

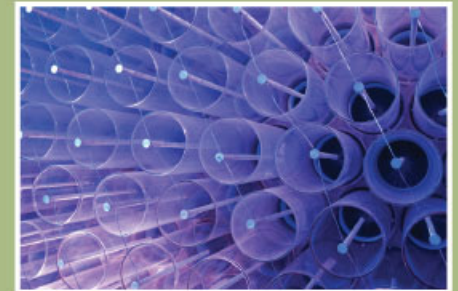
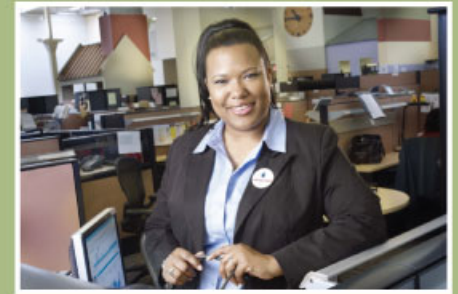


**P E N N S Y L V A N I A**  
**A M E R I C A N W A T E R**

## **A Residual Waste Partnership for Enhancement of the Environment**

**2012 PA Section AWWA Annual Conference  
May 4, 2012**

**Daniel J. Hufton, P.E.**



## Our Company

- **Subsidiary of American Water Works Co. Inc.**
- **Roots date back to early 1800s, Incorporated in 1904**
- **Largest regulated water and wastewater service provider in PA**
- **Serving approximately 2.2 million people in 36 counties**
- **More than 1,000 employees**
- **Customer base:**
  - 638,000 water customers
    - 92% residential
    - 7% commercial
    - 1% industrial/other
  - 17,000 wastewater customers





## An Award-Winning Program

- 36 surface water treatment plants
- 31 plants beneficially use WTP residuals
- >95% beneficially used, on dry-weight basis
- Uses: topsoil amendment, agricultural land application, tree nursery, mine reclamation
- 2000 Governor's Award for Environmental Excellence



*Governor's Award for  
Environmental  
Excellence*





## Advancing Our Program

- Unique local opportunity
- Partnership with a local non-profit
- **Triple bottom line**
  - Social (jobs, recreation)
  - Economic (jobs, lower costs)
  - Environmental (reclamation, saves landfill space)





## Watres Water Treatment Plant

- Serves 25,000 customers in Wilkes-Barre, PA
- Rated 16 MGD, Average Day 7.6 MGD
- Reservoir source with conventional treatment (alum, lime,  $\text{KMnO}_4$ , PAC)
- Lamella settlers & drying beds
- 1,500 wet tons/year





## Residuals Management History

- **Pre-2005: Residuals trucked to landfill @ \$60/ton**
- **2005-2011: Residuals land applied on MD farm fields @ \$55/ton**
- **Beneficial use, but costs still high!**



## Partnership with Earth Conservancy

- Non-profit, founded in 1992
- Mission: reclaim land and watersheds impacted by pre-regulatory mining in Luzerne County
- Operate yard waste composting operation
- Supplement yard waste compost with WTP residuals
- April 2011 – DEP co-product determination approval





## Hanover Township Culm Pile







## Residuals Mixed with Yard Compost





## Reclaimed Area





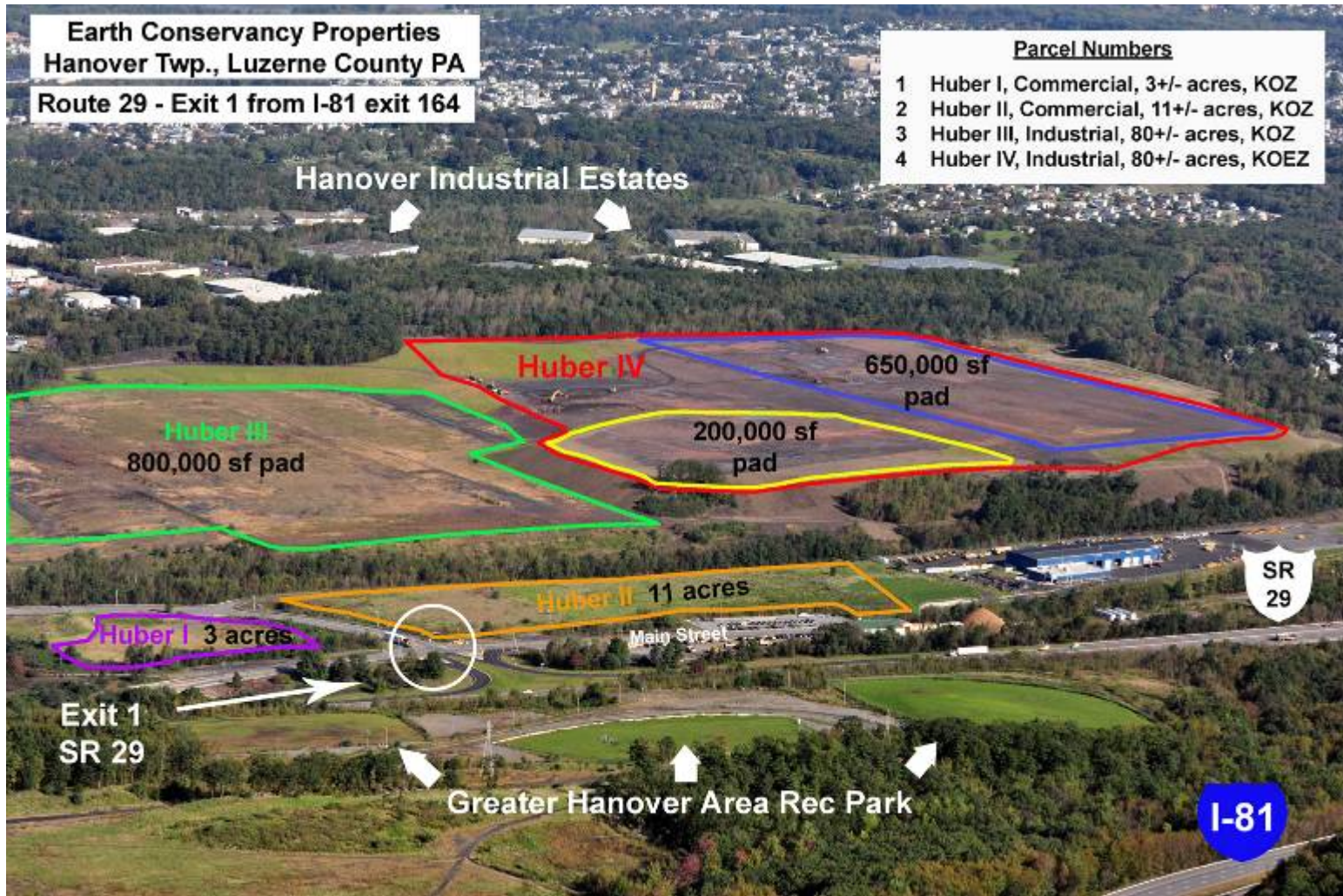
## Recreation

- Recreation fields post-reclamation – used by youth soccer team





# Jobs





## Cost Savings

$$\begin{array}{r} \$55/\text{ton} \\ - \underline{\$25/\text{ton}} \\ \$30/\text{ton} \\ \times \\ \underline{1,500 \text{ ton}} \\ \$45,000/\text{year} \end{array}$$



## WNEP News Story

