

## The Challenge of Litter

Presented to the RCC

**NCTCOG** 

April 19<sup>th</sup> 2016

by

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## Definition – Litter and illegal dumping

#### Litter is carelessly discarded refuse

- Beverage containers, plastic bags, cigarette butts, snack wrappers, paper, and fast food containers/wrappers, light construction debris etc., etc., etc.
- Can be intentional or unintentional

#### Illegal Dumping is the disposal of waste in an unpermitted area

- Primarily larger, bulky quantities of non-hazardous materials
- Intentionally dumped

#### Both are -

- Caused by irresponsible human activities
- A form of blight and environment contamination



### Who Contributes to Litter?

• Through intentional and unintentional littering - You, me and everyone else

## Who Contributes to Illegal Dumping?

 It is a criminal act by those who knowing dump bulk material to avoid disposal fees or effort to dispose of properly





### Who Intentionally Litters?

- Age Younger Adults (< 30) more likely to litter older (>50) less likely
- Gender Males more likely
- Smokers
- Along roadways, motorists (52%) and pedestrians (23%) are the biggest contributors
- TxDot 2013 Study the incidence of littering skews somewhat toward males, but more heavily toward Millennials, Hispanics, singles, and households with young children.
- ... strong indirect relationships between educational attainment, labor force status, income and litter



### Why People Litter

- No Litter Container nearby
- A sense of entitlement
- Someone is employed to collect the litter anyway (It's not my responsibility!)
- Bad mood
- Habit
- Litter begets litter Individuals are much more likely to litter into a littered environment
- Belief that material breakdowns quickly in the environment
- No sense of ownership/community to the property

# Litter Cleanup - A Complex Web of Responsibilities by disparate organizations

- Street/Public Works Department
- Parks Department
- Solid Waste Department
- Storm Water Section
- Businesses
- Water Department
- TxDOT
- Code Enforcement &/or PD
- County Sheriff

- Neighborhood Associations
- Volunteer organizations
- Keep (insert city here)Beautiful
- Work Release
- Contract Labor
- Adopt an area programs
- Management Districts
- Water Districts
- and others ....

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#### Stormwater

- Where does that litter go?
  - Rainfall washes litter into storm drains.
  - Storm drains lead to the nearest body of water and dump litter into our creeks and rivers.
  - Those creeks and rivers drain into area reservoirs, which happen to be the source of our drinking water supplies





### In creeks, rivers and lakes

• About 18 percent of litter, usually traveling through stormwater systems, ends up in local streams, rivers, and waterways.



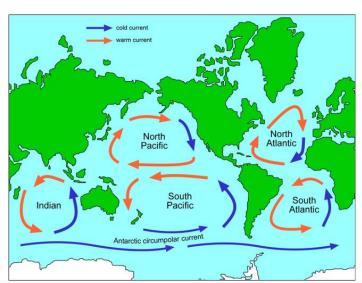




### Oceans

- About 80% of marine debris comes from land-based sources
- Floating debris ends up in the five major ocean gyres
  - Plastics breakdown but never really degrade
  - Sea life eat the particles and it continues into the food chain









### The Cost

- Cleaning up litter in the US costs hundreds of dollars per ton, about ten times more than the cost of trash disposal, with a cost totaling about \$11 billion per year.
- State of Texas spends \$46 million cleaning up litter
- City of Fort Worth FY16 budget \$3.2 million to clean up litter & illegal dumping

What does your city/county/business spend cleaning up litter?





#### Determine who is engaged in litter mitigation

- Potential to gain synergies with knowledge of actions of other organizations
- Don't duplicate efforts

#### Are enforcement actions being taken?

- By whom? PD/Code/Health/County Sherriff?
- Are charges upheld in courts? If not why not?
- Solid Waste Collections
  - Residential customers educated on packing carts &/or setouts?
  - Drivers educated on properly securing their loads?
  - Commercial collections







#### Is infrastructure sufficient?

- Adequate number of containers in Pedestrian areas?
- Adequate collection schedule?
- Stormwater catchment systems/devices
- Is your public information effort working?
- Are you Monitoring, Measuring & Evaluating?
- Plastic bag ordinances
- Styrofoam ordinances





## Best Management Practices – State



- Is there strong public awareness?
- Are the Laws and Enforcement adequate and respected?
- Dedicate a portion of COG grants to litter mitigation/law enforcement training/public education improvements
- Extended Producer Responsibility Laws
- Bottle Deposit Law
- Encourage public use TxDOT's Report a Litter app



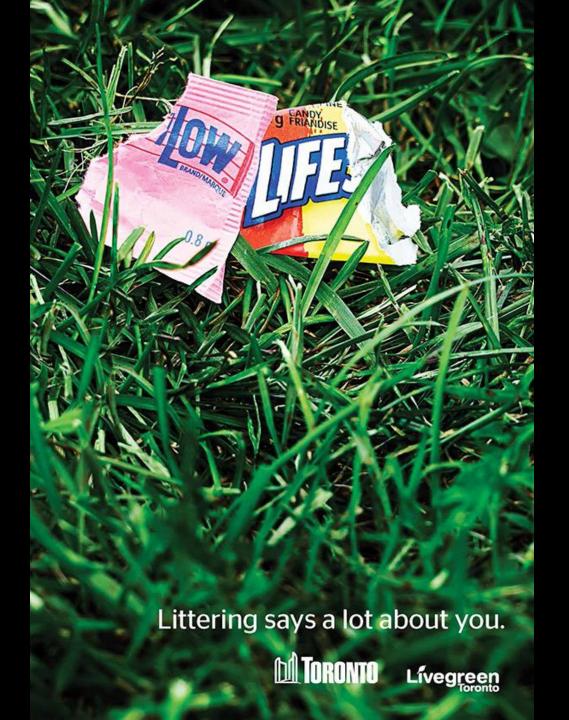




### Public Education

- KAB Report states 3 Strategies to address litter
  - 1. Beautification (including clean-ups)
  - 2. Waste infrastructure
  - 3. Awareness and Motivation Campaigns i.e. Public Education
- The more members of our community understand a problem the greater the momentum to solve it and the more likely that they will support changes.
- Positive Message The City is a public asset, so are our waterways. Ownership is collective – take pride in community and responsibility for your actions







#### THE BREAKDOWN ON DEBRIS

Littering and plastic have a negative impact on our local environment and sea life, but what you may not realize is the trash you see today can be harmful for many generations to come. We're dishing the dirt on how long it actually takes for waste to decompose. Enjoy the beach responsibly and join us in our mission to Keep Bolivar Beautiful.

glass bottles: 1 million years unknown, though scientists predict 80-200 years Styrofoam: 50 years over 10,000 years plastic bags: 10-20 years plastic items like straws, shovels, cigarette lighters, bottles and caps: combs, and toothbrushes: 20-1000 years 600 years cigarette filters: 5-10 years **Better Than You Found It** f facebook.com/keepbolivarbeautiful



## Public Education – Getting Public Engaged

Tarrant Regional Water District (TRWD) Reverse Litter or Ten on Tuesday Campaign

# TENSTUES







## Public Education-Simple Message that Resonates

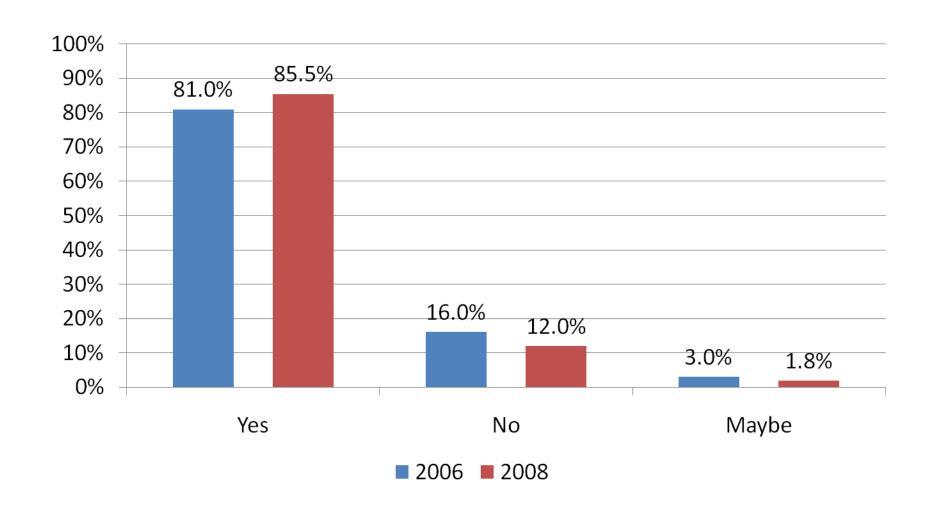




## Public Education – Best Management Practices

- "Litter Bug" is too cute, need to communicate that littering is a crime
- Need to stress that irresponsible actions both intentional and unintentional - create litter
- Stress that littering is not an acceptable norm
- Emphasize pride in community that littering is beneath the acceptable standard
- Set the example (as individuals, as organizations):
  - If you see litter, pick it up!
  - Carry a litter bag in your car
  - Don't let your commercial equipment/infrastructure spread litter

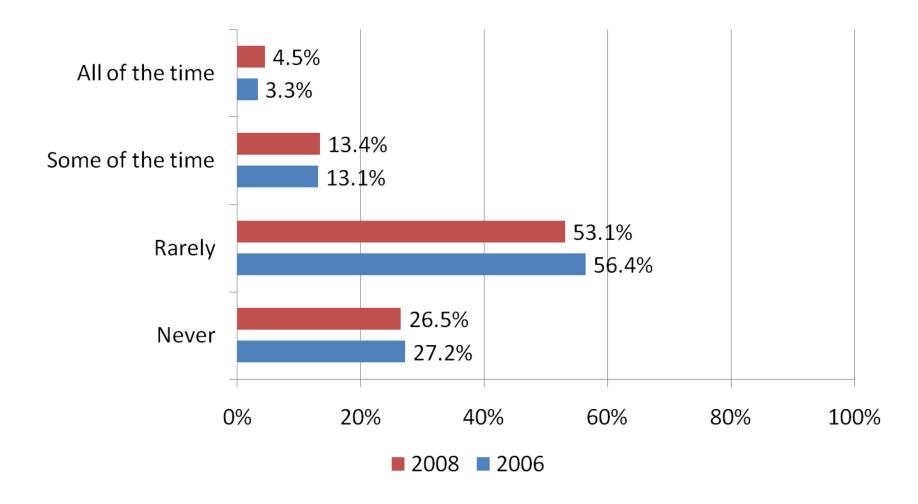
Legal Penalties: The vast majority (85.5% up from 81% in 2006) of respondents continue to say that knowledge of legal penalties would stop them from littering.



## Clearly people do not view litter laws as being effective since they don't perceive them as being enforced.



"How often do you think litter laws are enforced?"





# Legislation – 85<sup>th</sup> Legislative Session Interim Charges

#### Senate Committee on Agriculture, Water and Rural Affairs

Study and make recommendations on the effects of windblown and waterborne litter. The study should include an analysis of the economic effects of litter, and necessary methods to prevent and remediate litter, and an assessment of state and local programs to reduce litter.

#### **House Committee on Environmental Regulation**

Review the compliance practices of surface water management entities with state rules regarding the aesthetic condition of waterways and the prevention or removal of human-made floating trash and debris. Provide recommendations on how state and local authorities could coordinate to better achieve these goals.

Study the effectiveness of current state programs to address scrap tire management and disposal methods, including the incidence of scrap tires and rubber debris on roadways and in watercourses. Include analysis of disposal fee collection and management as well as local funding allocations. Provide incentive or enforcement recommendations for ongoing clean-up efforts, abatement of identified tire dumpsites, and means of ensuring accurate record keeping and reporting.

#### **House Committee on Agriculture and Livestock**

Study the impacts of windblown trash on agriculture and ranching.





- Increase Enforcement
- Convicted litter litter collection
- Forfeiture of property for littering & dumping
- Scrap tires
- Use SW5000 fund for litter programs
- Small county assistance (\$)
- State funds for litter programs

- Expand funding for public space waste infrastructure
- Dedicated state park fee for waste management to include litter
- Preemption of plastic bag and Styrofoam ordinances
- Strengthen county authority for litter enforcement





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## Mission Statement – Texans for Clean Water

**TEXANS FOR CLEAN WATER** works to eliminate the significant problem of consumer debris in Texas waterways and advocates for strong solutions by engaging with our local and state officials.

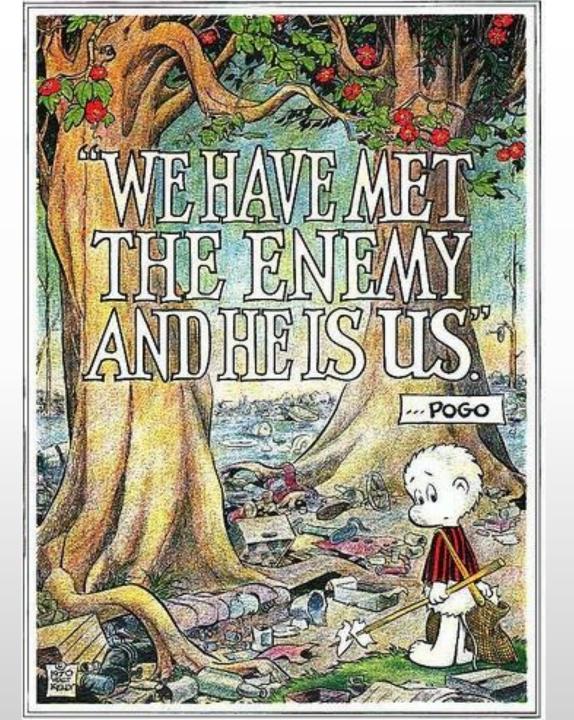




To develop case studies from multiple Texas cities regarding the costs and ROI that local governments are occurring to address litter.

- Amarillo
- Big Spring
- Corpus Christi
- El Paso
- Fort Worth

- Houston
- Laredo
- Lufkin
- Midland
- San Antonio





## **Questions/Open Discussion**

