Rural Iowa Hub & Spoke Recycling Project

Why Hub and Spoke

- Rural recycling underserved and underutilized
  - Participation
  - Convenience
- Rural recycling efficiencies
  - Modest volumes
  - Transportation
- Desire to improve and expand rural recycling
- Iowa House proposed bill
  - “To develop a hub and spoke recycling program to create regional recycling processing centers in large communities and encourage small communities to deliver recyclables to the centers”

What They Knew vs. What They Didn’t Know

- Interest in improving rural recycling
- A wide variety of recycling programs exist in the state
- Little consistency between recycling programs

What They Knew vs. What They Didn’t Know

- Number and location of recycling facilities Materials accepted
- Collection program type (single stream, dual stream, drop-off, etc.)
- Quantities of material collected / recycled
- Collection, transportation and processing capacities
- Haulers
- Etc.
Project Approach

- Research and consolidate existing waste generation data
- Inventory existing recycling operations
  - Infrastructure
  - Service providers
  - Interest in Hub & Spoke
- Research and summarize other states’ rural recycling programs
- Develop conceptual Hub & Spoke system for representative area of rural Iowa
- Develop cost-benefit analysis

Data Collection

- Surveys distributed to 93 individuals in 44 planning areas
- 45 responses received
- 14 site visits and 200 phone interviews
- Identified existing
  - Recycling activities
  - Collection centers
  - Transfer stations
  - Landfills
  - Transporters and haulers

Survey Results

- Over 84% of facility or planning/service areas manage recycling
- Most common recyclable materials
  - Aluminum and tin cans
  - Plastic bottles and other plastics
  - Paper
  - Yard debris
  - Metals
- Methods used to collect and deliver household recyclables to facilities
  - Commingled collection (41%)
  - Source separated materials (31%)
- 80% use drop off sites
- 55% use curbside collection

Facilities

- Transfer Station or Recycling Facility
- Landfills
- MRFs
- Waste-to-Energy
- End User
Cost-Benefit Tool

- Source Separated
  - Collection Spoke (drop off or pick up)
  - Recycling Center (Hub)
  - Markets

- Single Stream/Commingled
  - Collection Spoke (primarily curbside)
  - Spoke Transfer Station
  - Recycling Center (Hub)
  - Markets

Results

- Existing recycling infrastructure is varied and strong
- Numerous private and public enterprises and partnerships
- Existing system contributes to high level of access to recycling in rural communities
Recommendations

• Increase efficiency of existing programs
• Don’t necessarily need Statewide Hub & Spoke System
• Public and private entities share resources and duties
• Implement reporting system to gather recycling data
• Strategically allocate of funds
• Use cost-benefit tool to target regions for creation of new processor or hub

So What’s Next

• Analyze study data to identify logical, data driven partnerships
• Identify and gather service providers – public, private, non-profit
• Present and discuss partnership options
• Demonstrate economic modeling

What Do They Want At The End?

To have a solid waste management system that provides benefit to Iowans, rural and urban, and conserves resources while ensuring sustainable recycling service and environmental and economic savings

Thank You

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