

# THE GOLD PLAN

HOW FRACTURED RESPONSIBILITIES CONTRIBUTE TO PITTSBURGH'S INABILITY TO HANDLE ITS TRASH CRISIS, AND HOW WE CAN FIX IT



---

DPW  
ANTI\_LITTER



# NEW TOOLS FOR SUCCESS

By taking a data & strategy oriented mindset to litter and illegal dumping problems, we've created tools that will be a vital foundation for the future work to be done by Department of Public Works with our proposed **GOLD** plan.

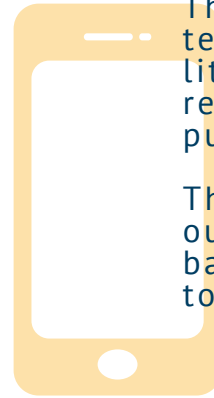
## SENSORED LITTER CAN CREW



The best example of how specialization and dedication leads to efficiency, this crew is singularly focused on using data to perform their sole task better than when the responsibility was split between several DPW Divisions.

This effort is projected to save the City \$1.5 million a year!

## LITTER INDEX



The new, objective survey-based technology to map out where litter is in our City without relying on responses from the public.

This yearly indexing of all of our streets gives us quantifiable baselines and goals to work towards.

## MONITORING DUMP SITES



Illegal dump sites are now being tracked in Cartegraph as assets, allowing for detailed, exact histories of dumping for each location, determining statistics for recidivism rates, average costs, and effectiveness of strategies going forward.

Hi-res video cameras are being integrated into enforcement as well.

## PUBLIC ENGAGEMENT



Outreach to the public has taken higher priority.

Starting with standardizing our Volunteer Application process, expanding the City's involvement in the Garbage Olympics, and starting the Clean Pittsburgh Newsletter for highly involved residents.

TECHNOLOGY LEADS THE  
WAY FOR OUR FUTURE

# THE BURNS MCDONNELL STUDY

This paper provided an eye-opening analysis of costs and the opportunity to compare and contrast efforts among similar Pennsylvania municipalities.

Pittsburgh participated in a state-wide look at how much all this litter and illegal dumping costs. The study found that the full costs were often obscured as the enforcement, abatement, and prevention responsibilities were often split up between City departments, divisions, and non-profits.

The results found that Pennsylvania spent a total of *\$68 million a year* on litter and illegal dumping!

Of the many different ways that each city tackled these issues, the study found that many of the PA cities succeeded in consolidating their enforcement into SWEEP teams, or **Solid Waste Enforcement and Education Program**.

Of the participating municipalities with SWEEP teams, we averaged the amount of officers per capita, and found Pittsburgh was extremely lacking in comparison.

We are considering DPW's Missy Rosenfeld the City's sole full-time trash-dedicated officer. While similar enforcement issues are handled by others, it's often a small part of their responsibility.



BURNS MCDONNELL

**THE COST OF LITTER & ILLEGAL DUMPING IN PENNSYLVANIA**  
 A STUDY OF NINE CITIES ACROSS THE COMMONWEALTH

JANUARY 2020

SUBMITTED TO:

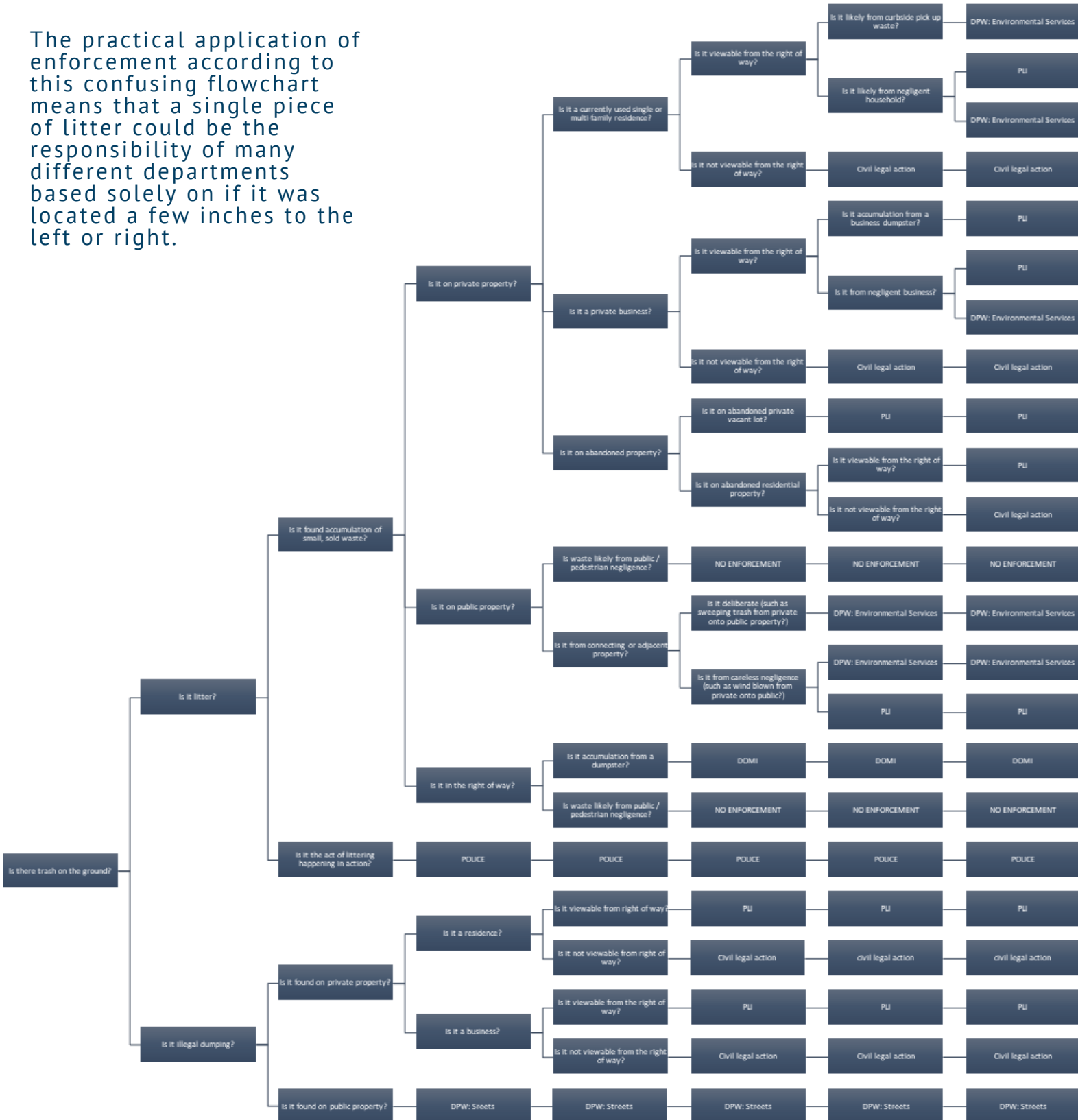


PA MUNICIPALITY	POPULATION	SWEEP OFFICERS	PER CAPITA
Allentown	121k	4	1 officer per 30k
Erie	96k	2	1 officer per 48k
Harrisburg	49k	1	1 officer per 49k
Lancaster	59k	2	1 officer per 29k
Philadelphia	1.5 mil	50	1 officer per 30k
PA MUNICIPALITY	POPULATION	FULL TIME TRASH-DEDICATED OFFICERS	AMOUNT WE SHOULD HAVE PER PA AVERAGE
<b>Pittsburgh</b>	<b>301k</b>	<b>1</b>	<b>8</b>

# 3 OUR CURRENT STATE

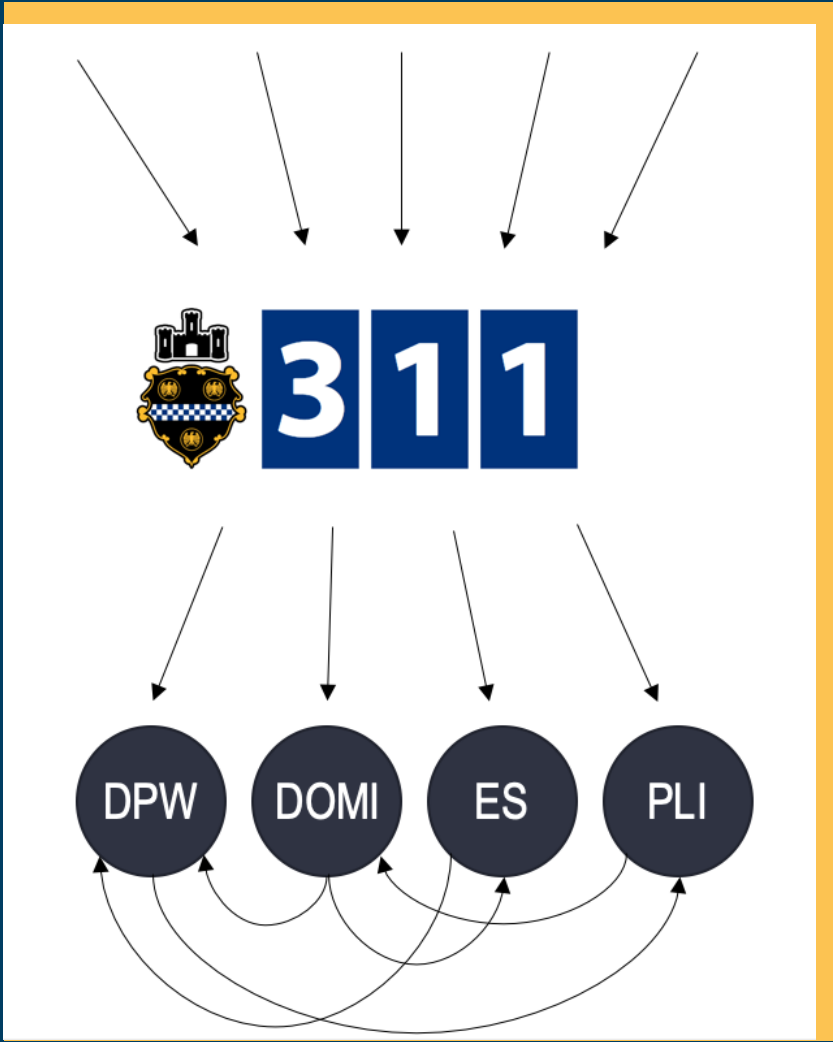
Pittsburgh's trash enforcement responsibilities are fractured between many Departments. To find who is responsible for what, we found that you had to ask a series of "if, then" questions to guide through the confusing maze until you reach the correct conclusion.

The practical application of enforcement according to this confusing flowchart means that a single piece of litter could be the responsibility of many different departments based solely on if it was located a few inches to the left or right.



# CONFUSION MEETS CONFUSION

Adding to the problem of these similar responsibilities being spread throughout City government, we've known that the current misleading 311 category names means most litter and illegal dumping requests are often routed incorrectly.



For example: If someone wants to report litter, they can easily find that in 311. However, once there, they may find that the reporting option is only for public property. They may never find out that for private property, it's labelled "Weeds/Debris."

Because of this, not only do requests routinely get initially sent to the wrong place and we spend an inordinate amount of time passing 311 requests back and forth between departments, but this also requires each and every individual person who comes into contact with the requests to have an encyclopedic knowledge of not only what their department is responsible for, but what every other department is responsible for.

This is likely the biggest reason we've been told by City Council members that trash related issues is the number one type of complaint calls they receive.

Dumpster	66%
Litter Can	55%
Dumping (Private)	50%
Illegal Dumping	46%
Weeds/Debris	44%
Dumpster (street)	44%
Litter	30%

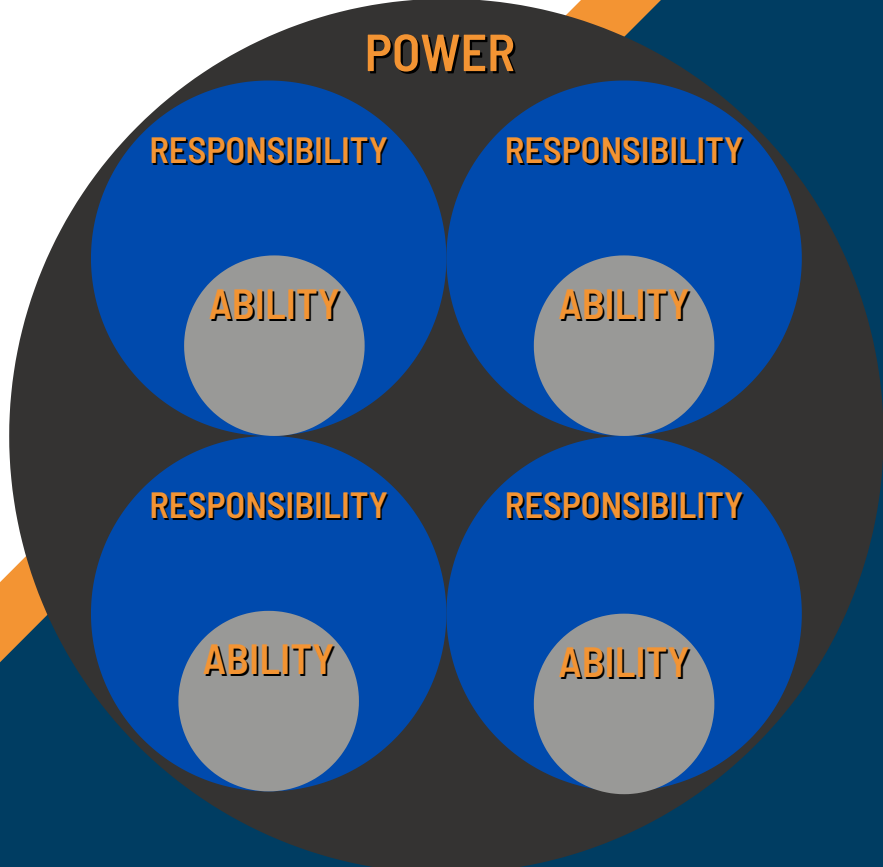
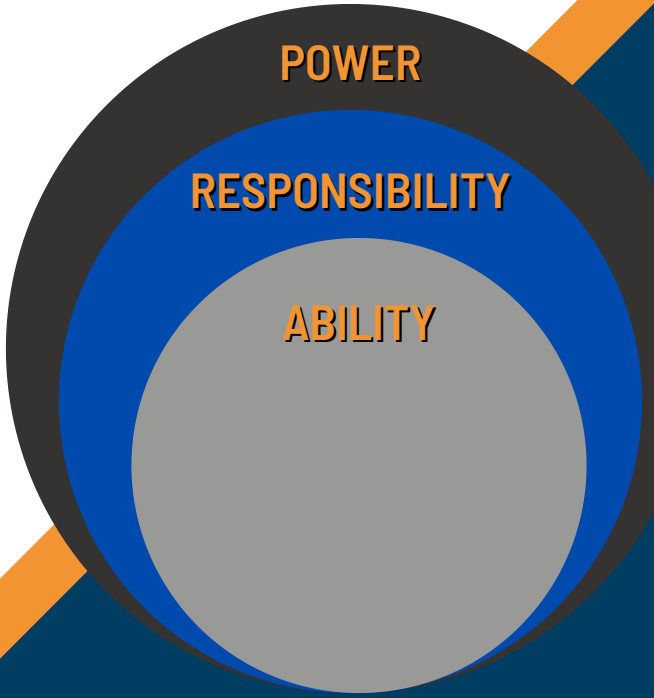
AVERAGE RATES OF REROUTES BY 311 CATEGORY

# SPECIALIZATION VS SEPARATION

It's important to understand that separating out tasks according to conditions is not the same thing as specialization.

What we can enforce according to the municipal code and what we end up enforcing ends up being very different things. This is a natural result of limited resources. But when enforcement is broken up between City departments based on a confusing maze of conditions, the gaps of what isn't taken care of widens considerably.

As we fragment the responsibilities between departments, counterintuitively we end up decreasing the amount of work able to be completed rather than increasing it.



WHEN  
LITTER  
ISN'T  
YOUR  
FIRST  
PRIORITY,  
IT OFTEN  
ENDS UP  
YOUR  
LAST  
PRIORITY

# NOT JUST ENFORCEMENT

This fracturing affects the way we clean up as well.

With the disbandment of a single litter collection crew, its responsibilities were split between the DPW Streets Divisions. Since each Streets division has dozens -if not hundreds- of other responsibilities, this dissolution of a focused crew meant litter instantly went from high priority to low priority.

It's widely believed that litter has greatly increased in the absence of of a dedicated crew, and since this work isn't high priority among the divisions, we don't have data to back up or dispute that assertion.

We have to reform a crew, with open standards, data-driven priorities, and accountability to make this task a priority again.

"And why doesn't the city clean up, we pay enough in taxes. Of all the cities I have visited this is the dirtiest."

"Pittsburgh is the filthiest city I've ever lived- even worse than Chicago."

"I have never seen so much garbage everywhere!"

"And the dumping on the hillsides and alleys. My God. How the hell is this city 'most livable?'"

"It's amazing when you travel to other cities and have the realization that, 'oh wow, this city is really clean' because the bar is set so low in your hometown."

\*REAL COMMENTS FROM SOCIAL MEDIA



# GOALS ON LITTER & DUMPING

Using the lessons learned from how specialization and consolidation of tasks brings innovation and focus, we propose creating a DPW Division that handles every aspect of our ongoing trash crisis: enforcement, abatement, and prevention. These branches would closely coordinate in solving each problem.

The abatement branch handling the Sensored Litter Cans, Clean and Liens, and general clean up duties. This would provide a larger pool for each task as needed, but never leave any task as low priority.

The enforcement branch of officers would pull the duties currently spread between DPW, PLI, ES, and DOMI and finally make these tasks a high priority.

And an administration branch handling prevention, outreach, data analysis and grant writing will be handled by specialists working closely with the entire division.

## ENVIRONMENTAL OPERATIONS & COMPLIANCE DIVISION





# CONCENTRATION MEETS CONCENTRATION

The consolidation of these responsibilities solves several problems at once. With abatement and enforcement working jointly out of the same division, this eliminates the need to continuously reroute 311 requests between departments. We no longer need to navigate the series of "if, then" questions to figure out who's responsible, but rather ask a single question:

**"Is it trash on the ground?"**

This streamlining means that the public will not need to submit the 311 correctly the first time -which they currently rarely do. It will also mean that other departments and divisions will not require an encyclopedic knowledge of responsibilities, instead only referring to that single question to know who to send it to:

**"Is it trash on the ground?"**

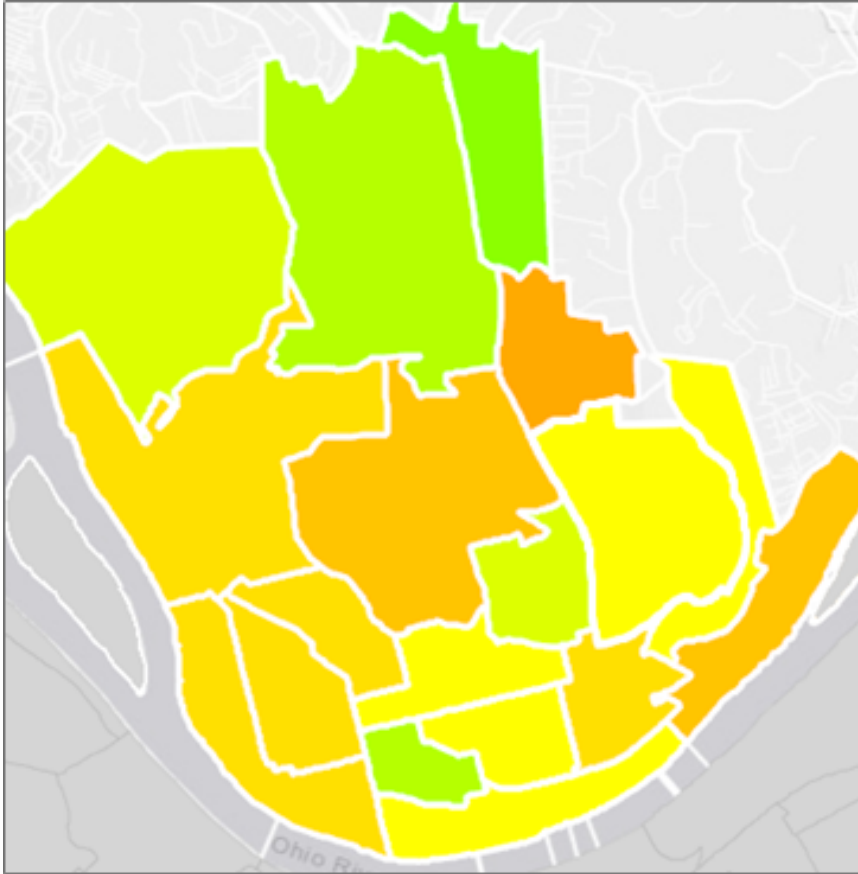


This concentration of personnel is also a concentration of expertise, providing an environment and foundation necessary to promote collaboration on other needed long term plans and projects that have previously been seen as "too big" or "too difficult" to pursue. These include but are not limited to:

- "Quality of Life" ticketing
- Curbside pickup of e-waste and tires
- Yearly Litter Indexing
- Zero Waste and Carbon Neutral plans
- Municipal code changes
- Vacant Lot Strategies
- Process for incorporating public input

# ENVIRONMENTAL JUSTICE AND EQUITY

Developing standardized practices for determining work leads to equitable outcomes. Using the objective, quantifiable data of the Litter Index, the division will prioritize work needed in the most littered areas over those that need less help keeping clean.



There can be dozens of overlapping causes of why some areas are more littered than others. Some are outside of our control, and others we can work to change.

While we are grappling with past mistakes of how the City once unfairly prioritized clean up work based on political and personal connections, we cannot make the mistake that treating all new service request equally leads to equitable outcomes. And since the requests for litter and dumping largely outweighs the amount able to be completed, prioritizing work has to happen.

Our QAlert service request system is a great service for interacting with the public, but it is a poor tool to analyze data and determine need. When we look at a heat map of 311 requests for litter, we aren't necessarily looking at a map of need, but a map of where people are who choose to use 311. Many places with the greatest need may not bother calling 311 because they haven't found success using that system before.

We now have a Litter Index, which will be a yearly surveying of every street in Pittsburgh giving each street segment a 1 through 4 rating of how littered it is. This provides us a quantifiable, objective metric to know ourselves what areas need the most attention.

By weighing requests according to the Litter Index scores, and by doing work in places we know need the most attention without having to be requested through 311, we are practicing environmental justice in a way that the Department of Public Works has never been able to pursue before.



If we want Pittsburghers to be cleaner people, we have to give them a clean City to live in FIRST.

Behavioral modification psychology has studied the reasons why people litter and how to change that behavior. These studies show that messaging that tells people not to litter is largely ineffective, if not sometimes counterproductive which may end up increasing littering!

So if messaging doesn't work, what does?

## ENVIRONMENT SHAPES BEHAVIOR



The number one prompt that leads people to litter is seeing litter on the ground already. This doesn't mean that cleaning a street of litter once ensures that the street will never be littered again, but rather that by keeping streets as clean as possible over a period of years, we are able to set a standard of behavior that the public will eventually adapt to as the norm.

Pittsburgh is desperate for a change, but we cannot expect the public to do this on their own. We cannot tell people to change their minds and their behavior, but we can alter their environment that shapes their attitudes.

When we understand that abatement and enforcement IS prevention, we are able to strategize and plan according to the best data available.

Using these tools, we are able to move away from **REACTIVE** work and be **PROACTIVE** in setting the standard for Pittsburgh to live up to.



# THE CITY OF PITTSBURGH

## City Wide Litter and Illegal Dumping Master Plan

Through this master planning process, we will set a comprehensive vision for the future of Pittsburgh's problems with trash

+ Follow



[Home](#) / [City-Wide Litter Master Plan](#)

The Sensored Can Crew is projected to save the City of Pittsburgh \$1.5 million a year. We should be using that savings to invest in expanding the same data driven and focused strategies to all the garbage that doesn't make its way into cans.

Engage PGH allows us to open this plan up to the public, and I believe that it would be met with a huge amount of support. We can explain how our new tools such as the Litter index would guide how we determine where crews clean, and we can ensure the past mistakes of the Redd Up Crew are not repeated.

We can make a contract with our residents. We have the opportunity to say, "We are trying harder, Pittsburgh. And we want you to as well."

