ShotSpotter, Inc.

Denver Police Department

Division Chief Ron Thomas

December 15th, 2021

Outline

1. Request
2. Review of the ShotSpotter System & its Use
3. Examples
4. Q&A

Request

Approves a contract with ShotSpotter, Inc. for $4,700,000, from 1-1-22 through 12-31-26 to provide gunshot detection, location, and forensic analysis service for the Denver Police Department (POLIC-202161439).

ShotSpotter is paid for out of the General Fund and through a DOJ Justice Assistance Grant (JAG).

How Does ShotSpotter Work?

ShotSpotter is a gunshot detection and location system. It is designed to detect, verify, and notify law enforcement of gunfire.

When gunshots are fired within an array, ShotSpotter detects three things:

1- Location where the gunfire occurs within 25 meters
2- How gunfire occurs (round count)
3- Time that the gunfire occurs

Acoustic sensors throughout the coverage areas ("an array") detect and locate gunfire.

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Law Enforcement Response

When gunshots are detected, officers are alerted via a cell phone app and on their vehicle computer terminal within 60 seconds. Officers are then able to respond to the gunfire in real time.

ShotSpotter Insight is used by Patrol Officers, Analysts, Detectives & Command Staff.

ShotSpotter Alerts By Year			
2018	2019	2020	2021 (as of 12/7)
1988	2310	3093	3843

Why is ShotSpotter An Important Tool?

Crime Awareness

Gunfire is often unreported. An average of 85.5% of ShotSpotter alerts from 2018-2021 had no correlating 911 call.

Safety

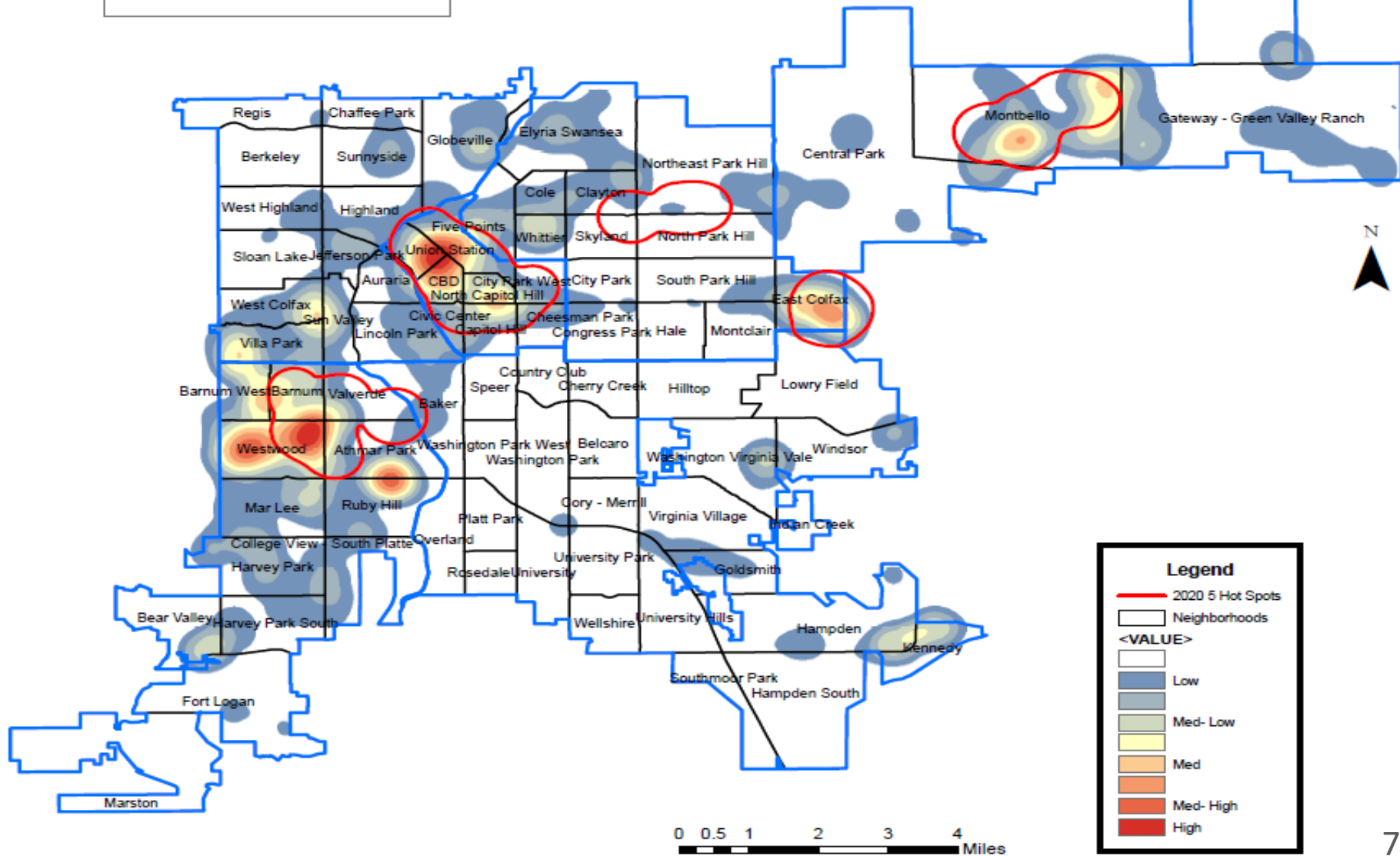ShotSpotter technology allows a quick response to address immediate public safety concerns.

With ShotSpotter, officers can swiftly respond to an accurate location where gunfire occurred, more quickly meeting community safety needs and attending to possible victims.

Investigations

When police receive an alert and respond quickly, they are more likely to recover the firearm and shell casings.

Additional evidence can better support an investigation, as well as corroborate if a firearm has been used in additional crimes.

2021 YTD (12/11/2021)
Aggravated Assault-Firearm

ShotSpotter Data

ShotSpotter Related Arrests By Year			
2018	2019	2020	2021 (as of 12/7)
68	83	92	94

ShotSpotter Related Firearm Recoveries By Year			
2018	2019	2020	2021 (as of 12/7)
63	80	112	120

ShotSpotter Incidents with Casings Belonging to NIBIN* String			
2018	2019	2020	2021 (as of 10/31)
335	388	549	576

*National Integrated Ballistic Information Network (NIBIN)

ShotSpotter Coverage

ShotSpotter currently covers approximately 14 square miles in Denver.

- Under the new agreement, coverage expansion is a possibility. Expansion is based on a data-driven needs analysis.

The selection of ShotSpotter location coverage is data-driven.

- Data that are included in the decision-making process include but are not limited to reported gun violence (by the community and/or victims), investigative data, and more.

Engaging the Community

- District Commanders engage with community members about the gunshot detection technology and what it is used for.
- Data is used to inform allocation of support services and amplify community partnerships for neighborhoods that are repeatedly victimized by gun violence.

> *"…no one technology or program can fully address the underlying factors driving gun violence in the US. A combination of tools and responses is need, along with authentic partnerships with the communities mostly likely to experience violent crime."*
> *-The Urban Institute**

*La Vigne, N. G., Thompson, P. S., Lawrence, D. S., & Goff, M. (October 2019). The Urban Institute. Implementing Gunshot Detection Technology (pp. 1–14).

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ShotSpotter Use Examples

October 2021 – DPD District 1

Victim was shot multiple times and unable to call 911. A ShotSpotter activation notified officers of the incident and the location. DPD received subsequent calls, but callers could not identify the location of gunfire. ShotSpotter technology allowed officers to promptly locate the victim. They called an ambulance and applied a tourniquet. The victim survived the shooting.

October 2021 – DPD District 1

Victim was shot multiple times. There were no correlating 911 calls for the gunfire. Officers responded based on a ShotSpotter alert. The victim was not visible from the street, but due to the ShotSpotter notification the officers knew to look in a nearby area. An ambulance was called, and the victim is recovering in an area hospital.

September 2021 – DPD District 5

Victim was robbed and shot. The victim walked several blocks to find help and call 911. Detectives were able to determine the location and time of the shooting due to ShotSpotter technology. They recovered the surveillance video of suspects for use in prosecution. The victim survived the shooting.

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Questions?

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