



APRIL 2025

Litter Lens Program

Prince George's County Police Department
Implementation Proposal



Bitter about litter? Record it!

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Legislative Summary

According to a 2020 “Keep America Beautiful” Study, they estimated that there was nearly 50 billion pieces of litter along U.S. roadways and waterways at the time of the Study. For many, that is an unfathomable number and when accounting for the U.S. population, 50 billion pieces of litter equates to an astonishing 152 pieces of litter for every U.S. resident. Across the nation, U.S. residents agree that litter is a problem where they live. Ninety percent (90%) of U.S. residents reported that litter is a problem in their state and most Americans understand that litter has a strong negative impact on their communities. **We recognize that litter and illegal dumping negatively affects the environment, waterways, property taxes, home values, tourism and businesses, quality of life, and health and safety of our County & communities.**

Senator Nick Charles, testifying in support of Senate Bill 525, noted that the Bill allows Prince George’s County to establish a program authorizing members of the public to submit video evidence of illegal dumping or littering violations and **receive half of the total fines collected if their evidence leads to a conviction.**

With significant shortages, law enforcement is struggling to address littering violations amid rising gun violence, robberies, homicides, and other more immediate, pertinent dangers to society. Given these challenges, it is imperative to explore alternative methods to address illegal dumping and littering. Senate Bill 525 provides a solution by empowering residents to take an active role in reporting violations. **The “Litter Lens” program we seek to establish based on this passed Legislation fosters a collaborative environment where the community and law enforcement work together to maintain cleaner and safer public spaces.** The bill rewards those who contribute to the enforcement of litter control laws, creating a direct financial incentive for residents to act and report violations. With this Bill, everyone plays a role in reducing pollution and enhancing the quality of life in Maryland. ***We present this proposal to facilitate the next step of implementing the program authorized by SB525.***



Precedent for Fine Dispersal

County

In Prince George's County, Maryland, monetary rewards are offered to individuals who assist law enforcement in solving cases through the following programs:

1. Prince George's County Crime Solvers: This non-profit program provides cash rewards of up to \$2,500 to individuals who supply information leading to the arrest and indictment of suspects. Tipsters can remain anonymous.

2. Illegal Gun Reward Program: As part of the Crime Solvers initiative, this program offers up to \$2,000 for information on individuals carrying illegal firearms, such as unpermitted or stolen guns, or those possessed by convicted felons.

Additionally, the county has introduced the Private Security Camera Incentive Program, which provides financial incentives to residents in certain areas to install security cameras, thereby aiding in crime deterrence and investigation.

These programs underscore Prince George's County's commitment to community involvement in enhancing public safety and supporting law enforcement efforts.

State

The State of Maryland, in collaboration with local jurisdictions, offers several programs that provide monetary rewards to individuals who assist law enforcement in solving crimes:

1. Metro Crime Stoppers of Maryland (MCS): Operating in Baltimore City and surrounding counties, MCS is a non-profit organization that offers cash rewards for anonymous tips leading to arrests and convictions. They work closely with local law enforcement agencies to ensure the effectiveness of their program.

2. Governor's Office of Crime Prevention, Youth, and Victim Services (GOCPYVS): This state agency administers various grants and funding initiatives aimed at supporting victim services and enhancing public safety. While not directly offering rewards for tips, their programs indirectly support law enforcement efforts through financial assistance to related initiatives.

3. Local Crime Solvers Programs: Many counties within Maryland have their own Crime Solvers or Crime Stoppers programs. For instance, Prince George's County Crime Solvers offers rewards of up to \$2,500 for information leading to arrests and indictments, allowing tipsters to remain anonymous.

These programs underscore Maryland's commitment to community involvement in enhancing public safety and supporting law enforcement efforts.

Precedent for Fine Dispersal (cont.)

National

Money is used to pay people who assist the police or government in solving cases in several instances, including:

1. Crime Stoppers & Tip Rewards – Programs like Crime Stoppers offer financial rewards to individuals who provide anonymous tips that lead to arrests or convictions.
2. Witness Protection & Relocation Funds – In high-risk cases, the government may provide financial support to witnesses who testify, covering expenses like relocation, housing, or security.
3. Confidential Informants (CIs) – Law enforcement agencies sometimes pay informants who provide inside information about criminal activities, especially in drug investigations or organized crime cases.
4. Expert Witness Fees – The government may pay specialists, such as forensic experts or analysts, to provide professional testimony in court cases.
5. Bounty Hunting & Fugitive Recovery – In some jurisdictions, private bounty hunters or bail recovery agents receive payments for capturing fugitives.
6. Whistleblower Rewards – Government agencies like the SEC, IRS, and DOJ offer financial incentives to individuals who expose fraud, corruption, or illegal activities.
7. Undercover Operations – Police may provide financial incentives to individuals cooperating in undercover investigations or sting operations.

Current Similar Programs

1. Medford Township, New Jersey: This township has implemented a program where citizens can receive financial rewards for reporting littering incidents. Additionally, grant funds have been used to provide stipends to community groups conducting litter abatement and cleanup efforts.
2. Lakeland, Florida: In 2020, city officials discussed implementing a program to offer cash rewards to individuals who report illegal dumping, similar to Crime Stoppers initiatives. The city allocated \$25,000 for this purpose, aiming to encourage residents to assist in identifying violators.
3. Bureau of Land Management (BLM): The BLM has offered rewards, such as a \$500 incentive, for information leading to the identification, arrest, and conviction of individuals responsible for illegal waste dumping on public lands.

Exploration of preceding programs will give tools and framework the Litter Lens program can utilize to be successful.

Precedent for Evidence Collection

Most Similar in Prince George's County

DPW&T's 311 Program

Current process

To report litter or illegal dumping in Prince George's County, MD, you can call PGC311 at 3-1-1 (inside the county) or 301-883-4748 (outside the county), or report it online at PGC311.com.

Litter Lens implementation strengthens the County's commitment to empowering its residents to take matters into their own hands and feel like a part of the solution, with an additional motive to participate with financial incentive.

Mission and Vision

Mission

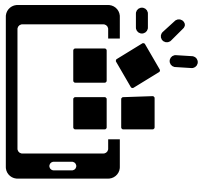
The **Litter Lens** program is dedicated to reducing littering and illegal dumping in Prince George's County by empowering residents to take an active role in enforcement. Through innovative technology and community collaboration, we provide a streamlined platform for citizens to submit video evidence of littering violations, supporting law enforcement while fostering civic responsibility. By incentivizing participation, we aim to create cleaner, healthier, and more sustainable public spaces for all.

Vision

We envision a future where Prince George's County is a model of environmental stewardship, with clean streets, waterways, and public spaces free from litter. Through the Litter Lens initiative, we strive to cultivate a culture of accountability and community-driven action, ensuring that every resident has the power to contribute to a cleaner, safer, and more vibrant county. By leveraging technology and public engagement, we seek to make littering a thing of the past, leaving a lasting positive impact on the environment and quality of life for generations to come.



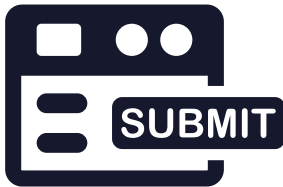
Core Features of the Portal & Mobile App



User Account System

User Account System

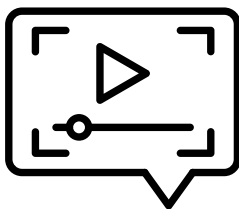
- Users can sign up with an email or phone number.
- Secure login using two-factor authentication (2FA).
- Dashboard to track submitted reports and reward status.
- Anonymous reporting option for those who don't want rewards.



Video Submission Process

Video Submission Process

- Users upload dashcam footage or images directly from their phone or computer.
- AI-assisted license plate recognition to extract vehicle details.
- Required metadata input: time, date, location (GPS integration).
- Optional: Additional witness statement or context input.



Case Review System

Case Review System

- Submissions go into a queue for law enforcement or MVA Administration.
- Automated filtering for invalid submissions (e.g., blurry footage, incomplete data).
- Case officers can approve or reject reports with a simple workflow.
- Status updates sent to users (e.g., "Under Review," "Fine Issued," "Rejected")
- Compliance with Maryland Law: Ensure video submissions are admissible as evidence.

Technical Infrastructure

Necessary Collaboration for Database Management



MVA Administration



Department of Public Works and
Transportation



Prince Georges County
Government

Frontend (User Interface)

- Web Portal: React.js or Angular for a fast, responsive experience.
- Mobile App: Flutter or React Native (for both iOS and Android compatibility).
- UI/UX design: Simple, clean, and accessible layout.
- Geographic Information Systems (GIS): GIS tools may be used to analyze patterns in traffic tickets and violations. For example, traffic data can be analyzed to identify high-violation areas and adjust enforcement strategies.

Backend (Data Processing & Storage)

- Cloud-based backend (AWS, Google Cloud, or Azure).
- Node.js or Python (Django/FastAPI) for handling submissions.
- PostgreSQL or MongoDB for database management.
- AI-powered license plate recognition (OpenALPR or PlateRecognizer API).

Security Measures

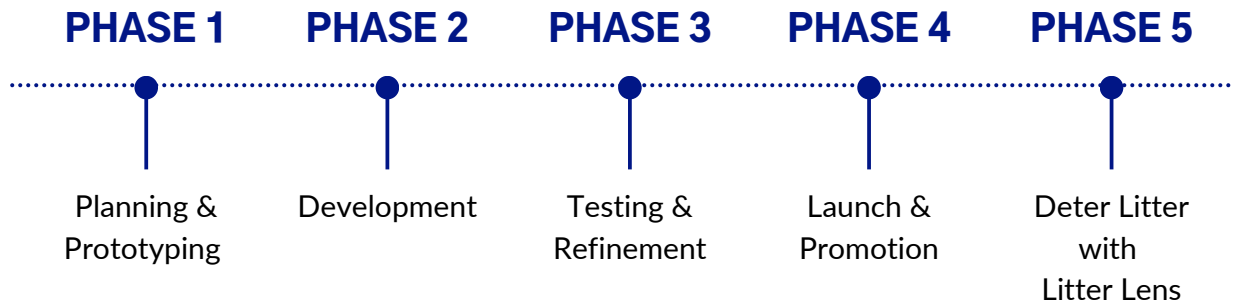
- End-to-end encryption for video uploads.
- Secure authentication (OAuth, biometric login for mobile app).
- Strict access controls for law enforcement & administrative users.
- Automatic redaction of personal identifiers (except vehicle license plate).

Utilize Existing Programs

- DPW&T's 311 system is used to capture reports of alleged misconduct.
- Litter Lens could be a program that exists within 311's current framework.
- Assign 311 case managers various reviewing duties of Litter Lens submissions.
- Would not have to create a whole new portal if a partnership with DPW&T's 311 system is explored.



Development Roadmap



Phase 1: Planning & Prototyping

- Design wireframes and UI/UX mockups.
- Consult legal experts on privacy and admissibility of video evidence.
- Build a prototype for testing core functionalities.

Phase 2: Development

- Develop web portal and mobile app simultaneously.
- Integrate AI-powered license plate recognition.
- Build submission workflow, case review system, and reward tracking.

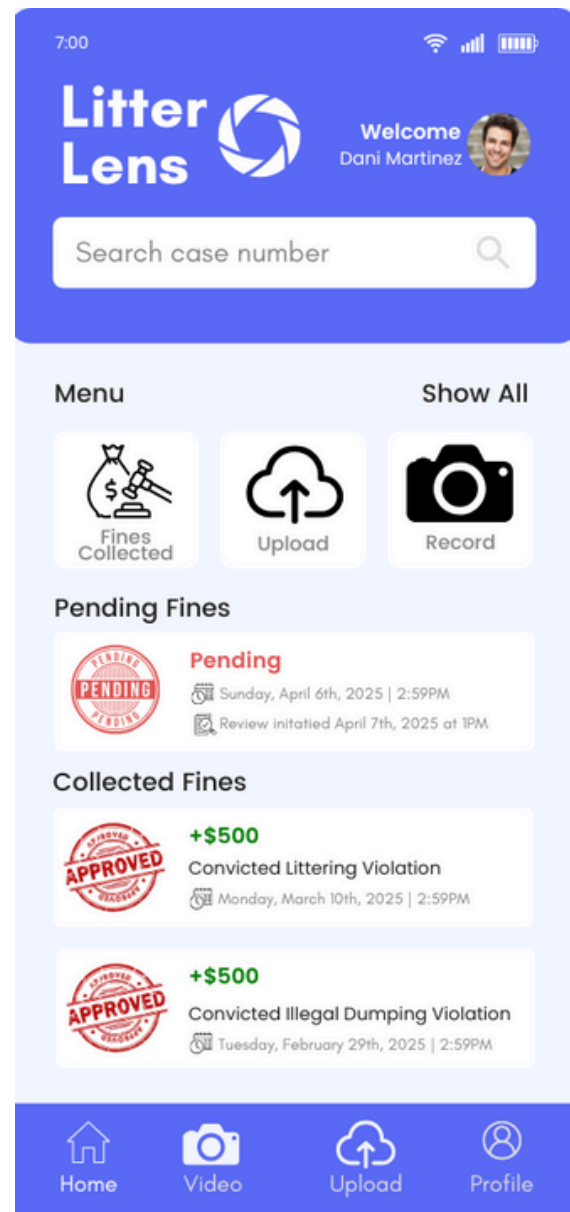
Phase 3: Testing & Refinement

- Beta test with select community members and law enforcement.
- Improve based on feedback (usability, performance, etc.).
- Security audit to prevent data leaks.

Phase 4: Launch & Promotion

- Official rollout with county support.
- Public awareness campaign (organizations, social media).
- Ongoing maintenance and updates based on user feedback.

Phase 5: Program Yields Litter Reduction



Compensation Framework

What's Needed

- A reliable payment system for compensating participants must be established. This could involve direct bank transfers, prepaid cards, or other electronic payment methods.
- Must ensure that payments are processed in a timely manner and clearly communicate timelines for when participants can expect compensation after a incident is reported, convicted, and the fine is paid.
- App integration of “Litter Lens” would automatically notify individuals that they have been awarded compensation.
- The MVA could also distribute checks payable to individuals who successfully report litter violations at the time they receive payment for the fine.

Auditing and Oversight:

Prince George’s County Government should conduct regular audits of the program to ensure that it is functioning correctly. This could include verifying the accuracy of reported fines, ensuring that no fraudulent activity is occurring, transparency, and assessing whether the program is achieving its intended goals.

County Council legislation may be necessary to create the transparent framework needed to implement regulatory powers over the program.

Promotion

- Stickers on littering fine signs
- Use social media, local news outlets, and community events to inform the public about the new compensation structure and how they can participate.
- Incentives for Early Participants: Offer incentives such as bonus compensation for the first 100 participants or for those who report multiple violations. This can help jumpstart the program and generate interest.
- Partnerships with Businesses: Partner with companies that sell dash cams or related accessories to offer discounts or promotions to those who participate in the program. This could encourage more drivers to equip themselves with the necessary tools to participate in the initiative.
- Bus ads/billboards: **See litter? Record it. Get rewarded.**
- Rewards for referring new users.



Fine Breakdown

Current Law

In Prince George's County, Maryland, littering fines are structured based on the severity of the offense:

- **Minor Offenses:** For disposing of litter not exceeding 100 pounds or 27 cubic feet and not for commercial gain, individuals face a misdemeanor charge with penalties of up to 30 days imprisonment, a fine not exceeding \$1,500, or both.
- **Moderate Offenses:** Disposing of litter exceeding 100 pounds but not more than 500 pounds, and not for commercial gain, can result in up to 1 year of imprisonment, a fine up to \$12,500, or both.

Example Scenario

Relevant data related to user behavior has never been studied or collected; therefore, an “example” scenario must be utilized.

Imagine a county with 500,000 residents, and 5% of drivers (25,000) use dash cams. If each dash cam user reports an average of 10 littering incidents a year, and the fine for each violation is \$1000, here's how the money could add up:

- Total fines for 10 incidents per user: $25,000 \text{ drivers} \times 10 \text{ incidents} = 250,000$ littering violations
- Total revenue from fines: $250,000 \text{ violations} \times \$1000 \text{ fine} = \$250,000,000$ in total fines
- Amount paid to reporting drivers 50% : $50\% \text{ of } \$250,000,000 = \$125,000,000$ (paid to reporting drivers)

The remaining \$125,000,000 would be collected by the County.

Revenue Generation

The cost of the salary for the Admin who reviews videos of littering, ensuring the app's sustainability, and technical alterations will be paid by the growth of littering fine revenue collection. Additional revenue will be spread throughout the rest of the budget/needs to further support litter reduction efforts.

Financial Analysis

Costs

Overall Budgeting Costs	Value
PG County Administrative Salary	~\$72,000
App Design and Development	~\$80,000
Continued Annual Support of Program	~\$70,000

A video reviewing administrative job in the Prince George's County Police Department would likely fall under an administrative or civilian role. Based on similar positions, the projected salary could range around \$70,000 per year, depending on experience, responsibilities, and specific classification.

Salary costs are dramatically reduced if video reviewing is done remotely on a secured device/laptop.

Savings

The SHA has shifted funding and resources to increase litter cleanup. In Fiscal Year 2022, the Administration spent **\$11.6 million on litter removal, resulting in over 6,500 truckloads of waste removed.** In Fiscal Year 2023, litter **expenditures increased to \$15 million, resulting in over 9,000 truckloads being removed (or 364,077 large bags of trash).** Volumes of litter accumulation far outpace SHA's feasible cleanup frequencies, so additional measures to stop littering at the source are welcomed and supported by the Administration. Litter Lens would reduce the costs associated with wide-scale litter cleaning and removal by both the State and County departments **by creating an actual mechanism to deter littering behaviors.**

There are no records of the amount of Prince George's County littering fines collected. Based on anecdotal evidence, it is believed that there is a dramatic lack of enforcement for littering. With the aforementioned staffing shortages, law enforcement is unable to adequately address littering violations. The National Institutes of Health explained, "While the idea of fines deterring crime is common, research suggests that **the certainty of punishment**, rather than the severity of fines, is a more effective deterrent. Studies show that increasing the frequency of enforcement with smaller fines can be more effective than rare, severe fines".

Litter Lens creates a system that increases revenue generation, reduces burden on law enforcement, and saves State and County agencies money by actually deterring littering violations through fear of fine.

Supportive of Additional Environmental Initiatives

The Better Bag Bill

Reduce Single-Use Disposable Foodware

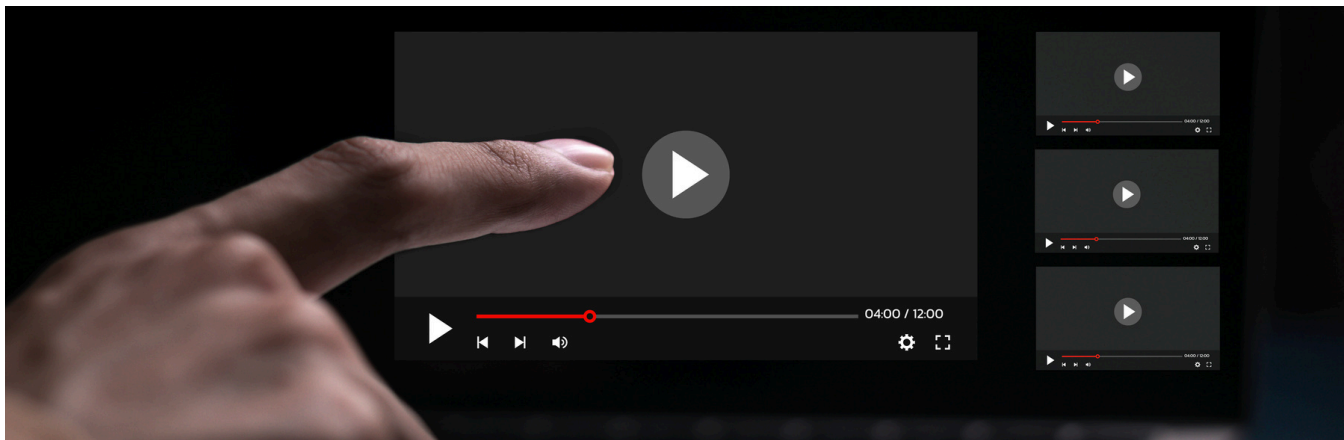
Straw Ban

The Beautification Initiative

Litter Reduction and PGCLitterTRAK

Litter and Mowing Blitz

With Prince George’s County continually implementing large-scale environmental protections, it makes the most sense that we tackle the biggest problem- littering, to truly make a difference. **Litter Lens** will showcase the successes of these programs by reducing the obvious blight throughout our communities and streets.



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