

Summary notes: **Managing Waste in the 21st Century**

October 11, 2018

Introduction: Richard Finkelstein, University of Mary Washington, welcomed attendees and introduced CLEAR Steering Committee members and regional leaders. He reviewed CLEAR accomplishments, including the adoption of solar people by numerous households, creation of instructional materials for schools, establishment, with Tree Fredericksburg, of a living/learning landscape at Hugh Mercer, and **Marstel-Day's** leadership on CLEAR and sponsorship of many forums and speakers. Objectives for today:

- Promote regional collaboration around long-term solutions for solid waste management
- Identify new technologies and approaches that reduce deposits into landfills and consequent environmental degradation

Speaker: Sara Bixby, Deputy Executive Director at Solid Waste Association of North America (SWANA):
The Economics of Recycling

- China's National Sword 2017: China will prohibit many grades of recovered paper and plastic from being imported by the end of 2017 by adjusting the imported solid wastes list and forbidding the import of solid wastes that are highly polluted. Devastating impact on the wider recycling sector.
- "More than 155,000 direct jobs are supported by U.S. industry's export activities, earning average wage of \$76,000 and contributing \$3 billion to taxes."
- Investments needed to support upgraded sorting equipment
- Education needed for haulers of recycling
- Needs: --raise US manufacturing demand for recycled materials
 --shop locally (reduces packaging)
 --sustainable materials management
- EPA Webinar October 26th 1pm to 2:30pm on China's Green Sword: Impacts to State and Local Governments

Speaker: Richard Doucette, Land Protection Manager at the Virginia Department of Environmental Quality (VDEQ): New Technologies for Managing Waste

- 70% of waste is landfilled
- Virginia is the 2nd biggest waste importer behind Pennsylvania.
- New technologies are being explored, but they are expensive and may require significant space. Communities often aren't supportive
- Gasification alternatives (regional controversies and concerns)
- Anaerobic digestion – concerns about odors although currently working well in Prince William County. Gasses and heat captured to supply energy
- Refuse derived fuel—separates combustibles from non-combustibles to produce pellets
- Challenges: --still cheaper to landfill
 --complications of permitting
 --NIMBY – Not In My Backyard. Residents often are supportive as long as it is not in their backyard.

Speakers: Julie Daves, Assistant Landfill Superintendent at Rappahannock Regional Solid Waste Management Board (R-Board) and **Diane Jones**, Recycling Coordinator: Informing Public Perceptions of Waste Management Options

- A family of 4 saves 5 lbs/week when composting food waste

- Source reduction and reusing is the most important method for decreasing waste: *25% of waste is packaging*
- **Reduce Recycle Reuse**
- Currently, 30-40% recycling rate in PD-16 but statistic excludes a lot: by weight, really about 12.25%
- **Actions:**
 - attend R-Board food waste composting class and get composting bin
 - resell and donate used products
 - push to upgrade facilities because of China's new demands
 - compost: can keep 5 lb/family out of landfill each week
 - use R-Board *free* mulch
 - promote education around composted materials—they don't smell or contain metals
 - increase stakeholder input around composting
 - coordinate regional programs

Breakout Sessions: Challenges and Solutions

1. Environmental and Economic Benefits of Recycling—Sara Bixby

- **Challenges**
 - container contamination
 - plastic bags
 - staff shortages
 - making community aware of economic benefits
 - incentivizing private citizens
 - need to improve markets
 - need for legislation
- **Solutions and Opportunities**
 - communication and education/marketing
 - work with stores, haulers, local service organizations
 - regulatory options: political issues
 - identify benefits to regional community
 - promote by-backs of products
 - promote markets for plastic bags and landfill metals
 - investigate new plastic road technologies
 - Need to continue outreach throughout Planning District 16

2. Exploring the Successes of New Technologies – Richard Doucette

- **Challenges**
 - Economies of scale: need to be small to start at first, e.g., feedstock
 - Many new technologies or methods aren't accessible in the region
 - Cost of implementing new technologies
 - competing interests
 - regulatory limitations
- **Solutions and Opportunities**
 - No new landfills in Virginia for 20 years
 - Goal: with reduced landfilling, least expensive and most feasible technologies can be found
 - notification and education to build public buy-in and reduce public health concerns
 - business investment opportunities

3. School and Restaurant Food Waste— Diane Jones & Julie Daves & SODEXO
 - Challenges
 - coordination: priorities differ at district individual school level
 - food service waste: handling organics requires new procedures for collection and pickup
 - Solutions and Opportunities
 - collaboration between UMW, city, and Livingston Landfill for transport
 - renegotiation of waste management contracts to include composting
 - use of smaller plates for discouraging to-be-discarded food
 - equipment investment for compacting food waste and readying for composting
 - use of organic/recycled materials
4. Opportunities for Composting – Craig Croker, Croker Composting and Consulting
 - Challenges
 - Developing a system where a service picks up compost every week or every other week
 - need for suitable 20-acre sites
 - zoning ordinances
 - lack of incentives
 - financing
 - landfills currently cheaper
 - compost market needs to be developed
 - institutional apathy
 - Solutions and Opportunities
 - education and publicity
 - public/private partnerships
 - multi-level approach: institutional, district-wide, and “backyard” composting