



Building a Successful Illegal Dumping Program

From Cleanup to Behavior Change
A practical, step-by-step framework
communities can adapt

**MCMUA Clean Communities Annual Fall
Meeting**

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What Cities Are Experiencing

Repeat dumping at the remote hot-spots

Offenders adapt faster than deployments

Predictable gaps exploited in low-visibility areas

Staff time stretched thin

Inconsistent evidence quality

Results that are difficult to measure

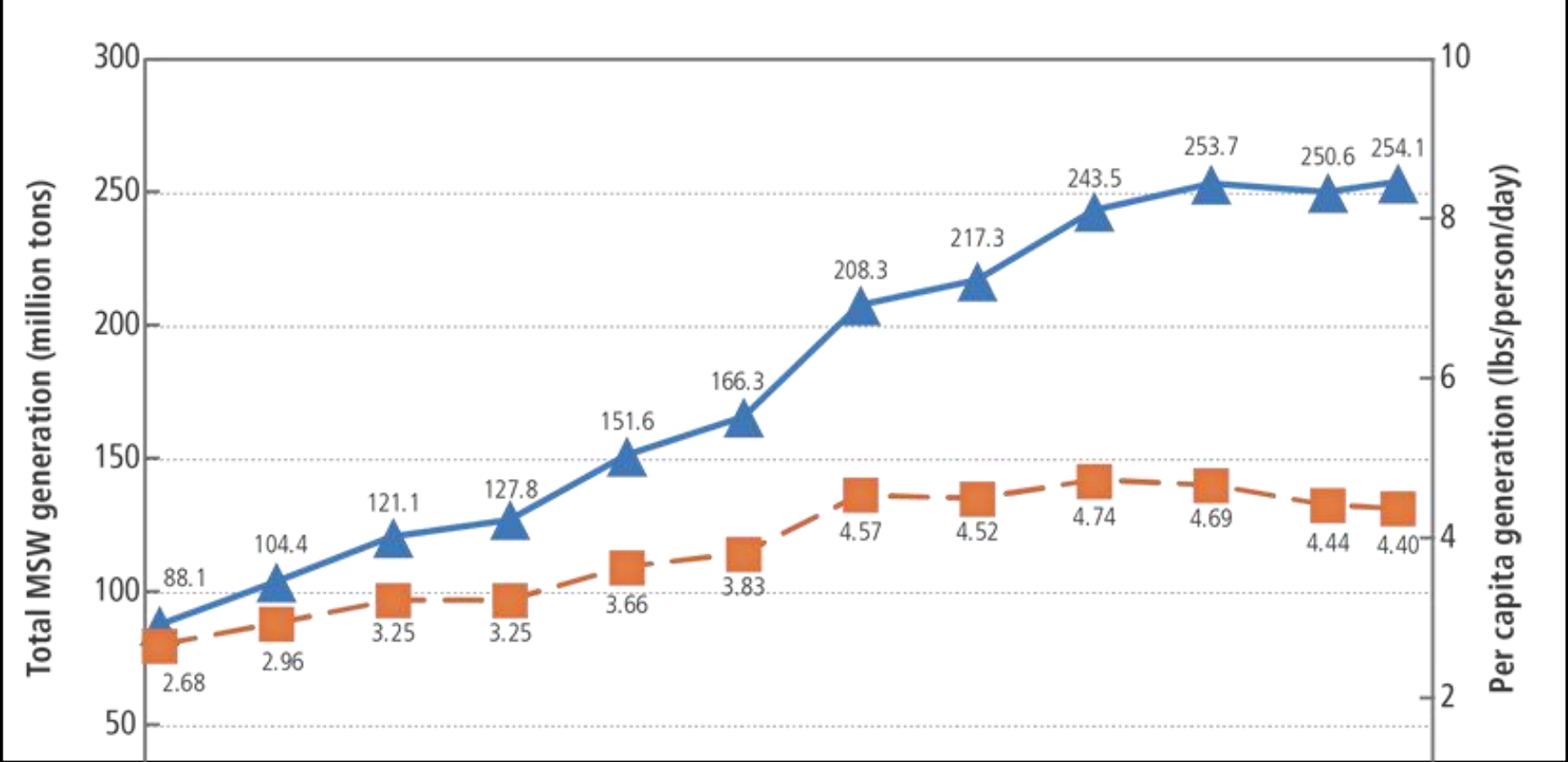
Why Illegal Dumping Keeps Coming Back

The Reactive Dumping Cycle



*Cleanup resets appearance. Enforcement consumes resources.
Behavior never structurally changes.*

The Hidden Cost of Illegal Dumping



Repeat cleanup at the same locations



Staff time reviewing unusable footage



Contractor and disposal costs



Equipment usage and labor hours



Limited prosecution due to evidence quality

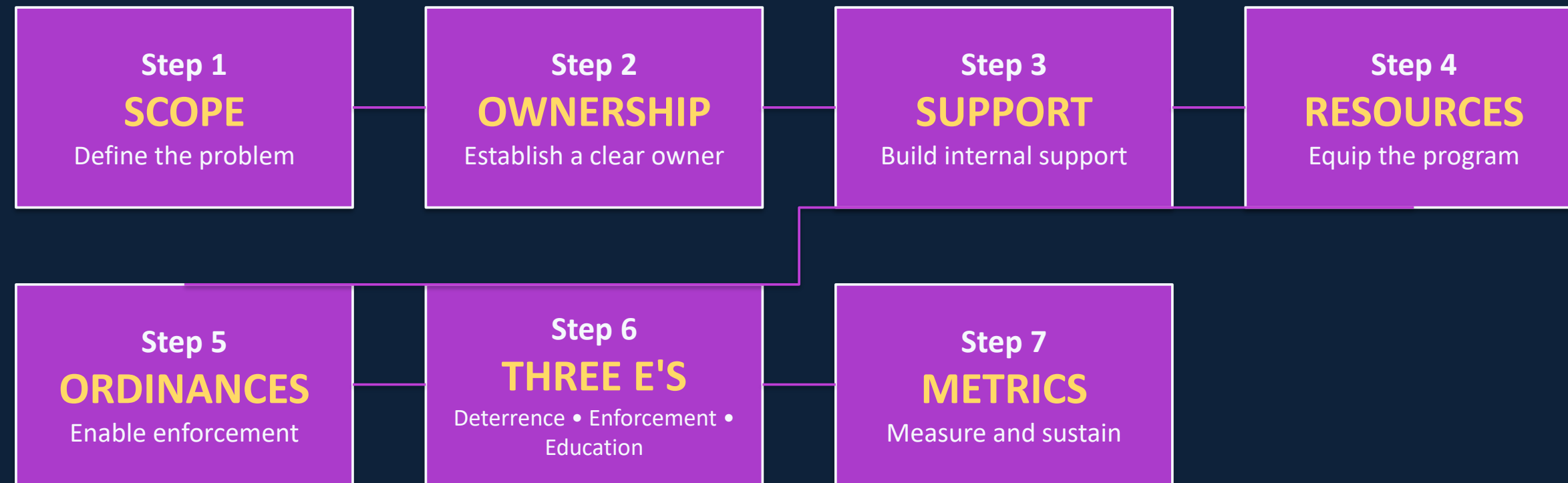
The Goal Is to Change Behavior

Cleanup responds to
dumping

Proactive
Prevention interrupts
behavior cycle

Programs change
outcomes long term

A Step-by-Step Framework for Lasting Results



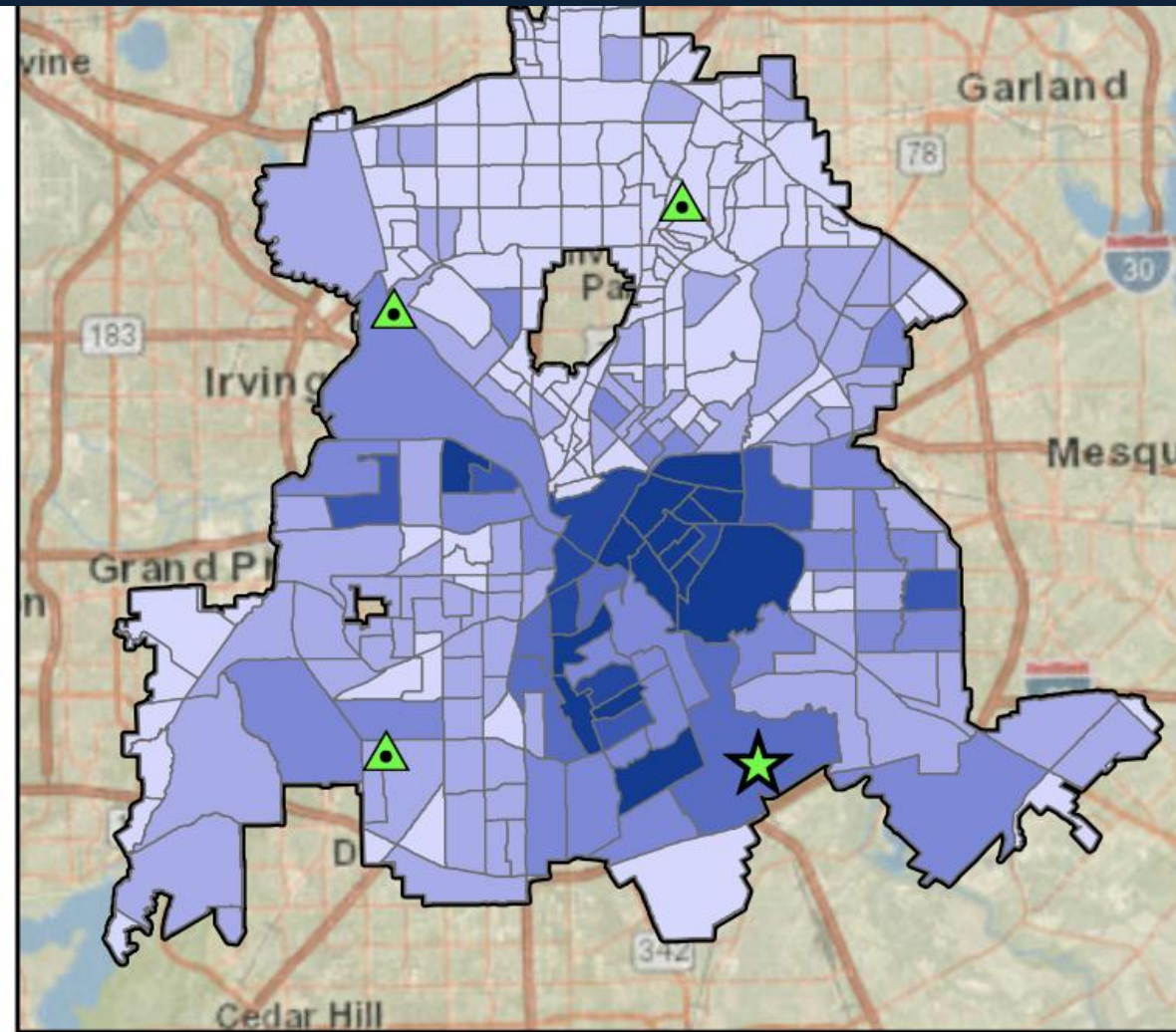
The new operating model: build the program first, then choose the tools that support it.

Start focused, then expand.

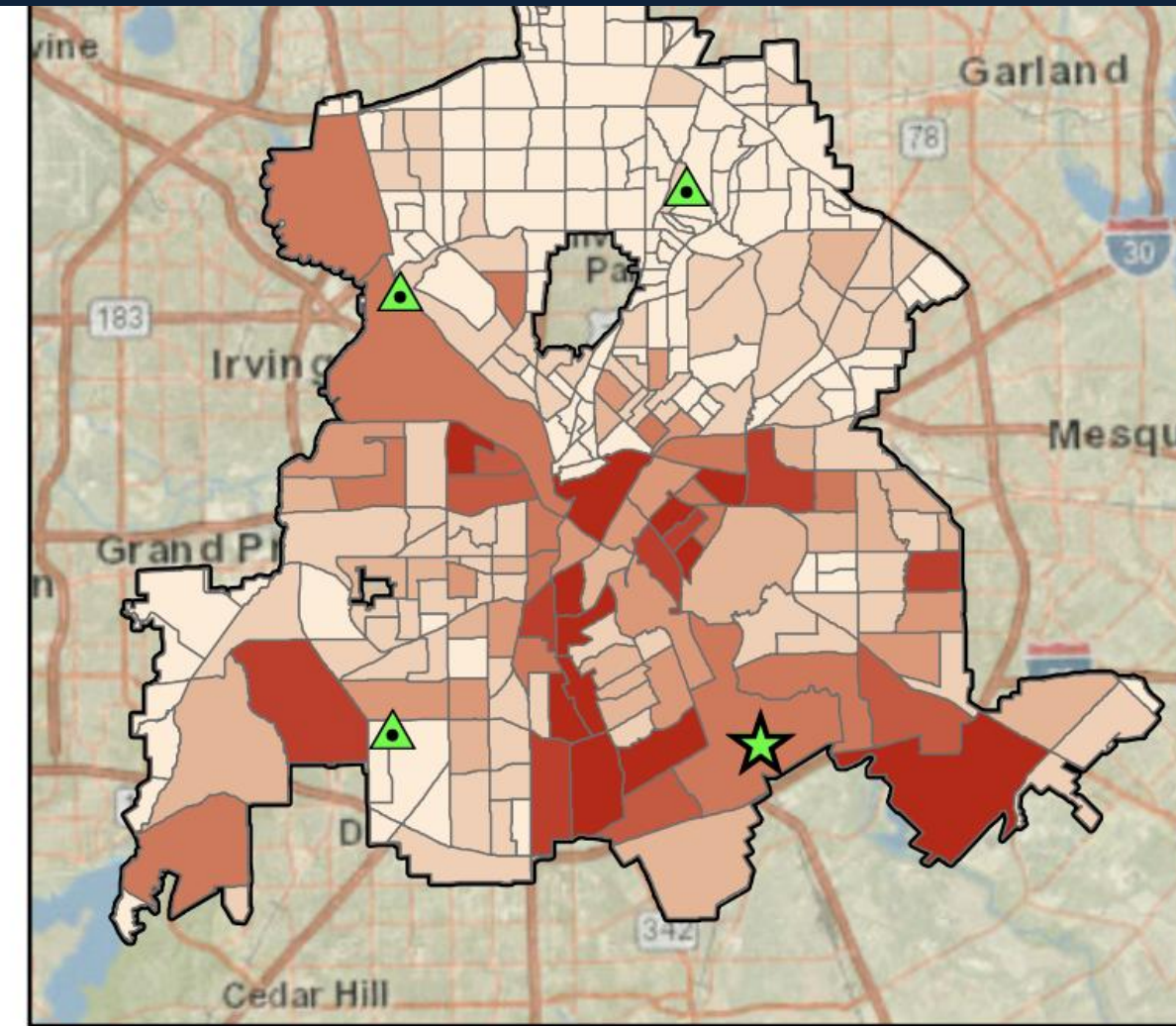
The Three E's of an Effective Illegal Dumping Program (Proactive vs Reactive)

Education	Eradication / Elimination	Enforcement
PROACTIVE ✓ Community outreach and education ✓ Public relations reinforcing consequences ✓ Youth and civic engagement ✓ Setting expectations before dumping occurs	PROACTIVE ✓ Disrupting dumping cycles through sudden accountability ✓ Adaptive deterrence as dumping locations change ✓ Beautification efforts ✓ Micro-cleaning ✓ Regular cleanup checks ✓ Site changes to discourage repeat dumping	PROACTIVE ✓ Legislative and ordinance support ✓ Higher fines and escalation frameworks ✓ Civil enforcement pathways ✓ Court-ready evidence standards established in advance
REACTIVE ✓ Targeted outreach: right-size waste bins ✓ Engage residents and businesses near dumping hotspots	REACTIVE ✓ Remove illegal dumping ✓ Abate graffiti ✓ Tow abandoned vehicles ✓ Warning letters ✓ Community intervention	REACTIVE ✓ Investigate all illegal dumping leads ✓ Prioritize leads appropriately ✓ Charge cases when warranted ✓ Real-time cameras without suspect identification and portability

Proactive actions change behavior. Reactive actions alone repeat the cycle.



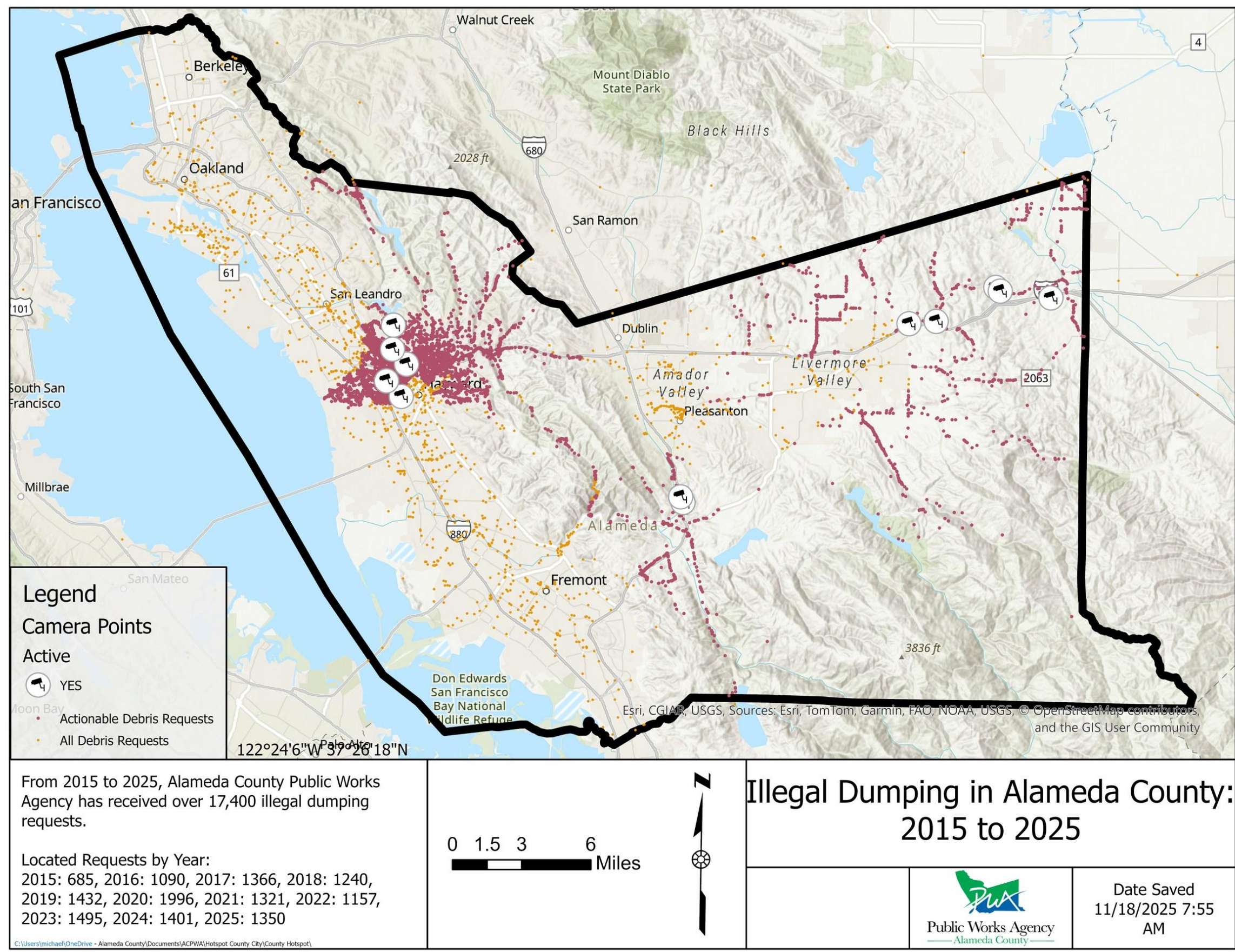
Litter - All observations



Illegal Dumping - All observations

Step 1: Define the **Scope** of the Problem

- Identify illegal dumping hotspots
- Separate dumping from routine waste costs
- Track tonnage, labor hours, and incidents
- Use GIS, 311, and service request data
- Visually document problem areas





Step 2: Establish Program Ownership

- Assign a single point of ownership
- Clear responsibility for outcomes
- Cross-department coordination



Step 3: **Support** the Program Owner

- **Public Works:** cleanup data, site access
- **Police / Code:** enforcement authority
- **City Council/Administration:** policy and budget support
- **Environmental / Sustainability:** education and outreach
- Judicial and prosecutorial awareness
- Shared understanding of costs and impacts



Step 4: **Resources & Technology** That Enable Proactive Action

- Deterrence tools that create a visible consequence
- Portable equipment that can move with hotspots
- Clear, high-resolution evidence for plates and faces
- Field access without fixed power or network infrastructure
- Staff time allocated intentionally



What an Effective Illegal Dumping Camera Program Requires



Clear faces and plate identification day and night 300 ft+



No reliance on power or networking



Credible proactive deterrence that disrupts the pattern



Portable and quick to redeploy

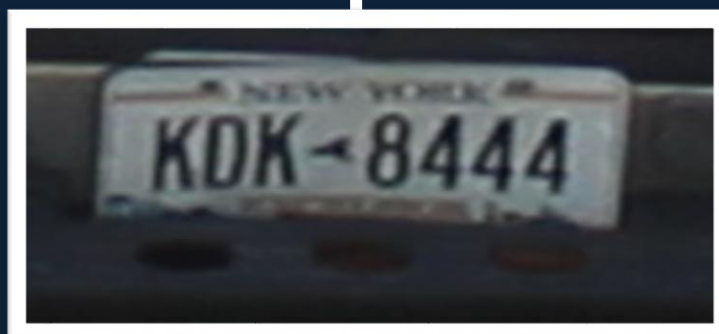


Evidence that supports increased prosecutions



Simple workflow for staff

Resolution and the Ability to Identify Tags and Suspects

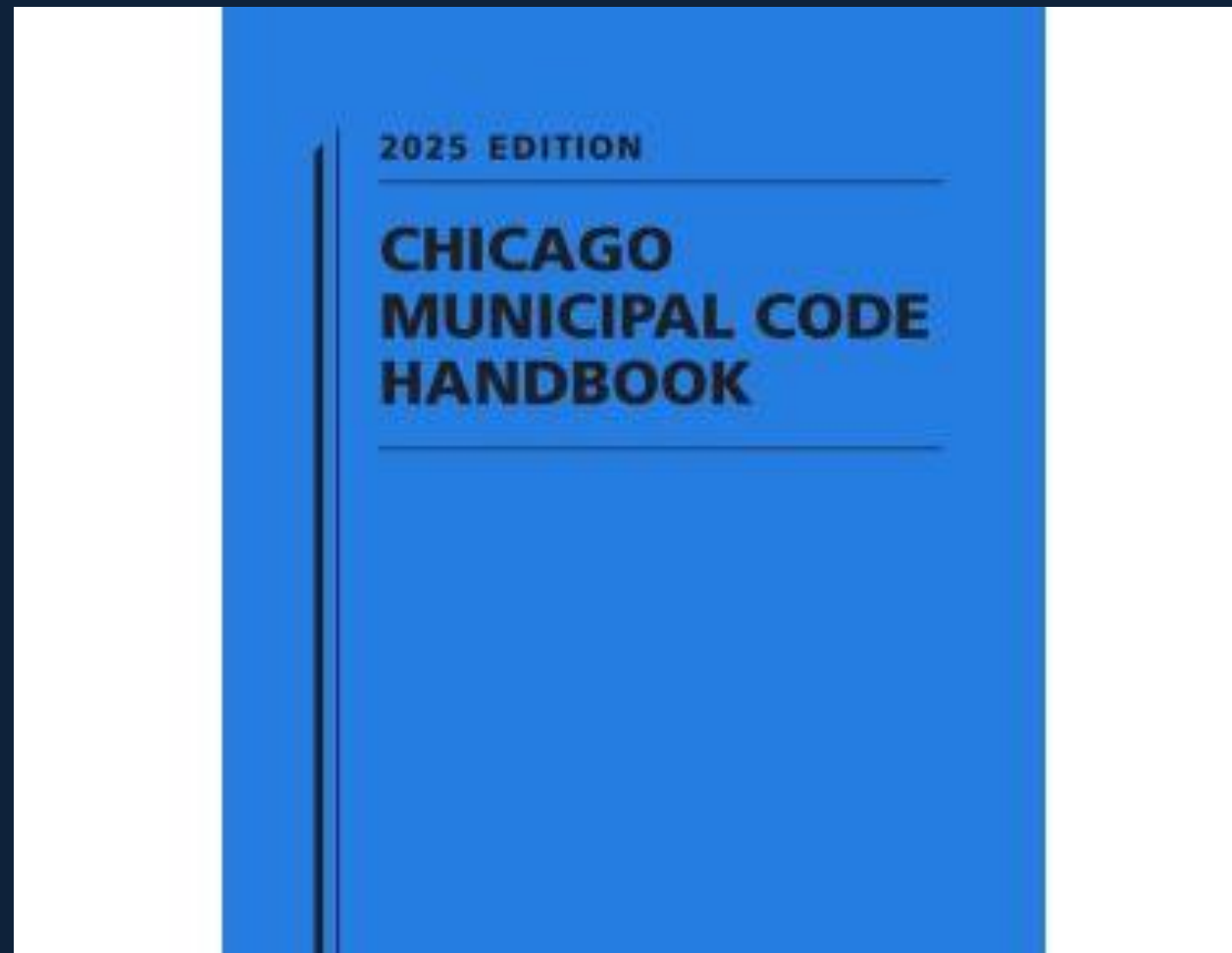


Closing the Coverage Gaps

- Purpose-built for credible proactive deterrence
- *Solar-powered and portable*
- No Costly Installations
- No External Power
- No Networking



- *High-resolution evidence when needed*
- Used as part of a broader program
- *Ruggedized and Vandal Resistant*



Step 5: **Ordinances** That Enable the Program

- Clear definitions of illegal dumping
- Tire dumping, C&D, commercial vs. residential
- Escalation paths for repeat offenders
- Higher penalties for tires / hazardous materials where allowed
- Civil penalties before criminal escalation
- Evidence standards aligned with enforcement
- Coordination with state enforcement tools

New Jersey Enforcement: What the Law Actually Provides

Littering and illegal dumping are not the same offense. New Jersey uses different statutes and penalty schedules.

13:1E-99.3 LITTERING	\$100–\$500 Ordinary littering is a petty disorderly persons offense. A repeat conviction within 6 months can be \$250–\$1,000, with possible jail/community service.
13:1E-9.3 / 9.4 ILLEGAL DISPOSAL	\$5K / \$10K / \$20K For solid waste over the statutory threshold dumped or transported to an unauthorized place: first offense at least \$5,000; second up to \$10,000; third+ up to \$20,000. Each day can count separately.
13:1E-9.4(d),(f) OTHER CONSEQUENCES	Forfeiture + cleanup liability A vehicle/conveyance used in the unlawful transport or disposal is subject to State forfeiture. A convicted dumper may also owe treble property damages and treble cleanup costs.
13:1E-9(e),(f) BROADER SWMA ENFORCEMENT	Up to \$50,000 The \$50,000 figure comes from broader Solid Waste Management Act civil/administrative enforcement—not the basic illegal-dumping fine schedule above. NJDEP also publicizes fines up to \$50,000 under its statewide initiative.
LOCAL ROLE N.J.S.A. 13:1E-9.3(d) expressly allows enforcement by NJDEP and the relevant municipality, local board of health, or county health department.	

Sources: N.J.S.A. 13:1E-99.3; 13:1E-9; 13:1E-9.3; 13:1E-9.4 • NJDEP Stop Illegal Dumping – Enforcement (updated Feb. 19, 2026)



DATE POSTED _____

This notice informs the owner and any other interested parties of the premises at:

that this lot has been declared a public nuisance in violation of Chp. 26, Article VI, of the Durham City code regulating removal of trash, debris and undergrowth from front, sides, and/or back property. Pursuant to section 26-184(a)(2) of the Durham City code the lot must be cleared of all violations within ten (10) days from the date of this posting. If the nuisance is not removed within ten (10) days, the city shall correct the conditions and charge all expenses incurred to the property owner. This cost shall constitute a lien against the property.

Violations found:

___ Grass/weeds/vegetation over 10" (front, sides and/or backyard)

___ Accumulation of debris (front, sides and/or backyard)

___ Indoor furniture outside or on porch

___ Growth over street or sidewalk and/or right of way

___ Appliances or electrical devices exposed to the elements

Comments: _____

919-560-1647

CODE ENFORCEMENT OFFICER _____

Step 6A:

Deterrence and Enforcement That Works

- Accountability without constant monitoring
- Court-ready evidence system
- Predictable escalation and consistent follow-through
- Civil first, criminal last
- Streamlined case resolution
- Reduced court burden
- Reduced repeat dumping

Proactive Deterrence that STOPS negative behavior at hotspots!



SHOT 1
Metal Theft in Progress



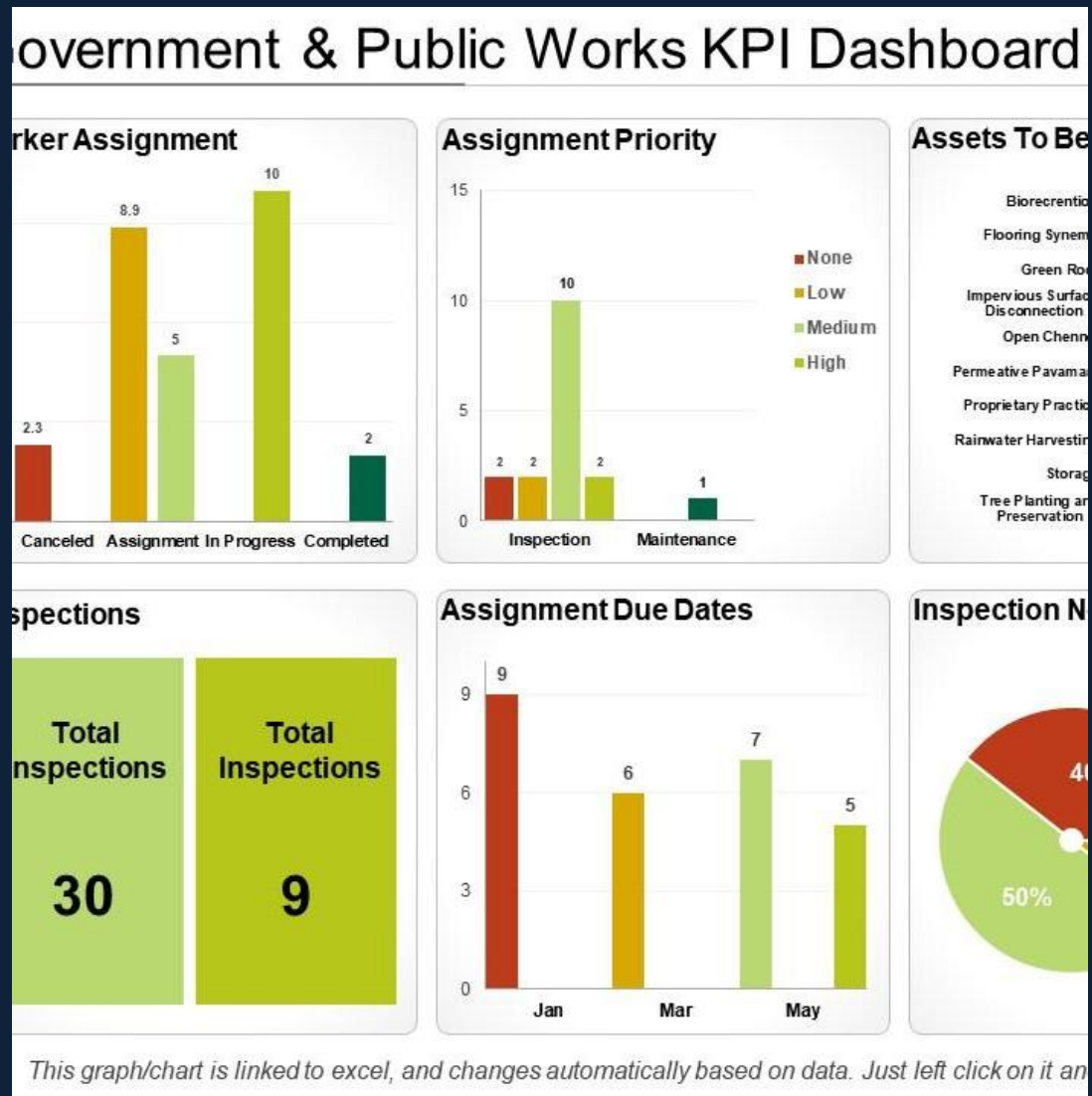
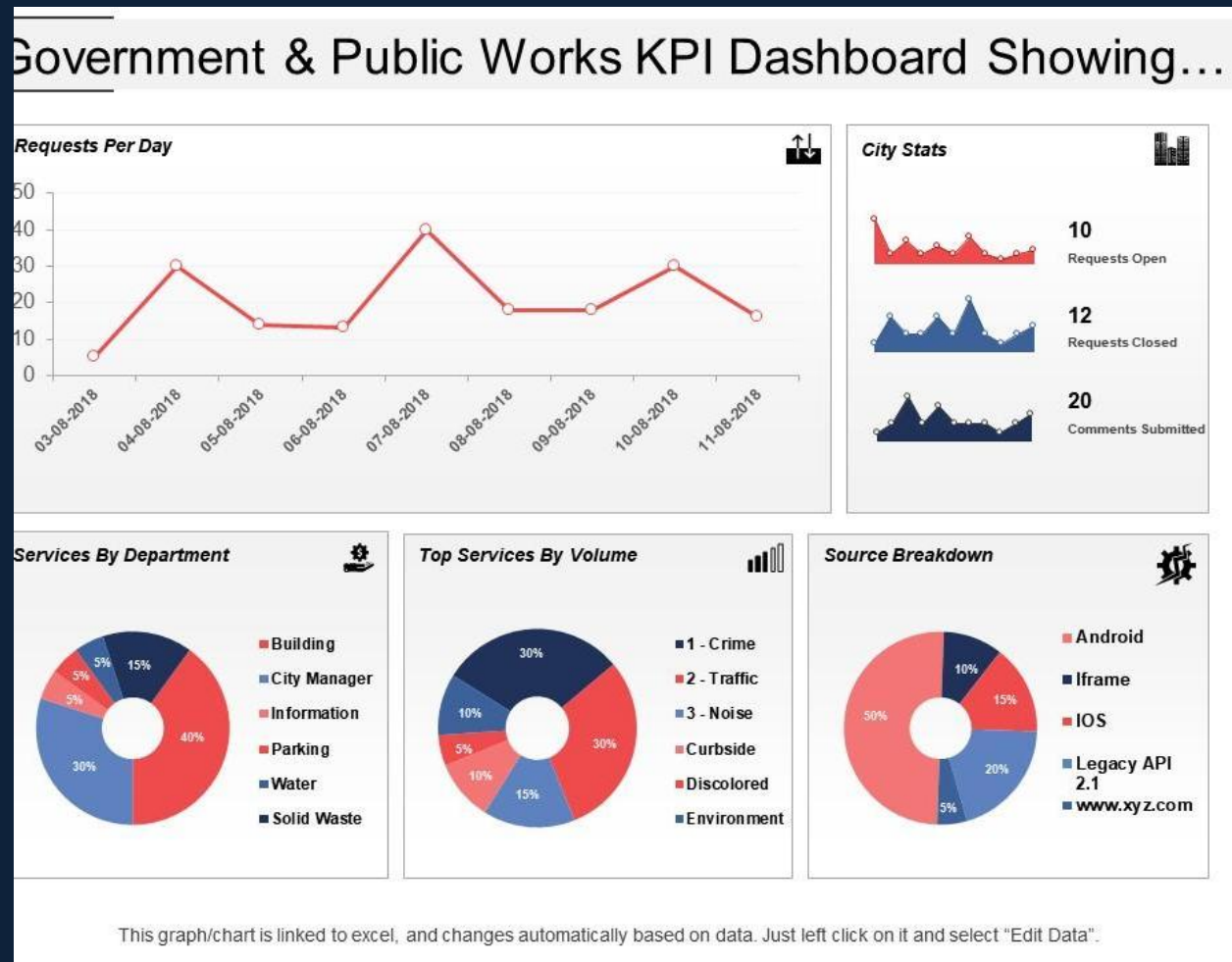
SHOT 2
Action STOPPED



Step 6B: **Education** Reduces Repeat Dumping



- Targeted outreach to businesses and residents
- Clear expectations around proper disposal
- Public messaging that reinforces consequences
- Community and youth engagement



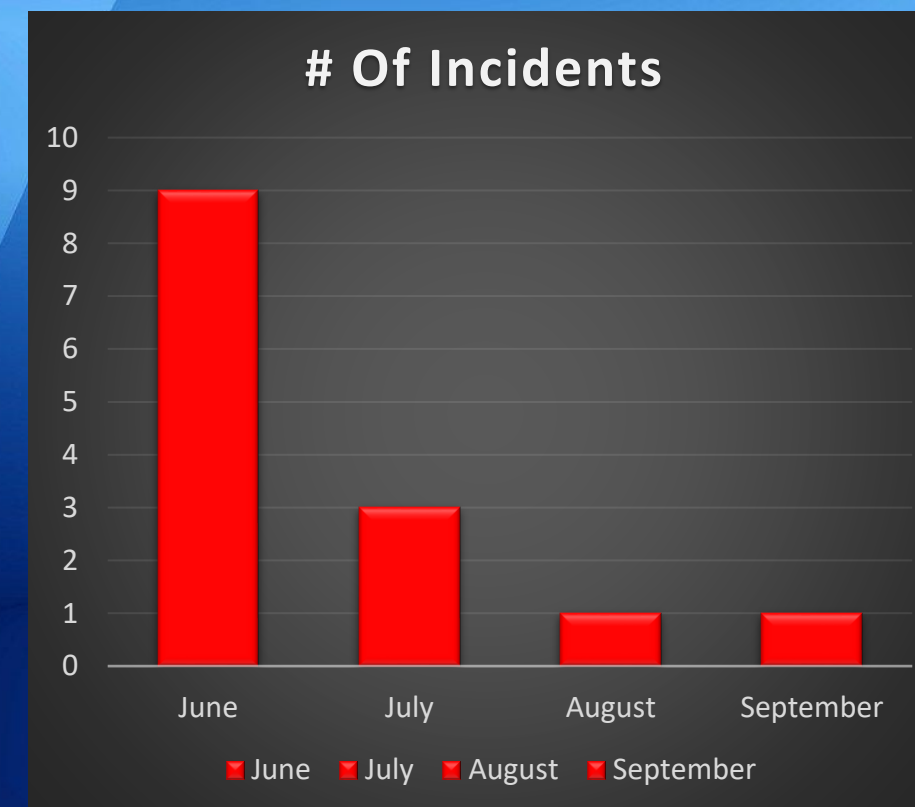
Step 7: Metrics That Sustain the Program

- Fewer repeat incidents
- Reduced cleanup costs
- Staff time recovered
- Enforcement outcomes
- Improved resident satisfaction

Illegal Dumping – Key Metrics & Impact

Reducing Dumping Through Targeted Deployment

- *Far Less Tonnage of Cleanup per Month*
- *Fewer Incident Reports per Month*
- *Less Clean-up Manhours*
- *Less Contract Clean-up Costs*
- *Less Equipment/Vehicle usage*

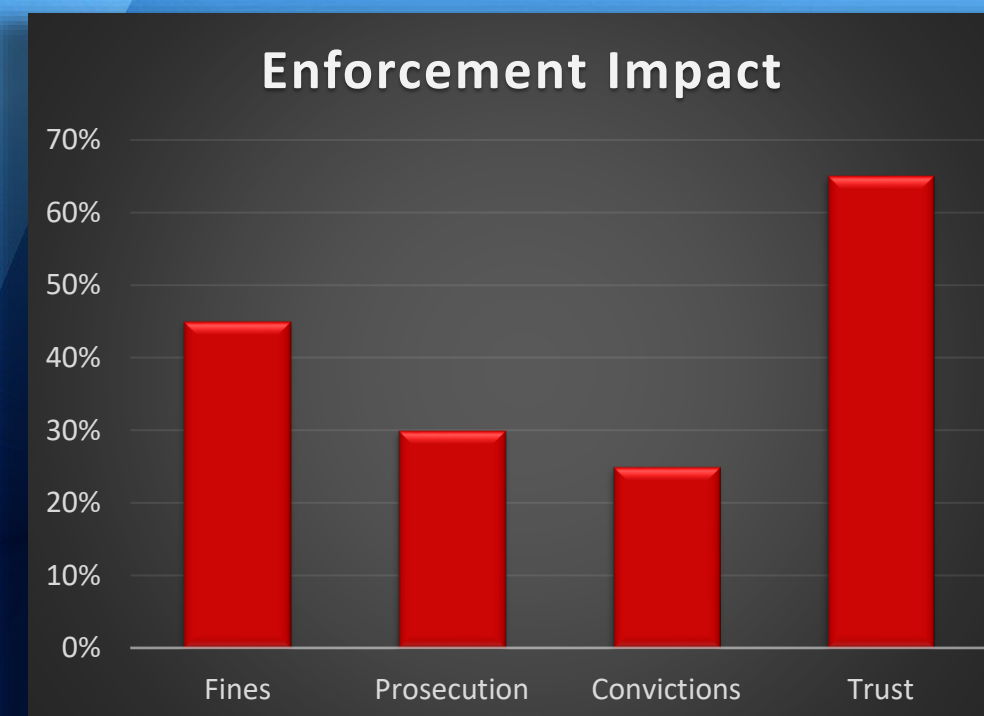


Enforcement– Key Metrics & Impact

- Fines Collected: ↑ 45%
- Prosecution Rate: ↑ 30%
- Convictions: ↑ 25%
- Community Trust ↑ 65%



Evidence supports successful prosecutions and stronger deterrence.



Baseline and After-Deployment Reporting

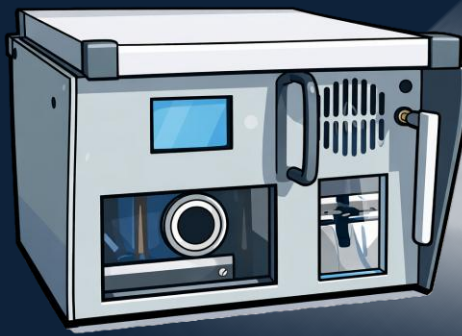
Before deployment, Program Team will tabulate baseline numbers at the selected sites.

Baseline numbers may include:

- Dumping incidents
- 311 complaints
- Cleanup frequency
- Crew time
- Estimated cleanup cost
- Nearby dumping activity

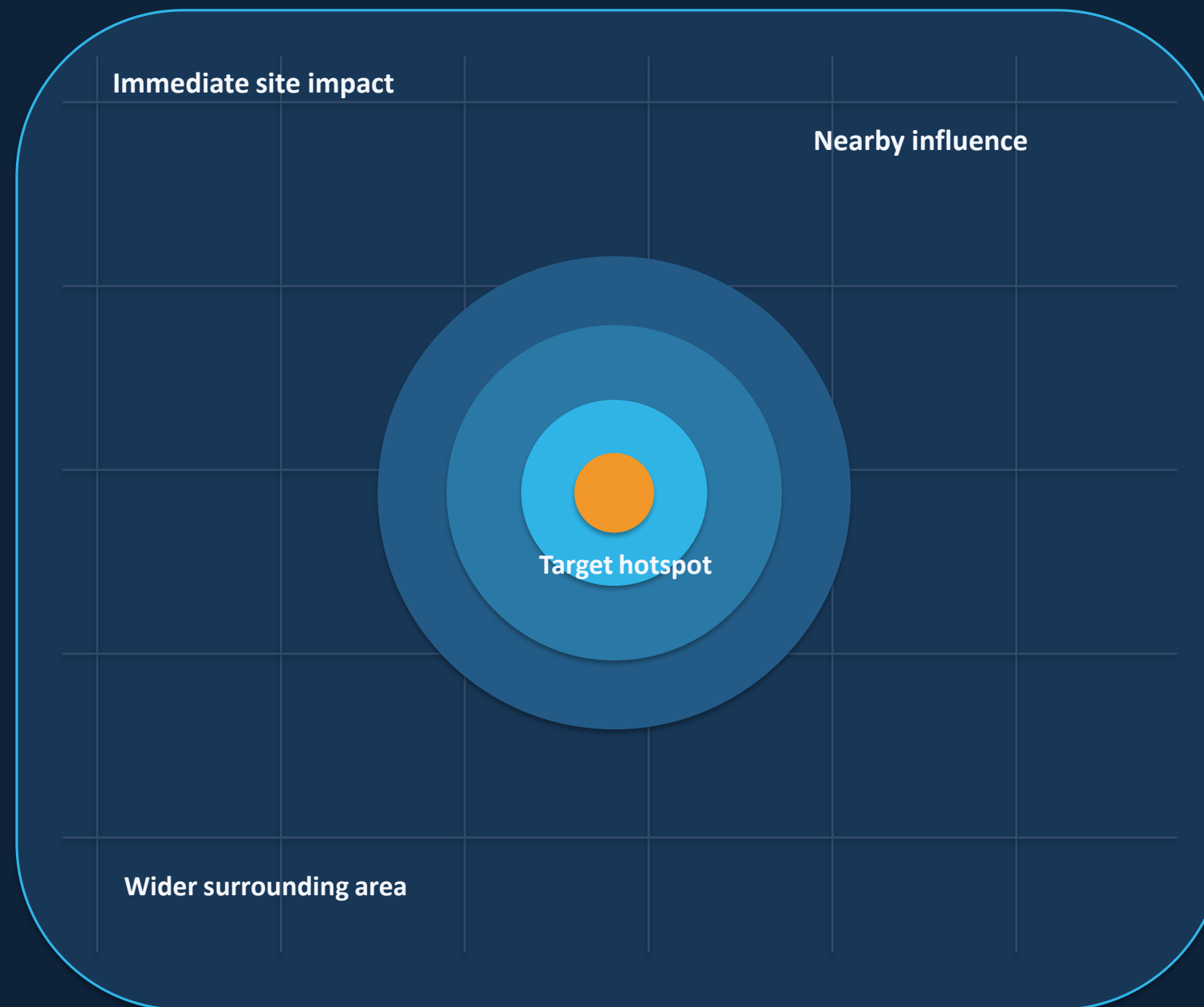
Before Program	After...
Dumping incidents: 50	Dumping incidents: 10
Cleanup visits: 45	Cleanup visits: 10
311 complaints: 65	311 complaints: 20
Crew time: 150 hours	Crew time: 40 hours

Illegal dumping incidents in Seattle before installing our technology vs. after:

Dumping hotspots:	Site # 1:	Site # 2:	Site # 3:	Site # 4:
Dumping incidents before QStar:	51	139	63	17
 Incidents after QStar:	0	1	0	0

Proximity Deterrence Effect

When a hotspot becomes risky and inconvenient, behavior can shift beyond the exact deployment point.



CORE IDEA

The deterrent effect is strongest at the hotspot, but can influence surrounding blocks or nearby dumping choices.

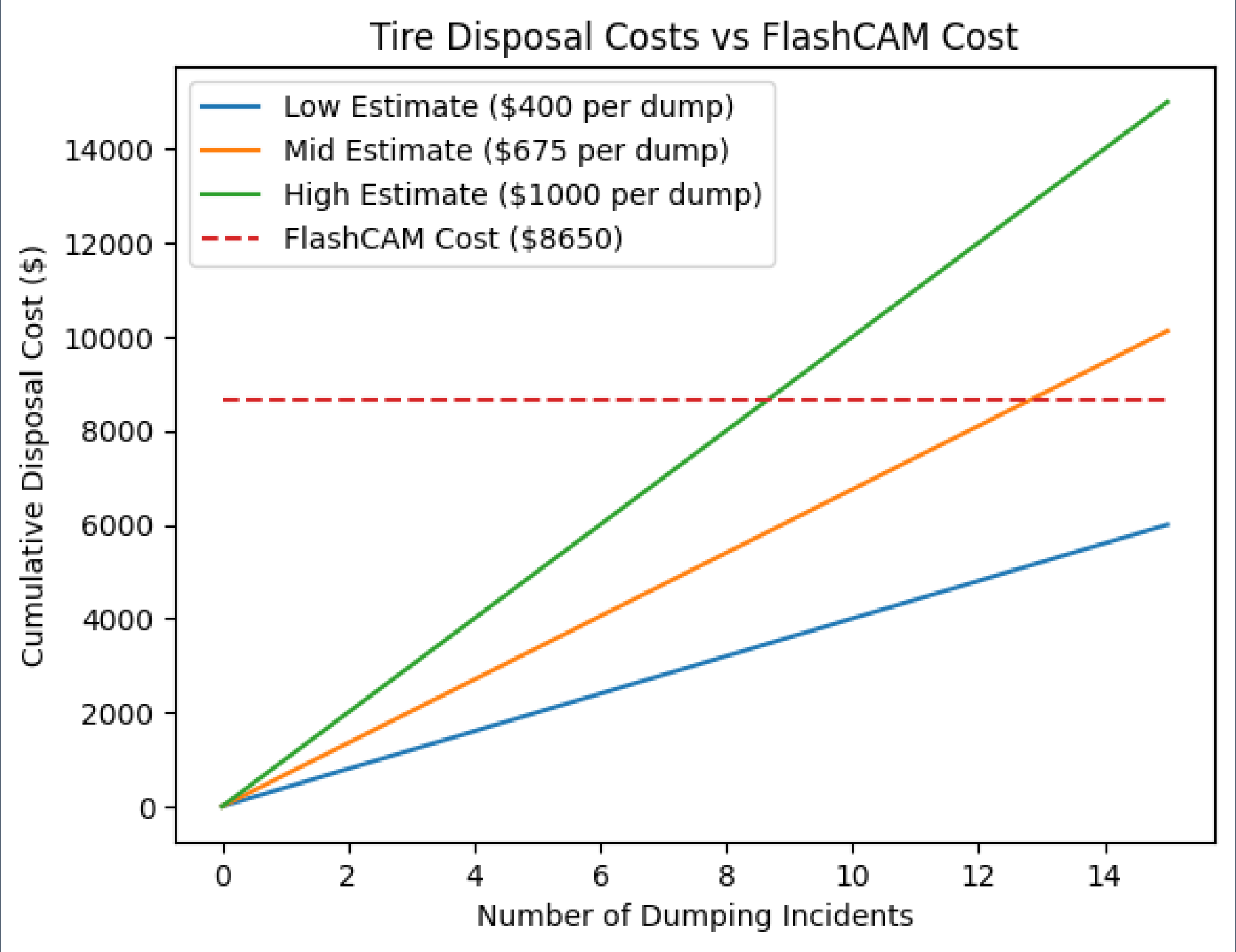
SEATTLE OBSERVATION

Seattle reported reductions not only at targeted sites, but also in surrounding areas near deployments.

HOW TO SHOW IT

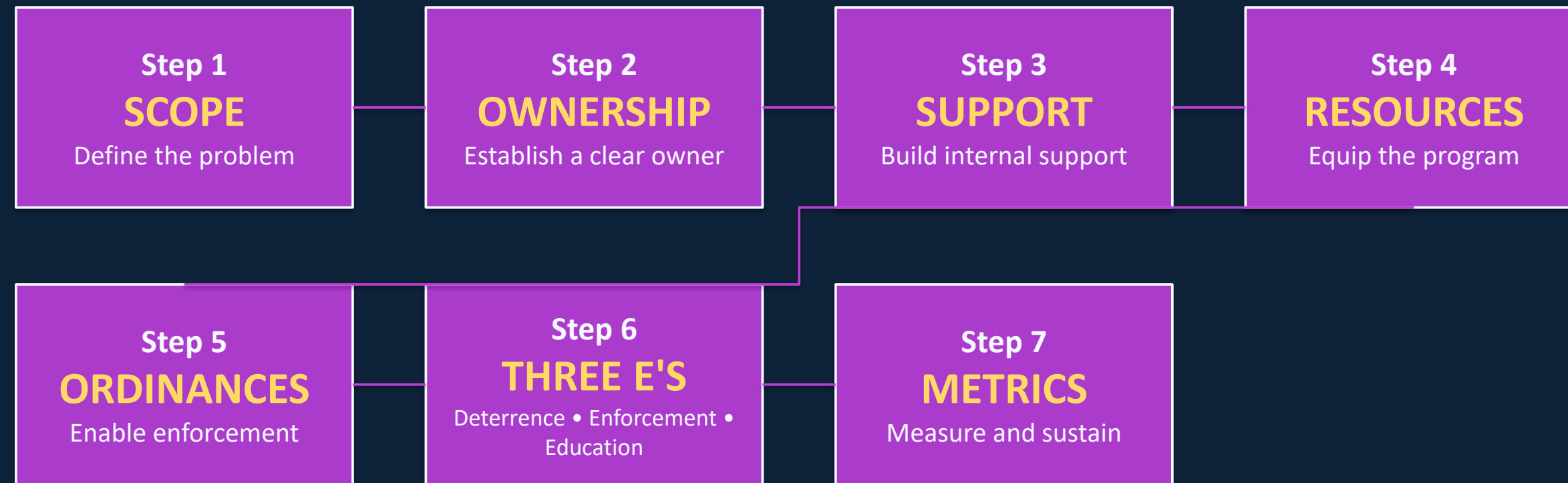
Track incidents at the hotspot and compare with nearby complaints, 311 calls or cleanup activity.

Cost Comparison: Tire Disposal vs Deterrence Investment



Break-Even Insight: At higher dumping volumes (~80 tires per incident), cleanup costs can exceed the price of a single hot-spot in roughly 9 dumping events.

A Step-by-Step Framework for Lasting Results



Start focused, then expand.

The new operating model: build the program first, then choose the tools that support it.



Contact Information

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