



Reducing gun violence with data-driven interventions in vacant properties

Created by Nissim Lebovits (MCP '24) with support from Code for Philly and the Center for Philadelphia's Urban Future.

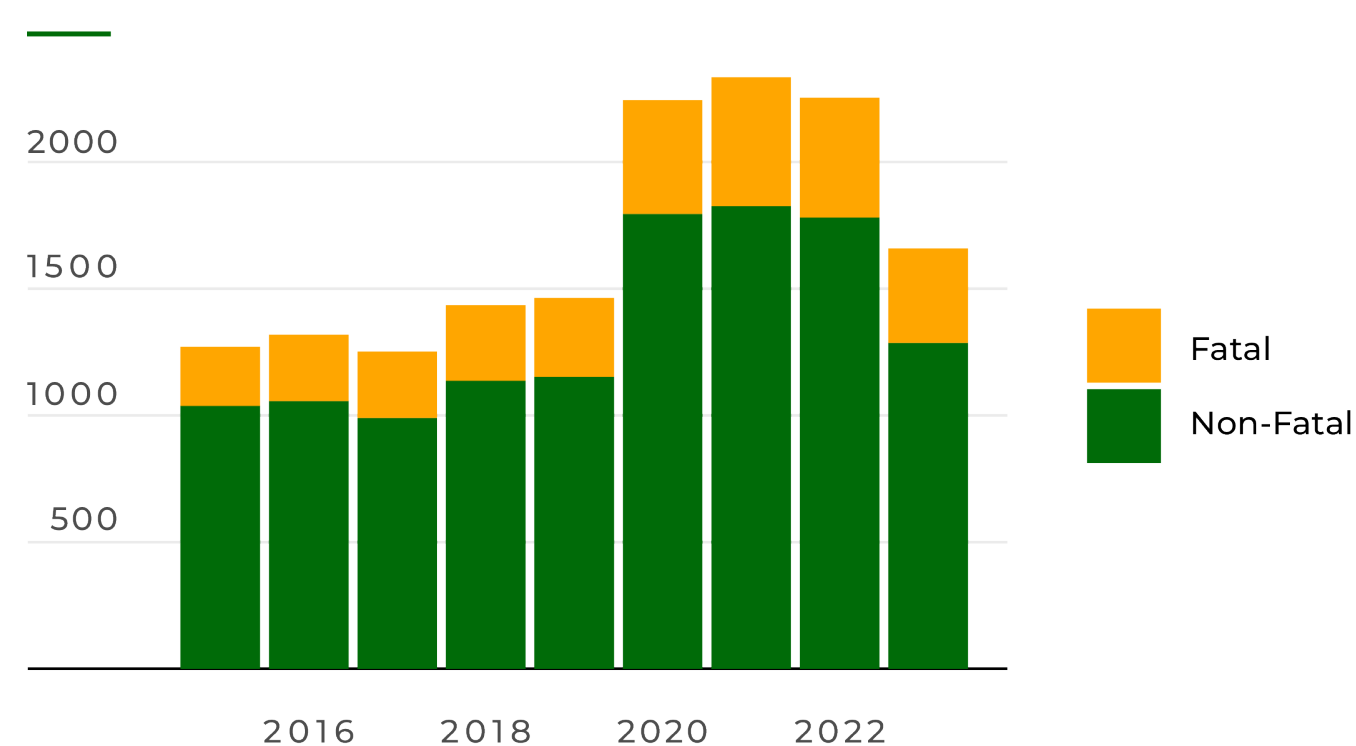
**Philadelphia has a gun violence problem.
Clean & Green Philly empowers Philadelphians to take action to solve it.**

Our Motivation

Clean & Green Philly was built to respond to Philadelphia's historic gun violence problem. With homicides trending up since 2013, and a record high of 562 gun deaths in 2021, community members need concrete solutions.

Many existing solutions focus on long-term impact, including nearly 80% of the City of Philadelphia's anti-violence spending. But immediate, actionable approaches are also needed. Clean & Green Philly helps to fill that gap by promoting interventions in vacant properties. Our goal is to make it as easy as possible for everyday Philadelphians to take action to reduce gun violence in our city.

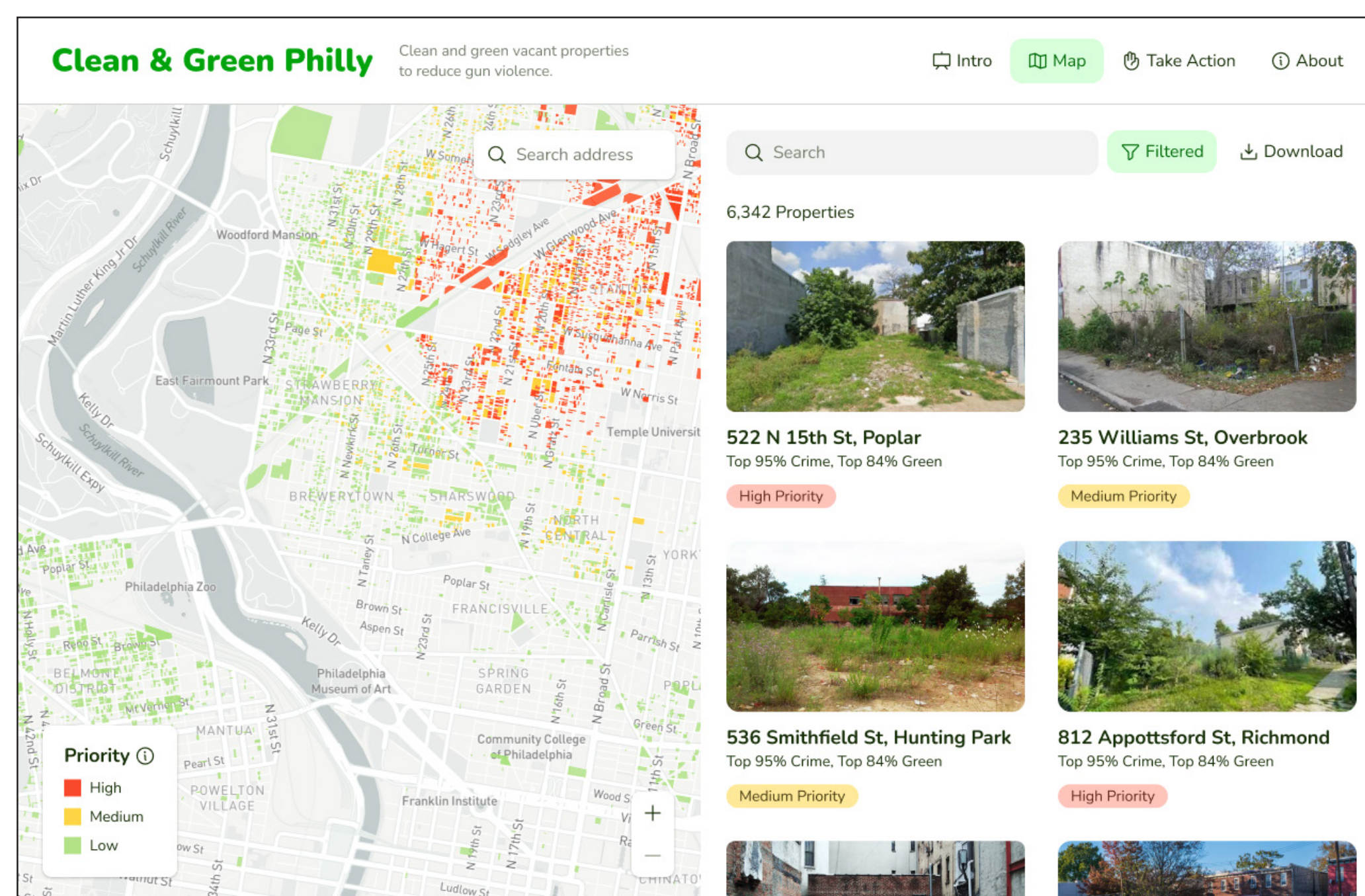
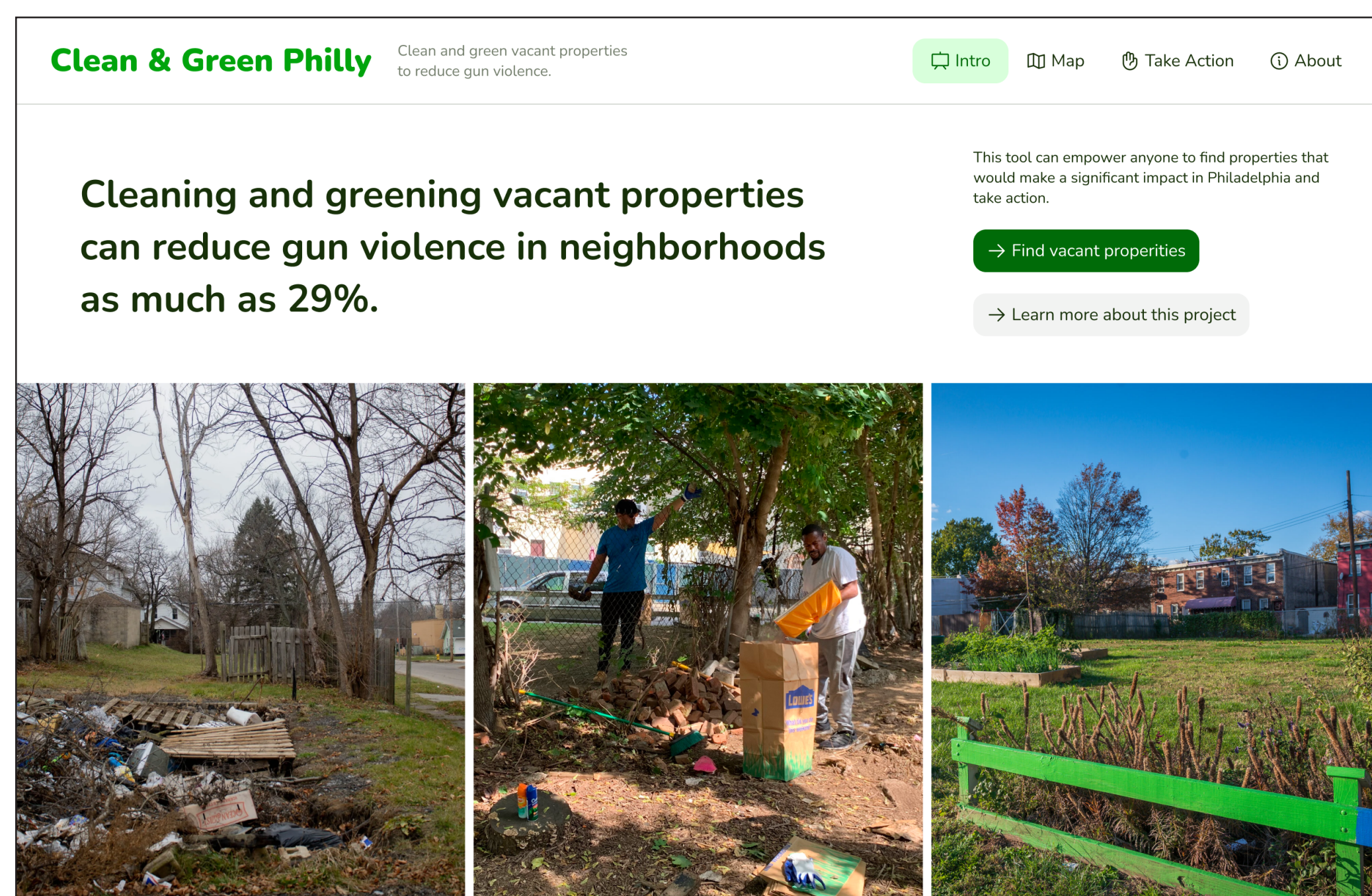
Annual Shootings in Philadelphia 2015 - 2023



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Our Solution

We have built a dashboard that helps local residents, non-profit organizations, and government stakeholders carry out cleaning and greening interventions in the vacant properties where they can have the biggest impact.



Research shows that greening and cleaning vacant properties is one of the most impactful, cost-effective interventions available to mitigate gun violence in a neighborhood. For example, Dr. Eugenia South and her team have demonstrated in a randomized controlled trial that greening vacant lots in Philadelphia reduced gun violence by as much as 29% in the surrounding area. Similarly, cleaning and lightly repairing vacant houses led to a 13% drop in gun violence. These interventions also provide other benefits, such as reducing the urban heat island effect, and lowering residents' stress levels and rates of depression.

Transforming Philadelphia's vacant properties should be a key strategy to combating gun violence here. But in a city with nearly 40,000 vacant parcels, the main obstacle is figuring out which properties to prioritize and how to get access to them. Clean & Green Philly helps solve this problem. We combine more than a dozen public datasets to:

- identify high priority properties,
- add information about how to get legal access to these properties,
- suggest possible types of interventions (e.g., planting a community garden or building affordable housing), and
- connect users to resources like legal support and funding opportunities.

Although the website and information provided are designed to be as accessible as possible, Clean & Green Philly is the result of hundreds of hours of research and stakeholder engagement. We synthesize a complex array of knowledge on public health, law, policy, environmental planning, and more in order to present the user with concise, actionable information. We aim to facilitate direct action in the most high priority properties while helping Philadelphians think creatively about a range of ways to return vacant properties to productive use.

In the future, we will continue to make Clean & Green Philly more comprehensive by adding new data, such as on drug crimes and tangled titles, and new resources, like sample language for grant applications. Meanwhile, we are assembling a steering committee of stakeholders to ensure that the website meets the needs of its primary users. As more people recognize the connections between the built environment, public health, and public safety, we want to become an indispensable tool in building a cleaner, greener, better Philadelphia.

References

Branas, C. C., South, E., Kondo, M. C., Hohl, B. C., Bourgois, P., Wiebe, D. J., & MacDonald, J. M. (2018). Citywide cluster randomized trial to restore blighted vacant land and its effects on violence, crime, and Fear. *Proceedings of the National Academy of Sciences*, 115(12), 2946–2951. <https://doi.org/10.1073/pnas.1718503115>

Philadelphia's FY23 anti-violence budget. Office of the Controller. (2022, August 29). <https://controller.phila.gov/philadelphia-audits/fy23-anti-violence-budget/#/>

