

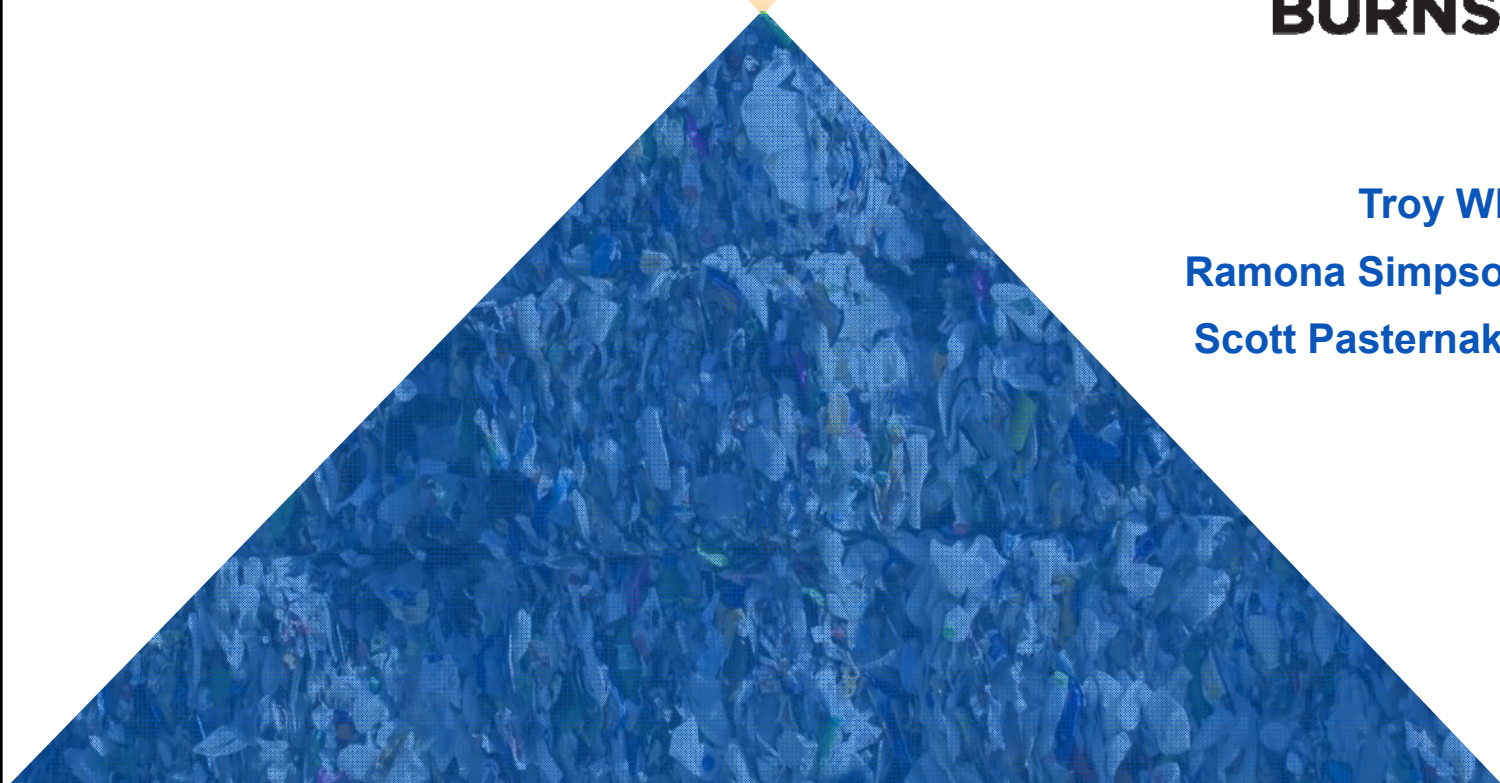


# Town of Queen Creek Recycling Update



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**Burns & McDonnell**

January 15, 2020





# Agenda



**Broad Recycling  
Update**



**Regional  
Perspectives**



**Queen Creek  
Considerations**





# Broad Recycling Update



# The Economy of Recycling

- ▶ Recycling is the process of converting materials into new materials that otherwise would have been discarded as waste
- ▶ Manufacturing feedstock that competes with other raw materials



**Collection**



**Processing**



**Material Ready for Sale**

# Commodities

- ▶ Recyclables are commodities
- ▶ Sold to combination of domestic and international markets
- ▶ China has historically been largest international market for processed recycling
- ▶ Values constantly fluctuate



# Commodity Values Create Economic Pressure

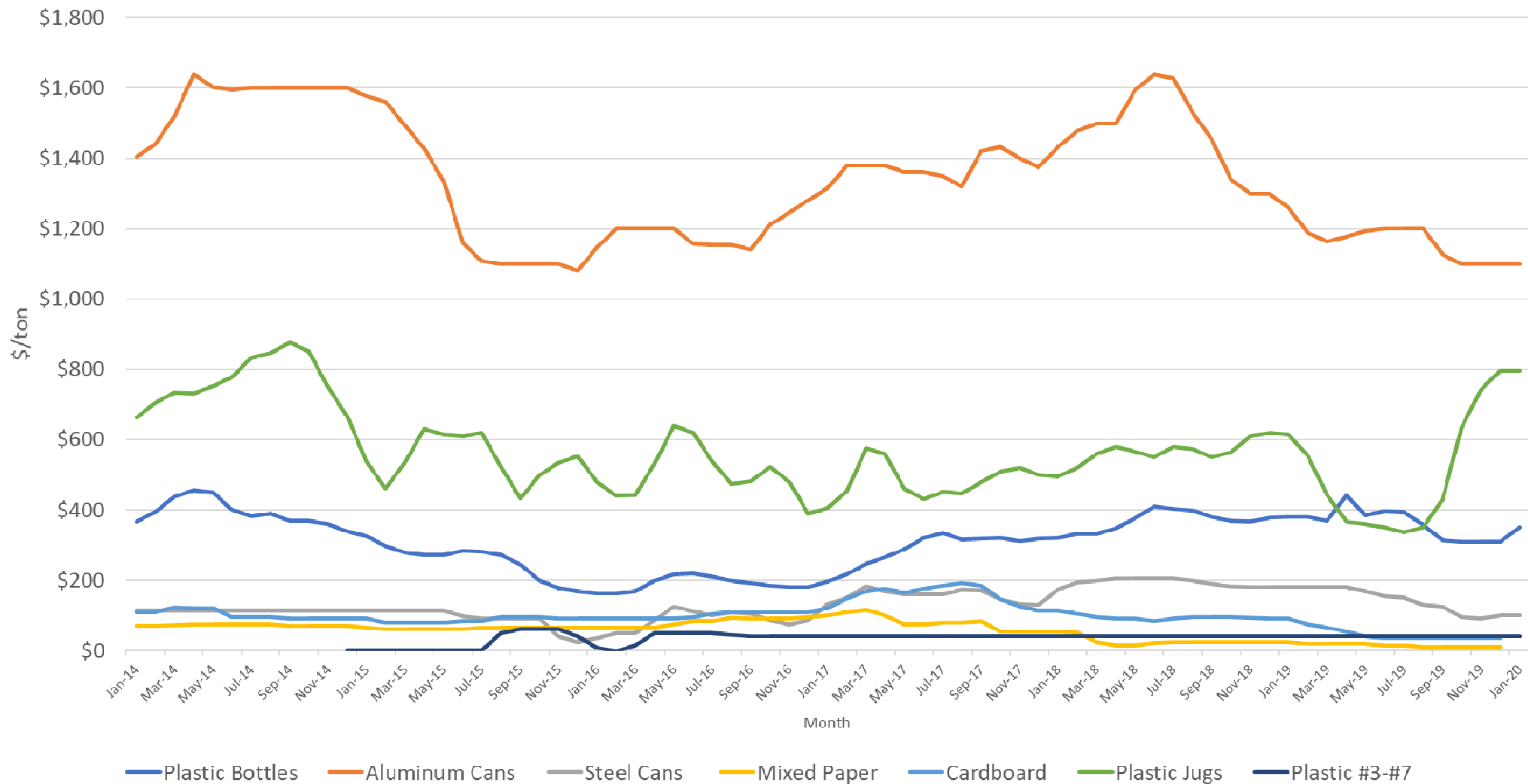




# Current Commodity Values and Composition

Material	Current Value (\$/Ton)	Composition by Weight
Plastic Bottles	\$350	4.27%
Plastic Jugs	\$795	1.70%
Plastic #3-#7	\$40	3.85%
Mixed Paper	\$10	20.51%
Cardboard	\$35	33.67%
Aluminum Cans	\$1,100	1.28%
Steel Cans	\$100	2.56%

# Historical Commodity Values





# What is Happening in China?

## National Sword

- ▶ China banned 24 material types on December 31, 2017
- ▶ 0.5% contamination threshold for processed material

Material	Percentage Shipped to China in 2015
Paper	25%
Plastic Bottles	20%
Non-bottle Rigid Plastics	33%



## Contamination is Expensive



Paying \$60 – \$90 per ton to process trash



Zero revenue is generated from contamination



Costs to transport to landfill and dispose

# National Perspective: Moving Forward

- ▶ Reset financial expectations
- ▶ Focus on reducing contamination
- ▶ Recycle materials with highest value  
(Aluminum/Cardboard/Certain Plastics)
- ▶ Grow existing or potential domestic markets
- ▶ 17 new paper recycling facilities coming on-line in the U.S.







# Regional Perspectives

# Regional Perspectives on Single Stream Recycling Programs

City	Update
Casa Grande \$ 23.15	Suspended recycling program
Chandler \$ 16.93	Discontinued drop off sites-contamination; recycling processing costs increased for City from processor
Goodyear \$ 22.80	No programmatic changes or cost increases
Phoenix \$ 26.80	Considering changes due to increased recycling costs (in-House Program)
Mesa \$ 29.34	Implemented policy changes to improve program (remove contaminated carts from customers and accepting fewer material types) and increased inspection and outreach programs
Surprise \$ 20.70	Temporarily suspended recycling program

\* As of 1/13/2020

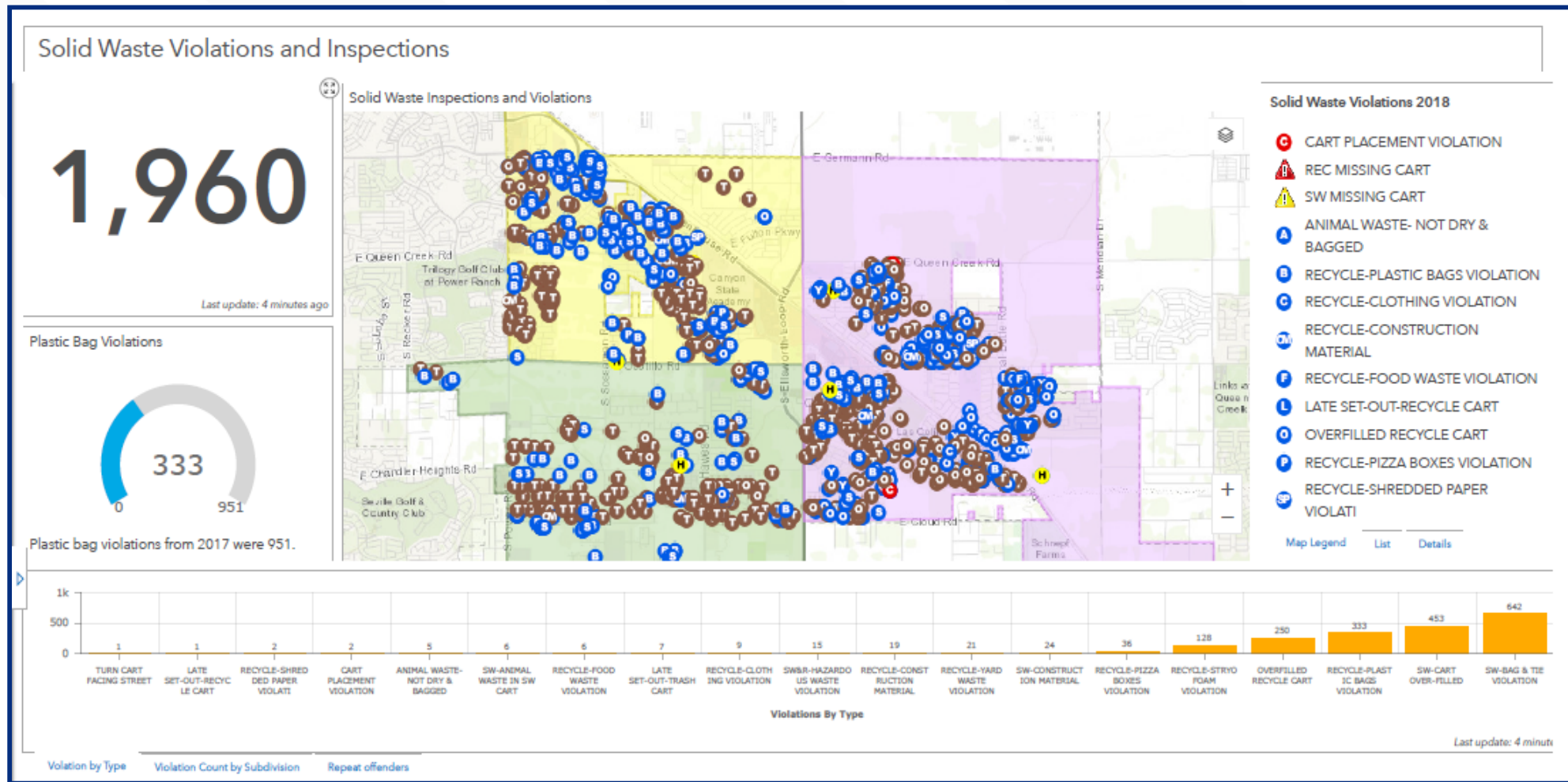


# Queen Creek Considerations



# Queen Creek Education and Outreach Enforcement

Curbside collection contamination at **8 percent**, compared to national average of **20 – 25 percent**



# Queen Creek Education and Outreach Materials

**TRASH & RECYCLING HOW-TO's**  
Know where it goes!

**NO PLASTIC BAGS in the recycling cart.** The only exception is shredded paper, which must be placed in a clear bag. Consider reusing plastic bags for lunch sacks, pet waste disposal, etc. Most grocery stores collect and recycle plastic bags, too.

**NO YARD WASTE in the recycling cart.** It must be bagged and tied before being placed in your trash cart, or bundled for scheduled bulk collection.

**Pizza boxes are tricky!** When cheese and grease come into contact with the cardboard, it's no longer recyclable. You can remove and recycle the untainted lid of the pizza box if it is grease-free, but the portions that have come in contact with grease and cheese must go in the trash.

Please visit [QueenCreek.org/Trash](http://QueenCreek.org/Trash) for more information about your trash and recycling services, as well as resources for dealing with any of these important community concerns.

**HOUSEHOLD HAZARDOUS WASTE**  
Includes the following:  
 ✗ Motor oil ✗ Batteries  
 ✗ Adhesives ✗ Light bulbs  
 ✗ Pesticides ✗ Paint

Household hazardous waste (HHW) does not belong in your trash or recycling cart. It is dangerous for the health and safety of our community.

Motor oil can be dropped off at Walmart, AutoZone and O'Reilly Auto Parts.

Other items can be taken to the HHW Facility in Gilbert but require a voucher. Pick one up at the Town of Queen Creek Municipal Services Building, 22358 South Ellsworth Road, or apply at [QueenCreek.org/HHW](http://QueenCreek.org/HHW).

**ATTENTION: DANGER**  
A truckload of recyclables or trash can catch fire or spontaneously combust. Please do not place hot ashes, cooking oil, batteries, motor oil or paint in your carts!

**BONUS! FREE BULK COLLECTION**  
Are your items too large to fit inside your cart? Visit [QueenCreek.org/BulkTrash](http://QueenCreek.org/BulkTrash) to view bulk collection requirements and schedule a pickup.

**BAG AND TIE ALL GARBAGE**  
This reduces concerns for unsanitary conditions, breeding of flies and roadway spills. Not only is bagging and tying garbage better for you and our community, it is the law.

**SHUT YOUR LID**  
The lid must be closed on both your trash and recycling carts or your carts may not be serviced.

**200 LBS MAXIMUM DON'T OVERFILL**  
The weight of each cart must not exceed 200 pounds. Additional carts are available; apply online at [QueenCreek.org/Trash](http://QueenCreek.org/Trash).

**PLACE THEM PROPERLY**  
Follow these rules to ensure your carts are serviced!  
 • Place carts curbside  
 • Place them facing street  
 • Place carts at least two feet apart  
 • Do not block sidewalk  
 • Do not place carts near parked vehicles or structures like mailboxes

do more blue QueenCreek.org/Trash | 480-358-3450 ext. 7 shut your lid

Information Packet

**DO MORE BLUE**  
What you put in your recycling cart matters!

**NO PLASTIC BAGS**

**NO FOOD WASTE**

**NO YARD WASTE**

**NO PIZZA BOXES**

**NO STYROFOAM**

Learn why at [QueenCreek.org/DoMoreBlue](http://QueenCreek.org/DoMoreBlue)

**PRESERVE THE QC**

do more blue TOWN OF QUEEN CREEK ARIZONA

Cart Tag



Neighborhood Drop-off Facility  
*(contamination rate less than one percent)*

# Queen Creek Recycling Audit Results

The following information is based on your February 15, 2018 recycling audit:

Community: Town of Queen Creek  
 Location: RAD MRF, Apache Junction  
 Time of load: 9:16  
 Truck Number: 360  
 Collection Area: Montelina  
 Load Weight: 2.34 tons (4,680lbs)

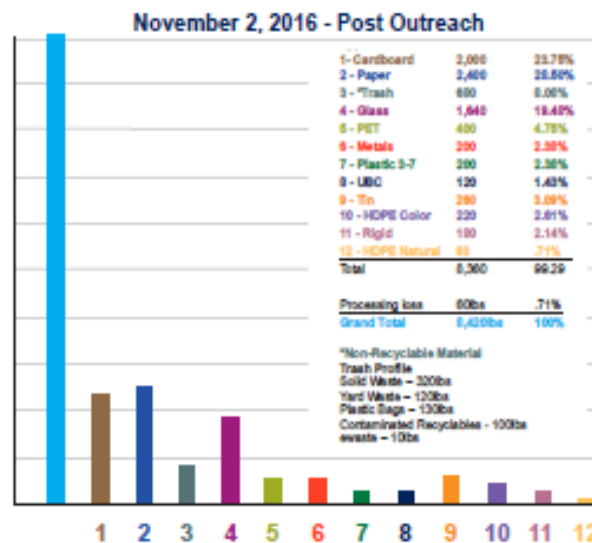
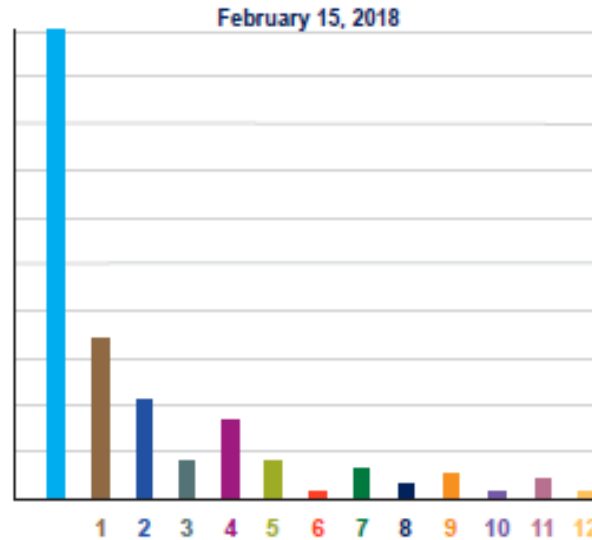
## Material Composition by Weight

Type	lbs	Percent
1 - Cardboard	1,579	33.76%
2 - Paper	960	20.51%
3 - *Trash	420	8.97%
4 - Glass	780	16.67%
5 - PET	200	4.27%
6 - Metals	40	.85%
7 - Plastic 3-7	180	3.85%
8 - UBC	60	1.28%
9 - Tin	120	2.56%
10 - HDPE Color	40	.85%
11 - Rigid	100	2.14%
12 - HDPE Natural	40	.85%
<b>Total</b>	<b>4,519</b>	<b>96.56%</b>
Processing loss	161lbs	3.44%
<b>Grand Total</b>	<b>4,680lbs</b>	<b>100%</b>

### \*Non-Recyclable Material

#### Trash Profile

Solid Waste – 80lbs  
 Yard Waste – Zero  
 Plastic Wrap/Bags – 255lbs  
 Contaminated Recyclables - 40lbs  
 ewaste – 45lbs



Program focused on key materials

Clearly communicated to Town residents

Results reflect proactive recycling program



# Key Reasons for Success

- ▶ Comprehensive and clear educational and outreach program
- ▶ Inspect setouts with proactive enforcement and cart tagging
- ▶ Consistent recycling audit results
- ▶ Proactive approach leads to sustainable and cost-efficient recycling program
- ▶ Great residents that understand the importance to the program

## QC RECYCLES!

**YES** THESE ITEMS CAN GO IN YOUR RECYCLING CART:

**NO** KEEP THESE ITEMS OUT OF YOUR RECYCLING CART:

**PLASTICS\***  
Soda & Water Bottles  
Shampoo & Soap Bottles  
Milk & Laundry Detergent Jugs  
Peanut Butter & Mayonnaise Jars  
Plastic Trays & Microwave  
Dinner Containers  
Clear 'Clamshell' Containers  
Plastic Egg Cartons

**CARTONS\***  
Dairy & Substitutes (Milk, Soy etc.)  
Juice Cartons & Juice Boxes  
Egg Substitute Cartons  
Protein Drinks & Wine Boxes  
Soup and Broth Cartons  
Juice boxes • Tofu Cartons  
Ice Cream Cartons

**ALUMINUM & METAL CANS\***  
Food and Soda Cans  
Steel Cans  
Tin Cans including  
Non-Hazardous Aerosol Cans  
No other metals are accepted.

**PAPER**  
Corrugated Cardboard  
(remove plastic and flatten)  
Brown Paper Bags  
Newspapers • Phone Books  
Paperboard: Cereal, Shoe  
Boxes (remove plastic liners)  
Molded Fiberboard  
Magazines & Catalogs  
(less than .5" thick)  
Printing Paper  
Mail including Window  
Envelopes • Brochures, File  
Folders, Card Stock, etc.

**GLASS\***  
Food and Beverage  
Bottles and Jars  
No other glass is accepted.

**PLASTIC BAGS**

**FOOD WASTE**

**STYROFOAM**

**DIAPERS**

**PIZZA BOXES**

**YARD WASTE**

**TUBES**

**WRAPPING / TISSUE PAPER**

**PAINT**

**CONSTRUCTION DEBRIS**

**METALS**

**PAPER TOWELS / NAPKINS**

**MOTOR OIL**

**HAZARDOUS MATERIALS**  
Batteries  
Adhesives  
Light Bulbs  
Pesticides

**RIGID PLASTICS**  
Coolers • Buckets  
Outdoor Furniture  
Food Storage Containers • Toys  
Large Volume Water Containers

\*Empty all food or liquid and gently rinse

LEARN MORE AT [QUEENCREEK.ORG/RECYCLING](http://QUEENCREEK.ORG/RECYCLING) OR CALL 480-358-3450 ext. 7

# Future of Queen Creek Recycling

- ▶ Town currently conducting Request for Proposal (RFP) for trash and recycling services
- ▶ RFP includes the Town's cost for recycling services
- ▶ Development of successful recycling program has historically protected Town from market volatility
- ▶ Results of RFP will be communicated at upcoming Council meeting

# Questions?