

China's National Sword Policy:
Impacts and Opportunities for U.S. Local Governments
and Industry Stakeholders

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Illinois Counties Solid Waste Management Association
26th Annual Conference
November 1, 2018

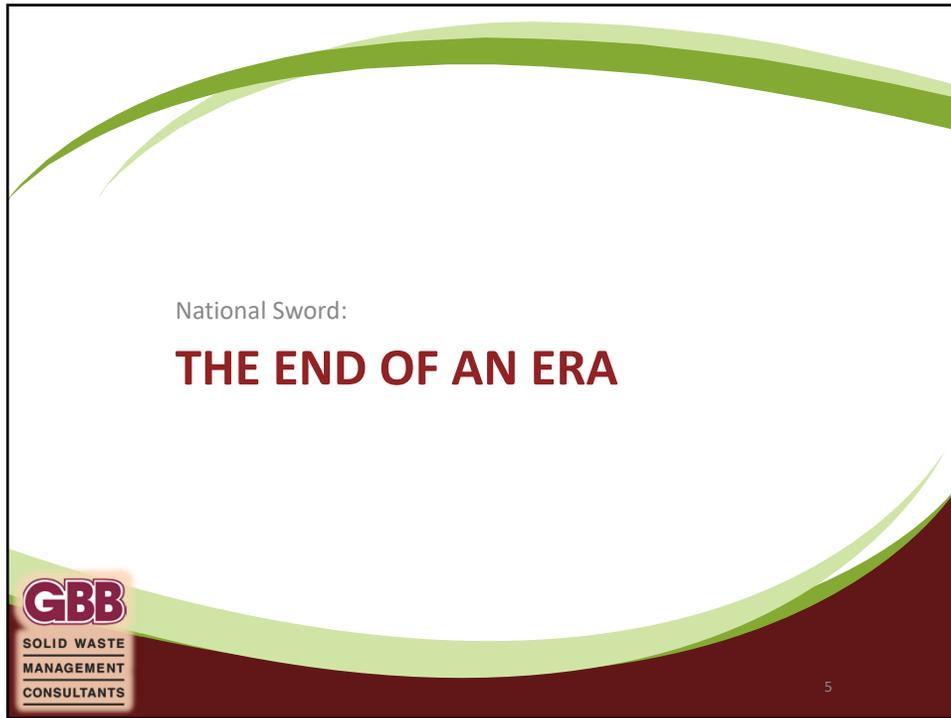
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Gershman, Brickner & Bratton, Inc.
Solid Waste Management Consulting

- 38+ years national consultant
- Focused exclusively on solid waste issues
- Works in partnership with clients to develop innovative, cost-effective approaches that achieve measurable results
- Thinks outside of the box
- Tells it like it is – independent objective advisor
- Significant consulting resources
- Client success stories

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National Sword:

THE END OF AN ERA



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National Sword: The End of an Era

- Political and economic reforms opened China to the world in 1978
- Developed countries began, increasingly, to import goods manufactured in China
- A trade mismatch meant ocean freighters returned to China mostly empty
- China needed manufacturing materials:
developed countries' waste + empty ocean freighters = perfect match



See endnotes 1,2,3

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National Sword: The End of an Era

- By 2016, China was importing **45 million tons** of materials from across the globe (HALF of global exports)
- Materials worth **\$18 billion**
- U.S. exports alone accounted for **16 million tons** of materials valued at **\$5.6 billion** (about one-third of China's waste imports)
- Around one-third of U.S. recycling commodities were exported; about half (13%) ended up in China



See endnotes 1,2,3

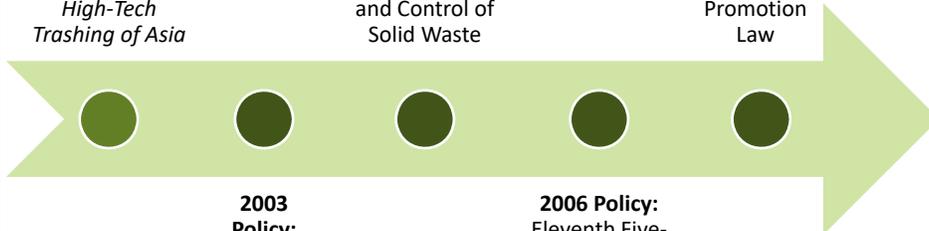
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National Sword: A Culmination of Events & Policies in China

2001 Film:
Exporting Harm: The High-Tech Trashing of Asia

2005 Policy:
Law on Pollution Prevention and Control of Solid Waste

2008 Policy:
Circular Economy Promotion Law



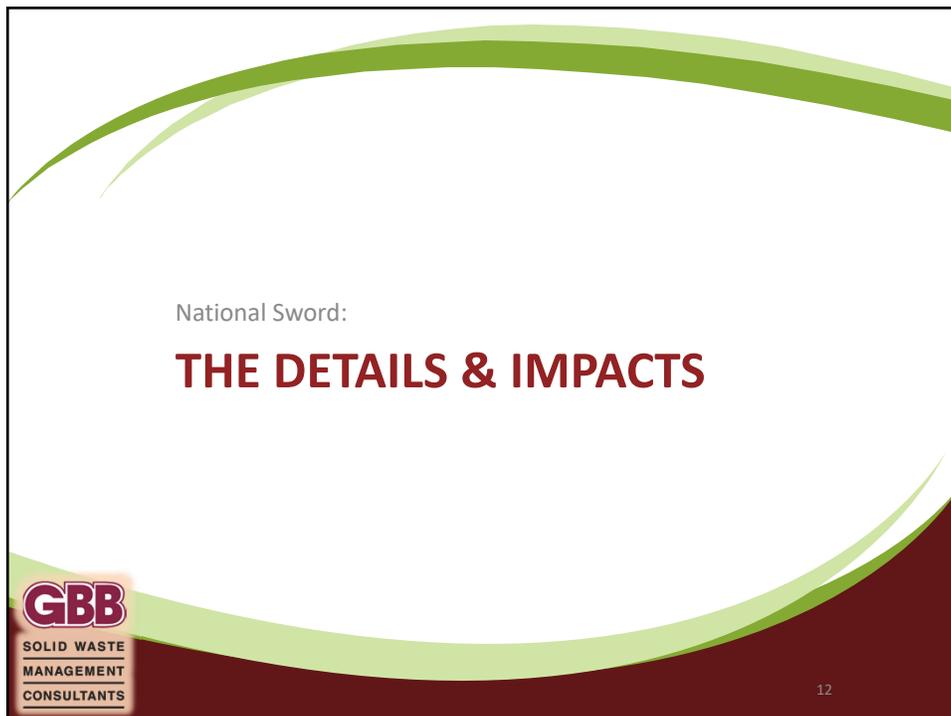
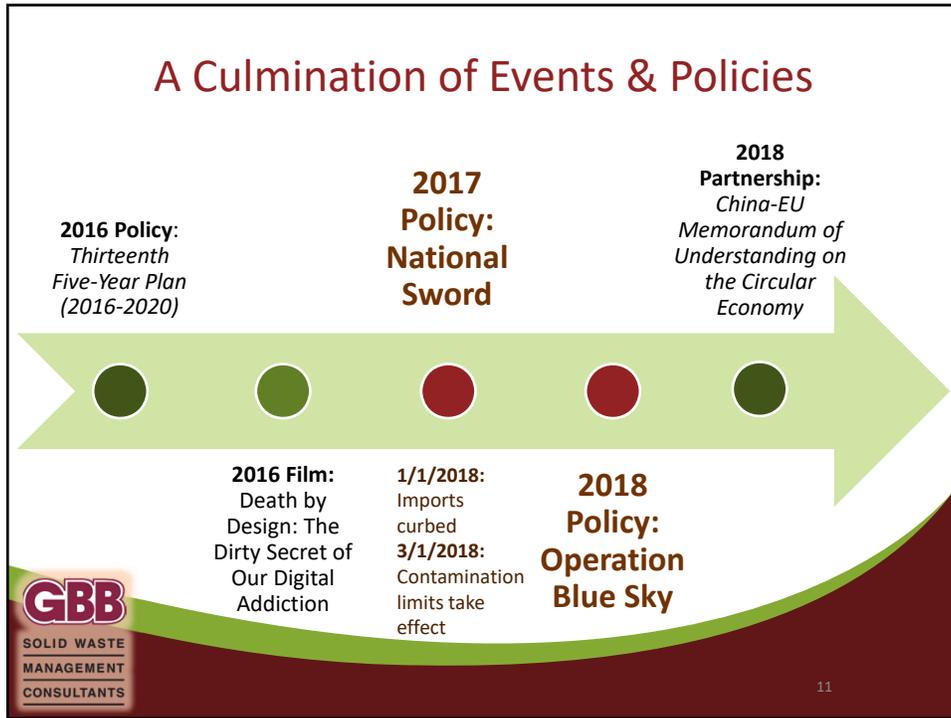
2003 Policy:
Cleaner Production Promotion Law

2006 Policy:
Eleventh Five-Year Plan (2006-2010)



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National Sword: The Details

- China filed with World Trade Organization (WTO) in July 2017 announcing 0.3% contamination limits on imported materials
- Second filing in November 2017, relaxing most limits to 0.5% contamination
- Filings affect 24 different materials categories
- Notably, China will effectively no longer accept non-industrial (post-consumer) mixed plastic and paper waste



See endnote 5

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National Sword: What it *IS*

- A strategic policy to help China address its environmental and human health issues
- A move to incentivize a domestic recycling economy in China (citizen recycling, collection and sorting infrastructure)
- Part of a larger, long-term strategy to achieve environmental and social sustainability as well as economic development



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National Sword: What it *IS NOT*

- NOT a ban on all waste and recycling imports into China
- NOT only affecting the United States
- NOT the end of U.S.-China materials and consumer goods trade
- NOT going away, but...
- NOT the end of all recycling!



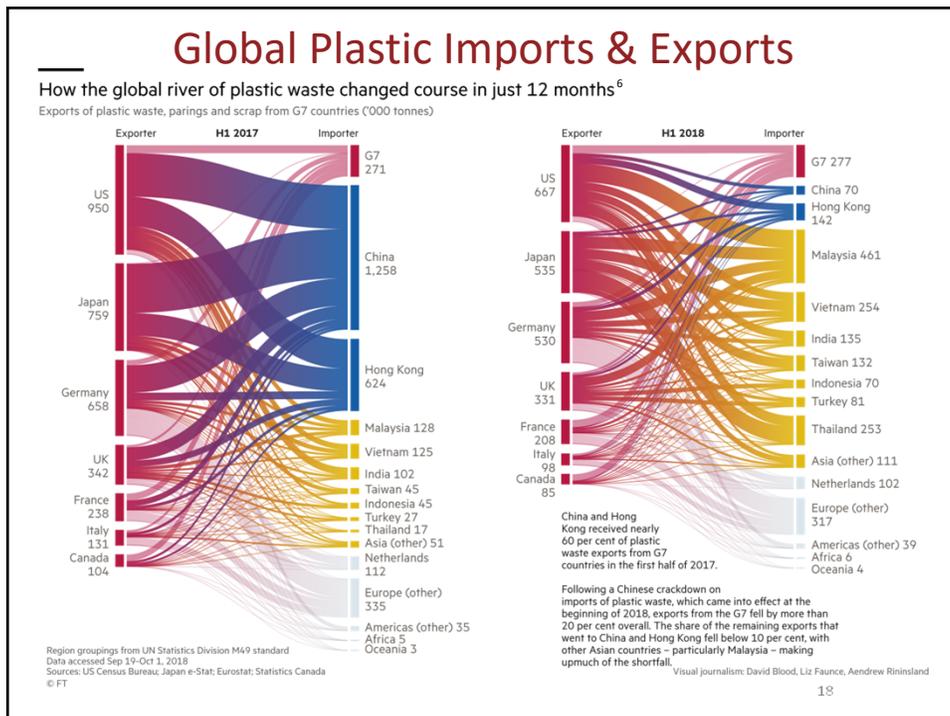
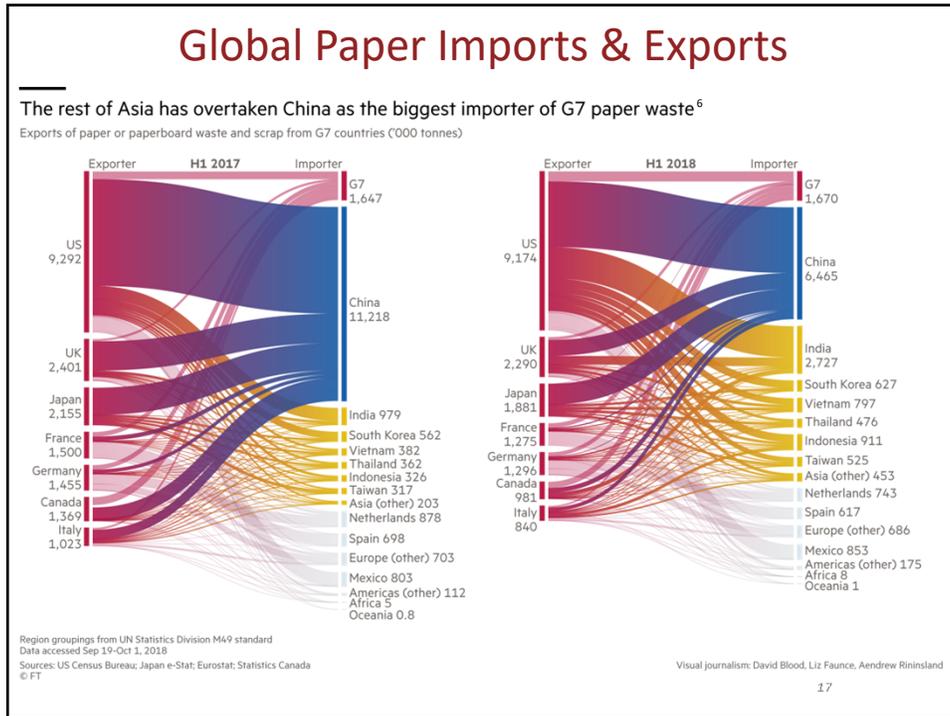
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National Sword: The Global Impacts

- Global glut of recyclable commodities
- ↓
- Depressed commodities prices
- ↓
- Expansion of processing markets in other less-developed countries
 - E.g., India, Indonesia, Malaysia, South Korea, Taiwan, Thailand, Vietnam



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National Sword: The Local Impacts

- Lack of markets to sell most common municipal recyclables: mixed paper & plastics



- “Upside-down” economics

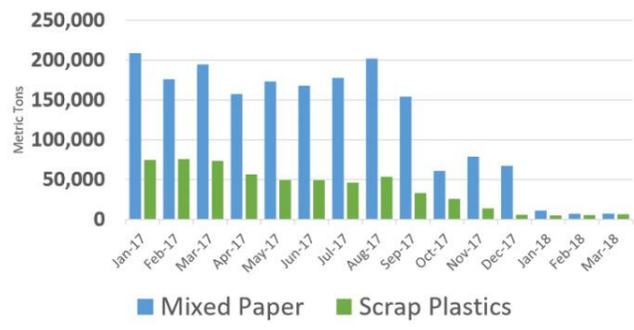


- Lower revenues for public entities and their private sector partners



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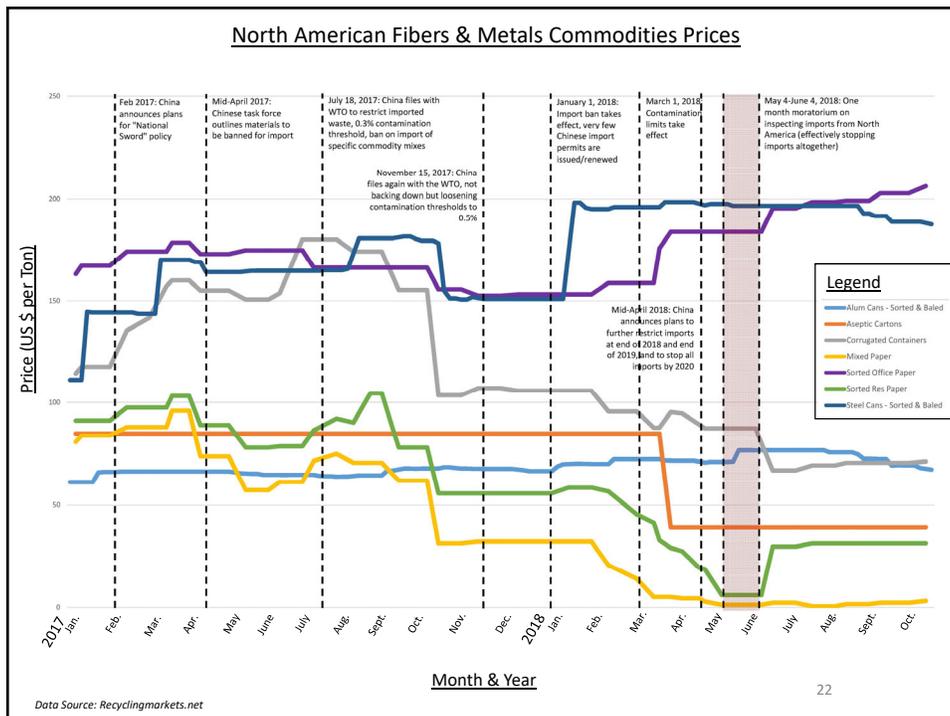
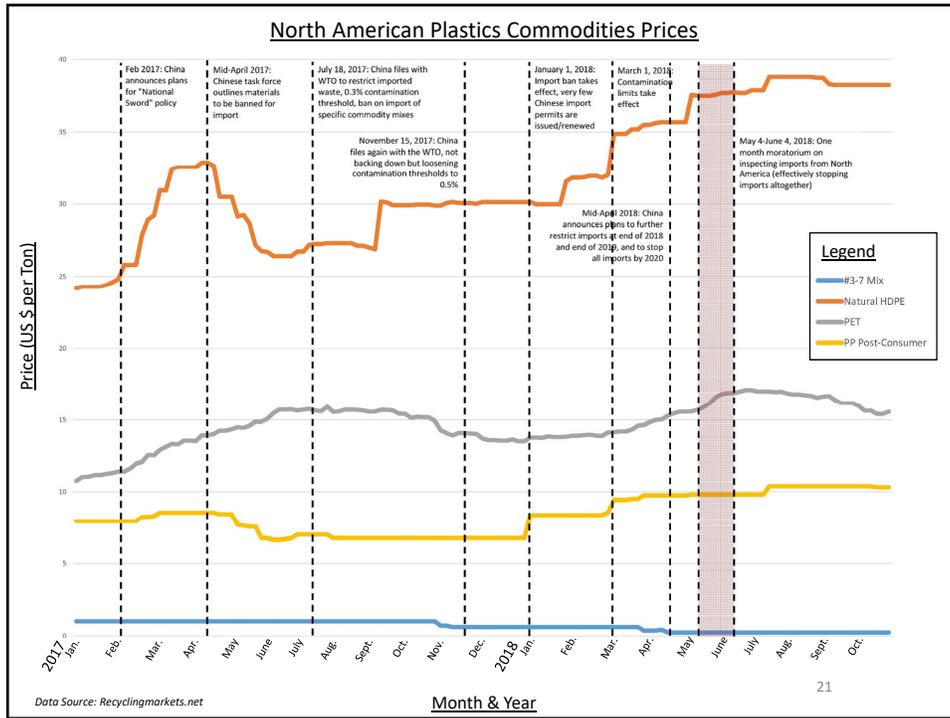
U.S. Exports to China of Scrap Plastics & Mixed Paper



Data from U.S. Census Bureau/U.S. International Trade Commission courtesy of ISRI ⁷



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Material Streams & Values

- Blended commodity value reported to be **down nearly 50%** since last year
- In 2017, approximately **65%** of material streams offered a reasonable processing **return**
- Today in 2018, approximately **65%** of material streams are now a **cost liability**
- Many communities struggle with materials streams that are up to **25% contaminated**



Adapted from original research first published by the National League of Cities⁸

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Subsequent & Future Policies

- Blue Sky 2018
 - Enforcement of import restrictions
 - Runs March through December 2018
- Earlier this year, China announced intent to ban all waste imports by 2020
 - 16 material types banned by end of 2018
 - 16 additional materials types banned by end of 2019



See endnote 9,10

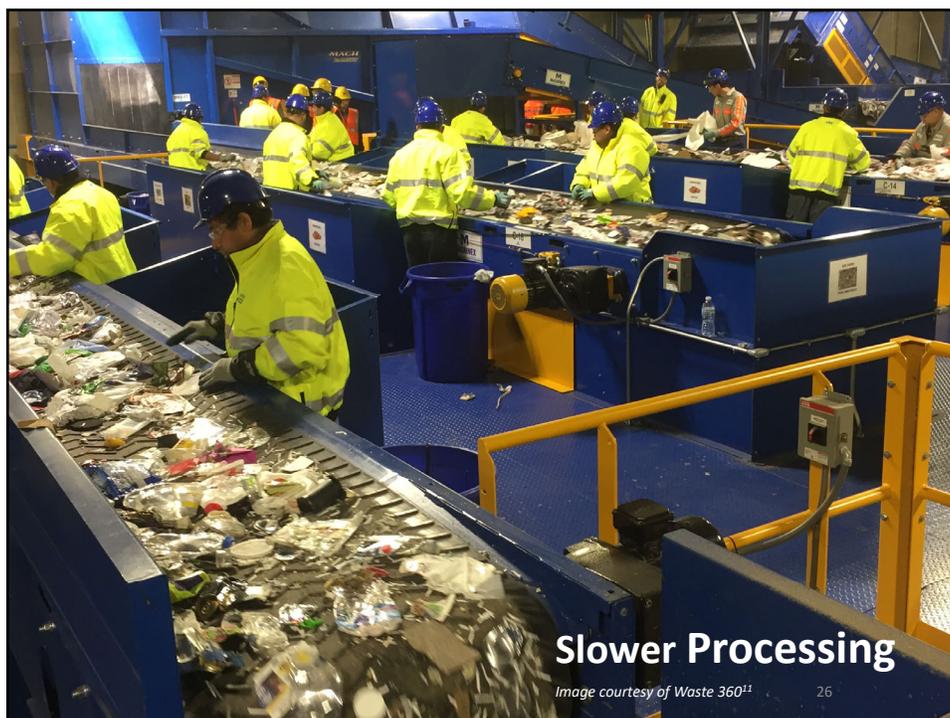
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National Sword:

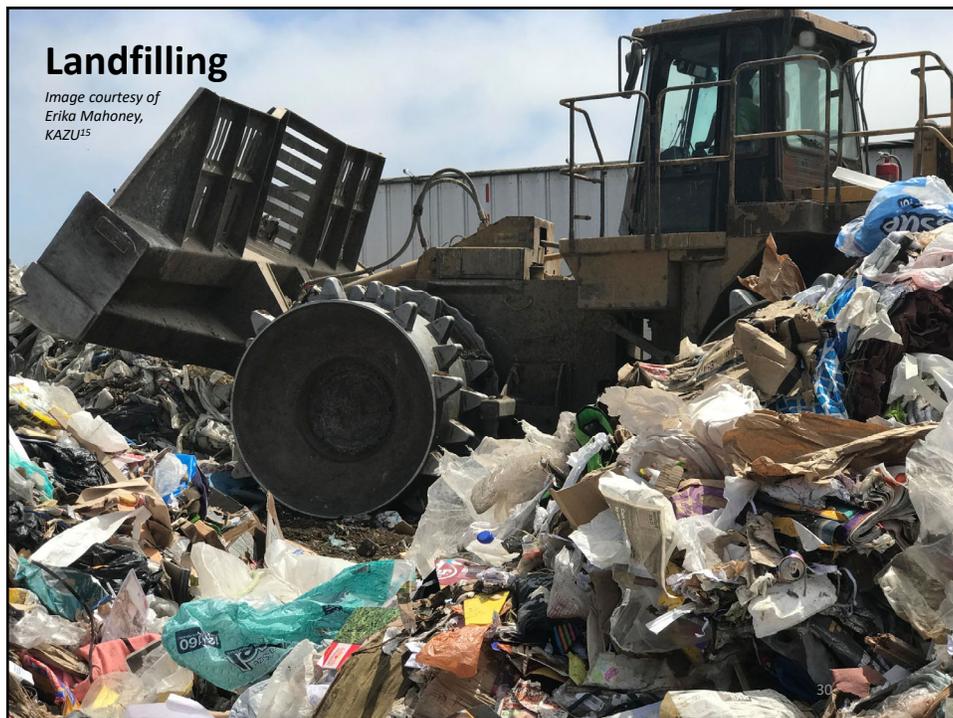
SHORT-TERM U.S. RESPONSES AND STRATEGIES

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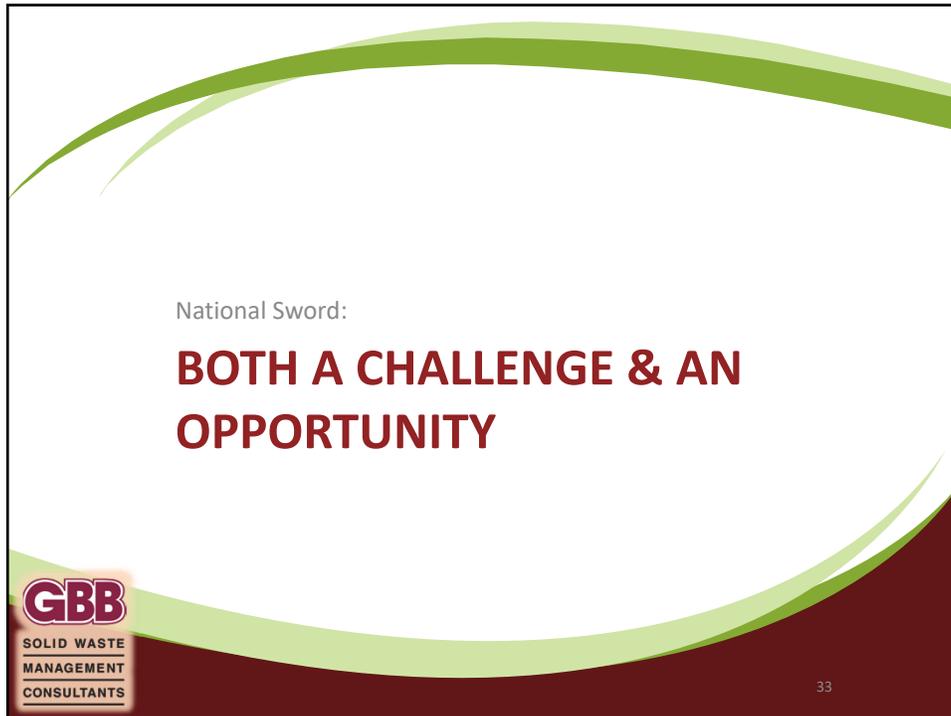
Waste-to-Energy

Image courtesy of the Solid Waste Authority of Palm Beach County, FL¹⁶

Regulatory & Administrative Strategies

- Education
- Contamination Fees & Fines
 - Assessed to public entity/haulers or customers/ratepayers
- Rate Increases & Hauling Surcharges
 - Processors and haulers
- Contract Modifications, Risk-Sharing
- Rethinking Streams

Adapted from original research first published by the National League of Cities⁸



National Sword:

BOTH A CHALLENGE & AN OPPORTUNITY



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Recommendations

- Examine your current system
 - Rates, revenues, waste and recycling streams
- Collaborate with your contractors
- Ensure program fees and rates reflect real, current costs
- Evaluate local policies, incentives
- Explore new markets
 - Local, unconventional, the circular economy



Adapted from original research first published by the National League of Cities®

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Recommendations

- Evaluate your materials streams
- Explore current and potential assets and infrastructure
- Weigh any significant changes carefully
- Education is paramount
- Use existing toolkits and networks
- Work with your partners



*Adapted from original research first
published by the National League of Cities®*

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For a resilient and sustainable system:

THERE IS NO SILVER BULLET.



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Thank you!

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Endnotes

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