

# **DEACS**

## ***Resource and Energy Efficiency Section***



Waste Reduction Partners

- Provides consulting services to businesses and institutions to identify cost-savings through
  - **Water** efficiency audits
  - **Energy efficiency** assessments
  - **Solid waste** reduction measures
  - **Lean and Green** reviews
- Staff - highly experienced retired engineers and scientists
- \$91 million in client cost savings
- Services are **confidential**; provided at **no cost** to client; supported through government and utility-sponsored grants
- Contact: Terry Albrecht 828-251-7475,  
Terry.Albrecht@ncdenr.gov



# WRP Statewide Volunteers



## Western Team - 35

Land of Sky Regional Council, Asheville, North Carolina



## Piedmont Team - 27

Research Triangle Park, North Carolina

**WRP utilizes retired and volunteer engineers and scientists.**

- ▶ Engaging the "Baby Boomer" community resource – two million in 2025 in North Carolina.
- ▶ Staff is highly respected by clients, "Speak the Business Language."
- ▶ Over 2,300 years of cumulative experience.
- ▶ Staffing able to "stay with" clients through project implementation.
- ▶ Promotes sustainable economy and healthy environment.



# Waste Reduction Partners - FY15-16 Accomplishments

*173 Clients Assisted*

*51 Counties Served*

*8,8300 Volunteer and  
Staff Hours*

Since 2000

243,316 hours tech  
assistance

\$91 million in client savings

**\$1.39  
Million**

*Client Utility  
Savings*

**52,700  
MMBtu**

*Client Energy  
Savings*

**10.2 MGY**

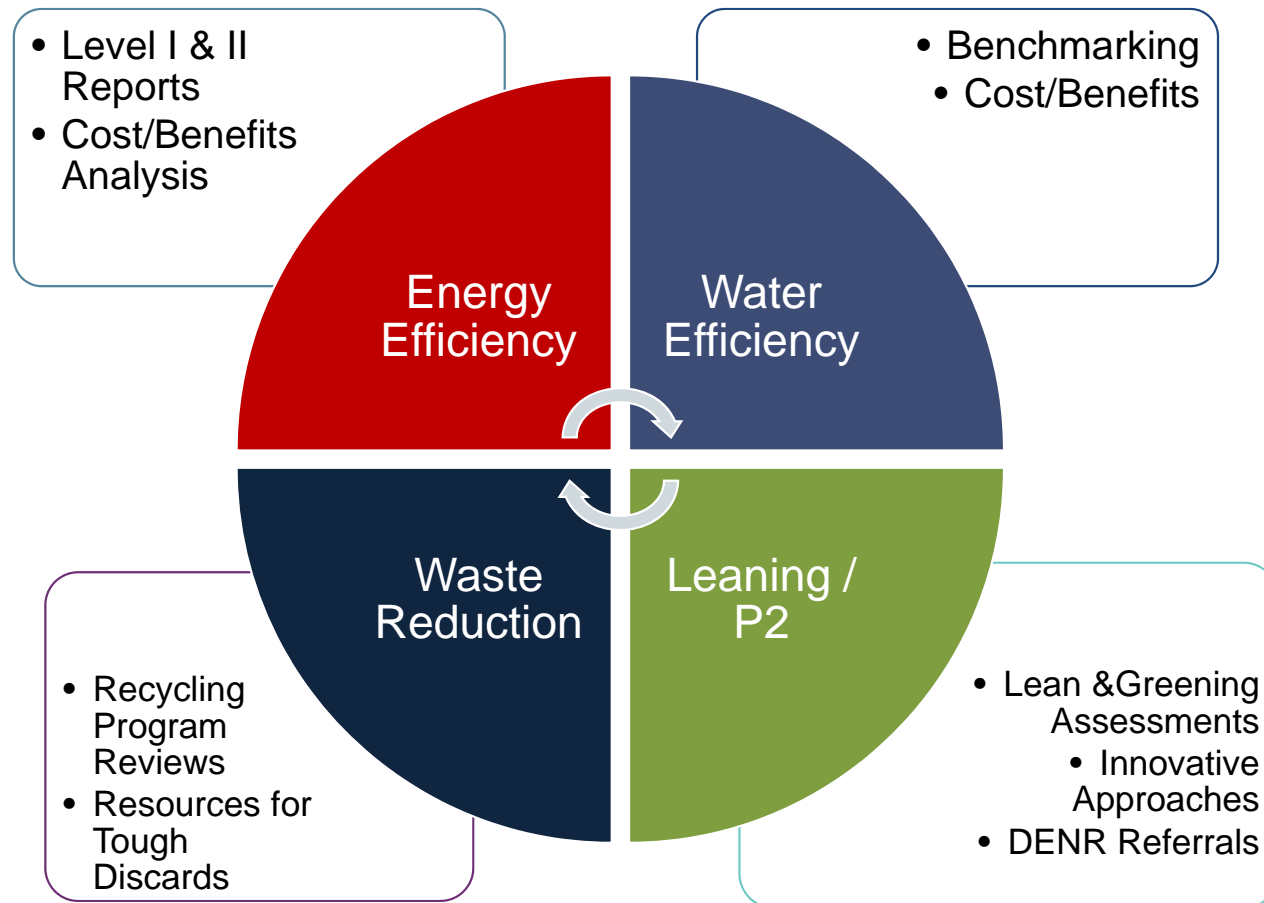
*Water Usage  
Reduction*

**9,421  
Tons**

*Solid Waste  
Diverted from  
Landfills*



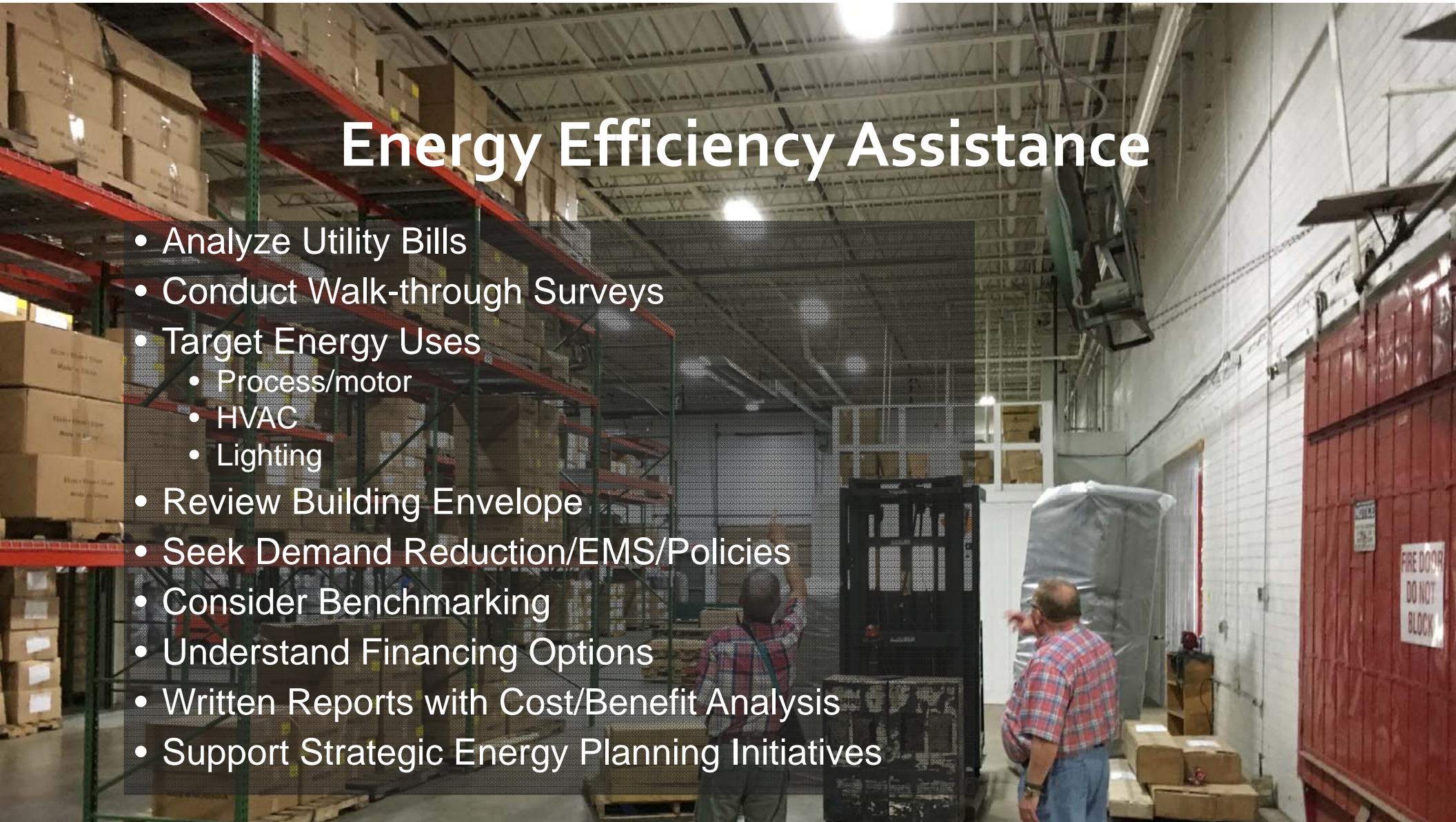
# WRP Technical Services Offerings – 2016-17





# Energy Efficiency Assistance

- Analyze Utility Bills
- Conduct Walk-through Surveys
- Target Energy Uses
  - Process/motor
  - HVAC
  - Lighting
- Review Building Envelope
- Seek Demand Reduction/EMS/Policies
- Consider Benchmarking
- Understand Financing Options
- Written Reports with Cost/Benefit Analysis
- Support Strategic Energy Planning Initiatives



# WRP POTW Client Summary

		Energy Conservation Measures Recommended in Assessment Reports																			
		Lighting Upgrades	VSD's	Motor Inventory	HVAC Upgrades	Maintenance	Bldg Envelope Upgrades	Pump Operation	Light Sensors	Rate Structure Review	Load Shifting	Reduce Peak Load	Sludge Management Upgrade	Motors	Cog Belts	Other Equip Upgrades	Occ Sensors	Aeration Control	Meter Consolidation	Educational	
Client	Date/Type																				
Asheville Water	2000 Energy Audit	x		x						x		x	x								
Cherokee Water	2010 Energy Audit	x	x			x			x												
Mars Hill Water	2009 USI Checklist	x			x		x									x					
Mayodan Water	2014 Energy Audit	x								x	x										
Pittsboro Water	2013 Energy Audit	x		x	x		x	x			x					x					
Cherokee W & WWater	2009 Energy Audit	x	x		x		x						x				x	x	x		
Gastonia W & WWater	2002 Energy Audit	x				x							x	x							
Littleton Wastewater	2009 Energy Audit		x	x		x						x									
Mars Hill W & WWater	2009 USI Checklist	x			x										x						
Marshall W & WWater	2009 USI Checklist	x		x					x											x	
Pittsboro W & Wwater	2013 Energy Audit	x						x							x						
Snow Hill WWTP	2010 Energy Audit	x																			
Valdese W & WWater	2012 M&V ARRA Grant		x					x													
	# Times Recommended	11	4	4	4	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	





# Do Your Large Customers Need Help?

## - WRP Water Efficiency Assistance

- Utility Bill Analysis
- Water Balance
- Domestic & Process Uses
- Report & Recommendation, 5-25%
- Cost/Benefit Analysis
- Demand Side Management Efforts
  - City of Asheville – ICI Assessments (15 yr.)
  - Town of Cary – Hotel Challenge
  - City of Durham – ICI Assessments
  - OWASA – Multifamily mass-metered
  - Wake County Schools, City of Raleigh



# Wastewater / Pollution Prevention / ESI

- Assisting customers with problematic discharges and pretreatment issues
- Examples: Town of Tryon – Mercury, Farmville - Cyanide False Positive.
- Environmental Stewardship Initiative
  - City of Gastonia w/ww 3 plants
  - City of Shelby w/ww
  - City of Hendersonville w
  - Cabarrus County w/ww
  - Cape Fear Public Utility
  - [www.ncesi.org](http://www.ncesi.org)
- ISO 14001 (City of Asheville assistance)





# Utility Savings Initiative

- Provides assistance to public facilities:
  - Cut utility costs for both water and energy
  - Improve energy management and utility tracking
  - Develop Strategic Energy Plans
  - Provide guidance on project implementation and financial incentives
  - Examine facility upgrades through **performance contracting** process
- Avoided utility costs of more than \$1 Billion
- Achieved 32% energy reduction goal by 2003-2015
- (919) 707-9250, [Len.Hoey@ncdenr.gov](mailto:Len.Hoey@ncdenr.gov)





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Terry Albrecht, PE, CEM  
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*Initiate a Project*  
WasteReductionPartners.org