

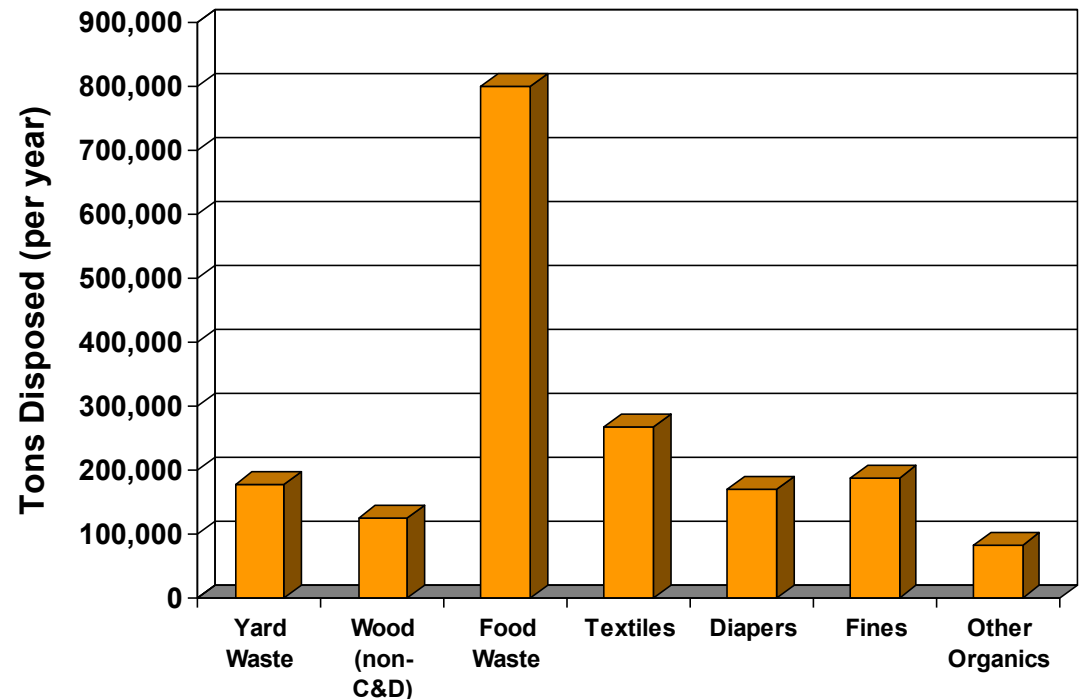
Compost Rule Model Template/ USCC Partnership

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What Prompted the Proposed Amendments in GA?

- At more than 800,000 tons per year, food residuals represent one of the largest waste streams disposed in municipal solid waste landfills
- Capacity to compost food residuals is <10% of the capacity needed



Georgia's approach to managing food residuals



Solid Waste Rules

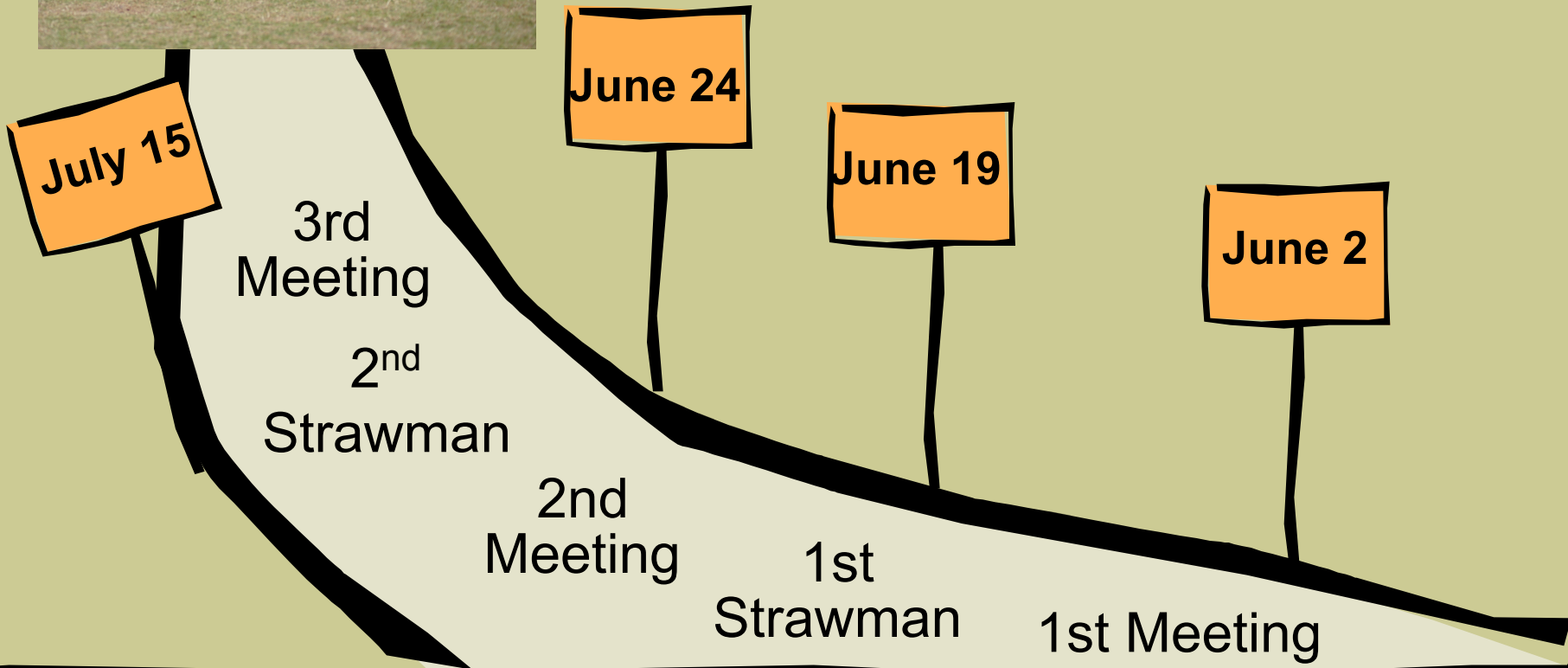
Composting industry felt solid waste rules hindered its expansion, lacked flexibility in permit structure to address new composting technologies and set requirements based on materials

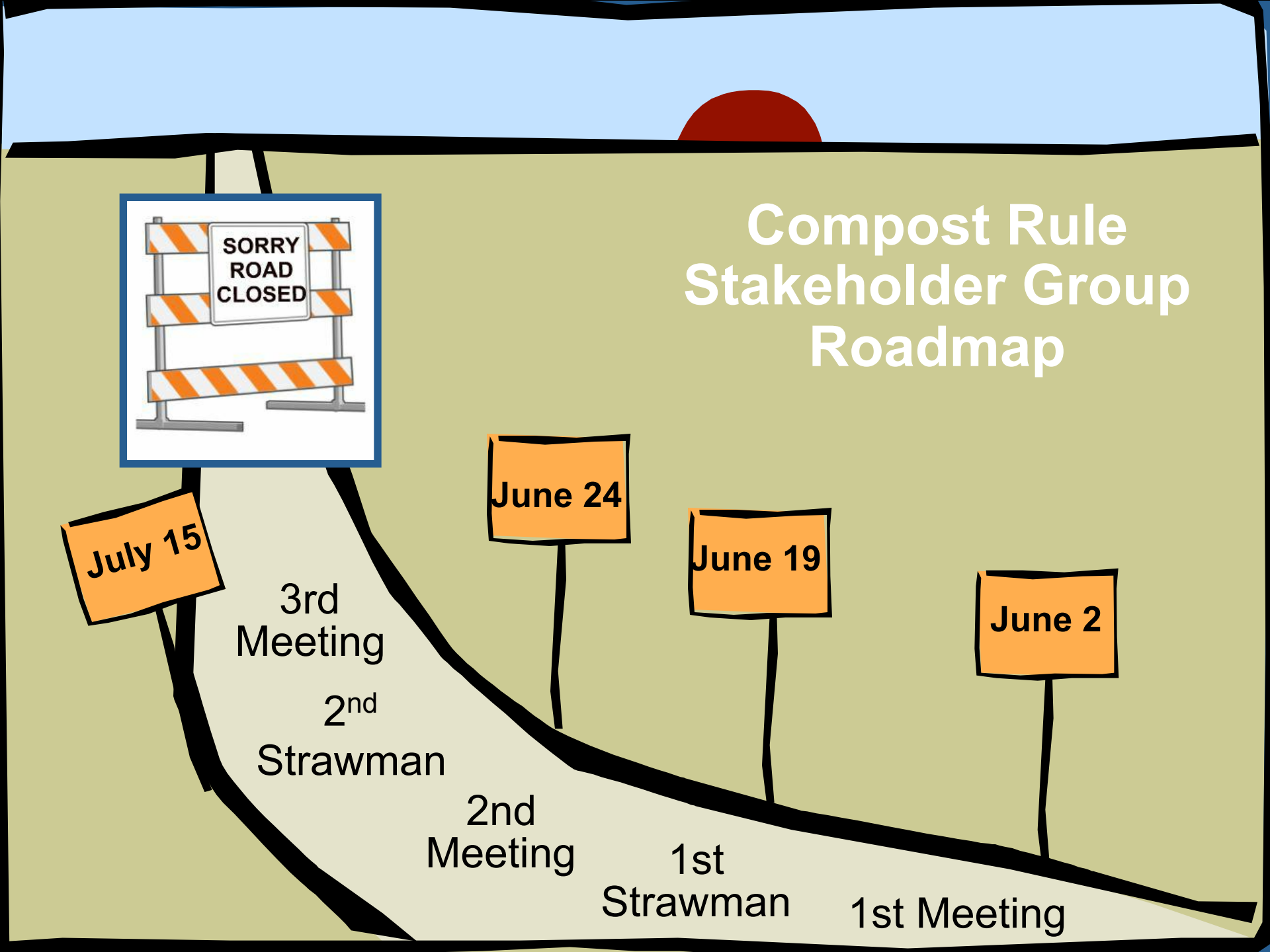
- Definitions outdated or absent
- Permitting hindered at local level by terms such as “waste”
- Permitting requirements only addressed a limited number of feedstocks
- Lack of clarity about exempt facilities
- Level of detail needed in plans not clearly stated
- Same siting, design and operating criteria applied to all facilities
- No flexibility to permit facilities based on feedstock or type of system; need tiered permit structure

Regulatory barriers

- Outdated or absent definitions
- Terms such as “solid waste” hinder permitting at the local level
- Address a limited number of feedstocks
- Level of detail required by EPD in operating plans is not clear

Compost Rule Stakeholder Group Roadmap





Compost Rule Stakeholder Group Roadmap



July 15

3rd Meeting

2nd Strawman

June 24

2nd Meeting

June 19

1st Strawman

June 2

1st Meeting

2 New DNR Commissioners

2 New Directors

2 Sessions with Yard Trimmings Legislation

2 Reorganizations

1 New Governor

1 Session to Reauthorize Funding Source

2 New Branch Chiefs

21 State Reviewing Rules

USCC Partnership

- **Ensure Georgia's proposed rule changes are based in science and verify that similar rules have been effective**
- **Share information and research**
- **Simplify and expedite the rule revision process**
- **Process**
 - **Surveys**
 - **In-depth interviews**
- **Develop a national model compost rule template**

Fanning Institute Stakeholder Research Showed...

The majority of stakeholders interviewed supported:

- Tiered approach with more stringent requirements for higher risk facilities**
- Different requirements for in-vessel operations**
- Exemptions**
- More stringent requirements for facilities handling biosolids**
- Case-by-case analysis for groundwater monitoring based on number of criteria**
- Groundwater monitoring decreasing over time once history of compliance has been established**
- Not establishing a set time limit on storage of finished product**
- Using USCC protocols for testing**

MODEL COMPOST RULE TEMPLATE

USCC Model Compost Rule Development

- **Project officially kicked off in February 2012**
- **Task Force members**
 - **State regulatory agency personnel, private operators, consultants**
 - **Represent different regions (including climatic and geological), technologies, feedstocks and regulatory structure**
- **Task Force members provide feedback during monthly webinars and document mark-ups**
 - **Find right balance (descriptive/performance vs. prescriptive)**
 - **Iterative process**
- **Draft disseminated to core team for final review 12/5/12**
 - **Passed by USCC Board on January 27, 2013**

Structure of Template

- **Definitions**
- **Feedstock categories**
- **Exemptions**
- **Three tiers based on feedstock categories**
- **Criteria for siting**
- **Testing requirements**

Key Items

- **Model rule doesn't include term "Waste"**
- **Requires all tiers to meet time and temperature requirements in the PFRP**
- **Does not use term "leachate"**
 - **Uses term contact water – water that has come into contact with feedstocks in the tipping and mixing area(s) and active compost piles.**
- **Pad requirements based on distance from groundwater**
 - **>5-feet from has soil specs, all weather pad**
 - **<5-feet needs improved low permeability surface**
- **Requires documentation of operator training within first year**
- **Limits storage of finished compost to 12 months**
- **Requires Composting Facility Operations Plan**

Example Definition

- **Food Residuals: Pre and postconsumer food discards from households and the commercial/institutional sector including but not limited to vegetables, fruits, grains, dairy products, meats and compostable foodservice ware/packaging that may be commingled.**
 - Discussion started out with multiple definitions of food residuals; input from operators helped guide this discussion

Feedstock Categories

- Type 1 feedstocks: Yard trimmings, woody materials, crop residues, and other materials determined to pose a low level of risk to human health and the environment, including from physical contaminants and human pathogens.**
- Type 2 feedstocks: Agricultural residuals, source-separated organics; and [agency] approved food processing residuals and industrial by-products. ... pose a low level of risk to human health and environment but higher level of risk from physical contaminants and human pathogens compared to Type 1 feedstocks**
- Type 3 feedstocks: mixed MSW, sludge, biosolids, diapers, and industrial by-products and food processing residuals not covered in Type 2. Same language with higher level of risk than Types 1 and 2**

Exemptions

- **Any composting facility with a throughput of less than 100 tons of Type 1 feedstock during any calendar year.**
- **Any composting facility with a throughput of less than 20 tons of Type 2 feedstock during any calendar year.**
- **Any composting facility with a throughput of less than 40 tons of Type 2 feedstock in any calendar year using an in-vessel composting method.**
- **Backyard composting**

Exemptions, cont.

- **Animal and crop production operations processing yard trim, ag residuals, woody materials and/or food scraps provided that**
 - **Owner of composting facility is same as owner of crop/animal production facility where off-farm materials processed**
 - **Facility located on property owned/leased by ag producer**
 - **Facility doesn't pose risk to human health or environment, or cause nuisances**
 - **All compost produced utilized exclusively at animal or crop production operation**
- **Composting of mortalities, provided in accordance with state's requirements**
- **Composting of manures or sludges permitted under CAFO or NPDES permits**

Three Tiers

Tier 1: Process Type 1 feedstocks only

Tier 2: Process Type 1 and 2 feedstocks

Tier 3: Process Type 1, 2 and 3 feedstocks

Design And Operating Standards In All Tiers

Prescriptive vs. descriptive/performance

- A site operating plan shall be completed and available for review**
- Define intent and allow operators to define how they meet intent**
- The composting area should have run-on and run-off control and a slope of “x” percent**
- PFRP carries through all 3 tiers**

Differentiating Requirements in Tiers 2 and 3

- **Pad or protective surface requirements (e.g., under all areas proposed for composting and curing)**
- **Feedstock management**
- **Contact water management**
- **Storm water management**
- **Maximum windrow size and spacing matches requirements of available equipment**

Use of Placeholder Language

“Fill in the blank” approach for states to adapt to climatic, geological conditions or existing state/local rules on water quality protection.

Buffer example: The following buffers shall be maintained between the composting operation and the following features. [buffer distances to be determined by state regulatory agency].

Included:

- 1. Property line. [X ft]**
- 2. Adjacent residences [X ft]**
- 3. Drinking water supply wells [X ft]**
- 4. Streams, lakes or other bodies of water [X ft]**
- 5. Wetlands, unless otherwise permitted by the United States Army Corps of Engineers [X ft]**

Circling Back — Fanning Institute Stakeholder Research Showed...

The majority of stakeholders interviewed supported:

- Tiered approach with more stringent requirements for higher risk facilities**
- Different requirements for in-vessel operations**
- Exemptions**
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Next Steps Include

- **Best management practices for performance-based rules**
- **State regulator outreach and training**

ag residuals
animal mortalities
biosolids
FOG
food residuals
hay
industrial byproducts

MSW
paper
pecan hulls
portable toilet solids
untreated septage
wood
yard trimmings



Proposed amendments

- Address barriers identified by stakeholders
- Adds and amends definitions, including:
 - Food residuals
 - Agricultural residuals
- Adds exemption section
- Creates four feedstock categories
- Adds process to make determinations about feedstocks not otherwise classified



Category D Feedstocks

Summary of Proposed Changes

- Adds tiered permit structure based on feedstock categories
 - **Six classes based on knowledge of material flow, current permitted facilities, research and increased risk of human pathogens**
- Adds specific design and operating requirements for each tier
- Includes requirements for permit-by-rule
- Clarifies requirements for various technologies and systems
- Adds new section for testing requirements based on feedstock and tier

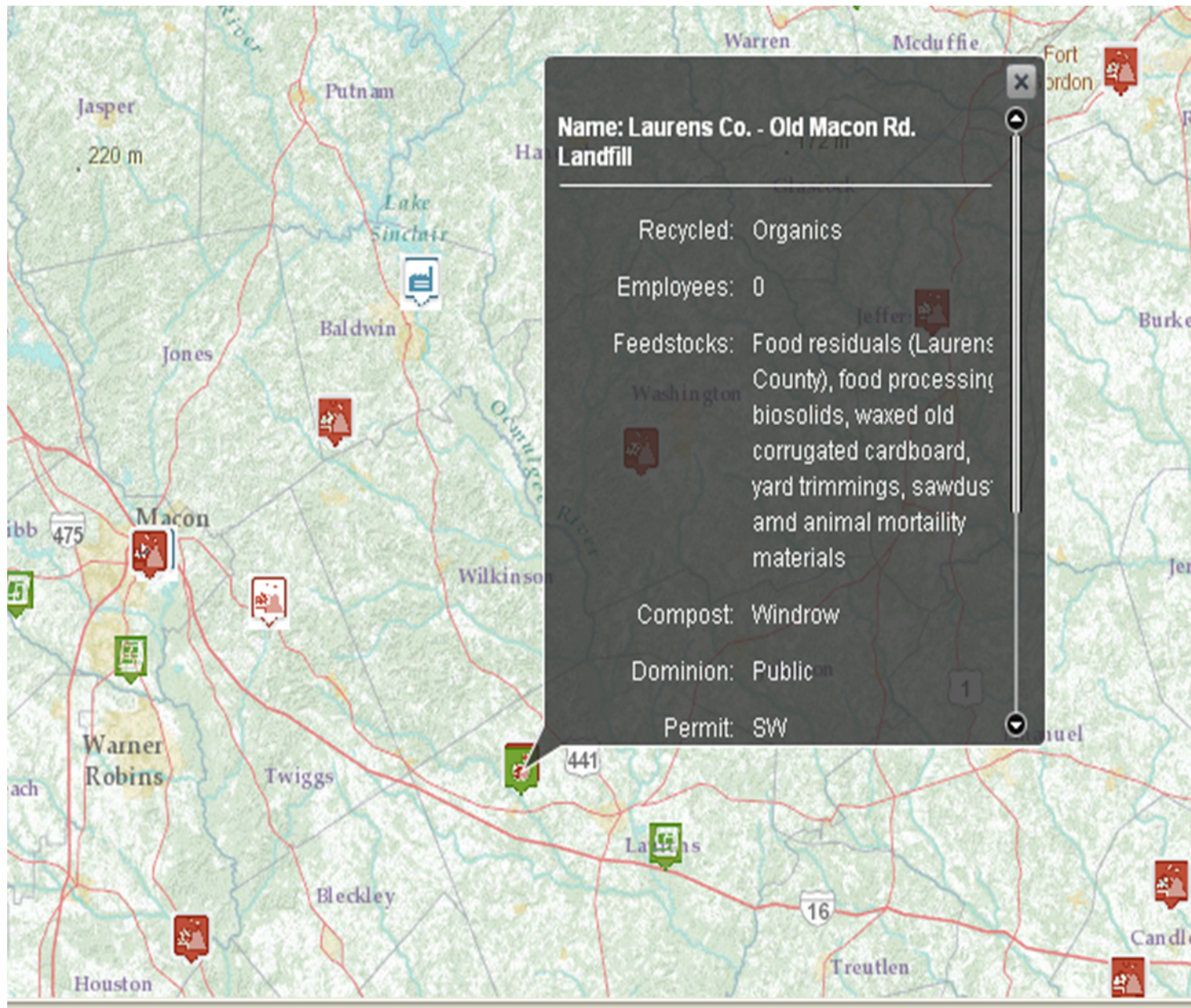
How Are We Using the Template?

- Reference
- Cut-n-paste
 - Definitions
 - Testing
- Verify and compare language
- Initiate internal discussion about pad requirements

| Requirements | Classes |
|---|---------|
| Requires Composting Facility Operations Plan | 2-6 |
| Requires documentation of operator training within first year | 2-6 |
| Must meet time and temperature requirements in the PFRP | 3-6 |
| Limits storage of finished compost to 12 months | 3-6 |

| Tiers | Permit Required | Feedstocks Accepted | | | |
|---------|-----------------|---|--|---|---|
| | | Category A Yard trimmings, land-clearing debris, agricultural residuals from on-site | Category B Source-separated organics and agricultural residuals from off-site | Category C Sewage sludge and biosolids | Category D Dewatered septage, municipal solid waste, and dissolved air flotation (DAF) skimmings |
| Class 1 | N | ✓ | | | |
| Class 2 | Y | ✓ | ✓ (limited to 500 tons/month) | | |
| Class 3 | Y | ✓ | ✓ | | |
| Class 4 | Y | ✓ | ✓ | ✓ | |
| Class 5 | Y | ✓ | ✓ | ✓ | ✓ |
| Class 6 | Y | ✓ | ✓ | ✓ | ✓ |

Compost Locations



Business Planning/Economic Development



For more information

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