



City of Harlingen Recycling Center

City Commission Workshop
June 16, 2020

Recycling Center



- COVID-19 - Recycling Center Closed on March 23, 2020
- Unknown risks in processing recyclable commodities
- Safety of employees is very important
- Current shut down of facility has allowed for assessment of operation, equipment, and financial impact.

Recycling Center



Operation Cost High (labor facility, and equipment)



Low participation rates in City and Valley wide (30 to 70 percent of material ends up in landfill)



Elevated risk for exposure to COVID-19; manual processing of commodities

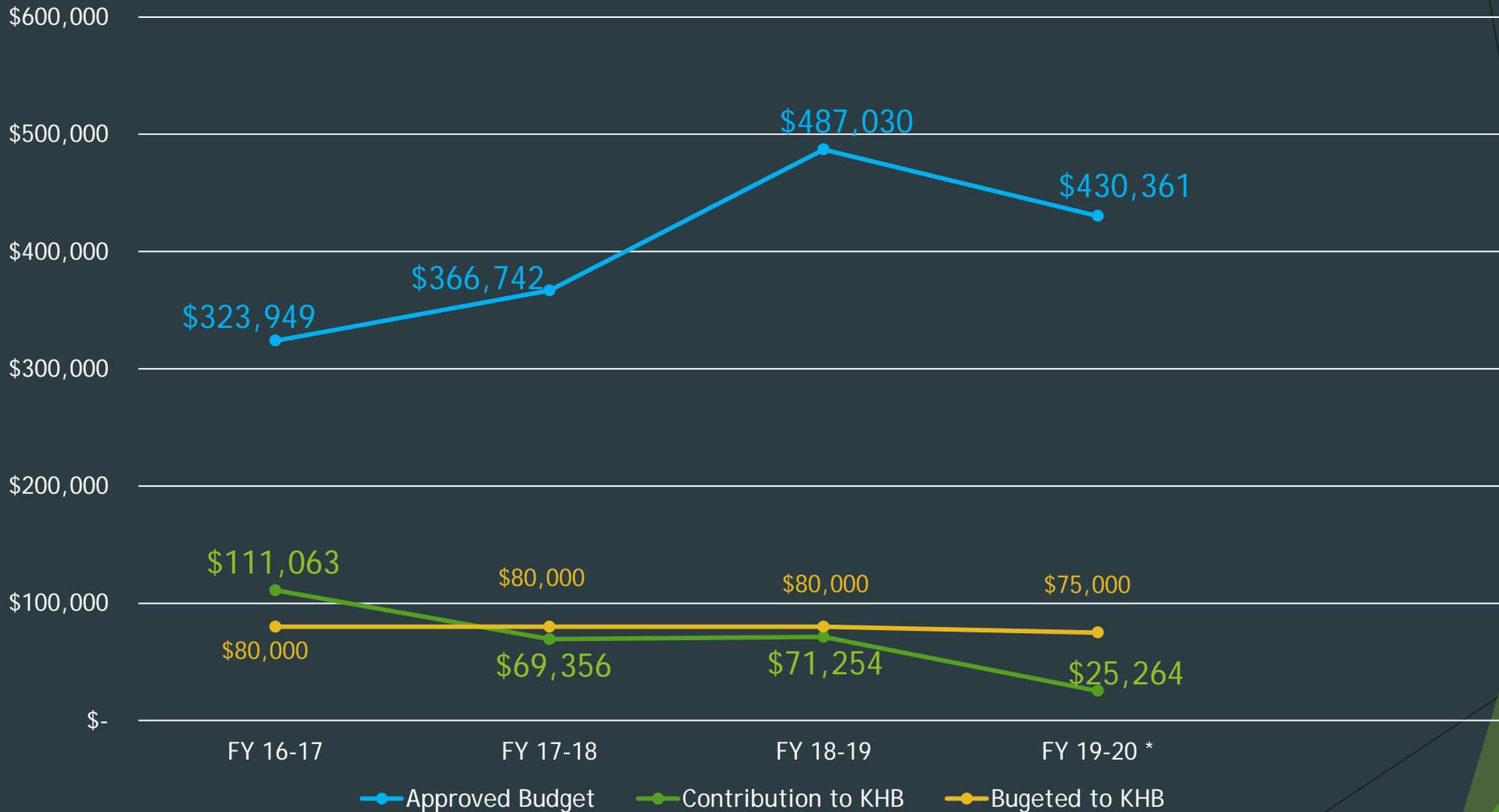


Not cost effective



Low commodity values (*no material has netted more 9 cents per pound in past 5 years*)

Recycling Center Operating Cost and Transfers to KHB Per Fiscal Year



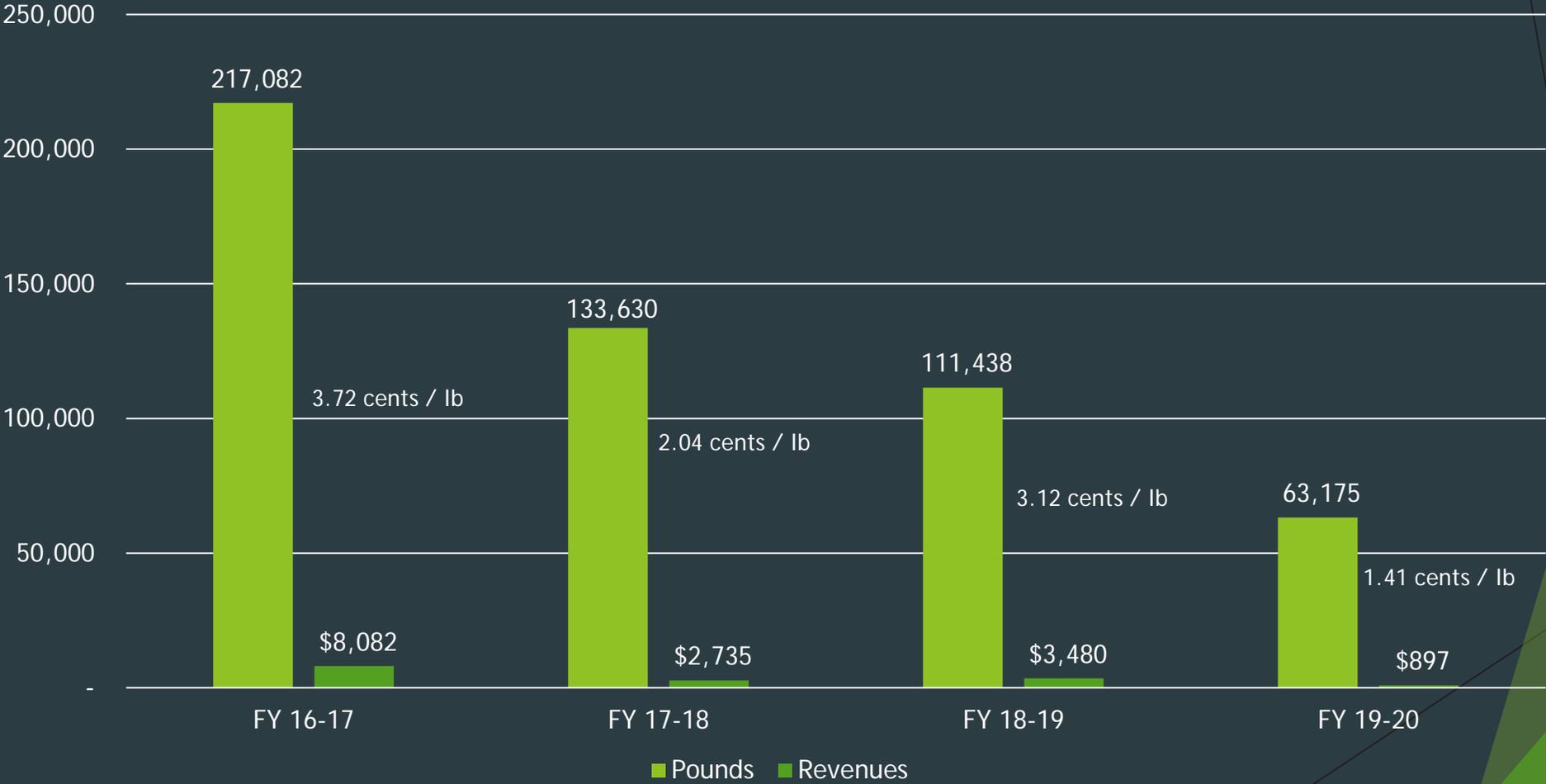
Commodity Yields for Cardboard

Revenue / Pounds of material



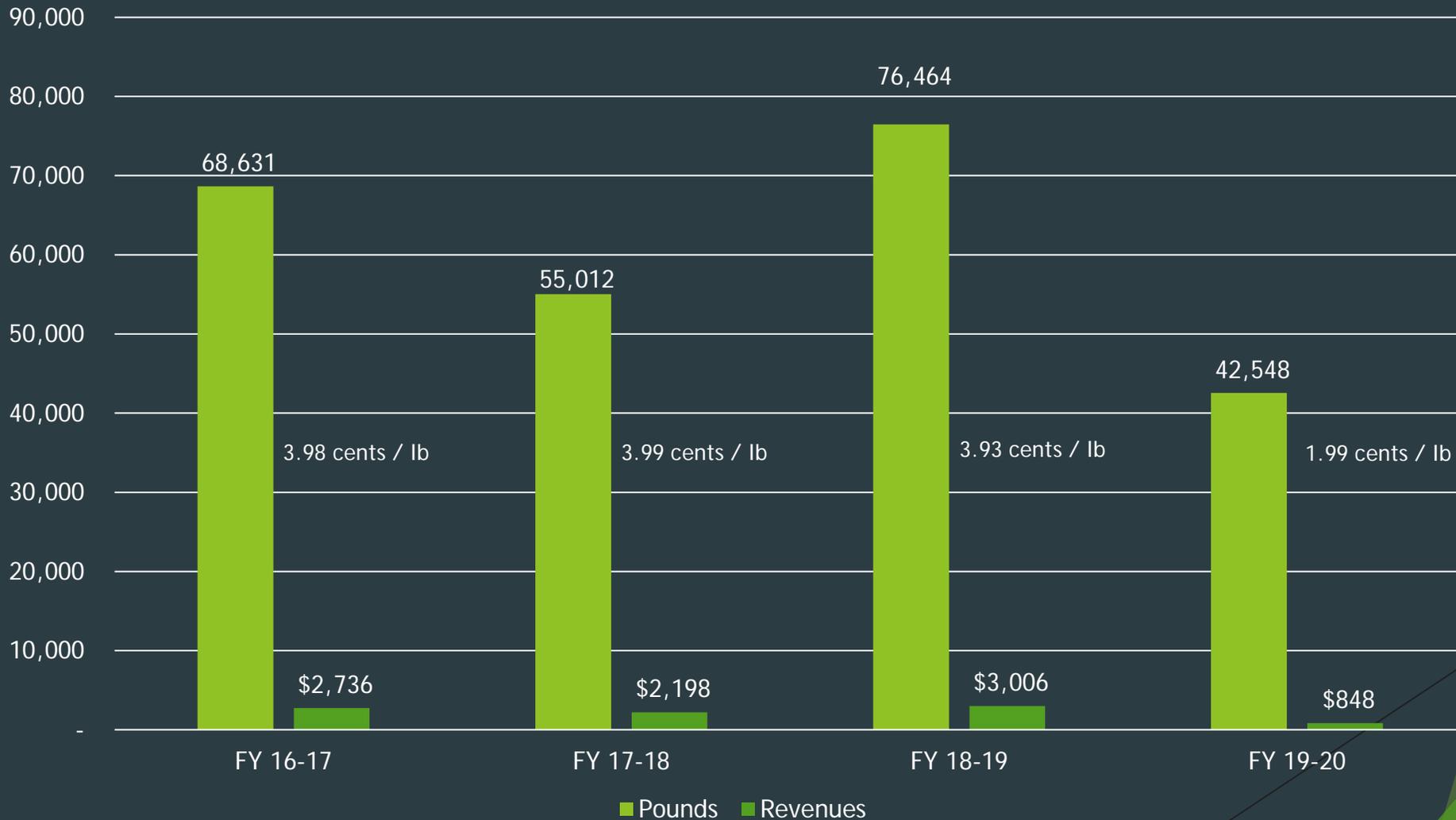
Commodity Yields for Office Mix Paper

Revenue / Pounds of material



Commodity Yield for Plastic #1

Revenue / Pound of Material



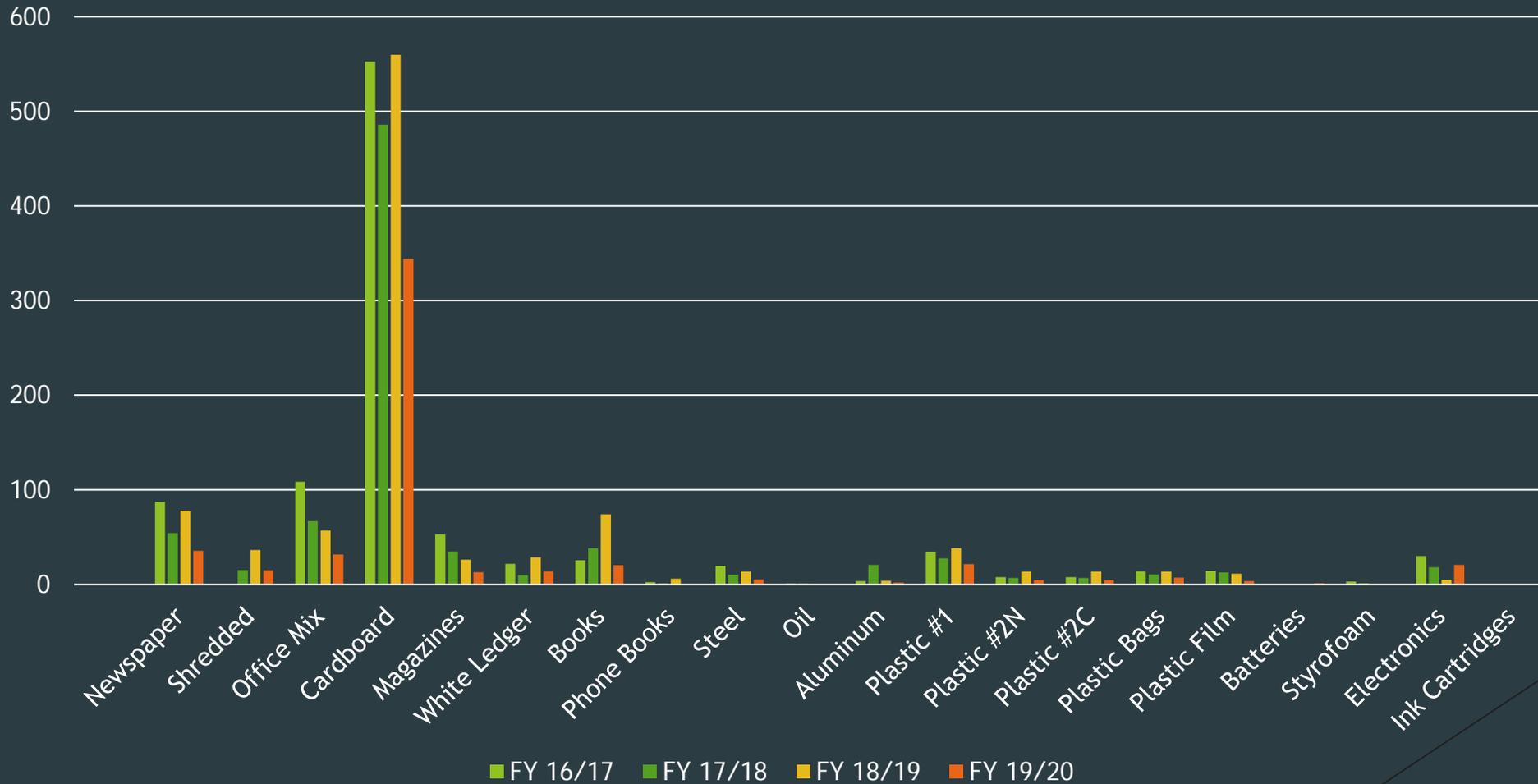
Commodity Yields for Plastic Bags

Revenue / Pounds of material



Harlingen Recycling Center – Commodities Collected

Commodity Tons Collected per Fiscal Year



State of the Recycling Industry.

<https://www.sierraclub.org/sierra/2019-4-july-august/feature/us-recycling-system-garbage>

Materials sent to China for recycling have ended up as trash; contaminating the oceans and the China's environment.



The US Recycling System Is Garbage

China doesn't want our crap anymore, and who can blame them?

CHINA HAS SHUT DOWN ITS INEFFICIENT, POLLUTING "RECYCLING VILLAGES" IN FAVOR OF MODERN FACILITIES. | PHOTO-ILLUSTRATION BY D-KEINE/GETTY IMAGES

BY EDWARD HUMES | JUN 26 2019

LATEST UPDATES

Why Does the National Park Service Have a SWAT Force?

The US Recycling system is garbage.

SIERRA The national magazine of the
Sierra Club

- ▶ Around 1992, US cities and trash companies started offshoring their most contaminated, least valuable "recyclables" to a China that was desperate for raw materials.
- ▶ Half the plastic and much of the paper you put into it did not go to your local recycling center. Instead, it was stuffed onto giant container ships and sold to China.
- ▶ Then in **2018**, as part of a domestic crackdown on pollution, China banned imports of dirty foreign garbage.
- ▶ "The National Sword," a declaration that China would no longer accept 24 classes of imported waste and only accept those materials that met extremely strict standards for contamination. U.S. paper waste is, on average, 25 percent contaminated by food, grease, glass or other materials. **China's new standard for paper waste is .3 of 1 percent contamination.**

The US Recycling system is garbage. Cont...

SIERRA The national magazine of the
Sierra Club

- ▶ The lack of preparation for China's import ban created pain and chaos in communities across America. Some recyclers, predictably, began searching for countries desperate enough to fill in for China. Vietnam, Malaysia, and others did so for a time, only to be overwhelmed by the stinking tide. (Vietnam and Malaysia have since shut the imports down.)
- ▶ Prices for recyclables dropped to a fraction of what China once paid, often far below the cost of gathering and shipping the material. Bales of mixed paper that previously sold for \$155 a ton could barely fetch \$10.
- ▶ "There was a lack of investment in infrastructure," says Alexander of the Association of Plastic Recyclers. "Now we're trying to deal with a 21st-century packaging stream based on 20th-century infrastructure. There's a strong market out there still for recycling, but we need the capability to produce good, clean material."

Recycling Market in Texas

- ▶ In Nov. 2017, TCEQ said international market restrictions could be a good opportunity to develop local markets. Eventually, changes manifested in the form of terminated programs and reductions in accepted materials

Effects; (China's effects on commodity markets)

- ▶ El Paso emerges as one of the most affected municipalities in Texas with Friedman Recycling asking for a \$40 per ton cost increase in a contract that technically runs through 2030.
- ▶ As Waste Management steps up quality enforcement, local recycling could be in danger due to high contamination rates. Recycling costs are spiking throughout northern Texas. Fort Worth earned \$999,000 from its program last year 2017 but anticipates paying \$465,000 in 2018 and could pay nearly \$1.7 million in 2019.
- ▶ Kilgore prepares to raise rates due to a \$20,000 spike in monthly processing costs for Republic Services, though this will still be less expensive than landfilling. Oak Ridge North approves a rate increase with Waste Management that involves dropping glass.
- ▶ Houston reports spending close to \$900,000 on recycling over the past six months. The city maintains these costs will drop when it switches from current processor Waste Management to FCC Environmental Services.
- ▶ Midwestern State University decides to end its recycling program with Waste Connections due to rising costs. The company has also curtailed commercial recycling service in the broader Texoma region

Recycling Market in Texas cont...

Effects; (China's effects on commodity markets cont...)

- ▶ Port Neches ends its drop-off recycling program due to ongoing contamination and rising costs.
- ▶ Nacogdoches is expected to temporarily suspend recycling for some plastic and paper due to market conditions.
- ▶ Midlands scales back to a limited number of drop-off sites following rising costs with processor Butts Recycling.
- ▶ Olmos Park has been told to stop recycling glass, metal cans and plastics except for bottles. Alamo Heights cut glass. Terrell Hills cuts mixed paper and glass. All municipalities are serviced by Waste Management.
- ▶ Beaumont will lose opt-in curbside service, as well as drop-off access, following a facility closure by Waste Management. Nederland will close its drop-off center following a decision made by Waste Management. Abilene, serviced by a different company, cuts plastics and glass from its accepted drop-off list.

Recycling Market in Texas cont...

Effects; (China's effects on commodity markets cont...)

- ▶ Both West University Place and Bellaire report notable cost increases for their recycling programs since global market changes.
- ▶ The San Antonio City Council doubles an existing recycling contamination fee to \$50 per household, noting diapers are a particular issue.
- ▶ After months of high-profile debate, San Angelo agrees to a contract amendment with Republic that won't change pricing for residents but will result in the removal of mixed paper and mixed plastics. This came after Butts Recycling stopped taking material from the city's program.
- ▶ Fort Worth reports ongoing curbside inspection efforts to improve material quality, following an annual net loss of more than \$1 million through its contract with Republic.

Factors to Consider to Maintain a Recycling Program

- ▶ Outputs for Recyclable Commodities are limited
 - ▶ Limited buyers in Rio Grande Valley
 - ▶ Buyers Market, expect not to recover processing costs
 - ▶ Only one “Materials Recovery Facility” in the Valley. McAllen Recycling Center
- ▶ High Contamination Rates of recyclables. 30 to 75 percent
 - ▶ Requires continuous educational programs
 - ▶ Enforcement / Compliance Programs
- ▶ Impact to environment? What is the end result of our efforts?
 - ▶ Materials end up in landfills. In China - the ocean or water bodies.
 - ▶ Consider Source Reduction instead of Recycling (diversion)
 - ▶ Increase use of biodegradable materials, use of re-usable shopping bags.
- ▶ Sorting / Processing Costs tend to be high
 - ▶ Supplement operating cost with Recycling Fee

Recycling Center, Moving Forward.

OPTION 1



RE-OPEN DRIVE THROUGH
OPERATIONS
WITH RECYCLING FEE

OPTION 2



CITIZEN RECYCLING (SELF)
DROP OFF CONTAINERS
(TRANSPORT TO MRF)

OPTION 3



KEEP RECYCLING CENTER
CLOSED AND PARTNER WITH
KHB

OPTION 4



PRIVATIZE RECYCLING
SERVICES

Re-Open Recycling Center (Recycling Fee)



Pros

- ▶ Existing infrastructure
- ▶ Citizens are familiar with operation
- ▶ Use of Staff / Volunteers / Students
- ▶ Reduces amount of waste sent to landfill
- ▶ Generate \$373,050 annually in revenues from monthly \$1.50 recycling fee.
- ▶ Continue funding KHB from sale of commodities

Cons

- ▶ Facility needs repairs / upkeep
- ▶ Expensive Operation Costs (restart services)
- ▶ Staff / volunteers / students needed to re-open.
- ▶ Commodity values remain low.
- ▶ Modify processing to adhere to COVID-19 safety measures. Requires added PPE and may impact sorting efficiencies.

Re-Open Recycling Center (Recycling Fee)



OUTCOMES

- ▶ Current Fiscal Year Budget \$431,054
- ▶ Projected Revenues (sale of commodities) \$ 45,000
- ▶ Transfer to KHB \$ 45,000

- ▶ Proposed 2020-2021 Fiscal Year Budget - \$391,756
- ▶ Recycling Fee Revenues \$373,050
- ▶ Operating Deficit \$ 18,706

- ▶ Continue funding KHB from sale of commodities

CITIZEN RECYCLING (SELF) DROP OFF CONTAINERS



Pros

- ▶ Two locations.
- ▶ Reduce Operating Costs
- ▶ Reduces amount of waste sent to landfill
- ▶ Minimal risk exposure to staff of potential contaminants
- ▶ Program funds for beautification projects

Cons

- ▶ Self Monitoring
- ▶ Risk of contamination (illegal dumping)
- ▶ Dependent on MRF continuing to receive materials. (McAllen Recycling Center)
- ▶ Zero revenues from recyclable commodities

CITIZEN RECYCLING (SELF) DROP OFF CONTAINERS



CITIZEN RECYCLING (SELF) DROP OFF CONTAINERS



OUTCOMES

- ▶ Proposed starting October 1, 2020
- ▶ Start Up Cost for Containers (8) - \$56,000 (buy now)
- ▶ Proposed 2020-2021 Fiscal Year Budget - \$90,000
 - ▶ Transportation Cost
 - ▶ Personnel
- ▶ Reduction of Operating Budget by \$301,000
- ▶ Revenues from sale of commodities \$0

- ▶ Program portion of savings to KHB for Beautification Projects

KEEP RECYCLING CENTER CLOSED, PARTNER WITH KHB



Pros

- ▶ Re-focus environmental education efforts to source reduction.
- ▶ Program funds for city-wide beautification projects through KHB and City Public Works / Parks
 - ▶ May increase volunteer participation
- ▶ Decrease Operating Cost

Cons

- ▶ Require citizens to seek alternative recycling centers (Cities or commercial recyclers)
- ▶ Schools would need to outsource with private service providers (fee?)
- ▶ Volunteers / students may migrate to participate in other cities' recycling efforts.

KEEP RECYCLING CENTER CLOSED, PARTNER WITH KHB

OUTCOMES

- ▶ Based on Current FY 2019-2020 Fiscal Year Budget, unrealized operating cost expenditures (savings) - \$249,000
- ▶ Personnel would be transferred to vacancies within Sanitation
- ▶ Reduction of Operating Budget
- ▶ Fund Project Manager position to oversee projects
- ▶ Program portion of savings to KHB for Beautification Projects



PRIVATIZE RECYCLING SERVICES



Pros

- ▶ Recycling Service provided by others
- ▶ No Operating Cost to City
- ▶ Facilitate recycling to residents and businesses who want to recycle.
- ▶ Program funds for city-wide beautification projects through KHB and City Public Works / Parks

Cons

- ▶ Limited service providers
- ▶ Private vehicles add to wear & tear of our road system
- ▶ Private recyclers are not subject to franchise fee
- ▶ Fee based recycling. Estimated at \$16 per month.



Questions & Answers