

HDR

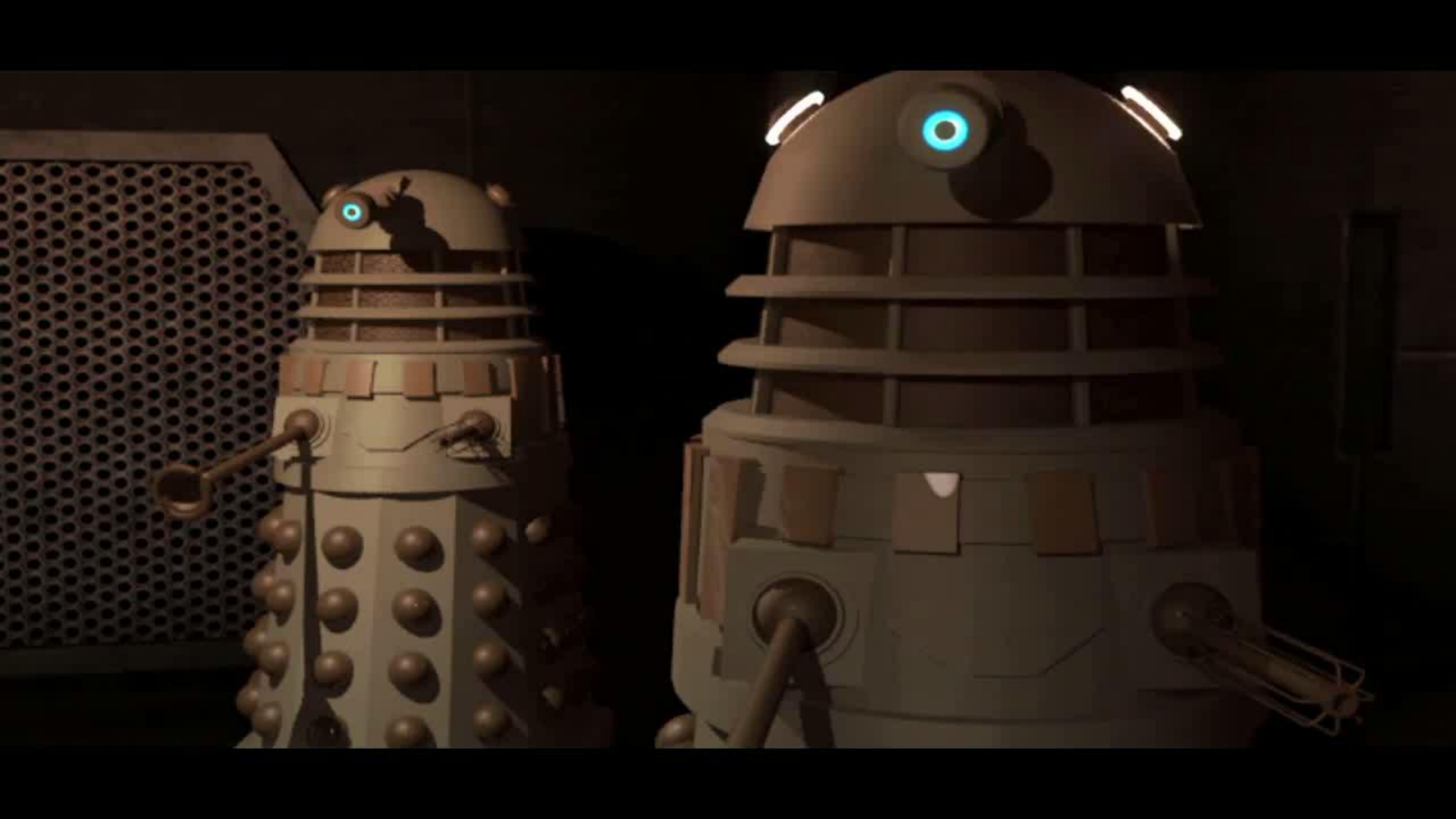


Contaminate, Contaminate, Contaminate...

Contractual Considerations to Deal with Fences, Swords, and International Politics

...or how I learned to stop worrying and love recycling





Changing Market Dynamics



Were these really the drivers or did we do this to ourselves?

The Evolution of Contamination

Changing dynamics of the recycling trade

Contamination was always there but tons were more important

Major hauling companies (2015)

Recycling is not “free”

Push for single stream

*Increase recycling
“Thank you for the second garbage can...”*

Complacency without reinforcement

Residue disposal is not free

Rising Operation and Maintenance Costs

Compounded by aging equipment and the evolving ton

Residential Stream

- IRSI Data:
 - 59% of fiber is managed domestically
 - Likely industrial sources, source separated, little to no contamination
 - Primary markets for residential are foreign
- Glass – markets available but not revenue positive
- Drive to include
 - Plastics - #1 and #2 most revenue positive but want to include 3-7 to avoid confusion, film plastic and Styrofoam complicate the message
 - Mixed paper – magazines, inserts, envelopes w/windows, glossy, newsp declining



What do you think?

“A material is not recyclable if it doesn’t have an end market”

TRUE

FALSE

More questions than answers....

What about trying to develop markets?

Should the market dictate the program recyclables?

If a material is diverted from landfill disposal and no money is exchanged is it recyclable?

Does the end market need to be net positive?

How often can a program change?

Which of these things?...contaminate a fiber stream



#1



#2



#3



#4



What is Contamination

MARKET
SPECIFICATIONS

Prohibitives

Outthrows

FIBER EXAMPLE

Consist of any material that will make a finished product unusable or can damage equipment. One percent of this material can result in the load being rejected. Prohibitives include waxed boxes and non-paper items such as glass, plastic, wood and metals.

Consist of papers containing additives, coatings and short fibers that must be limited in the manufacturing process. Although, in most cases, these papers can be pulped, they must be limited in raw materials to ensure quality of finished products. Any load containing in excess of 5% of these materials may be subject to rejection.

Prohibitives *(include but not limited to)*

Wax
*(wax coated boxes
or boxes with wax-
impregnated
medium)*

Glass

Concrete

Photographs

Cloth

Metal

**Overhead
Slides**

Asphalt

Plastic

Food

X-rays

Styrofoam

Lumber

Outthrows *(include but not limited to)*

Outthrows are defined as all papers that are so manufactured or treated or are in such a form as to be unsuitable for consumption as the grade specified.

Tissue

Boxboard
(shoe boxes or
cereal boxes)

**Multi-wall
Bags**
(pet food,
concrete)

Cores

**Molded
Products**
(egg cartons, fruit
trays, etc)

Newspapers

Junk Mail

Wet Strength
(6-pack bottle
carriers, some beer
carriers)

Wrappers
(rolls, lumber, etc)

**Clay-
coated
Papers**

Blueprints

Which of these things...is residue?



#1



#2



#3



#4



Contamination vs. Residue

- **Contamination examples (my fault)**

- Pool covers
- Hoses
- Diapers
- Toys

- **Residue Examples (check the contract)**

- Shred Paper
- Postcards
- Wet paper
- Recyclables (sorting inefficiencies)



Contract Examples

Examining Apples and Oranges

Non-Program Recyclables

Contract #1

Materials which are generated outside the County for which the County shall be compensated with a host fee.

Contract #2

Recyclable Materials that are not Program Recyclables, but are segregated from other materials in the Waste Stream.

Is the load contaminated?

Contract #1

Contractor is responsible for visually inspecting each Customer's Recycling Containers to determine whether they contain Non-Conforming Materials, Non-Program Recyclables, and/or excessively contaminated Recyclable Materials.

Contract #2

Material may not contain more than 30% non-recyclables and may not contain Excluded Materials, however if the material contains less than 10% Non-Recyclables, the material will be accepted.

Contract #3

Contractor shall have the right to reject loads of Recyclables if Contractor reasonably suspects the load to contain more than 25% of Contaminants by weight.

Contract #4

If a delivery contains more than 15% by weight of Solid Waste or material other than recyclables, the load may be rejected.

What is recyclable?

Contract #1

Kraft Bags, OCC, Phone Books, Glass containers, aseptic containers, aluminum, bi-metal and ferrous cans, plastics including PET and HDPE from family or multifamily sources.

Contract #3

All Recyclables accepted in the County's curbside residential single stream recycling program. Paper, metal containers, OCC, plastic #1-#7 no bags or styrofoam, glass bottles and jars.

Contract #2

means those materials that are capable of being recycled and that would otherwise be processed or disposed of as Solid Waste. For the purpose of this agreement Recyclable Material at a minimum shall include newsprint, magazines, mixed paper, cardboard, aluminum and steel cans, and plastic containers #1 through #7.

Contract #4

Recyclable Materials that have been designated by the Board for Collection from Residential and/or Commercial Customers, and are segregated from other materials in the Waste Stream

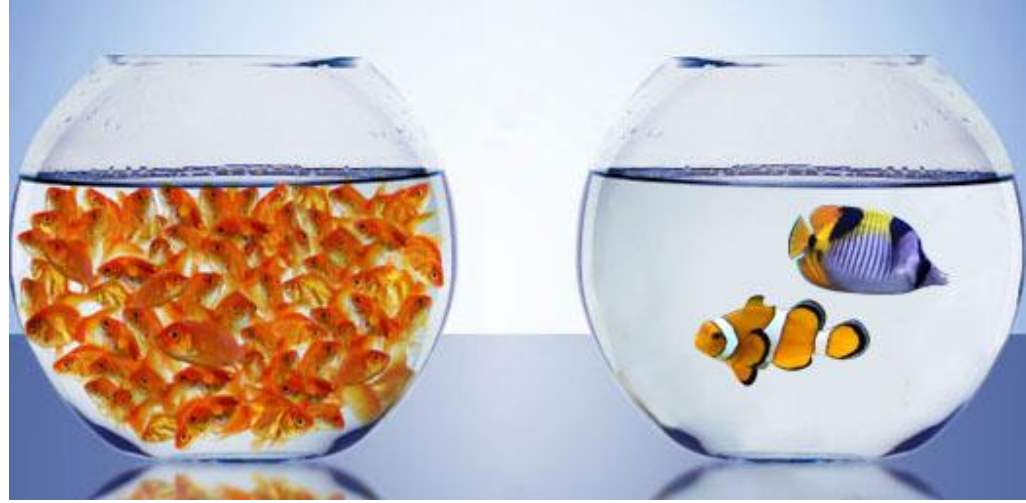
Recycling Contracts are all about balance

- Balance of risks and rewards
 - Risk averse – higher costs
 - Risk tolerant – higher costs...higher reward?
- Balance of flexibility and control
 - Strong protocols – higher costs
 - Loose protocols – more residue?
- Balance of revenue distribution
 - Recognize that the hauler/processor is looking to cover operation costs plus profit
 - How is residue managed, responsibility and defining criteria



Municipal Outlook

- What is the goal of your program
 - FDEP 75%
 - Public demand
 - Revenue Driven - rate stabilization
 - BoCC policies/principles
- How much does residential contribute?
(2016)
 - 17M of 37M total – 46% of MSW stream
 - 5.5M tons recycled or 15% of state average of 44%
- Is quality better than quantity
 - Lee – 1% increase (FDEP) from residential = 14,000 tons or 19% program increase



HB 1149 (before the veto)

- Define “contaminated recyclable material”
- What is your strategy and obligation to reduce contamination?
- How will you id, document, manage and reject loads?
- What are the remedies if the container/cart/bin is contaminated?
- What education and enforcement methods will be used to reduce contamination?
- Applicable to contracts with collectors or processors



Contractual Roadmap

1

Understand
your drivers

2

Know
your risk
tolerance

3

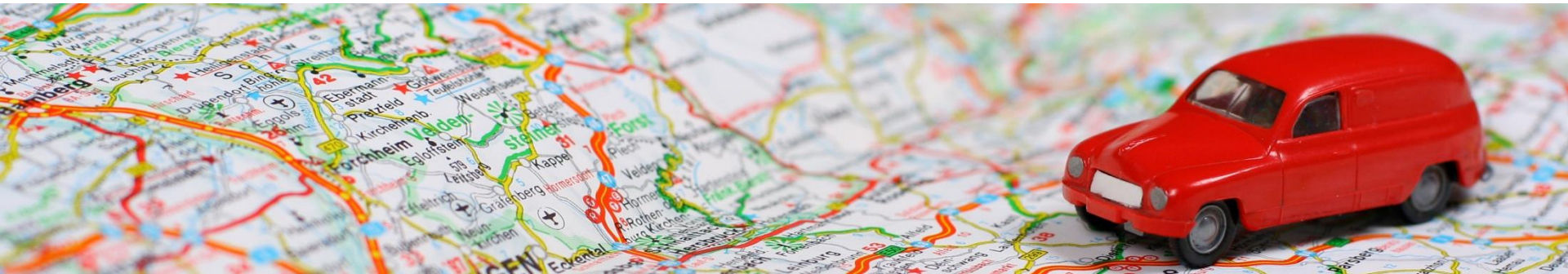
Watch
your language

*Simple scopes can
create complex
problems*

4

Manage
changes

*Material Composition
Markets
Labor
Extreme Rate Changes*



Thank you for not contaminating



Keith Howard

HDR

Keith.Howard@hdrinc.com

941-321-8205