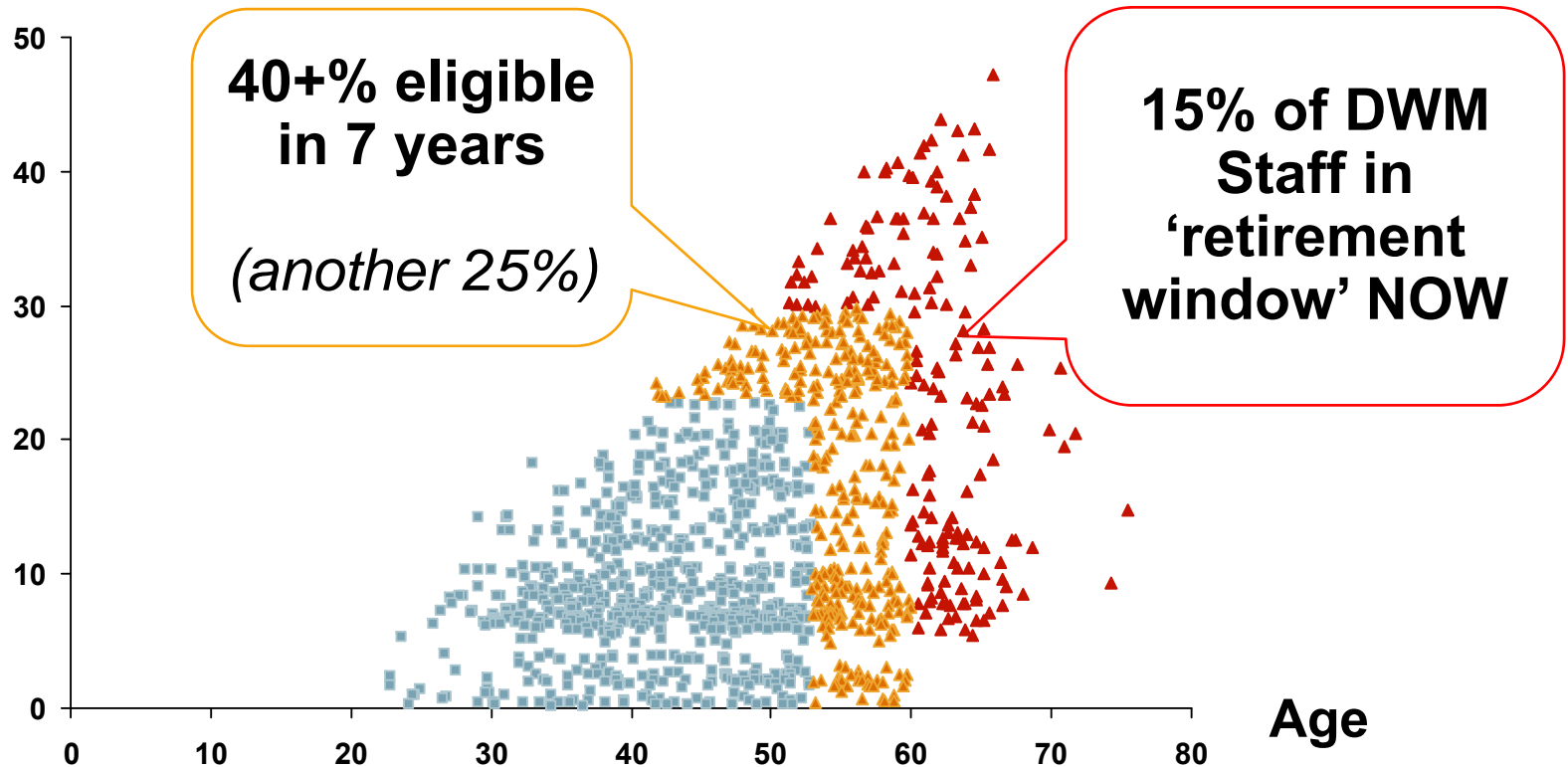
Decommissioning in next few years



Model T

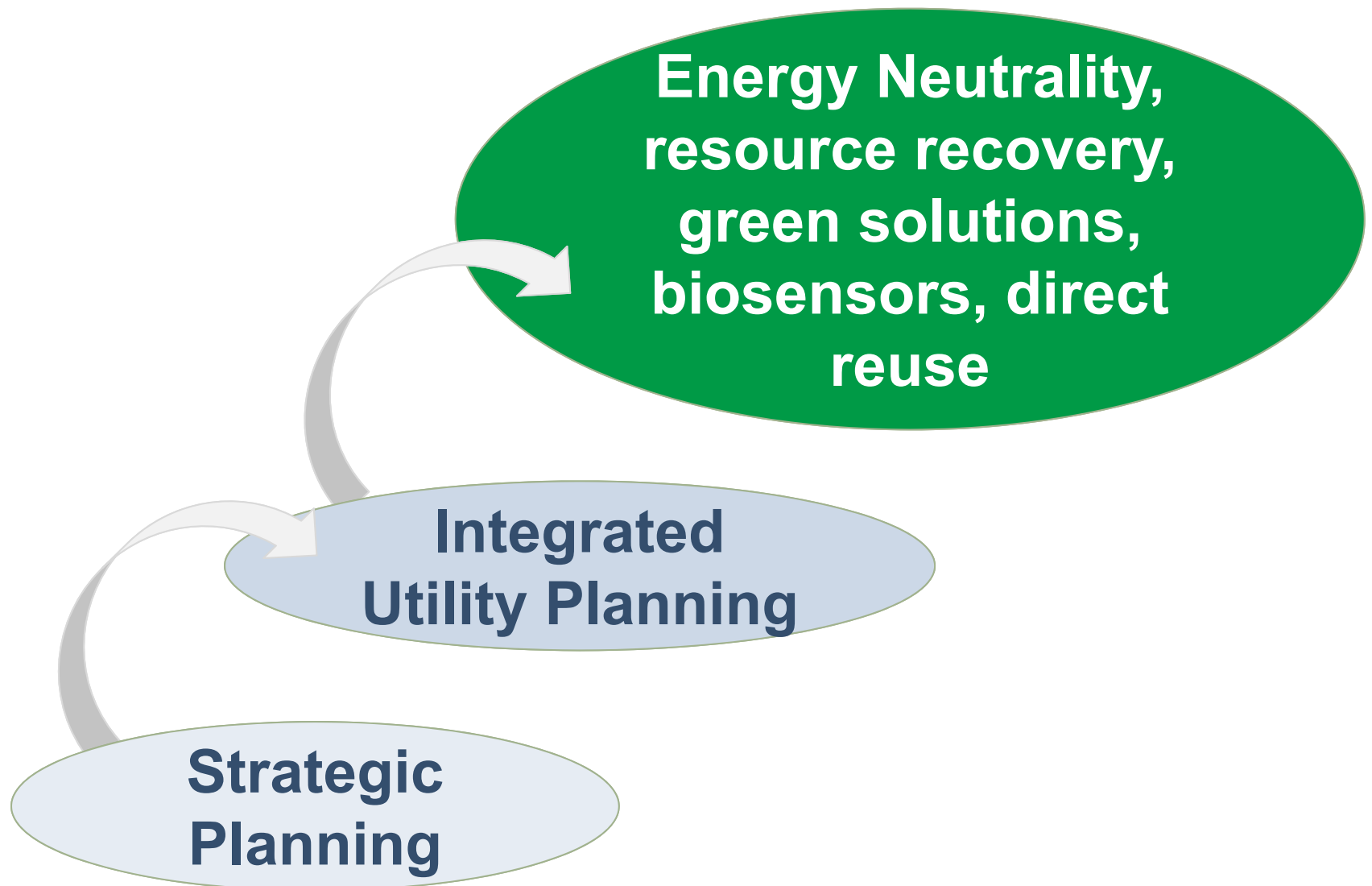
We face significant workforce challenges

Tenure



More strategic, holistic approach
required to transform DWM

Transforming into “Utility of the Future”





Developed set of tailored, cross-functional strategic initiatives

Strategic Financial Resource Allocation

**Stakeholder
Engagement**

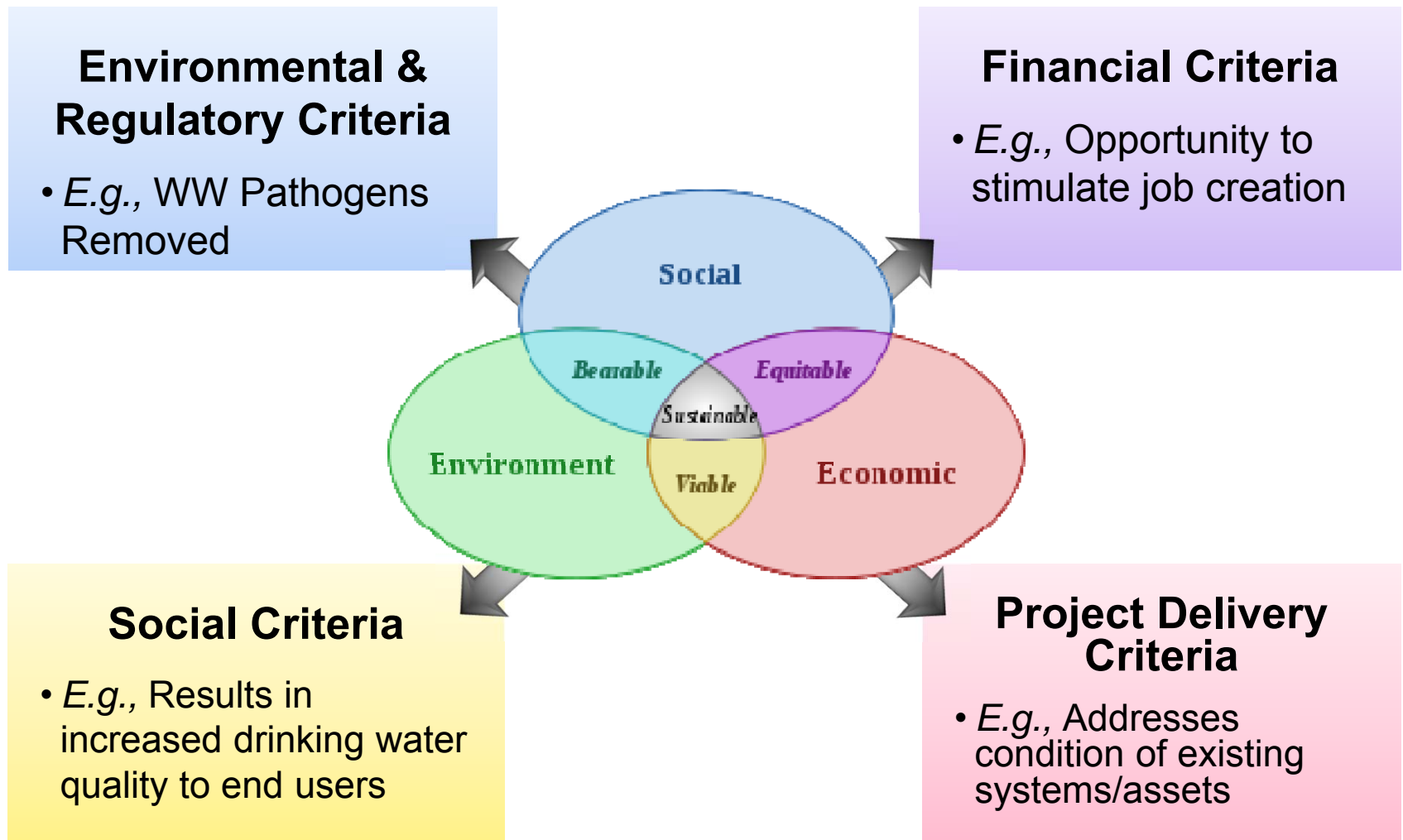
**Sustainable
Watershed
Management**

**Workforce
Development**

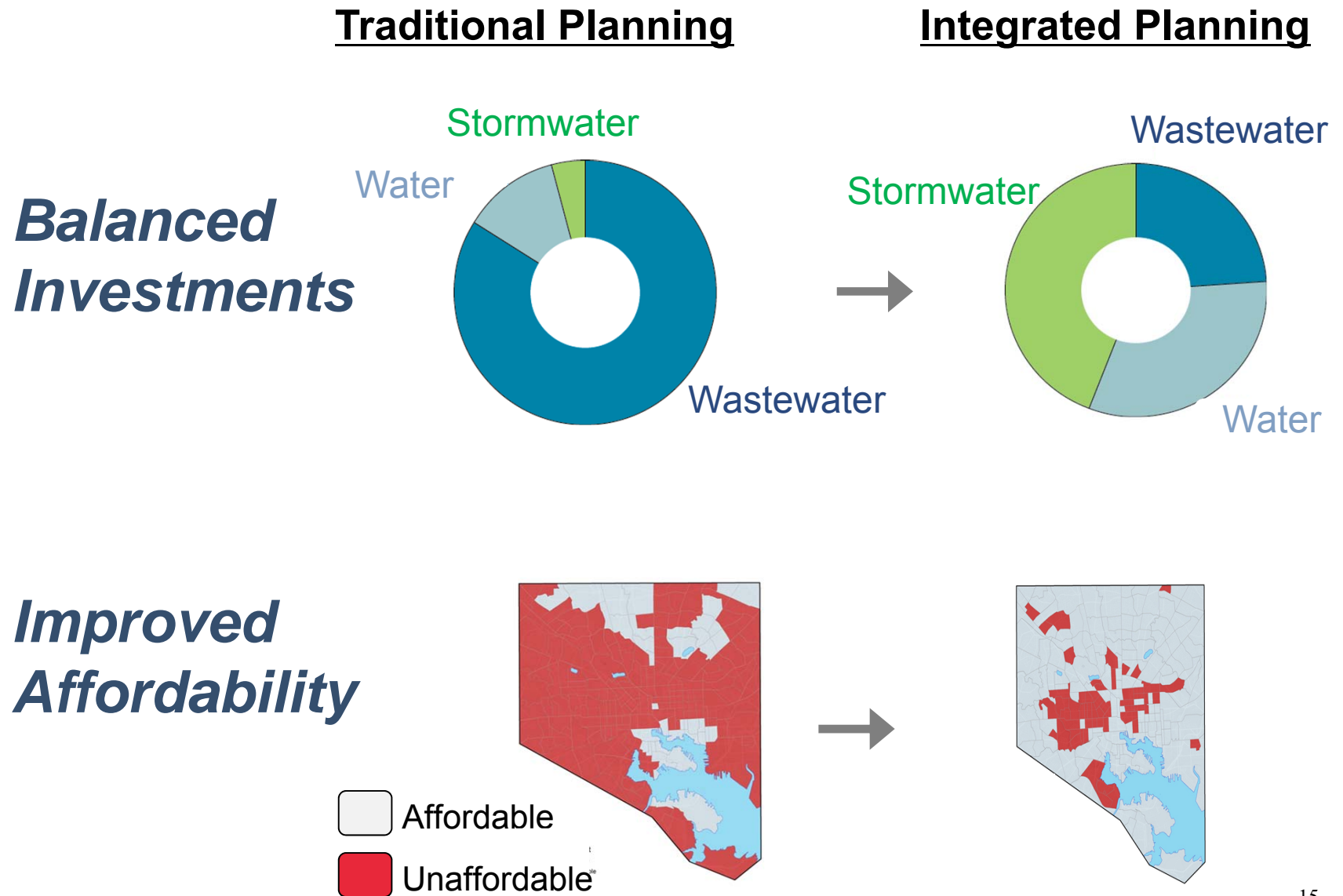
Asset Management / Risk-Based Planning

Data and System Enablement

Integrated Utility Planning uses holistic, multi-criteria approach to score projects



Integrated Planning yields clear benefits





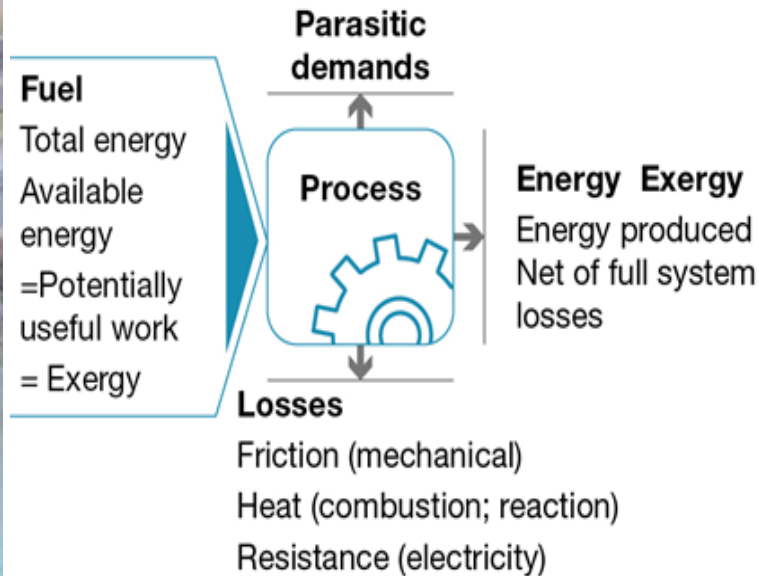
Historic Fourth Ward Park and Skatepark

- 17 acres
- Opened June 2011
- 2-acre lake that doubles as stormwater detention
- Outdoor amphitheater
- Modern playground with splashpad
- Open, passive lawns
- Elegant walkways

DWM moving toward Energy Neutrality as one area for Water Utility of the Future

Enhancing conservation...

...and generating energy



Virtual Works Simulation



**Optimized capital
investment plan and
business cases**

Refocusing on utilizing technology to work “smarter”



Additional enablers required to facilitate realization of Utility of Future vision

Regulatory enablers

- Support Renewable Portfolio Standards for biogas, etc
- Support legislative changes to facilitate water reuse
- Re-examine EPA affordability thresholds for consent decrees

Financial incentives

- Expand tax credits for UOTF energy generation & water reuse
- Maintain SRF for water
- Add DOE incentives for R&D in water
- Refocus Federal grant programs to support UOTF initiatives
 - Technology Innovation Grants



***Motivate
innovation***

***Enhance
financial
viability***

***Stimulate
economic
development***

A view of the future?

Perspective from the UK

After period of prescriptive regulation, the UK regulator has adopted flexible, outcome-based approach



Multi-faceted approach to evaluating utilities

- **TOTEX** efficiency- not CAPEX or OPEX in isolation
- Customer service *outcomes*- not just inputs
- Asset *resilience*- not just lowest short term cost

“...independent analysis shows there are around £2 billion of combined benefits on the table for customers coming from the changes in our approach” Ofwat (UK Regulator)

**U.S. regulatory approach lagging
industry best practices**