

# Water Resources

Impact of the Minority Business Community  
October 2011

# Who is Environmental Machines and Services

- ▶ Environmental Machines & Services (EMS) LLC, we serve the water, wastewater, and environmental industries with over 80 years of industry experience. As an emerging Minority Business Enterprise (MBE), EMS offers you practical solutions from an operation prospective, from consulting to field maintenance,. We can professionally service any dewatering machine.
- ▶ EMS employs a powerful array of professionals from each of the infrastructure industries in which they specialize. The result is a synergy that makes EMS the ideal partner for growth development projects and public-private partnership. EMS is the authority on cutting-edge business practices and applicable operational technologies suited to the task. Leveraging our innovative techniques, insight, and experience, EMS is *focused on results*, delivering integrated solutions based upon the specific needs of our clients.

# Who is Environmental Machines and Services (Continue)

- ▶ EMS has emerged as a full-line operations, services, and consulting company that responds to all aspect of wastewater and stormwater applications, our services are as follows:

All dewatering from municipal to Industrial contaminate.

- ▶ Sales
- ▶ Parts
- ▶ Service
- ▶ Operations
- ▶ Consulting
- ▶ Chemicals

# Background On Who I am

- ▶ Dana Batiste – President, Environmental Machines and Services
  - 20 yrs. Private Water and Wastewater Operations and Business Development – Strength Operations and Maintenance (O&M)
    - Severn Trent Services
    - United Water
    - American Water

# Projects I've have worked on

## ▶ Public Private Projects

### ◦ Successful Projects

- Bexar Metropolitan Water District (10yr DBO)
- Milwaukee Metropolitan Sewer District (10 O&M)
- GNESA (Kingwood since 1974)
- GHP (Southeast Water Purification Facility 5yr O&M)
- City of Indianapolis (Wastewater Treatment & Collection Facilities 10yr O&M)

### ◦ Politically Challenged Projects

- Houston (Northeast Water Purification Facility 5yr DBO)
- City of Atlanta (Water Department 20yr O&M)
- City of Laredo (Utilities Department 10yr O&M)

# Background On Who I am

- ▶ **Charles Marshall**
- ▶ Title Public Water Supply Team Leader
- ▶ Dallas/Ft. Worth Region 4 of the TCEQ
- ▶ 26 years of experience in Environmental Health with stat agency –currently Texas Commission on Environmental Quality.
- ▶ 11 years as a Field Investigator.
- ▶ 15 years as Supervisor of Investigators

# Population Growth

- ▶ Inner city growth
- ▶ Growth in unincorporated county areas

# Demand on Natural Resources

- ▶ Surface water availability
- ▶ Drought condition have lowered reservoir levels dramatically over the previous years
- ▶ Ground water availability
- ▶ Do to population growth in areas where surface water isn't an option their has become more of a demand on these sources(wells).
- ▶ Gas production drilling



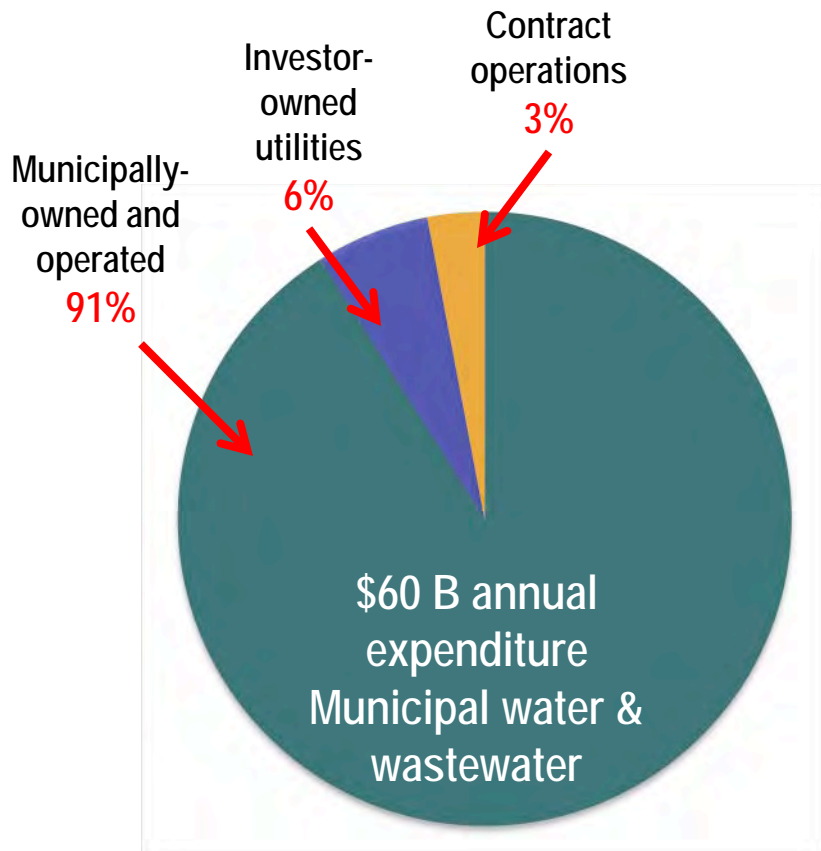
# Intrastructure Issues

- ▶ Do to aging distribution lines and soil contraction system are experiencing more main breaks.
- ▶ Aging facilities
- ▶ Maintenance, replacement, and repair

# Supply and Demand

- ▶ Creation of jobs –Training (ie...water and wastewater certification, Water Supply Specialist, etc...)
- ▶ Products – replacement of facilities components (ie...distribution system, development products to meet new challenges, etc..)
- ▶ Business opportunities (Investor Owned Utilities, manufacturing, Trainers, etc...)

# Untapped Opportunity to Leverage the Minority Business Community

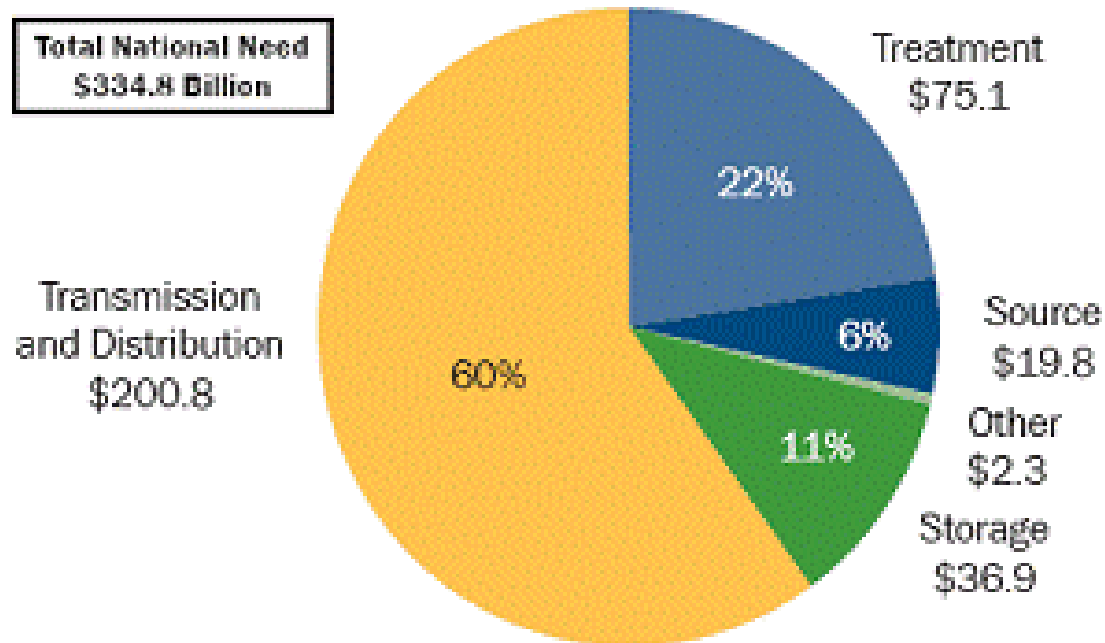


## Solutions to meet MBC

- Certified operators aging, with baby-boomers departure
- Large cities M/WDBE goals 20-30%
- M/WDBE represent .25% in major cities

# The 2007 U.S. Environmental Protection Agency (EPA) Drinking Water Infrastructure Needs Survey and Assessment

## Total 20-Year Need by Project Type (in billions of January 2007 dollars)



Note: Numbers may not total due to rounding.

<http://water.epa.gov/infrastructure/drinkingwater/dwns/factsheet.cfm>

# Total 20-Year Need (in billions of January 2007 dollars)

▶ Large Community Water Systems (serving over 50,000 people) <sup>1</sup>	\$116.3
▶ Medium Community Water Systems (serving 3,301 to 50,000 people) <sup>1</sup>	\$145.1
▶ Small Community Water Systems (serving 3,300 and fewer people)	\$59.4
▶ Not-for-profit Noncommunity Water Systems <sup>2</sup>	\$4.1
▶ Subtotal State Need	\$324.9

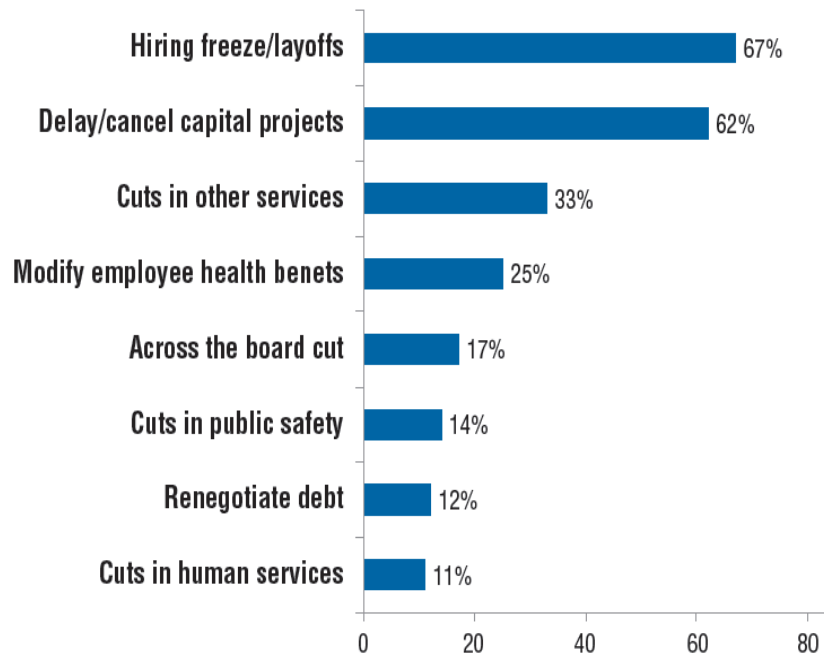
Note: Numbers may not total due to rounding.

<sup>1</sup> "Large" and "medium" systems are defined differently for this Assessment than previous Assessments. See Appendix A in the DWINSA report for more information.

<sup>2</sup> Based on 1999 Assessment findings adjusted to 2007 dollars.

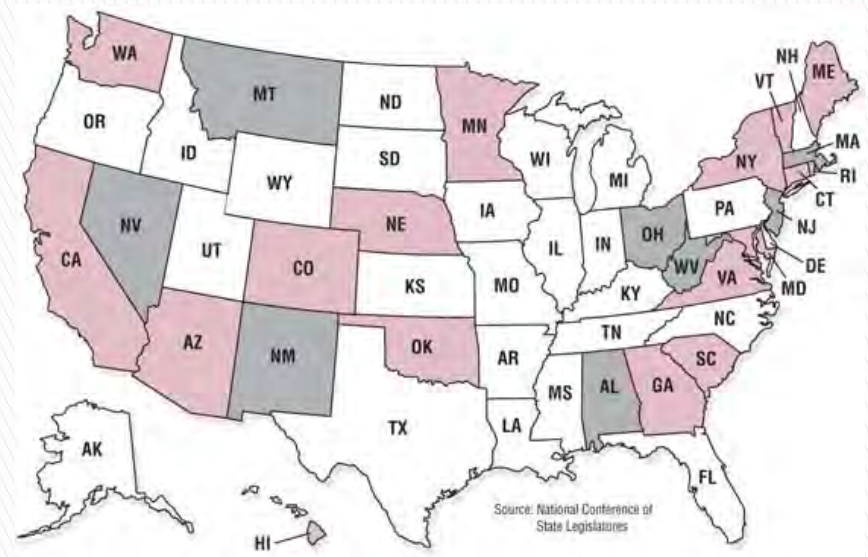
# Budget Gaps Impacting Services

## City Spending Cuts in 2009



Source: Hoene, Christopher W., National League of Cities Research Brief: City Budget Shortfalls and Responses: Projections for 2010-2012. Released: December 2009.

## State Expecting Budget Gaps Through 2012



States projecting budget gaps through FY 2012

# Background On Who We Are (Continue)

- ▶ Develop a Standard Operating Procedure (SOP) ) water, wastewater, distribution, collection, solids handling.
- ▶ Operations Assistance (OA) water, wastewater, distribution, collection, solids handling.
- ▶ Perform Comprehensive Plant Elevations
- ▶ Stormwater Separators Units removes 96% Total Suspended Solids (TSS) STORMPAL
- ▶ Oil Separators Units

# Main Breaks Plaguing Older Cities





# Crumbling Infrastructure Around the World

# 2009 US Infrastructure Report Card

Overall GPA = **D**

Aviation	D	Public Parks and Recreation	C-
Bridges	C	Rail	C-
Dams	D	Roads	D
Drinking Water	D-	Schools	D-
Energy	D+	Solid Waste	C+
Hazardous Waste	D	Transit	D
Inland Waterways	D-	Wastewater	D-

ASCE Grading scale: A=Exceptional; B=Good; C=Mediocre; D=Poor; F=Failing

Source: 2009 American Society of Civil Engineers (ASCE) Report who gave U.S. infrastructure a "poor" rating based on the condition and performance of assets, capacity versus need, and funding versus need.

# What is Stormwater?

Water following a rain or snow storm that does not infiltrate the surface is called *Stormwater*.

Stormwater has the potential to introduce new pollutants into surface water.

# STORMWATER



# Stormwater Stops Here!

The Old saying:

Possessions is nine tenths of the law.

Use the stormwater for something other than cleaning your streets.

**IT'S A RESOURCE**

# Addressing the Most Prevalent type of Water Pollutant in the Nation

- ▶ More than 800 communities or districts across the country have adopted a stormwater utility to help fund the costs of stormwater programs, including the costs of regulatory compliance, planning, maintenance, capital improvements, and repair or replacement of infrastructure.



# What pollutants are commonly discharged from construction sites.

- ▶ Sediments
- ▶ Solids and Sanitary Waste
- ▶ Phosphorus (fertilizer)
- ▶ Nitrogen (fertilizer)
- ▶ Pesticides
- ▶ Oil and Grease
- ▶ Concrete Truck Washout
- ▶ Construction Chemicals

# What Services Are Outsourced within Wastewater Now

- ▶ Greater Northeast Service Area
  - 14% M/WBE participation (should be 30%)
- ▶ Operation of the Dryer Facilities
  - 11% M/WBE participation (should be 30%)
- ▶ Maintenance of the Dryer Facilities
  - 11% M/WBE participation (should be 30%)
- ▶ Maintenance of the Belt Filter Presses
  - 11% M/WBE participation (should be 30%)
- ▶ Solid Hauling
  - 11% M/WBE participation (should be 30%)



# Solutions

- ▶ Use successful project models
- ▶ Political support: Awareness, training, create success stories (demonstration effect)
- ▶ Manage expectations
- ▶ Build awareness of PPP framework
- ▶ Use data to demonstrate clear need—evidence based

# Minority Business Opportunity