OAKLAND CITY COUNCIL · MARCH 2026

Aerial Detection of Illegal Dumping

Privacy-first camera technology that
finds, measures, and reports abandoned waste
so Oakland can clean smarter, faster, and more equitably.

Aerbits Inc. · Brian Johnson, President & Founder

Oakland spends $24M+ per year on illegal dumping

🚫 **Complaint-driven systems are inequitable.** Wealthier neighborhoods file more reports — underserved communities get less service despite worse conditions.

🔍 **You can't manage what you can't see.** Without proactive data, DPW deploys blind — wrong truck, wrong crew size, wrong location priority.

🔄 **Dumping recurs in the same spots.** Without ongoing monitoring, cleaned sites are re-dumped within days.

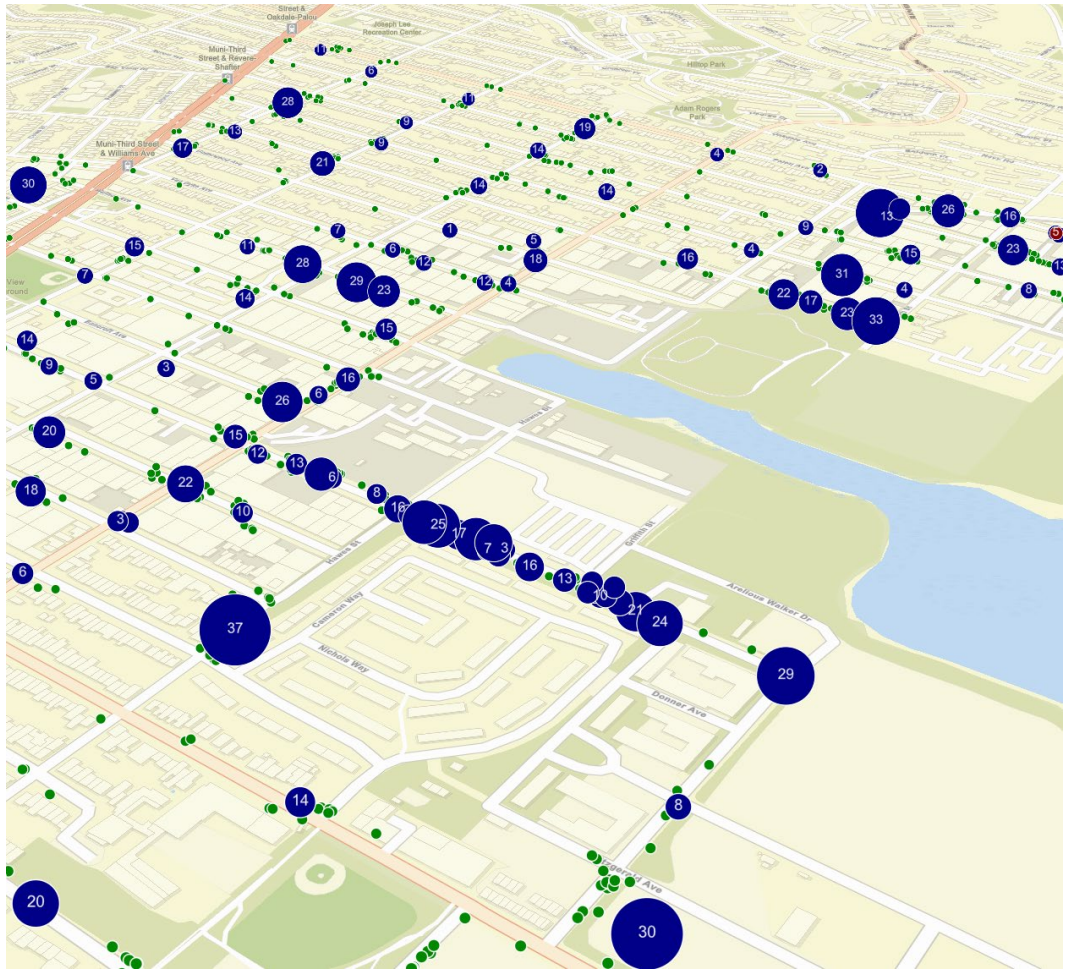
How it works: Camera → AI → Data → Action

⚡ **One pilot covers 1 sq mi in 30 minutes** on a single battery (Skydio X10D)

📊 **AI detects waste at 98-100% confidence** - finds dumps hidden behind vehicles, in remote locations

📝 **Auto-classifies waste type** - mattress, furniture, construction debris, loose bags, appliances

🗺️ **GPS-precise location** - mapped, clustered, deduplicated for efficient routing



Built privacy-first from day one

🚫
No Facial Recognition

🚙
No License Plate Reading

🏠
Private Property Redacted

🔒
Private Infrastructure

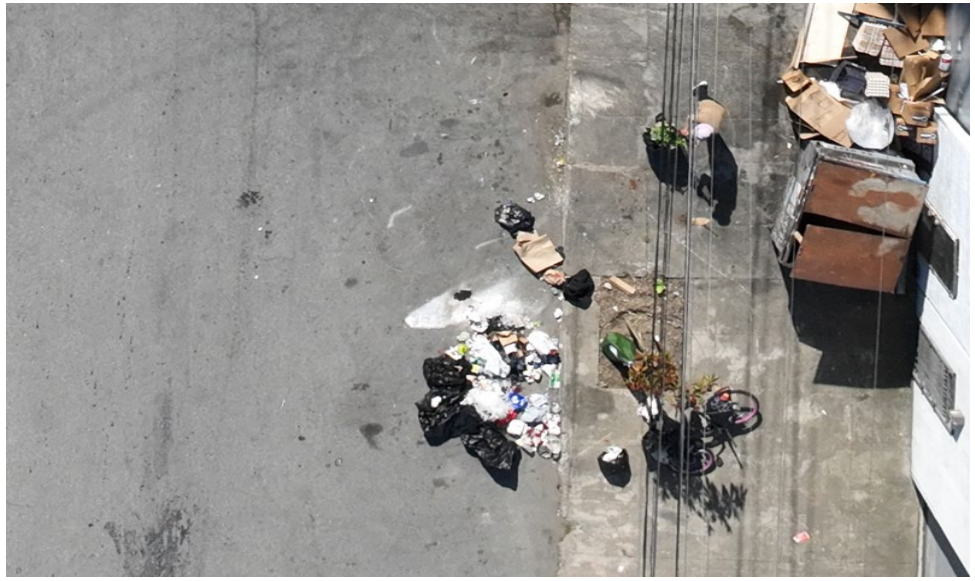
🗑️
Short Retention Periods

👁️
Restricted Live Access

Privacy redaction in action

Every image is automatically processed — vehicles masked, personal information if any removed, private property removed, waste detected and classified.

redacted streets and sidewalks.



no personal identity in photos.

Proven in Bayview:

118 → 3 dump sites in 26 days

✅ **Consistent reporting = cleaner streets.** Daily reporting drove 97% reduction in under a month.

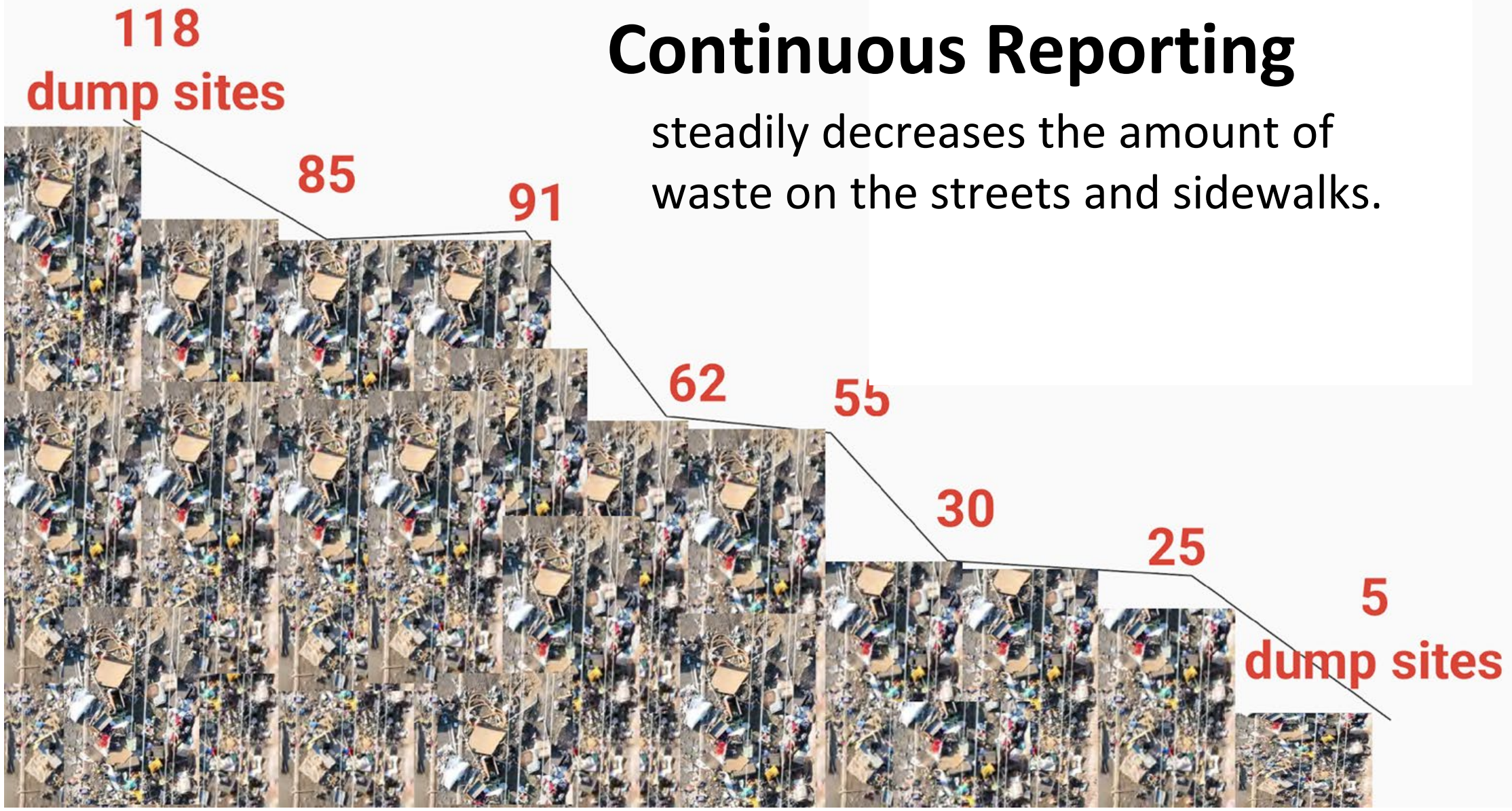
✅ **One person, one drone, one app.** The entire case study was run by a single pilot.

✅ **AI finds what eyes miss.** Remote locations, hidden waste, small debris - all detected at 98%+ confidence.

✅ **Data enables accountability.** Before/after verification proves cleanup and catches re-dumping.

Continuous Reporting

steadily decreases the amount of waste on the streets and sidewalks.



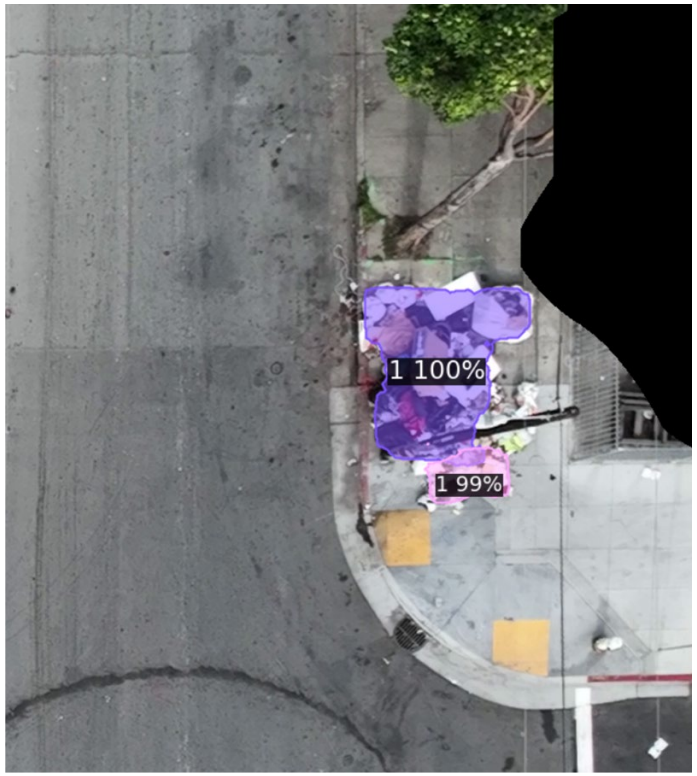
Oakland-scale coverage: fast, efficient, affordable

🛩️ **Pre-programmed flight paths.** Automated waypoint navigation - consistent, repeatable coverage every time.

📐 **1,440 linear road miles** in a 6-month pilot - covering Oakland's most impacted areas.

🔄 **Regular monitoring catches recurrence.** Re-fly the same routes to verify cleanup and detect new dumping.

💰 **$150K pilot = 0.6% of Oakland's $24M dumping spend.** Small investment, massive data upgrade.



efficient dumpsite data

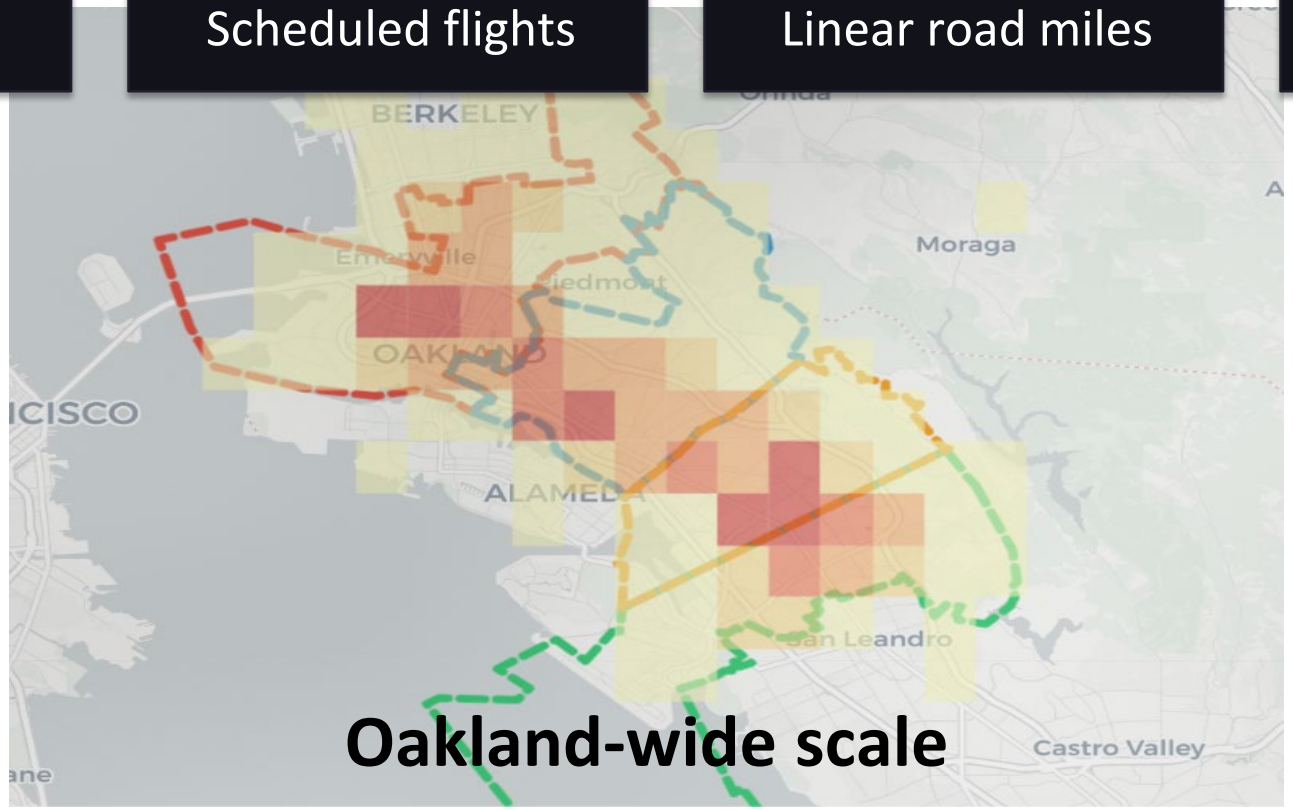
The Oakland Pilot: 6 months, $150K

6
Month pilot

72
Scheduled flights

1,440
Linear road miles

$150K
Total budget



Oakland-wide scale

THE ASK

Approve the amended Use Policy & $150K pilot

Give Oakland the data to fight illegal dumping smarter, faster, and more equitably - with strong privacy protections.