Managing Industrial Organics in Washington

Barriers and Opportunities for Improving Industrial Organics Diversion

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Opportunities and Challenges

- Composting and AD are available
  - Ecology receives compost reports from some, not all, facilities
  - New technologies are highlighting new opportunities
  - Small scale AD, Community Composting, Biochar
- Capturing and converting biomass is gaining traction
  - Efforts to expand RNG distribution and use are being promoted
- **Large Scale anaerobic digester expansion has stalled**
- **RNG pricing**
- **Infrastructure needs attention**
- **Apple Maggot (and other pests?)**
- **WRRF gas recovery and digestate management**

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Composters that Accept Industrial Waste

- Some permitted compost facilities take some form of organic waste from industrial sources (agricultural wastes were excluded)
  - **Food processing waste**
  - **Pre-consumer food waste**
  - **Industrial waste**
  - **Land clearing debris**
  - **Sawdust/shavings (mostly to WRRF's)**
- AD located primarily at dairies accept PRE-CONSUMER food processing waste
  - To avoid a SW permit, digesters take no more than 30% of pre-consumer food waste – primarily from food processors
  - WSDA provides oversight

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Composting "Industrial Waste" in 2015 Compared to 2019

- 2015 Facility reports:
  - **31 Facilities** reported managing 227,734 tons
- 2019 Facility reports:
  - **21 Facilities** reported managing 229,808 tons

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WCS Estimated "Commercial" Waste Disposed

- 2020/2021 WCS was published on August 17th : 2020-2021 Washington Statewide Waste Characterization Study
- **Total disposed waste** went up by 685,977 tons, BUT
  - Overall "compostable" commercial disposal amounts dropped
  - The Commercial "organics" category dropped by over 275,000 tons:
    - 2015/16 = **533,363** estimated "organics" tons disposed
    - 2020/21 = **257,693** estimated "organics" tons disposed
  - In general, disposed food also dropped

More investigation will be conducted to see if shifts occurred, but residential food disposal dropped (whereas residential disposal of animal manure skyrocketed!)

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Expanding Organics Management Options

- **WA is home to innovation**
  - Small scale AD
  - Improving composting operations
  - Improving RNG production and distribution
  - Supporting biochar production and use

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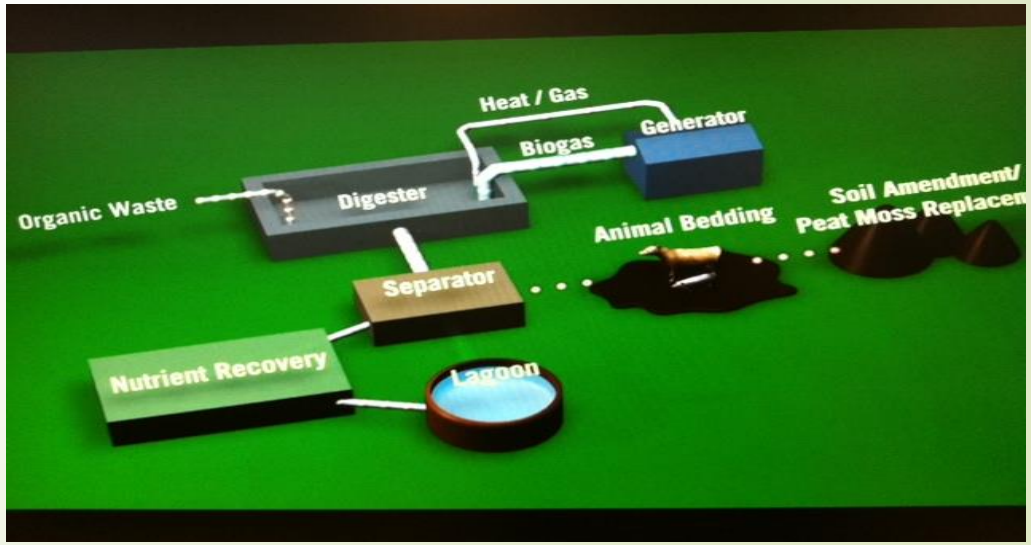
Supporting the Tried and True
Embracing the New



Barriers to Diversion

- Geography
- Infrastructure
- Information
- Funding
- Regulations
- Gas and Digestate management

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Research and Development for Better Management

- **Universities**
  - Composting
  - Biochar
  - Nutrient extraction
  - Soil improvement
  - Carbon Sequestration
- **BioEnergy research**
  - Biomass conversion to energy and fuels
- **Private sector efforts**
  - Anaerobic Digestion
  - Development of alternative conversion technologies

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Promoting Partnerships

- **State Bioenergy Team**
  - Commerce, WSDA, ECY, WSU, UW, Natural Resources, Battelle PNW Labs, Tribes
- **Biomass/Biofuels**
  - Forest Biomass Group, Anaerobic Digestion Group, Public Fleet Managers, Alternative Jet Fuels, Quileute Tribe Biomass Project
- **EPA Food Too Good To Waste**
  - Federal, State, Local, and Business partnerships
- **Washington State Grants Program**
- Local collection, education, and infrastructure help
- Confront environmental issues together (and now an acronym test!)
  - WSU, WORC, WSDA, DOT, COMM, ECY, JHD's, WRRF's, DOC, DOD, CSA's, NGA, WRRA, WSRA, NWEBC, Landscapers, Architects …
    - Who are your partners?

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Department of Commerce