

Responding to China's National Sword

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China's Operation Green Fence















- 2013 Operation Green Fence.
- Increase environmental quality.
- Reduce waste importation.
- Eliminate contamination in recyclable materials.

China's National Sword

- Announced in July 2017 in letter to WTO.
- Bans the import of at least 24 varieties of solid waste and recyclables – Jan. 1, 2018.
- Imposes a new 0.5% contamination limit for the remaining recyclables not subject to ban on March 1, 2018.

China's National Sword

- New 5-year plan.
- Clean up environment and corruption.
- Create and build up domestic recycling programs and markets.
- Reality is the closing of largest market for mixed paper and plastics 3-7.
- More than an ordinary market downturn, with very little transparency and higher risk.

Symbol	Polymer Name	Product Examples		Banned by China?
	Polyethylene Terephthalate (PETE or PET)	<ul style="list-style-type: none"> • Soft drink bottles • Water bottles • Sports drink bottles • Salad dressing bottles • Vegetable oil bottles 	<ul style="list-style-type: none"> • Peanut butter jars • Pickle jars • Jelly jars • Prepared food trays • Mouthwash bottles 	No
	High-density Polyethylene (HDPE)	<ul style="list-style-type: none"> • Milk jugs • Juice bottles • Yogurt tubs • Butter tubs • Cereal box liners 	<ul style="list-style-type: none"> • Shampoo bottles • Motor oil bottles • Bleach/detergent bottles • Household cleaner bottles • Grocery bags 	No
	Polyvinyl Chloride (PVC or V)	<ul style="list-style-type: none"> • Clear food packaging • Wire/cable insulation • Pipes/fittings • Siding • Flooring 	<ul style="list-style-type: none"> • Fencing • Window frames • Shower curtains • Lawn chairs • Children's toys 	Yes
	Low-density Polyethylene (LDPE)	<ul style="list-style-type: none"> • Dry cleaning bags • Bread bags • Frozen food bags • Squeezable bottles • Wash bottles 	<ul style="list-style-type: none"> • Dispensing bottles • 6 pack rings • Various molded laboratory equipment 	Yes
	Polypropylene (PP)	<ul style="list-style-type: none"> • Ketchup bottles • Most yogurt tubs • Syrup bottles • Bottle caps • Straws 	<ul style="list-style-type: none"> • Dishware • Medicine bottles • Some auto parts • Pails • Packing tape 	Yes
	Polystyrene (PS)	<ul style="list-style-type: none"> • Disposable plates • Disposable cutlery • Cafeteria trays • Meat trays • Egg cartons 	<ul style="list-style-type: none"> • Carry out containers • Aspirin bottles • CD/video cases • Packaging peanuts • Other Styrofoam products 	Yes
	Other Plastics (OTHER or O)	<ul style="list-style-type: none"> • 3/5 gallon water jugs • Citrus juice bottles • Plastic lumber • Headlight lenses • Safety glasses 	<ul style="list-style-type: none"> • Gas containers • Bullet proof materials • Acrylic, nylon, polycarbonate • Polylactic acid (a bioplastic) • Combinations of different plastics 	Yes

National Sword's Impact

- Recycling is a global industry.
- China is the biggest consumer of recyclable commodities – @ 60%.
- Manufacturing is a global industry.
- China is the biggest manufacturing country in the world – @ 30%.



National Sword's Impact

Sham recycling

- Approximately 2,400 Paper Mills.
- @ 2,200 Mills (80%) to close – 20% of Production.
 - Worst polluters
 - 2,937 import permits for 2017
 - 108 import permits for 2018
- @ 200 Mills to remain open – 80% of Production
 - Modern manufacturing & environmental standards.



National Sword's Impact

- No other market can replace China in the near, short term or mid-term.
- International – Vietnam, Malaysia, Japan, Korea, Indonesia, India etc.
 - Alternative markets, smaller markets.
 - Not Just in time like China.
- Domestic Canada and United States.

Inspections



National Sword's Current Impact

Inspections at US Material Recovery Facilities (MRFs) and Inspections at Ports of Delivery.

Zero tolerance for both prohibited materials and exceeding contamination levels for accepted materials.

No more negotiating of quality vs. price.

One bale in one container can cause full shipping allotment to be rejected. Costs. Risks. Double the cost coming back.

Dramatic reduction in Importer licenses-Quotas/Orders. Quarterly as opposed to yearly – more uncertainty.

Inspections



WRRRA Member Response

Current and Short-term

- Informed Government Officials and Public directly.
- Emphasis on quality.
- Slowed processing lines. Added manual sorters.
- Refining processes and equipment usage.
- Finding new global and domestic markets.
- WRRRA MRF List of Materials for Commingled Programs.



WRRRA MRF List of Suggested Materials to be included in Commingled Recycling Programs

1. Paper

- a. Newspaper including adds and inserts
- b. Corrugated Cardboard Boxes
- c. Direct Mail
- d. Cereal, Cracker & Shoe Boxes (Chipboard)
- e. Office paper- copier and printer paper, file folders, note paper, computer paper, brochures
- f. Magazines & Catalogs

2. Metal

- a. Steel (Tin) Cans
- b. Aluminum Cans

3. Plastic

- a. Plastic Bottles- #1 PET & #2 HDPE- Soda bottles, water bottles, milk jugs, Orange Juice bottles & jugs, detergent & cleaning solution bottles

***This is the most comprehensive list of materials to include.** For those programs that choose to offer a more limited group, that would be acceptable as well. This list emphasizes the processing of materials that have the highest value and excludes those materials that erode the value through the collection of materials that contaminate the higher value materials.

WRRRA MRF List of Suggested Materials to **NOT BE** included in Commingled Recycling Programs

Suggested List of Items to Exclude from Commingled Recycling Programs

1. #3-7 Plastic Items
2. Plastic Bags & Plastic Film of all kinds
3. Flower pots
4. Paper Milk & Paper Juice Cartons
5. Aseptic Packaging
6. Shredded Paper
7. Glass
8. Hazardous & Medical Waste of any Type
9. Diapers
10. Fabric (Textiles) of any type
11. Wire, Rope, Chain, Garden Hoses & Christmas Lights
12. Wood
13. Trash – Put the Garbage in the Garbage Bin
14. Scrap Metal

Depot Alternatives

For those jurisdictions that would like to offer additional recovery options, it might be possible to establish drop off options at depots for additional items.



WRRRA Member Response

Mid to Long-Term

- Keep our commitment to recycling and our partners.
- New markets both domestic & international.
- New Equipment – Optical Sorters and robotics.
- Preserve the value of the valuable commodities – old school – paper, cardboard, aluminum, and tin cans.
- Limit the type of recyclable materials collected to ensure quality.
- Work within our Public/Private Partnership with the Counties and Cities on recycling program changes that reflect the new market realities. Focus on quality and preserving value.

National Sword Impact

- China's emphasis to increase its domestic recycling program & markets.
- China's drive to better its environment.
- China's drive to weed out corruption.
- China will not be an importer in the future.
- China will be an exporter in the future.



Recycling Myths & Truths

- Recycling has never been free.
- Recycling costs are increasing. Exponentially.
- Prices for the recyclable commodities are decreasing.
- Recycling fewer items will preserve and enhance the value of the marketable recyclable commodities.
- As supply overwhelms the markets, as markets disappear, and as the cost of processing collected recyclables reaches 2 or 3 times the cost of disposal, landfilling will need to be considered as an option.

Focus

- Change emphasis from quantity to quality.
- Educate generators – residences & businesses.
- Ensure proper level of service.
- Proper size of container for garbage, recycling and yard waste.

Focus

- Problem collection locations:
 - Multi Family Housing
 - Special Events
 - Commercial Recycling (especially when its free)
- Residential Properties are typically cleaner than the other streams.
- Proper collection cycles. Proper sizing of receptacles.
- Demand should dictate our supply of materials.

What can you/we do today?

- **Source-separation by the generator** is what makes recyclables distinct from garbage.
- Only place materials that your local jurisdiction allows into the recycling bin in your local program.
- Only put empty, clean and dry materials in the recycling bin.

When in doubt, throw it out!*

*Note to UBER Recyclers – no wishful recycling!



Mission Statement

To promote environmentally and economically sustainable solid waste and recycling services within the Washington State regulatory system.



WASHINGTON
REFUSE &
RECYCLING
ASSOCIATION