NCTCOG
WESTERN AREA WASTE REGIONAL WORKSHOP

Michael Carleton
Arredondo, Zepeda & Brunz LLC &
North Central Texas Council of Governments
Introduction

Michael Carleton

- Project Manager with Arredondo, Zepeda & Brunz LLC
- 35 years experience in energy and environmental programs
- 3600 acres of Landfill Site Selections for BVSWMA, Corpus Christi, Lubbock and TASWA
- Permitting Experience for Laredo, BVSWMA, Arlington and 12 landfills/transfer stations
- Solid Waste Management Plans including Fort Worth, Arlington, Burleson and NCTCOG
- Energy from Waste Experience

AZ&B is a 36 year old Dallas / Fort Worth based planning, engineering and surveying firm

- Recently presented to NCTCOG an assessment of regional disposal capacity and benchmarking analysis of waste disposal comparisons
Discussion Topics

- Waste management issues in western NCTCOG Region including forecasted waste generation & disposal
- Requirements for new capacity and transfer options
- Regional opportunities for solving problems
- Future discussion of needs, options and solutions
- Source reduction, recycling, organics management, etc.

In 2016, the NCTCOG region had 35 years disposal capacity.

Western region capacity is projected to be 25 to 30 years.

The estimated time to gain new capacity 10 to 15 years.
The Region

Wise
Tarrant
Parker
Palo Pinto
Erath
Hood
Somervell
Johnson

Close to the size of Connecticut
3.95 million acres
Straw Poll Results from Last Meeting

Topics important to this group

- Landfill Sites (16)
- Illegal Dumping (11)
- Available Disposal Capacity (11)
- Transfer Stations (11)
- Tires (7)
- Commercial Collection Service (5)
- Waste-to-Energy (5)
New challenges in unincorporated areas

New trend of large subdivisions built in unincorporated areas poses a new solid waste management issue for communities
Growth Projections

## Projected Waste Disposal

### Current disposal rate per capita

<table>
<thead>
<tr>
<th>County</th>
<th>2010</th>
<th>2040</th>
<th>Change in Annual Tons</th>
<th>2010 tpd</th>
<th>2040 tpd</th>
<th>Change in Daily Pounds / Capita / Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erath</td>
<td>43,287</td>
<td>68,646</td>
<td>25,359</td>
<td>119</td>
<td>188</td>
<td>69</td>
</tr>
<tr>
<td>Hood</td>
<td>40,087</td>
<td>56,480</td>
<td>16,393</td>
<td>110</td>
<td>155</td>
<td>45</td>
</tr>
<tr>
<td>Johnson</td>
<td>172,435</td>
<td>307,297</td>
<td>134,863</td>
<td>472</td>
<td>842</td>
<td>369</td>
</tr>
<tr>
<td>Palo Pinto</td>
<td>17,384</td>
<td>23,795</td>
<td>6,411</td>
<td>48</td>
<td>65</td>
<td>18</td>
</tr>
<tr>
<td>Parker</td>
<td>133,583</td>
<td>343,653</td>
<td>210,070</td>
<td>366</td>
<td>942</td>
<td>576</td>
</tr>
<tr>
<td>Somervell</td>
<td>9,699</td>
<td>15,347</td>
<td>5,648</td>
<td>27</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>Tarrant</td>
<td>2,066,731</td>
<td>3,474,271</td>
<td>1,407,540</td>
<td>5,662</td>
<td>9,519</td>
<td>3,856</td>
</tr>
<tr>
<td>Wise</td>
<td>67,550</td>
<td>149,053</td>
<td>81,504</td>
<td>185</td>
<td>406</td>
<td>223</td>
</tr>
<tr>
<td>Total</td>
<td>2,550,756</td>
<td>4,438,543</td>
<td>1,887,787</td>
<td>6,988</td>
<td>12,160</td>
<td>5,172</td>
</tr>
<tr>
<td>Pounds / Capita / Day</td>
<td>6.26</td>
<td>7.38</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Regional Comparison

- **NCTCOG**: 6.26 to 7.38
- **HGAC**: 6.72 to 7.49
- **AACOG**: 6.06 to 6.35
- **CAPCOG**: 5.95 to 6.06

<table>
<thead>
<tr>
<th>Year</th>
<th>NCTCOG</th>
<th>HGAC</th>
<th>AACOG</th>
<th>CAPCOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>8.54</td>
<td>7.11</td>
<td>7.70</td>
<td>7.35</td>
</tr>
<tr>
<td>2010</td>
<td>6.72</td>
<td>6.49</td>
<td>6.06</td>
<td>5.95</td>
</tr>
<tr>
<td>2013</td>
<td>6.89</td>
<td>7.00</td>
<td>6.35</td>
<td>5.58</td>
</tr>
<tr>
<td>2014</td>
<td>7.14</td>
<td>7.22</td>
<td>6.65</td>
<td>5.73</td>
</tr>
<tr>
<td>2015</td>
<td>7.30</td>
<td>7.15</td>
<td>6.60</td>
<td>5.79</td>
</tr>
<tr>
<td>2016</td>
<td>7.86</td>
<td>6.75</td>
<td>6.10</td>
<td>5.98</td>
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</table>
State of Iowa generates a total of 2.8 million tons per year.

Between 2018-2040 estimated total disposal 74 to 83 million tons of MSW.

Total CURRENT disposal capacity in Western Area is 63 million tons

Low assumes waste generation rate of 6.96 pcd (2010 rate)
High assumes waste generation rate of 7.38 pcd (2016 rate)
Comprehensive solid waste management

- **Reduce**: Minimize the amount of waste produced
- **Reuse**: Use the material more than once
- **Recycle / Compost**: Recover materials for new products
- **Recover**: Recover energy or metals from waste
- **Disposal**: Properly dispose of waste
2016 Landfill Location Map
30 mile radius to operating regional Type I landfills
30 mile radius to operating regional Type I landfills within two to five years
2030 Projected Years of Type I MSW Capacity

NCTCOG Type I Regional Capacity 2030

Region

- IESI Turkey Creek Landfill
- Waste Management Skyline Landfill
- Republic Maloy Landfill
- IESI Weatherford Landfill
- Ellis County Landfill
- DFW Recycling and Disposal Facility
- CSC Disposal and Landfill
- City of Dallas McCommas Bluff Landfill
- Hunter Ferrell Landfill
- Charles M Hinton Jr Regional Landfill
- City of Grand Prairie Landfill
- City of Fort Worth South East Landfill
- City of Denton Landfill
- City of Corsicana Landfill
- City of Cleburne Landfill
- Camelot Landfill
- City of Arlington Landfill
- 121 Regional Disposal Facility

Years Remaining Capacity

-20 0 20 40 60 80 100
Landfill Capacity

<table>
<thead>
<tr>
<th>Landfill</th>
<th>2016 Disposed (000 Tons)</th>
<th>2017 Disposed (000 Tons)</th>
<th>2017 Capacity (000 CY)</th>
<th>2017 Capacity (000 Ton)</th>
<th>Years Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlington Landfill</td>
<td>999</td>
<td>997</td>
<td>49,380</td>
<td>37,630</td>
<td>33</td>
</tr>
<tr>
<td>Fort Worth SE Landfill</td>
<td>637</td>
<td>557</td>
<td>23,260</td>
<td>16,480</td>
<td>30</td>
</tr>
<tr>
<td>Cleburne Landfill</td>
<td>0.7</td>
<td>0.7</td>
<td>18</td>
<td>90</td>
<td>12</td>
</tr>
<tr>
<td>Waste Connections Turkey Creek</td>
<td>524</td>
<td>591</td>
<td>6,930</td>
<td>5,049</td>
<td>12</td>
</tr>
<tr>
<td>Waste Connections Weatherford</td>
<td>207</td>
<td>198</td>
<td>830</td>
<td>544</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>2,368</td>
<td>2,344</td>
<td>80,418</td>
<td>59,793</td>
<td>20-25</td>
</tr>
<tr>
<td>IESI Fort Worth C&amp;D Landfill</td>
<td>368</td>
<td>367</td>
<td>8,101</td>
<td>3,985</td>
<td>11</td>
</tr>
<tr>
<td>Stephenville C&amp;D Landfill</td>
<td>12</td>
<td>12</td>
<td>822</td>
<td>493</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>380</td>
<td>379</td>
<td>8,923</td>
<td>4,478</td>
<td>12</td>
</tr>
</tbody>
</table>

In 2017, the estimated total NCTCOG region disposed of over 10 million tons

Estimated regional capacity is 415 million tons; 39 years

Recognize that waste from region is going outside the region
Processing Facilities in NCTCOG

Approximately 623,000 tons of waste is processed at one of 6 Western Area Region Transfer Stations.
Transfer Station
Costs & Benefits

Major cost consideration is the construction and operation of the transfer station.
Regionalization is not new
### IV. Regional Collaboration

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiencies in facility development &amp; operations</td>
<td>Loss of control</td>
</tr>
<tr>
<td>Reduced environmental impacts</td>
<td>Distances required to get to facilities</td>
</tr>
<tr>
<td>Increased available capital for projects</td>
<td>Public acceptance</td>
</tr>
<tr>
<td>Sufficient waste flow – economies of scale</td>
<td></td>
</tr>
<tr>
<td>Greater flexibility</td>
<td></td>
</tr>
<tr>
<td>Public Acceptance</td>
<td></td>
</tr>
</tbody>
</table>
Key Issues

Organizational / Internal

■ Purpose
■ Membership / Representation
■ Decision Making Process
■ Funding
■ Accountability

Project Related

■ Waste Flow Control
■ Status of Current Waste Contracts
■ Permitting / Permit Holder
■ Financial Assurance
■ Market Risks
Regional Opportunities

- Collective Contracting for recycling programs
- CTRA Model for cooperative actions
- Organics management
- Sludge management for small communities
- Joint Collection Contracts
- Cooperative Transfer Stations
- Regional Landfill

*Complexity of the Projects and Goals of the Region will dictate the Complexity of the Organizational Structure*
Planning Organization

Internal

Purpose:
- Educate, advocate and develop regional sustainable policies and programs

Membership:
- Volunteers (planners, engineers, architects, elected officials)
- Executive Committee
- Board of Directors
- Board Membership
- Topic Specific Task Forces

Decision Making Process:
- Generally task force driven process

Funding:
- Primarily from membership dues and education event fees
- Annual budget of approximately $125,000

Accountability:
- It is a volunteer organization – primary accountability lies with members
GDPC Examples

Events & Activities

- Annual planning retreat
- Monthly breakfast meetings with leaders in various fields presenting to Board
- Annual luncheon with Key Note Speaker
- Annual recognition “Urban Design Awards” for sustainable designs
- Policy statements & resolutions
- Press releases on GDPC actions
Planning Organization – Best Southwest Partners

**Purpose:**
- Economic development, educate, advocate, and develop regional growth and cooperative actions

**Membership:**
- 12 City partners and 18 other partners that include hospitals, colleges and universities, banks, utilities and other businesses, all interested in improving the quality of life in this region, thereby promoting economic development

**Decision Making Process:**
- Committees include education, tourism, transportation, health care, workforce development, marketing, brand development, and legislative

**Funding:**
- Primarily from membership dues and education event fees
- Annual budget unknown

**Accountability:**
- It is a volunteer organization
Key Issues

- Purpose
- Controls
- Who pays
- Representation
- Legal authority
- Major benefits
- Key risks
- Waste flow control
- Role of private sector
- Status of current contracts
- Audits & Performance
Thanks

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