

Performance Audit Report

Baltimore Police Department

Surveillance Equipment

June 2022

Public Notice

In compliance with the requirements of the State Government Article Section 2-1224(i), of the Annotated Code of Maryland the Office of Legislative Audits has redacted a cybersecurity finding and related auditee response from this public report.



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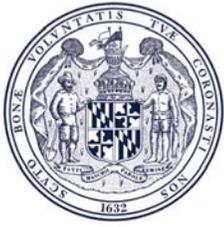
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June 17, 2022

Senator Clarence K. Lam, M.D., Senate Chair, Joint Audit and Evaluation Committee
Delegate Carol L. Krimm, House Chair, Joint Audit and Evaluation Committee
Members of Joint Audit and Evaluation Committee
Annapolis, Maryland

Ladies and Gentlemen:

We have conducted a performance audit to evaluate the effectiveness and efficiency of certain management practices of the Baltimore Police Department (BPD) as required by State Government Article, Section 2-1220 of the Annotated Code of Maryland. This is the third of four planned audits during the first six-year audit cycle of BPD. The scope of this audit focused on an evaluation of BPD's policies and procedures for certain surveillance equipment, specifically BPD's use of camera equipment including body-worn cameras (BWC), fixed-cameras located throughout Baltimore City (City) under the CitiWatch Program, and prisoner transport wagon (PTW) cameras. Our audit focused on activity for the period beginning July 1, 2014 and ending February 28, 2021.

Generally, surveillance equipment serves as an important law enforcement tool for both fighting crime and fostering trust between residents of the City and BPD. A BWC is a small audio and video recording device that is affixed to an officer's uniform with the capability of capturing, recording, and storing information for later viewing. BWC video footage can be used as evidence documentation in both criminal and administrative cases and can be beneficial to officers, prosecutors, and defendants. According to BPD's records, as of May 19, 2021, there were 2,267 officers assigned BWCs, and approximately one million videos were recorded in calendar year 2020. In addition, the CitiWatch Program utilizes a network of both City-managed and privately-owned cameras fixed to structures strategically located throughout the City. CitiWatch fixed-cameras provide real-time surveillance footage of public spaces that are actively monitored in an effort to prevent, and quickly respond to, criminal activity. As of May 2021, there were

830 City-managed cameras. Additionally, based on records prepared by CitiWatch, as of February 2021 there were 663 privately-owned cameras. Furthermore, PTWs are outfitted with a camera system that monitors the interior of all holding areas to allow for observation of persons in police custody throughout the duration of the transport. As of September 20, 2021 there were 18 PTWs assigned to the various police districts.

Our audit disclosed that certain officers were not always in compliance with BWC Policy requirements relating to uploading, categorizing, and titling videos. For example, using available data analysis tools, we identified 73 officers who had uploaded 8,014 videos in calendar year 2020 between 2 and 166 days after the day the videos were created. In addition, between calendar years 2017 and 2020, BPD conducted BWC compliance audits of 894 officers and found that approximately ten percent of the officers audited were not in full compliance with the BWC Policy. Untimely uploads and improperly titled videos can result in required evidentiary video footage not being readily available or identifiable for review and investigative purposes.

In addition, we found that BPD did not have policies and procedures governing the scope and methodology of BWC compliance audits and did not use available BWC data or a risk-based audit approach to focus audit efforts and maximize its audit coverage. Furthermore, BPD did not conduct a sufficient number of BWC compliance audits, did not maintain adequate documentation to support audits performed, and did not always take appropriate action when noncompliance was identified. Compliance audits are critical to BPD's oversight of the BWC Program since they provide an independent assessment and evaluation of officer compliance with BWC Policy. Furthermore, BPD did not require annual refresher training on BWC usage and protocols consistent with best practices.

We also noted that for the CitiWatch Program, CitiWatch did not have a formal or comprehensive policy and procedures manual, and did not always maintain executed agreements with other entities administering the CitiWatch Program. In addition, CitiWatch did not track camera uptime (time cameras were functioning properly) and did not have procedures to ensure broken cameras were repaired timely. Our review of CitiWatch data as of July 23, 2021, disclosed that approximately 12 percent of the cameras in the CitiWatch Program were not functional.

Finally, we found certain risks existed within BPD's BWC video management system. However, in accordance with the State Government Article, Section 2-1224(i) of the Annotated Code of Maryland, we have redacted that finding from this report. Specifically, State law requires that Office of Legislative Audits to

redact cybersecurity findings in a manner consistent with best practices before the report is made available to the public. The term “cybersecurity” is defined in the State Finance and Procurement Article, Section 3A-301(b), and using our professional judgement we have determined that the redacted finding falls under the referenced definition. The specifics of the cybersecurity finding was previously communicated to BPD and those parties responsible for acting on our recommendations.

BPD’s response to this audit is included as an appendix to this report. We reviewed the response to our findings and related recommendations, and have concluded that the corrective actions identified are sufficient to address all audit issues. However, consistent with the requirements of State law, we have redacted the elements of BPD’s response related to the cybersecurity audit finding.

We wish to acknowledge the cooperation extended to us during the audit by BPD and other Baltimore City government employees. We also wish to acknowledge BPD’s willingness to address the audit issues and implement appropriate corrective actions.

Respectfully submitted,

A handwritten signature in black ink that reads "Gregory A. Hook". The signature is written in a cursive style.

Gregory A. Hook, CPA
Legislative Auditor

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Audit Scope, Objectives, and Methodology

Audit Scope

Chapter 535 of the Laws of Maryland, 2020, effective July 1, 2020, requires the Office of Legislative Audits (OLA), at least once every six years, to conduct an audit or audits of the Baltimore Police Department (BPD) to evaluate the effectiveness and efficiency of the financial management practices of BPD. The law also states the scope and objectives of the audit or audits shall be determined by the Legislative Auditor.

OLA identified four separate audits to be conducted during the first audit cycle of BPD (in the following order).

1. Evaluation of Purchasing and Disbursement Controls and Transactions,
2. Asset Forfeiture and Property Control,
3. Surveillance Equipment, and
4. Human Resource Activities and Overtime.

The scope of this audit focused on an evaluation of BPD's policies and procedures for certain surveillance equipment, specifically BPD's use of camera equipment including body-worn cameras (BWC), fixed-cameras located throughout Baltimore City (City) under the CitiWatch Program, and prisoner transport wagon cameras. Our audit focused on activity for the period beginning July 1, 2014 and ending February 28, 2021. The audit evaluated the adequacy of BPD policies and procedures for the use of camera equipment as compared to applicable State laws and best practices, and whether camera equipment was subject to adequate controls and used in accordance with these policies and procedures.

Our audit was performed in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Objectives and Methodology

Our audit included the following objectives:

1. Evaluate the adequacy of BPD written policies for the use of BWCs, and determine, based on this evaluation and related testing, whether BWCs were subject to adequate controls and used in accordance with these policies.
2. Evaluate the adequacy of BPD policies and procedures for the use of fixed-cameras under the CitiWatch Program, and determine whether fixed-cameras were subject to adequate controls and BPD complied with its policies and procedures.
3. Evaluate the adequacy of BPD policies and procedures for the use of prisoner transport wagon (PTW) cameras, and determine whether PTW cameras were subject to adequate controls and BPD complied with its policies and procedures.

To accomplish our objectives, we reviewed applicable State laws, best practices, and standard operating procedures and policies established by BPD regarding the use of camera surveillance equipment. Additionally, we compared BPD's policies to State laws and best practices to evaluate the adequacy of BPD's policies.

In addition, we conducted interviews of BPD, Mayor's Office of Neighborhood Safety and Engagement (MONSE), and Baltimore City Office of Information and Technology (BCIT) personnel; inspected documents and records; observed certain procedures and operations; and performed tests of transactions and controls.

We obtained data files of BPD and MONSE's general ledger activity from the City's financial system for the period of July 1, 2014 to June 30, 2021. We also obtained several reports and extracts from BPD's video management systems such as uploaded videos, deleted videos, audit trails, and user access reports for selected periods of time within our audit period. We performed various tests of the relevant data and determined these data files and reports were sufficiently reliable for the purposes used during the audit.

Our assessment was based on the policies and procedures in place at the time of our fieldwork and compliance with these policies and procedures. Our tests of transactions and other auditing procedures were generally focused on the transactions occurring during our audit period of July 1, 2014 to February 28, 2021, but may include transactions before or after this period as we considered necessary to achieve our audit objectives.

Generally, transactions were selected for testing based on auditor judgment, which primarily considers risk, the timing or dollar amount of the transaction, or the significance of the transaction to the area of operation reviewed. As a matter of course, we do not normally use sampling in our tests, so unless otherwise specifically indicated, neither statistical nor non-statistical audit sampling was used to select the transactions tested. Therefore, unless sampling is specifically indicated in a finding, the results from any tests conducted or disclosed by us cannot be used to project those results to the entire population from which the test items were selected.

The reliability of BPD, MONSE, and BCIT data used in this report for background or informational purposes was not assessed. In addition to the conditions included in this report, other findings were communicated to BPD that were not deemed significant and, consequently, did not warrant inclusion in this report.

More detailed descriptions of the specific objectives and related methodologies, including the time period covered by our test work, are discussed in the Findings and Recommendations section of this report.

State Government Article Section 2-1224(i) of the Annotated Code of Maryland requires that we redact in a manner consistent with auditing best practices any cybersecurity findings before a report is made available to the public. This results in the issuance of two different versions of an audit report that contains cybersecurity findings – a redacted version for the public and an unredacted version for government officials responsible for acting on our audit recommendations.

The State Finance and Procurement Article, Section 3A-301(b), states that cybersecurity is defined as “means processes or capabilities wherein systems, communications, and information are protected and defended against damage, unauthorized use or modification, and exploitation”. Based on our professional judgement, we concluded that a finding in this report meets that definition. Consequently, for the publicly available audit report all specifics as to the nature of that cybersecurity finding and required corrective actions have been redacted. We have determined that best practices and government auditing standards support the redaction of this information from the public audit report. The specifics of the cybersecurity finding have been communicated to BPD and those parties responsible for acting on our recommendations in an unredacted audit report.

Fieldwork and Agency Response

We conducted our fieldwork from March 1, 2021 to October 13, 2021. A copy of the draft report was provided to BPD. The responses to our findings and recommendations from BPD appear as an appendix to this audit report.

Depending on the version of the audit report, responses to any cybersecurity findings may be redacted in accordance with State law. As prescribed in the State Government Article, Section 2-1224 of the Annotated Code of Maryland, we will advise BPD regarding the results of our review of its response.

Background Information

Agency Responsibilities

The Baltimore Police Department (BPD) is an agency and instrumentality of the State, established under Article 4 - Section 16 of the Code of Public Local Laws of Maryland. BPD safeguards the lives and properties of persons within the areas under the control of Baltimore City (City), and assists in securing protection under the law for all persons. Authority to appoint the Police Commissioner was transferred from the Governor to the Mayor of Baltimore, effective July 1, 1978. The Police Commissioner has the full authority and responsibility for directing and supervising the operations and affairs of BPD.

BPD either administers or participates in three programs where camera equipment is actively utilized: Body-Worn Camera Program, CitiWatch Program (fixed-cameras), and Prisoner Transport Wagons.

Body-Worn Camera (BWC) Program – The BWC Program was implemented in 2016, and requires every sworn officer below the rank of Captain to wear a camera. A BWC is a small audio and video recording device that is affixed to an officer’s uniform (generally mounted on the chest area) with the capability of capturing, recording, and storing information for later viewing. According to BPD records, as of May 19, 2021, 2,267 officers were assigned BWCs.

CitiWatch Program – The CitiWatch Program was implemented in 2005, and consists of a network of City and privately owned cameras fixed to structures (such as light poles) strategically located throughout the City. CitiWatch fixed-cameras provide real-time surveillance footage of public spaces that are actively monitored in an effort to prevent and quickly respond to criminal activity. As of May 14, 2021, CitiWatch managed a total of 830 fixed-cameras.

Prisoner Transport Wagon (PTW) – A PTW is a passenger van that has been customized in order to transport one or more persons in police custody. The rear portion of the van is separated from the driver’s compartment by a barrier and then organized into one or two areas depending on the needs for that particular vehicle. In May 2016, each PTW was equipped with a prisoner transport camera system that allows BPD to monitor and record the entire transport process in and around the PTW. As of August 31, 2021, there were 18 PTWs in service.

Findings and Recommendations

Objective 1 – Body-Worn Cameras

Background

In October 2014, the Baltimore City Mayor’s Office created the Baltimore City Working Group (Working Group) on the Use and Implementation of Body-Worn Cameras (BWC). As depicted in Figure 1, a BWC is a small audio and video recording device that is affixed to an officer’s uniform (generally mounted on the chest area) with the capability of capturing, recording, and storing information for later viewing. Once the BWC is turned “On”, the camera is placed into a mode where it records video on a continuous one-minute loop. When the BWC is “Activated”, the camera begins to record and retains both video and audio, including the looped footage one minute prior to activation.

Figure 1
Example of a Body-Worn Camera



Source: Baltimore Police Department Training Material

The Working Group was responsible for studying and making recommendations on the potential benefits and limitations of implementing a BWC Program within the Baltimore Police Department (BPD), as well as to analyze community perspectives, privacy and legal concerns, and police operations and policy. In April 2015, the Working Group issued its final report which ultimately concluded that BWCs can be an important law enforcement tool for both fighting crime and fostering trust between residents of Baltimore City and BPD, and recommended the BWC Program be implemented. This report also included operational recommendations such as conducting a pilot program, staggered rollout of the program, camera functionality, protocols and policy, and training.

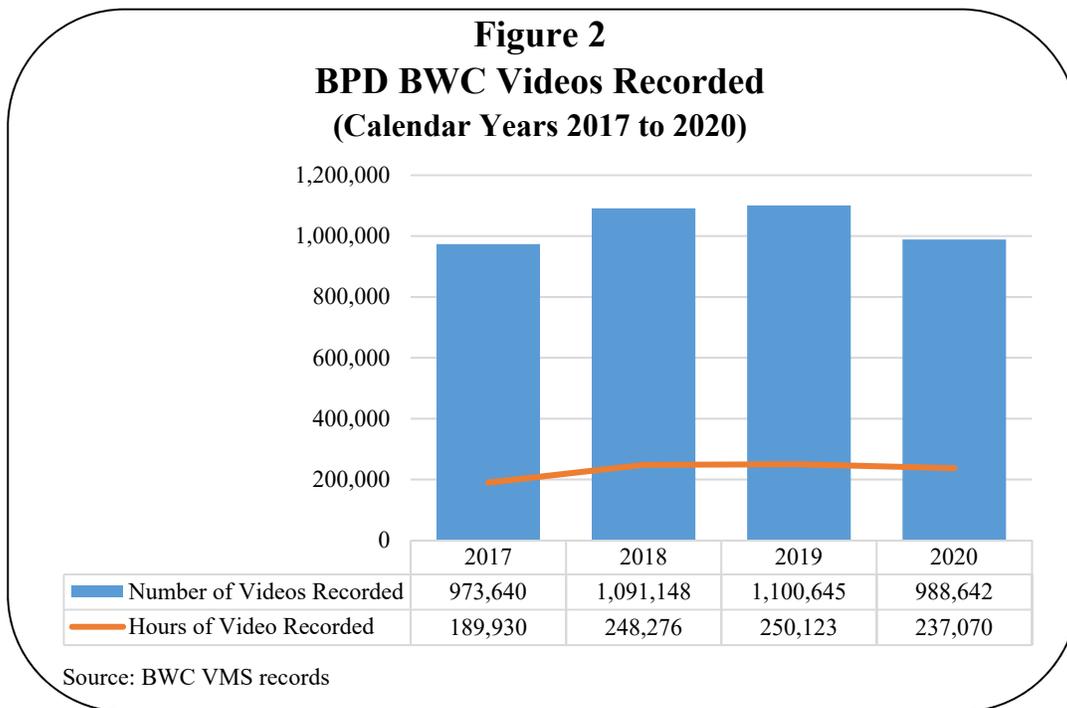
According to the Working Group’s final report (excerpt below), BWC video footage can be used as evidence documentation in both criminal and administrative cases, and can be beneficial to officers, prosecutors, and defendants.

As part of law enforcement duties, it is incumbent upon officers to gather and document evidence for criminal prosecution. Camera footage may yield invaluable evidence and support for prosecutors. The decision making of both juries and judges may be greatly facilitated by the ability to view footage recorded by body-worn cameras. Likewise, defendants and defense attorneys may benefit by the evidence recorded. Moreover, the availability of such evidence may increase judicial economy by facilitating plea negotiations or lessening the need for trials. Also, the availability of recorded evidence may have similar effects in the prosecution of officers for alleged misconduct. Footage may provide irrefutable evidence of misconduct or it may exonerate an officer from a meritless claim of violation.

On March 16, 2016, after a competitive procurement, BPD and Baltimore City entered into a contract with a vendor to provide BWC equipment and video management system (VMS) services. As of November 2021, there have been six contract modifications and renewal options extending the contract period through June 30, 2026 for an amount not to exceed \$35.2 million¹. On May 26, 2016, BPD launched the BWC Program, and through a two-year staggered roll-out, every sworn officer below the rank of Captain was trained and issued a BWC.

According to BPD records, as of May 19, 2021, there were 2,267 officers assigned BWCs. Since BWC Program implementation, approximately one million BWC videos have been recorded annually, accounting for between 190,000 and 250,000 hours of video footage between calendar years 2017 and 2020 as depicted in Figure 2 on the following page.

¹ We conducted a separate performance audit of BPD procurement and disbursement activity. The scope of the performance audit included the procurement of the BWC contract, related payments, and monitoring processes. The related audit report was dated October 19, 2021.



The BWC Program operates under the BPD Body-Worn Camera Policy (BWC Policy) which provides guidance on the proper use of BWCs in order to promote safety, professionalism, transparency, and accountability. The BWC Policy includes critical operational and use requirements to be followed by officers with issued cameras, as well as administrative and oversight requirements as depicted in Figure 3.

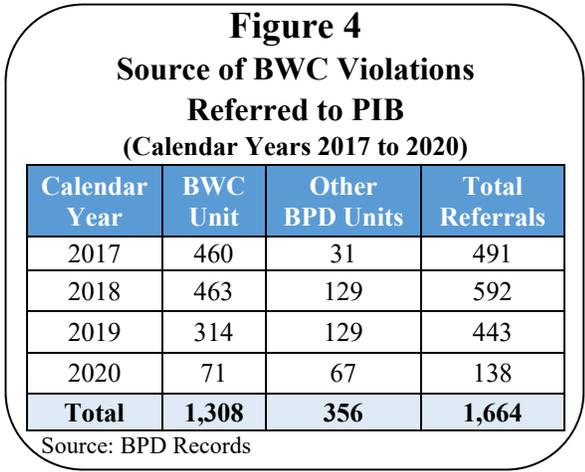
Figure 3
Critical BWC Policy Requirement Areas

Operation and Use	Administration and Oversight
Issuance and utilization	VMS capabilities
Wearing the BWC	Reporting requirements
Mandatory recording	Review of recordings
Exceptions to recording	Audits and inspections
Notice of recording	Deletion of recordings
Ending a recording	Public information requests
Uploading, categorizing, and titling BWC data	Security, retention, and disclosure of BWC data
Maintenance and battery life	BWC coordinator

Source: BPD BWC Policy

BPD’s Body-Worn Camera Unit (BWC Unit) is under the Compliance Bureau, which is independent from the BWC using officer’s chain of command, and is ultimately responsible for the administration and compliance of the BWC Program. In this regard, the BWC Unit performs critical compliance and oversight activities such as conducting monthly BWC compliance audits, and preparing case files to independently evaluate whether officers were in compliance with BWC Policy requirements.

Other units within BPD also rely on BWC videos as part of their routine job duties and refer BWC Policy violations (noncompliance) when identified to the Public Integrity Bureau (PIB). For example, the Special Investigation Response Team is responsible for investigating instances where an officer’s high level use of force was reported and may detect BWC violations during its review. Violations identified by the BWC Unit or any other BPD unit are referred to the PIB for further investigation and disciplinary action if warranted (see Figure 4).



The BWC Unit also performs critical administrative functions such as the collection and dissemination of BWC video footage for cases (such as crime investigations) and public information requests, and in conjunction with BPD’s information technology unit, administration of the VMS. According to BPD records, the BWC Unit created 20,130 case files and responded to 2,357 public information act requests in calendar year 2020.²

Objective and Methodology

Our objective for BWCs was to evaluate the adequacy of BPD written policies for the use of BWCs, and to determine, based on this evaluation and related testing, whether BWCs were subject to adequate controls and used in accordance with these policies.

² Multiple BWC videos can be placed into a case file making it easier for interested persons, such as the Baltimore City State’s Attorney’s Office and Special Investigation Response Team to find evidence related to a specific incident/investigation.

To accomplish our objective to evaluate the adequacy of BPD written policies we reviewed the following critical documents and compared them to BPD's BWC policies and procedures.

- Maryland Police Training and Standards Commission (MPTSC) – *Body-worn Camera Policy*. The *Policy* was established in accordance with State law and includes the minimum standards that must be met by a Maryland law enforcement agency to implement a BWC Program (See Exhibit 1 Part 1 for a complete list of these standards).
- Police Executive Research Forum (PERF)³ and the United States Department of Justice (DOJ) 2014 report on *Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned*. This report was based on surveys of 500 law enforcement agencies nationwide, interviews with over 40 police executives, and a conference in which over 200 police chiefs and other experts from across the country gathered to discuss the use of body-worn cameras. The report provided 33 BWC Policy recommendations which we considered to be best practices for purposes of our audit (See Exhibit 1 Part 2 for a complete list of these recommendations).
- 2017 Consent Decree between the DOJ and BPD which mandated that BPD's BWC Policy, at a minimum, address seven areas including the use of cameras, retention of videos, access and privacy issues, and the use of recordings as evidence.

In addition, to accomplish our objective to determine whether BWCs were subject to adequate controls and used in accordance with these policies, we performed the following procedures.

- Interviewed BPD staff to help us determine and evaluate processes actually in place for the general administration and use of BWCs, monitoring and oversight activities, maintaining system security, developing and updating the BWC Policy, training (audit staff also attended a training session), physical security over inventory, and key usage requirements such as when BWCs must be worn and activated.
- Evaluated BPD procedures for BWC compliance audits, use of force reviews, and referrals when BWC violations are identified.

³ PERF is an independent non-profit police research and policy organization that focuses on critical issues in policing and strives to advance professionalism in policing and to improve the delivery of police services through the exercise of strong national leadership, public debate of police and criminal justice issues, and research and policy development.

- Evaluated procedures for safeguarding video footage, automated system controls, video deletion, video retention periods, and user access. For example, to evaluate the sufficiency of BWC compliance audits and video retention periods, we compared BPD policies to policies in place at other police jurisdictions.
- Reviewed pertinent sections (best practices) of the State of Maryland *Information Technology Security Manual* to evaluate controls over user access.
- Obtained several reports from the VMS such as uploaded videos, deleted videos, audit trails, and user access reports for selected periods of time within our audit period.
- Obtained a listing of current employees from BPD's human resources and payroll system to evaluate the propriety of VMS user access.
- Tested 20 compliance audits performed by BPD to evaluate the sufficiency of audits performed.
- Analyzed the approximately one million videos uploaded to VMS in calendar year 2020 to determine whether timeliness and titling requirements for uploading videos were met.
- Tested 16 use of force reviews to ensure appropriate personnel reviewed the videos, as required.
- Analyzed and tested users with access to VMS to ensure access was necessary and appropriate. Specifically, we tested 340 users with questionable and/or critical access to VMS as of March 2021, reviewed administrative user transactions for the month of June 2021, and determined the status of user access for certain suspended and/or terminated officers.

In addition, we performed various tests of the relevant data, and we determined that the data were sufficiently reliable for the purposes used during the audit. Our testing was based on a review of available electronic and hardcopy records and data within VMS, and interviews with key personnel involved in the related BWC process.

Conclusion

Overall, we determined that BPD's BWC Policy (in conjunction with other BPD policies and procedures) was sufficiently comprehensive, and adequately addressed, and routinely exceeded, requirements for all but one best practice included in the MPTSC Policy, PERF recommendations⁴, and the Consent Decree. Specifically, BPD did not require annual refresher training on BWC usage and protocols (Finding 5).

Our analyses and review of BPD audits disclosed that certain officers were not always in compliance with key BWC Policy requirements relating to uploading, categorizing, and titling videos (Finding 1). In addition, BPD did not have a formal written audit policy for conducting BWC compliance audits, and its audit approach in use did not include adequate analysis of the available data or the use of a risk-based approach (Finding 2). Furthermore, BPD conducted only 13 BWC compliance audits in calendar year 2020, far short of the number of audits required by its BWC Policy, did not maintain sufficient documentation to support audits performed, and did not always refer noncompliance identified in the audits for investigation as required (Finding 3). Finally, we had a cybersecurity related finding related to the BWC video management system (Finding 4).

Other system security processes reviewed such as safeguarding video footage, automated system controls, video deletion, and video retention periods appeared to be appropriate and in accordance with BWC Policy and related best practices.

⁴ Our comparison noted that certain PERF recommendations were not applicable, for example recommendation 2 (see Exhibit 1): *'If an agency assigns cameras to officers on a voluntary basis, policies should stipulate any specific conditions under which an officer might be required to wear one'*. BPD mandates that all officers of a rank lower than Captain wear a BWC and therefore is not on a voluntary basis.

Findings

Finding 1

Our analyses and review of BPD audits disclosed that certain officers were not always in compliance with BWC Policy requirements relating to uploading, categorizing, and titling videos.

Analysis

Our analyses and review of BPD audits disclosed that certain officers were not always in compliance with BWC Policy requirements relating to uploading, categorizing, and titling videos.

Videos Were Not Always Uploaded Timely

Officers did not always upload videos timely as required by BWC Policy which requires that officers upload BWC video data by the conclusion of their tour of duty. Untimely uploads can result in required evidentiary video footage not being readily available for review. We analyzed the approximately one million videos uploaded in VMS during calendar year 2020 and identified 1,352 officers that uploaded 100 or more videos (approximately 962,000 videos).⁵

Using available data analysis tools, we identified 73 officers who had uploaded 8,014 videos into VMS between 2 and 166 days after the day the videos were created, including 640 videos that were uploaded at least one month late. These officers did not upload more than 10 percent of their videos timely as depicted in Figure 5. The remainder of the 1,352 officers uploaded 90 percent or more of their videos in a timely manner.

The video upload process is automated and is activated when the BWC is being charged via a docking station. BPD did not have a process to readily identify and investigate videos that were not uploaded timely, including conditions such as failure to dock the BWC periodically or upload communication errors.

Videos Were Not Properly Titled

Officers did not always properly title their videos in accordance with BWC Policy. The Policy requires the title of the video shall contain any related

Figure 5
Officers with Untimely Uploads
Calendar Year 2020

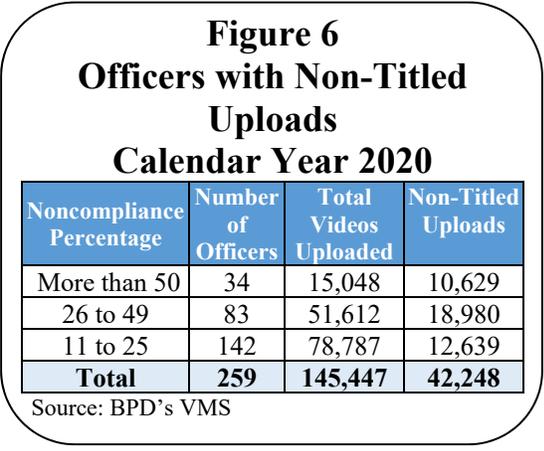
Noncompliance Percentage	Number of Officers	Total Videos Uploaded	Untimely Uploads
More than 50	9	2,758	1,873
26 to 49	17	6,493	2,491
11 to 25	47	22,742	3,650
Total	73	31,993	8,014

Source: BPD's VMS

⁵ The remaining videos related to administrative and training footage not relevant to this review, and officer's with less than 100 videos in calendar year 2020.

location, central complaint number, citation, warrant, contact receipt, or other report numbers for each video. In addition, training also recommended, but did not require, that officers include additional information, such as the incident type, which we found was being done in a number of videos reviewed. Properly titling videos is important because it allows for authorized reviewers and investigators to readily identify the contents of the video.

A review of titling data in VMS for videos uploaded by the aforementioned 1,352 officers, disclosed 42,248 of the 145,447 videos uploaded by 259 officers were not titled by the officers as required by BWC Policy (see Figure 6). As a result, VMS records the date of upload as the title, which would impair the ability to readily identify videos for investigative purposes. Furthermore, although the remaining officers titled their videos 90 percent or more of the time, we found that the titles frequently omitted required data. Specifically, we reviewed 500 videos that were titled by 10 officers (approximately 50 videos per officer) and noted that 8 officers improperly excluded either one or more of required title components (such as location) on more than 10 percent of their videos. For 2 of these 8 officers, more than 50 percent of the videos uploaded were not titled properly.



Similar deficiencies with improperly titled videos were noted in BWC compliance audits of officers. Between calendar years 2017 and 2020, BPD conducted compliance audits of 894 officers and found that approximately 10 percent of the officers audited were not in full compliance with the BWC Policy. Violations identified through these compliance audits are referred to the Public Integrity Bureau (PIB) for further investigation and corrective action such as counseling and reprimands.⁶ The vast majority of violations identified through the compliance audits related to categorizing and titling. For example, in calendar year 2019, BPD reviewed 3,750 videos uploaded by 239 officers and identified 234 violations (some videos had more than one violation) of which 211 related to the categorizing and titling of videos, and the remaining 23 related to the start and stop timing of a BWC recording.

⁶ Between calendar years 2017 and 2020, PIB issued a total of 1,629 corrective action plans for cases that involved BWC violations including referrals of violations identified through compliance audits.

Recommendation 1

We recommend that BPD

- a. take steps to ensure that all officers comply with all requirements of the BWC Policy, including implementation of the recommendations made elsewhere in this report regarding BWC compliance audits, the effective use of available BWC data, and training (Findings 2 and 5); and**
- b. develop and implement appropriate corrective action plans with regard to the instances of noncompliance identified in this finding.**

Finding 2

BPD did not have policies and procedures governing the scope and methodology of BWC compliance audits and did not use available BWC data or a risk-based audit approach to focus audit efforts and maximize its audit coverage.

Analysis

BPD did not have policies and procedures governing the scope and methodology of BWC compliance audits and did not use available BWC data or a risk-based audit approach to focus audit efforts and maximize its audit coverage.

Compliance audits are critical to BPD's oversight of the BWC Program since they provide an independent assessment and evaluation of officer compliance with BWC Policy. Between calendar years 2017 and 2020, BPD performed 894 compliance audits.

- BPD did not have policies and procedures governing the scope and methodology of BWC compliance audits. Specifically, BWC Policy only requires that audits be conducted but does not include details about the scope and methodology such as critical BWC requirements to be examined, audit documentation to be maintained, action required when policy violations are identified, overall reporting requirements, and inclusion of a risk-based approach. We believe that this condition contributed to the deficiencies we noted with the audits conducted that are included in Finding 3.
- BPD did not use available data analysis procedures to better direct its audit resources and enhance its oversight of the BWC Program. Currently, BWC compliance audits are conducted on a monthly basis, and as of June 2020, the scope of these audits is limited to 3 days of activity for 30 randomly selected officers each month. We determined that these audits account for less than one percent of total monthly program activity, and this selection methodology does not necessarily direct audit resources in the most efficient and effective manner. We believe that by applying certain data analysis procedures to

reports generated from VMS, BPD could evaluate data over a specified period of time to identify noncompliance with specific BWC Policy requirements, such as timely uploading of videos and proper titling of videos, on a much broader scale than using the current audit process alone, as noted in Finding 1.

- BPD did not use a risk-based audit approach when conducting audits. A risk-based approach provides for focusing audit resources on those areas and individuals for which there is a higher probability of detecting noncompliance and other audit exceptions. For example:
 - Officers with prior BWC violations.
 - Officers with previous sustained allegations of misconduct and excessive force.
 - Districts with high rates of misconduct / excess force allegations.
 - Incident types that have high rates of BWC violation.
 - Expanded testing if significant issues identified.

Recommendation 2

We recommend that BPD

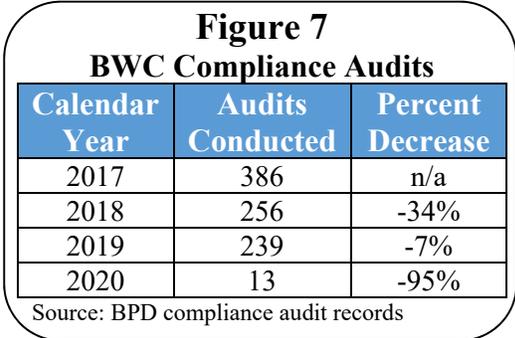
- a. develop a formal BWC compliance audit policy and plan to uniformly address all critical components of the audit process, including BWC Policy requirements to be examined, documentation to be maintained, the reporting of results, and any action required when violations are identified; and**
- b. include in that policy a provision for the use of available data analysis procedures and a risk-based audit approach to more effectively and efficiently audit BWC Program activity.**

Finding 3

BPD did not conduct a sufficient number of BWC compliance audits, did not maintain adequate documentation to support audits performed, and did not always take appropriate action when noncompliance was identified.

Analysis

BPD did not conduct a sufficient number of BWC compliance audits, did not maintain adequate documentation to support audits performed, and did not always take appropriate action when noncompliance was identified. As depicted in Figure 7, the number of compliance audits conducted has been on the decline, and for calendar year 2020, only 13 audits were conducted of the more than 2,000 officers assigned a BWC. Effective June 2020, BWC Policy required 30 compliance audits each month (a total of 360 over the course of a year). Prior to that time, BWC policy required the performance of random audits each month, but did not specify a quantity. According to BPD management, there were several contributing factors for the low number of audits conducted in calendar year 2020,⁷ primarily the impact of COVID, staffing shortages, and a reorganization of the unit responsible for conducting audits. We were advised by BPD management that it plans to retroactively conduct the required number of audits for calendar year 2020.



BPD also did not adequately document the audits that were performed or take appropriate follow-up action on noncompliance noted. Specifically, our test of 20 BWC compliance audits conducted between December 2018 and October 2019 disclosed 17 for which sufficient documentation, such as summaries of procedures conducted and evidence of system generated reports used, was not maintained to support the work performed. In addition, three of the nine audits that identified officer noncompliance with BWC Policy were not referred to PIB for review as required by BWC Policy.

BPD management advised us that they did not refer these audits because the noncompliance identified was determined to be not significant enough to warrant referral for investigation. However, that decision was not documented and there is no written policy establishing exemptions from the referral requirement.

⁷ Based on the June 2020 policy becoming effective in July 2020, the minimum number of required audits would have been 180 for calendar year 2020.

Recommendation 3

We recommend that BPD

- a. conduct at least the minimum required number of audits each month;**
- b. maintain sufficient documentation to support the audit work performed;**
- c. refer non-compliant officers for further investigation as required; and**
- d. clarify in its formal audit policy the criteria and circumstances under which a decision to not refer noncompliance to PIB may be warranted, as well as the documentation required.**

We determined that Finding 4 related to “cybersecurity”, as defined by the State Finance and Procurement Article, Section 3A-301(b) of the Annotated Code of Maryland, and therefore is subject to redaction from the publicly available audit report in accordance with the State Government Article 2-1224(i). Consequently, the specifics of the following finding, including the analysis, related recommendation(s), along with BPD’s responses, have been redacted from this report copy.

Finding 4
Redacted cybersecurity-related finding.

Finding 5
BPD did not require annual refresher training on BWC usage and protocols consistent with best practices.

Analysis

BPD did not require annual refresher training on BWC usage and protocols consistent with best practices as stated in the PERF report *Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned*. That report recommends that agencies require refresher courses on BWC usage and protocols at least annually.

Our review disclosed that BPD had developed refresher training in August 2019 and made it available on its learning management system, but the training was not part of regular in-service training and was not required unless as a part of a corrective action plan for compliance violations, or because of revisions to the BWC Policy. For example, BPD-wide training was required in calendar years 2019 and 2020, but only because of updates to the BWC Policy. No updates were made in calendar year 2021, and according to BPD’s records, 174 officers took refresher training that year, out of 2,267 officers who were assigned BWCs as of May 2021.

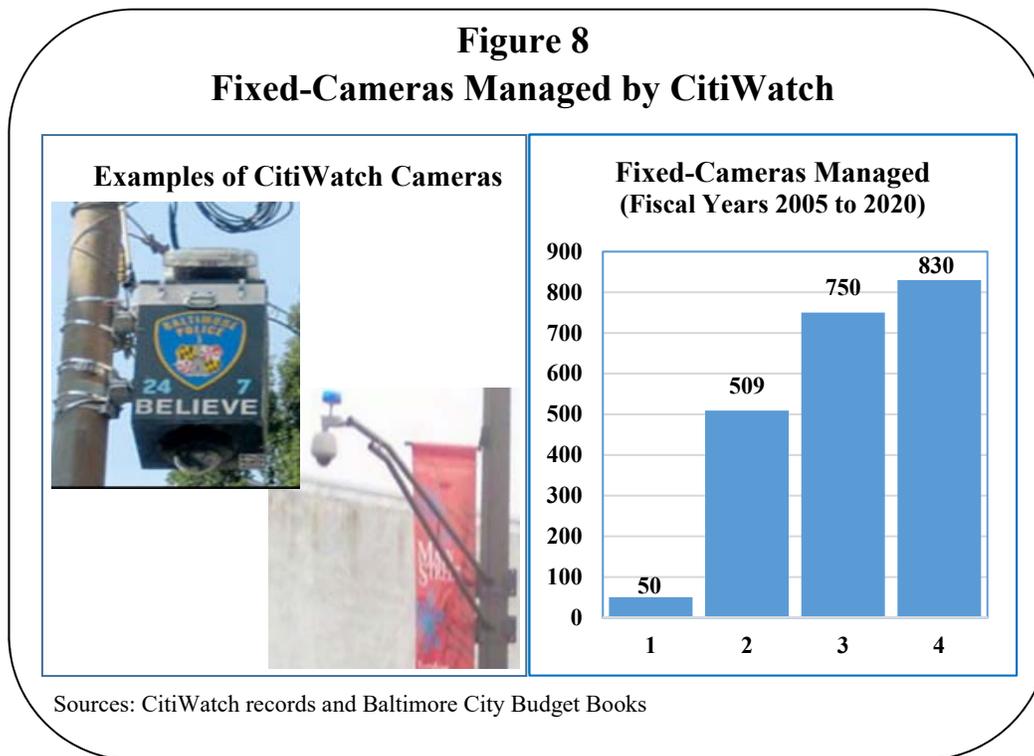
Recommendation 5

We recommend that BPD, consistent with best practices, require refresher training on BWC usage and protocols for all applicable officers at least annually.

Objective 2 – CitiWatch Program

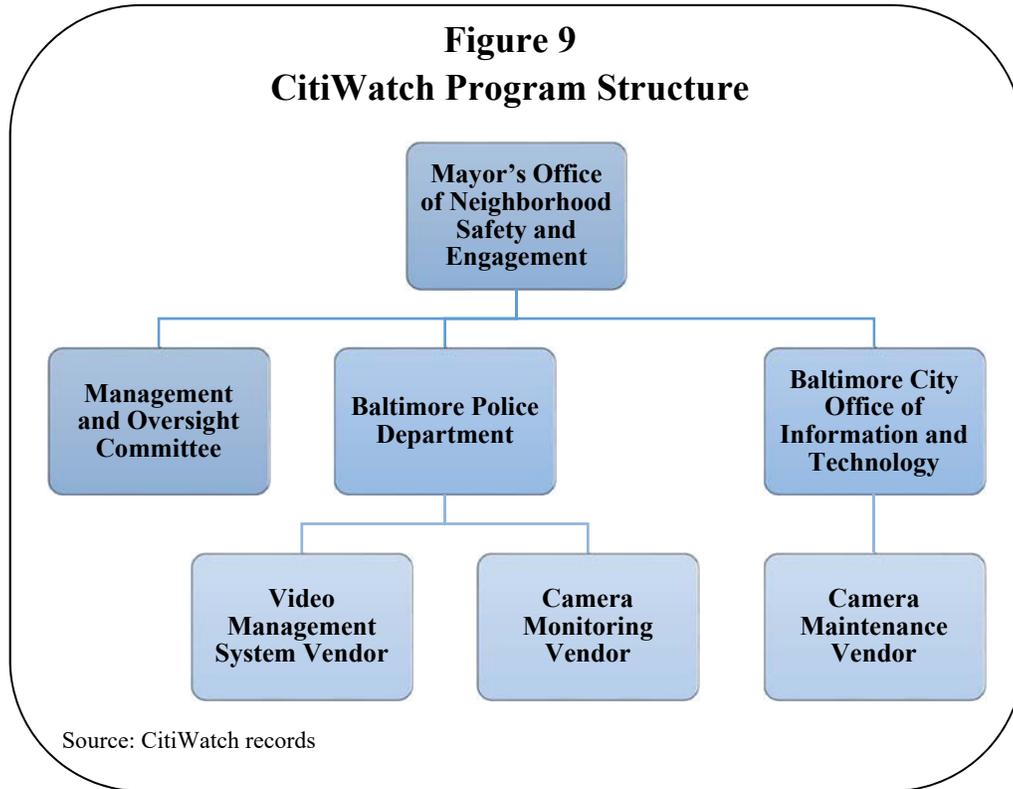
Background

In 2005, the CitiWatch Program was implemented by the Baltimore City (City) Mayor’s Office as a cost-effective way to proactively fight crime and create safer neighborhoods based on a similar program that had been operating in London, England. CitiWatch manages a network of both City-owned and privately-owned cameras fixed to structures (such as light poles) strategically located throughout the City. CitiWatch fixed-cameras provide real-time surveillance footage of public spaces that are actively monitored in an effort to prevent and quickly respond to criminal activity. As depicted in Figure 8, the number of fixed-cameras managed by CitiWatch has grown from 50 to 830 between fiscal years 2005 and 2020.



As presented in Figure 9, CitiWatch operates through a collaborative partnership between three City agencies: the Mayor’s Office of Neighborhood Safety and Engagement, the Baltimore Police Department, and the Baltimore City Office of Information and Technology. Management personnel from these three agencies also serve on the CitiWatch Management and Oversight Committee, which makes strategic and operational decisions pertaining to CitiWatch. Critical operations are supported by three key contracts for video management, camera monitoring services, and camera maintenance services. According to BPD records,

expenditures for these services totaled approximately \$3.1 million in fiscal year 2021.



Mayor's Office of Neighborhood Safety and Engagement (MONSE) – MONSE is responsible for the fiscal activity, oversight, and strategic direction of CitiWatch. MONSE's specific roles and responsibilities include

- Overall CitiWatch oversight;
- Management and allocation of funds and expenditures;
- Final approval of all camera projects including installation, removal, and upgrades;
- Reporting to senior City staff and external stakeholders;
- Execution of agreements with third parties; and
- Management of third party relationships.

Baltimore Police Department (BPD) – BPD is responsible for the day to day operations of CitiWatch, which primarily involves providing 24/7 monitoring of fixed-cameras. BPD's specific roles and responsibilities include

- Day to day operations of the CitiWatch Center including monitoring of fixed-cameras and review of footage;

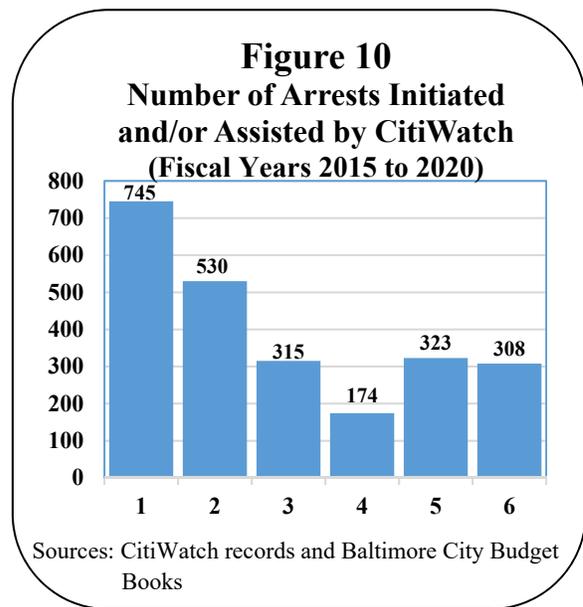
- Management, oversight, and deployment of all staff, including staff from the Camera Monitoring Vendor;
- Communication to BPD officers and command regarding criminal activity, dispatching officers, and criminal investigations;
- Collection and analysis of crime data; and
- Recommendations to MONSE regarding the installation, removal, maintenance, and upgrade of cameras.

Baltimore City Office of Information and Technology (BCIT) – BCIT provides technology support to CitiWatch by installing and maintaining the functionality of the City-owned and certain privately owned fixed-cameras. BCIT’s specific roles and responsibilities include:

- Physical maintenance, repair, upgrade, installation, and connection of fixed-cameras, software, and related infrastructure;
- Day-to-day management of contractual relationships related to technical services including the Camera Maintenance Vendor; and
- Tracking, collecting, and analyzing technical services costs.

The CitiWatch Program’s fixed-cameras provide live video feeds to a video management system (VMS) that is actively monitored 24 hours a day by BPD and Camera Monitoring Vendor personnel (who are mostly retired police officers) located in the CitiWatch Center. The VMS records video footage for 28 days, and allows users to control fixed-camera actions such as zooming in or changing direction.

When criminal activity is suspected or in progress, CitiWatch notifies BPD dispatch, and continues to provide logistic and strategic support as BPD responds to the incident on location. CitiWatch responds to requests from BPD for assistance to support its policing efforts, such as locating persons of interest. CitiWatch also provides recorded video footage as evidence to BPD and the Baltimore City State’s Attorney’s Office for investigations and cases (our audit scope was limited to related CitiWatch and BPD activities). In calendar year 2020, CitiWatch provided a total of 8,512 videos to BPD



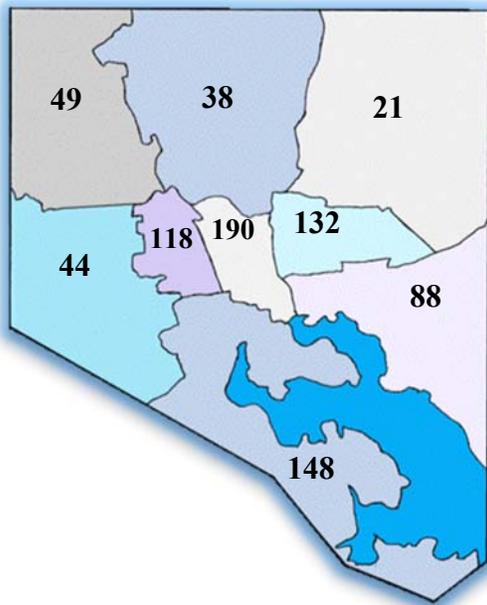
as evidence to support numerous cases and investigations. As depicted in Figure 10, these efforts have led to approximately 2,400 arrests initiated or assisted by CitiWatch between fiscal years 2015 and 2020.

According to CitiWatch management, the downward trend of arrests between fiscal years 2015 and 2018 was primarily due to Senate Bill 517 of the 2015 General Assembly Session which decriminalized the possession of marijuana paraphernalia. We were advised by CitiWatch management that since that time, the CitiWatch Program shifted its focus to other types of criminal behavior, such as more violent crimes including robberies, assaults, and illegal gun possession. CitiWatch also provides additional services to the City pertaining to non-criminal activity, including real-time situational awareness on special events, traffic accidents, water main breaks, and snow removal.

According to CitiWatch records, as of May 14, 2021, CitiWatch managed 830 fixed-cameras. These cameras are actively monitored by the CitiWatch Center as described above. As depicted in Figure 11 on the following page, which represents all managed cameras as of May 14, 2021, cameras are strategically located in different BPD districts of the City based on certain factors; primarily the associated risk of the area and current criminal activity trends, the adequacy of existing surveillance coverage, and available infrastructure.

In addition, the Community Partnership Camera Program was established under CitiWatch where City residents and small businesses can register privately owned cameras and make available their camera footage upon request. CitiWatch does not manage these cameras, and does not have real-time access to video footage. Rather, CitiWatch maintains a contact list for those cameras used to identify privately owned cameras in the area where a crime was committed. This information is referred to BPD for coordination and review of the available video footage. As of February 23, 2021, 663 privately owned cameras were registered under the Community Partnership Camera Program, and are primarily located in the Southern and Southeastern districts of Baltimore City as shown in Figure 11.

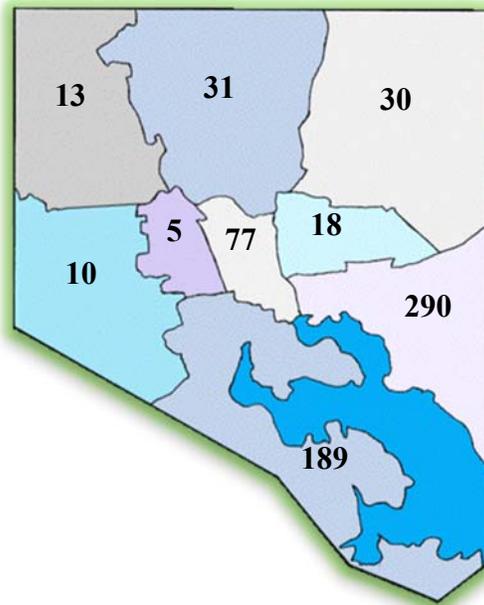
Figure 11
CitiWatch Partnership Camera Distribution by BPD District
City Managed Cameras
 (as of 5/14/2021)



830 City Managed Cameras

- Central District (190,77)
- Southeast District (88,290)
- Eastern District (132,18)
- Northeast District (21,30)
- Northern District (38, 31)

Privately Owned Cameras
 (as of 2/23/2021)



663 Privately Owned Cameras

Key:

- Northwest District (49,13)
- Western District (118,5)
- Southwest District (44,10)
- Southern District (148,189)

Note: There were an additional two City Managed Cameras located outside of Baltimore City
 Source: CitiWatch records

Objective and Methodology

Our objective for the fixed-cameras, administered under the CitiWatch Program was to evaluate the adequacy of CitiWatch’s written policies and procedures for the use of fixed-cameras, and determine whether fixed-cameras were subject to adequate controls and were used in accordance with these policies and procedures.

To accomplish our objective, we

- Reviewed the Video Quality in Public Safety *Policy Considerations for the Use of Video in Public Safety* report published by the United States Department of Homeland Security in June 2016.
- Reviewed BPD's Homeland Security standard operating procedures (SOP) and CitiWatch's *Closed Caption Television Monitoring System* policies and procedures manual.
- Interviewed CitiWatch Program staff, which was comprised of personnel from BPD, MONSE, and BCIT, to determine processes over general administration and use of fixed-cameras, monitoring and oversight activities, and system security.
- Reviewed agreements between the CitiWatch Program and other City agencies and entities for the use and maintenance of fixed-cameras.
- Evaluated processes for monitoring fixed-camera feeds through VMS, personnel response and reporting on events, camera maintenance, and invoice approval.
- Evaluated procedures for oversight of vendor staff used to monitor the fixed-cameras.
- Evaluated procedures over system security controls to properly safeguard video footage, video deletion and retention periods, and user access.
- Evaluated the adequacy of the procedures and controls by comparing these procedures to the aforementioned BPD SOP and CitiWatch *Closed Caption Television Monitoring System* policies and procedures manual.
- Viewed live, fixed-camera feeds, and obtained several reports from VMS such as audit trails, camera operation status, and user access reports in real-time while conducting our audit work.
- Reviewed seven agreements with other Baltimore City agencies and entities to ensure the agreements were sufficiently comprehensive and finalized.
- Tested 10 days of monitoring to evaluate the sufficiency of supervisory oversight activities, staffing levels, and compliance with reporting requirements.
- Tested 10 invoice payments to the monitoring vendor totaling \$733,000 to ensure that invoices were properly supported, approved, and in accordance with contract terms.

Our testing was based on a review of available electronic and hardcopy records and data maintained by the CitiWatch Program, and interviews with key personnel involved in the CitiWatch Program.

Conclusion

We determined that CitiWatch did not have a comprehensive policy and procedure manual, and did not always maintain executed agreements with entities

administering the CitiWatch Program (Finding 6). In addition, CitiWatch did not track camera uptime or the time it took to fix cameras that required maintenance to ensure CitiWatch was continuously operating effectively and efficiently (Finding 7).

Other processes reviewed such as monitoring fixed-camera feeds, supervisory oversight, and system security controls appeared to be adequate. In addition, our testing disclosed that monitoring processes and invoice payments appeared proper.

Findings

Finding 6

CitiWatch did not have a formal or comprehensive policies and procedures manual and did not always maintain executed agreements with other entities administering the CitiWatch Program.

Analysis

CitiWatch did not have a formal or comprehensive policies and procedures manual and did not always maintain executed agreements with other entities administering the CitiWatch Program.

- As of September 2021, CitiWatch did not have a formal policies and procedures manual, but was operating under a 2009 draft version of its *Closed Caption Television Monitoring System* policies and procedures manual. In addition, our review of the draft manual disclosed that it was not comprehensive, as certain critical administrative operations, such as vendor invoice verification and approval processes, and managing VMS user access, were either not sufficiently detailed in the draft policies and procedures manual or not included at all. Having a formal, comprehensive, and currently maintained manual is important to establish accountability, consistency, and transfer of knowledge.
- CitiWatch could not provide written agreements for 15 of the 22 agreements management advised that CitiWatch had with other City agencies and entities relating to information sharing, the use of fixed-cameras, and administration of CitiWatch. Our review of the 7 agreements that were provided, disclosed that 5 were either not signed by all related parties and otherwise finalized, or had expired at the time of our review. For example, the formal agreement between the three agencies (BPD, MONSE, and BCIT) responsible for administering the CitiWatch Program was never finalized, as it was not signed

by all parties and there were certain sections such as effective date, terms of agreement, and dispute resolution that were blank.

Recommendation 6

We recommend that BPD

- a. formalize and update its Citiwatch *Closed Caption Television Monitoring System* policies and procedures manual to include more comprehensive and up-to-date information pertaining to administering its program; and**
- b. maintain current and fully executed Citiwatch agreements with other City agencies and entities, including those noted above.**

Finding 7

CitiWatch did not track camera uptime (the time cameras were functioning properly) and did not have procedures to ensure broken cameras were repaired timely. As of July 23, 2021, approximately 12 percent of the cameras were not functional.

Analysis

CitiWatch did not track camera uptime (time cameras were functioning properly) and did not have procedures to ensure broken cameras were repaired timely. As a result, CitiWatch could not provide us with any statistics on camera downtime. Our review of CitiWatch data as of July 23, 2021, disclosed that approximately 12 percent of the cameras in CitiWatch were not functional. Maintaining fully functional fixed-cameras is critical to CitiWatch's operations and serving its mission.

Although CitiWatch reviewed the functionality status of cameras daily, it did not maintain statistics of camera uptime. According to CitiWatch management, it did not track the uptime of cameras because the data had not been required to be reported to Baltimore City since fiscal year 2016. Prior to this date, camera uptime was a performance measure reported in the budget books. The most recent camera uptime reported in the budget books, for the period from fiscal years 2012 and 2016, reported that camera uptime ranged from 90 to 97 percent. CitiWatch management advised that this reporting will be resumed for fiscal year 2022 as the performance measure was added with a target goal of 96 percent camera uptime.

CitiWatch also did not use an automated ticketing system or other mechanism to ensure broken cameras were being repaired timely. Such a system should track and readily provide key maintenance performance data such as the number of maintenance requests opened and closed for a specified period of time, and

turnaround time for the completion of repairs. CitiWatch management advised us that they transitioned to a new camera maintenance vendor effective July 1, 2021 that does have a ticketing system that captures maintenance case information such as creation, status, location, and update notes. However, this system does not have the capability to generate summary reports to readily capture maintenance data for a period of time or aging schedules.

According to the new ticketing system, 34 maintenance tickets were opened in August 2021. As of September 21, 2021, 6 of these tickets were closed and 28 were still open. According to CitiWatch management, the average turnaround time for repairing cameras is generally one or two days; however, for more complicated or structural fixes (such as a downed light pole), repairs could take weeks. As previously noted, BPD did not maintain statistics of the length of time individual cameras are not operational prior to repair.

Recommendation 7

We recommend that BPD ensure that CitiWatch develops

- a. procedures for routinely tracking camera uptime (and conversely, individual camera downtime); and**
- b. a mechanism that continually tracks and readily reports key maintenance information such as the number of opened and closed tickets for a specified period of time, turnaround times for closed tickets, and aging of open tickets.**

Objective 3 – Prisoner Transport Wagon Cameras

Background

Baltimore Police Department (BPD) prisoners are generally transported from the scene of arrest by a Prisoner Transport Wagon (PTW) to the Central Booking and Intake Facility for processing. A PTW is a passenger van customized in order to transport one or more persons in police custody. The rear portion of the PTW is separated from the driver's compartment by a barrier and then organized into one or two areas depending on the needs for that particular PTW. As of August 31, 2021 there were 18 PTWs assigned to the various police districts, as well as the Anti-Crime Section and Warrant Apprehension Task Force.

Figure 12
Examples of BPD Prisoner Transport Wagons



Source: Photos taken by the Office of Legislative Audits at BPD's Northern District

Each PTW is equipped with a Transport Vehicle Camera (TVC) System that monitors the interior of all holding areas. The TVC system displays a live video to officers located in the driver's section of the PTW to allow for observation of persons in police custody in real-time throughout the duration of the transport. The TVC system records video data from three or more cameras, as shown in Figure 13, that capture the entire transport process from when a person in police custody is placed in the PTW until the individual is removed from the PTW. All video footage is preserved for future viewing.

Figure 13
Prisoner Transport Wagon and Transport Vehicle
Camera System



Source: Photos taken by the Office of Legislative Audits at BPD's Northern District

Inspections and Audits – BPD policy requires daily physical inspections of each PTW and a weekly inspection at each district to ensure proper functionality of the PTWs and equipment, including the TVC system. Specifically, PTWs are to be inspected daily by the officer assigned to the vehicle for functionality of all equipment prior to every tour of duty. Weekly inspections are to be performed by District personnel to evaluate the overall condition of the vehicle both inside and

out, and by the Information Technology Unit to ensure that the TVC system is functioning properly, has sufficient storage, and cameras are properly positioned.

In addition, on a monthly basis, the BPD Performance Standards Division audits transports to evaluate whether transports conformed to BPD's policies. For PTW transports, these audits include reviewing video footage from the TVC system and body-worn cameras to evaluate 41 different transport requirements, of which 5 relate to the TVC system, to determine overall compliance. The Division also performs random and unannounced spot checks to inspect the operation of the TVC system on a quarterly basis. According to BPD's records, in calendar year 2020, BPD conducted 140 audits and 72 spot checks of PTW transports.

Objective and Methodology

Our objective for PTW cameras was to evaluate the adequacy of written policies over the use of PTW cameras, and determine whether PTW cameras were subject to adequate controls and BPD's procedures were followed in accordance with these policies.

To accomplish our objective, we reviewed the Transportation of Persons in Custody section of the Federal Consent Decree that mandated requirements that must be met and established in BPD's policies and procedures. In addition, we reviewed three separate BPD policies:

1. *Transport Vehicle Camera System*
2. *Persons in Custody Policy*
3. *Vehicle Inspections and Maintenance*

We then compared BPD's policies to corresponding requirements established by the Consent Decree pertaining to the use of PTW cameras to evaluate the sufficiency of BPD's policies. In addition, we interviewed BPD staff to determine processes over general administration and use of PTW cameras, monitoring and oversight activities, and system security. Specifically, we evaluated processes for daily use, inspection and maintenance, and hard drive (physical unit for storing video data) access.

We also reviewed procedures for conducting monthly and spot check audits, and video management processes including upload, storage, and access. We evaluated the adequacy of the related procedures and controls by comparing these procedures to the aforementioned BPD policies and tested all monthly and spot check audits performed in calendar year 2020 to evaluate the sufficiency of the audits performed. Finally, we witnessed inspections and hard drive maintenance performed for 10 of BPD's 18 PTWs.

Conclusion

Overall, we determined that BPD's policies pertaining to PTW cameras were sufficiently comprehensive, and procedures were consistent with BPD's policies. In addition, our review of inspections and test of audits and spot checks performed in calendar year 2020 disclosed that they appeared to be sufficient and performed in accordance with BPD policies.

Exhibit 1

Part I

Maryland Police Training Standards Commission Policy

Item	Standards (An agency's policy must address)
1	Testing of body-worn cameras to ensure adequate functioning
2	Procedure for the law enforcement officer to follow if the camera fails to properly operate at the beginning of or during the law enforcement officer's shift
3	When recording is mandatory
4	When recording is prohibited
5	When recording is discretionary
6	When recording may require consent of a subject being recorded
7	When a recording may be ended
8	Providing a notice of recording
9	Access to and confidentiality of recordings
10	Secure storage of data from a body-worn camera
11	Review and use of recordings
12	Retention of recordings
13	Dissemination and release of recordings
14	Consequences for violations of the agency's body-worn camera policy
15	Notification requirements when another individual becomes a party to the communication following the initial notification
16	Specific protections for individuals when there is an expectation of privacy in private or public places
17	Any additional issues determined to be relevant in the implementation and use of body-worn cameras by law enforcement officers

Part II

Police Executive Research Forum (PERF) Recommendations

Item	Recommendation
1	Policies should clearly state which personnel are assigned or permitted to wear body-worn cameras and under which circumstances.
2	If an agency assigns cameras to officers on a voluntary basis, policies should stipulate any specific conditions under which an officer might be required to wear one.
3	Agencies should not permit personnel to use privately-owned body worn cameras while on duty.
4	Policies should specify the location on the body on which cameras should be worn.

Part II
Police Executive Research Forum Recommendations
(Continued)

Item	Recommendation
5	Officers who activate the body-worn camera while on duty should be required to note the existence of the recording in the official incident report.
6	Officers who wear body-worn cameras should be required to articulate on camera or in writing their reasoning if they fail to record an activity that is required by department policy to be recorded.
7	Officers should be required to activate their body-worn cameras when responding to all calls for service and during all law enforcement-related encounters and activities that occur while the officer is on duty. Exceptions include recommendations 10 and 11 below or other situations in which activating cameras would be unsafe, impossible, or impractical.
7a	Policies and training materials should clearly define what is included in the description “law enforcement-related encounters and activities that occur while the officer is on duty.”
7b	Officers should also be required to activate the camera during the course of any encounter with the public that becomes adversarial after the initial contact.
8	Officers should be required to inform subjects when they are being recorded unless doing so would be unsafe, impractical, or impossible.
9	Once activated, the body-worn camera should remain in recording mode until the conclusion of an incident/encounter, the officer has left the scene, or a supervisor has authorized (on camera) that a recording may cease.
10	Officers should be required to obtain consent prior to recording interviews with crime victims.
11	Officers should have the discretion to keep their cameras turned off during conversations with crime witnesses and members of the community who wish to report or discuss criminal activity in their neighborhood.
11a	When determining whether to record interviews with witnesses and members of the community who wish to share information, officers should always consider both the evidentiary value of recording and the subject’s comfort with speaking on camera. To better capture evidence, PERF recommends that officers record statements made by witnesses and people sharing information. However, if a person will not talk unless the camera is turned off, officers may decide that obtaining the information is more important than recording. PERF recommends allowing officers that discretion.

Part II
Police Executive Research Forum Recommendations
(Continued)

Item	Recommendation
11b	Policies should provide clear guidance regarding the circumstances under which officers will be allowed to exercise discretion to record, the factors that officers should consider when deciding whether to record, and the process for documenting whether to record.
12	Agencies should prohibit recording other agency personnel during routine, non-enforcement-related activities unless recording is required by a court order or is authorized as part of an administrative or criminal investigation.
13	Policies should clearly state any other types of recordings that are prohibited by the agency. Prohibited recordings should include the following: 1) Conversations with confidential informants and undercover officers, 2) Places where a reasonable expectation of privacy exists, 3) Strip searches, and 4) Conversations with other agency personnel that involve case tactics or strategy.
14	Policies should designate the officer as the person responsible for downloading recorded data from his or her body-worn camera. However, in certain clearly identified circumstances, the officer's supervisor should immediately take physical custody of the camera and should be responsible for downloading the data.
15	Policies should include specific measures to prevent data tampering, deleting, and copying.
16	Data should be downloaded from the body-worn camera by the end of each shift in which the camera was used.
17	Officers should properly categorize and tag body-worn camera videos at the time they are downloaded. Videos should be classified according to the type of event or incident captured in the footage.
18	Policies should specifically state the length of time that recorded data must be retained.
19	Policies should clearly state where body-worn camera videos are to be stored.
20	Officers should be permitted to review video footage of an incident in which they were involved, prior to making a statement about the incident.
21	Written policies should clearly describe the circumstances in which supervisors will be authorized to review an officer's body-worn camera footage.
22	An agency's internal audit unit, rather than the officer's direct chain of command, should periodically conduct a random review of body-worn camera footage to monitor compliance with the program and assess overall officer performance.

Part II
Police Executive Research Forum Recommendations
(Continued)

Item	Recommendation
23	Policies should explicitly forbid agency personnel from accessing recorded data for personal use and from uploading recorded data onto public and social media websites.
24	Policies should include specific measures for preventing unauthorized access or release of recorded data.
25	Agencies should have clear and consistent protocols for releasing recorded data externally to the public and the news media. Each agency's policy must be in compliance with the state's public disclosure laws.
26	Body-worn camera training should be required for all agency personnel who may use or otherwise be involved with body-worn cameras.
27	Before agency personnel are equipped with body-worn cameras, they must receive all mandated training.
28	Body-worn camera training should include all practices and protocols covered by the agency's body-worn camera policy (which should be distributed to all personnel during training). It should also include an overview of relevant laws, operating procedures, scenario based exercises, downloading and tagging data, preparing to present the video evidence in court, and procedures for reporting malfunctioning equipment.
29	A body-worn camera training manual should be created in both digital and hard-copy form and should be readily available at all times to agency personnel.
30	Agencies should require refresher courses on body-worn camera usage and protocols at least once per year.
31	Agencies should collect statistical data concerning body-worn camera usage, including when video footage is used in criminal prosecutions and internal affairs matters.
32	Agencies should conduct evaluations to analyze the financial impact of implementing a body-worn camera program.
33	Agencies should conduct periodic reviews of their body-worn camera policies and protocols.



APPENDIX

BALTIMORE POLICE DEPARTMENT



Brandon M. Scott
Mayor

Michael S. Harrison
Police Commissioner

June 15, 2022

Dear Mr. Hook,

Attached are Baltimore Police Department's responses to the performance audit report of our surveillance equipment. Please do not hesitate to contact us if additional information is needed.

Sincerely,

for
Michael Sullivan
Deputy Commissioner

**Baltimore Police Department
Surveillance Equipment**

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Finding 1
Our analyses and review of BPD audits disclosed that certain officers were not always in compliance with BWC Policy requirements relating to uploading, categorizing, and titling videos.

We recommend that BPD

- a. take steps to ensure that all officers comply with all requirements of the BWC Policy, including implementation of the recommendations made elsewhere in this report regarding BWC compliance audits, the effective use of available BWC data, and training (Findings 2 and 5); and
- b. develop and implement appropriate corrective action plans with regard to the instances of noncompliance identified in this finding.

Agency Response			
Analysis			
Please provide additional comments as deemed necessary.	N/A		
Recommendation 1a	Agree	Estimated Completion Date:	Completed
Please provide details of corrective action or explain disagreement.	<p>In October of 2020, the BWC Unit was reassigned from the Administrative Bureau-- Evidence Services Section, to the Compliance Bureau. This change was made to facilitate an increased focus on Audits and Performance Measures. Under the Evidence Services Section, the main focus of the BWC Unit was the creation of Electronic Case folders to provide the State’s Attorney’s Office (SAO) the required video evidence to prosecute criminal cases.</p> <p>Under the Compliance Bureau, the BWC Unit has:</p> <ol style="list-style-type: none"> 1. Completed activation audits each month and backtracked to complete audits of required months in 2020. 2. Generated a daily audit of uncategorized videos, sorted by command. Data from the previous day¹ is exported from Video Management Systems (VMS) each morning. The data includes the total number of BWC videos and each uncategorized video. Each officer who has an uncategorized video is designated by their correct assignment. The officers are then counted and sorted by 		

¹ On Mondays, the previous time period of data is the weekend plus the previous Friday.

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command. A chart is formed which highlights each command. The chart and list of officers is sent to all commanders, including PIB by 11AM each morning. The daily report provides information to commanders to take corrective action. Corrective action ranges from counseling and training, to formal discipline through PIB. This process also allows technical issues, such as a malfunctioning loading dock, to be addressed quickly.

From June of 2021, through the end of the year, the data was compiled into a weekly report and presented at Comstat. Commanders were held to account for deficiencies and plans for improvements.

This process achieved significant improvements. For example, the week of July 6 to July 12, 2021, the BPD had recorded 17,763 BWC videos. Officers did not categorize 1,120 of those videos for a rate of 6.31%. The week of December 21, 2021, officers did not categorize 295 of 13,504 videos for a rate of 2.18%. Rates have continued to decrease since then.

In 2022, daily reporting continued and monthly scorecards were issued. The scorecards outlined the performance of each command, each day for cumulative totals for the month. The scorecards are presented at Comstat. The rate of uncategorized BWC videos in February 2022 was 2.05%. Noteworthy was the Northern District who had 21 of the 28 days without any uncategorized videos.

Consistent decreases in rates of uncategorized videos was seen in the next three months of March (1.92%), April (1.72%) and May (1.67%).

These new methods of accountability demonstrate BPD's continued commitment to correcting issues found in this report.

3. Drafted an MOU with the SAO to provide them VMS access thus streamlining the evidence collection process and allowing the BWC Unit members more time to focus on Compliance.
4. Initiated a Pilot Program to mandate arresting officers create their own electronic case folder in VMS for the SAO, thus allowing the BWC Unit members more time to focus on Compliance. Although this program has been initiated, the new system is not expected to be fully effective until the end of calendar year 2022.
5. Created a draft BWC Unit Standard Operating Procedure (SOP) that contains needed updates to past systems and addresses findings in the OLA report. The SOP will also leverage the

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	<p>capabilities of Axon Performance, an auditing tool that has been recently introduced to the BPD. The SOP is under internal review. The anticipated date of completion is June 2022. Although the SOP draft is complete, implementation of the final version is not expected until July of 2022.</p> <p>¹ On Mondays, the previous time period of data is the weekend plus the previous Friday.</p>		
Recommendation 1b	Agree	Estimated Completion Date:	June 30, 2022
Please provide details of corrective action or explain disagreement.	<p>The BWC Unit has recently been provided a demonstration of “Axon Performance” and plans to leverage this tool for Audits and Inspections. The updated BWC Unit SOP will incorporate audit methodologies and corrective action options. Corrective action could range from formal discipline through PIB to command counseling or re-training. BPD has developed a draft disciplinary matrix, which will include a range of sanctions for BWC-related negligence and was created in collaboration with the U.S. Department of Justice (DOJ) and the Monitoring Team. This draft disciplinary matrix addresses Consent Decree paragraph 375, which calls on BPD to review its disciplinary matrices to ensure consistency in the imposition of discipline. It also has heavily influenced the development of a statewide disciplinary matrix pursuant to 2021 police reform legislation.</p> <p>The BWC unit will begin generating a “Top 10” list of members who most frequently leave BWC footage uncategorized. Along with the monthly scorecard, the Top 10 list will be discussed at Comstat, and shared with PIB. This tool is another measure to highlight non-compliance, take appropriate corrective action and prevent repeated deficiencies.</p>		

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Finding 2
BPD did not have policies and procedures governing the scope and methodology of BWC compliance audits and did not use available BWC data or a risk-based audit approach to focus audit efforts and maximize its audit coverage.

We recommend that BPD

- a. develop a formal BWC compliance audit policy and plan to uniformly address all critical components of the audit process, including BWC Policy requirements to be examined, documentation to be maintained, the reporting of results, and any action required when violations are identified; and**
- b. include in that policy a provision for the use of available data analysis procedures and a risk-based audit approach to more effectively and efficiently audit BWC Program activity.**

Agency Response			
Analysis			
Please provide additional comments as deemed necessary.	N/A		
Recommendation 2a	Agree	Estimated Completion Date:	June 30, 2022
Please provide details of corrective action or explain disagreement.	<p>The BWC Unit is developing an SOP, which will include newly available tools such as Axon Performance. The SOP will incorporate audit methodologies and corrective action options (See Item 5 from OLA recommendation 1a). The BWC policy requirements to be examined include:</p> <ul style="list-style-type: none"> • Activation (Late Activation and Early Deactivation included)² • Categorization • Titling • Timely Uploading <p>The BWC Unit will retain audit documentation indefinitely and maintain both physical and electronic copies. Paper copies will be</p>		

² Activation accountability is layered throughout the BPD. For example, PIB will ensure proper activation when investigating a misconduct complaint; transportation auditors will ensure proper activation during transport reviews; and the Use of Force Assessment process focuses on BWC activation. Violations result in formal discipline.

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	<p>stored in the BWC Unit offices; PDF versions will be stored inside VMS and in a BPD shared drive.</p> <p>Audit results will be sent to command to include PIB. BWC compliance will be presented at Comstat. The BWC Unit will follow up on non-compliant members by prioritizing them for additional audits related to the non-compliant item, in addition to other BWC mandates.</p> <p>² Activation accountability is layered throughout the BPD. For example, PIB will ensure proper activation when investigating a misconduct complaint; transportation auditors will ensure proper activation during transport reviews; and the Use of Force Assessment process focuses on BWC activation. Violations result in formal discipline.</p>		
Recommendation 2b	Agree	Estimated Completion Date:	June 30, 2022
Please provide details of corrective action or explain disagreement.	<p>Axon Performance has the potential for flagging high-risk incidents for review. The BWC Unit plans to utilize this tool. The Performance Standards Section will concentrate resources on BPD units that focus on seizing drugs and guns and make arrests at levels substantially higher than other units performing similar functions. This enhanced level of scrutiny is to ensure that the statistical achievements are not the product of policy violations. Additionally, as stated in the previous recommendation 2a, the BWC Unit will follow up on non-compliant members by prioritizing them for additional audits related to the non-compliant item, in addition to other BWC mandates.</p>		

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Finding 3
BPD did not conduct a sufficient number of BWC compliance audits, did not maintain adequate documentation to support audits performed, and did not always take appropriate action when noncompliance was identified.

We recommend that BPD

- a. conduct at least the minimum required number of audits each month;**
- b. maintain sufficient documentation to support the audit work performed;**
- c. refer non-compliant officers for further investigation as required; and**
- d. clarify in its formal audit policy the criteria and circumstances under which a decision to not refer noncompliance to PIB may be warranted, as well as the documentation required.**

Agency Response			
Analysis			
Please provide additional comments as deemed necessary.	At the time of these audits, the BWC Unit was part of the Evidence Services Section and not sufficiently focused on Audit documentation systems.		
Recommendation 3a	Agree	Estimated Completion Date:	Completed
Please provide details of corrective action or explain disagreement.	<p>With increased staffing and SAO access to VMS granted, the BWC Unit is completing 30 audits per month, at minimum. The BWC Unit has also completed activation audits for each required month spanning back to July 2020. The activation audit from February 2022 found 10 activation violations³ out of 337 total required videos⁴ for a rate of activation violations of 2.97%. The categorization audits from February 2022 found the cumulative rate of uncategorized videos from each of the 28 days to be 2.05%.</p> <p>³ Activation violations are considered (1) failure to record, (2) late activation, and/or (3) early de-activation.</p> <p>⁴ The number of required videos is found in VMS (these can only be evaluated for late activation and/or early deactivation) plus incidents found in CAD that are not in VMS in which the member responded to a scene but did not record the required event.</p>		
Recommendation 3b	Agree	Estimated Completion Date:	Completed

³ Activation violations are considered (1) failure to record, (2) late activation, and/or (3) early de-activation.

⁴ The number of required videos is found in VMS (these can only be evaluated for late activation and/or early deactivation) plus incidents found in CAD that are not in VMS in which the member responded to a scene but did not record the required event.

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Please provide details of corrective action or explain disagreement.	The BWC Unit now maintains documentation in support of each audit. This process will be outlined in the SOP. As stated in the response to recommendation 2a, the BWC Unit will retain audit documentation indefinitely and maintain both physical and electronic copies. Paper copies will be stored at the BWC Unit offices; PDF versions will be stored inside VMS and in a BPD shared drive. These three methods create a redundancy to ensure proper documentation in the event of unforeseen future events such as a malware attack.		
Recommendation 3c	Agree	Estimated Completion Date:	Completed
Please provide details of corrective action or explain disagreement.	The BWC Unit shares reports on non-compliance with PIB in addition to the member’s command. Additionally, other units within the Compliance Bureau refer BWC violations to PIB for corrective action.		
Recommendation 3d	Agree	Estimated Completion Date:	Completed
Please provide details of corrective action or explain disagreement.	The Compliance Bureau is developing a BWC Unit SOP, which will incorporate audit methodologies and corrective action options. Corrective action could range from formal discipline to command counseling or re-training. Specific criteria will indicate what constitutes a violation, whether non-compliance is a systems issue or a user issue, and what factors generate formal discipline as opposed to non-punitive corrective action.		

The Office of Legislative Audits (OLA) has determined that Finding 4 related to “cybersecurity”, as defined by the State Finance and Procurement Article, Section 3A-301(b) of the Annotated Code of Maryland, and therefore is subject to redaction from the publicly available audit report in accordance with State Government Article 2-1224(i). Consequently, the specifics of the finding, including the analysis, related recommendation(s), along with the Agency’s responses, have been redacted from this report copy.

Finding 4
Redacted cybersecurity related finding.

Agency Response has been redacted by OLA.

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Finding 5
BPD did not require annual refresher training on BWC usage and protocols consistent with best practices.

We recommend that BPD, consistent with best practices, require refresher training on BWC usage and protocols for all applicable officers at least annually.

Agency Response			
Analysis			
Please provide additional comments as deemed necessary.	N/A		
Recommendation 5	Agree	Estimated Completion Date:	January 31, 2023
Please provide details of corrective action or explain disagreement.	BWC training will occur on an annual basis, at minimum. This could be incorporated into annual in-person training and/or department-wide eLearning.		

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Finding 6
CitiWatch did not have a formal or comprehensive policies and procedures manual and did not always maintain executed agreements with other entities administering the CitiWatch Program.

We recommend that BPD

- a. formalize and update its Citiwatch *Closed Caption Television Monitoring System* policies and procedures manual to include more comprehensive and up-to-date information pertaining to administering its program; and
- b. maintain current and fully executed Citiwatch agreements with other City agencies and entities, including those noted above.

Agency Response			
Analysis			
Please provide additional comments as deemed necessary.	CitiWatch is not a strictly BPD program. BPD is the main beneficiary, but the cameras are maintained by the City for all public safety and services.		
Recommendation 6a	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 2px;">Agree</td> <td style="padding: 2px;">Estimated Completion Date: June 30, 2023</td> </tr> </table>	Agree	Estimated Completion Date: June 30, 2023
Agree	Estimated Completion Date: June 30, 2023		
Please provide details of corrective action or explain disagreement.	As the Citiwatch program evolves, manuals and SOPs continuously need to be updated. We recognize this need.		
Recommendation 6b	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 2px;">Agree</td> <td style="padding: 2px;">Estimated Completion Date: June 30, 2023</td> </tr> </table>	Agree	Estimated Completion Date: June 30, 2023
Agree	Estimated Completion Date: June 30, 2023		
Please provide details of corrective action or explain disagreement.	CitiWatch has recognized that prior City administrations did not maintain executed agreements. We are currently working to rectify any pertinent MOU or agreements that need to be updated.		

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Finding 7
CitiWatch did not track camera uptime (the time cameras were functioning properly) and did not have procedures to ensure broken cameras were repaired timely. As of July 23, 2021, approximately 12 percent of the cameras were not functional.

- We recommend that BPD ensure that CitiWatch develops
- a. procedures for routinely tracking camera uptime (and conversely, individual camera downtime); and
 - b. a mechanism that continually tracks and readily reports key maintenance information such as the number of opened and closed tickets for a specified period of time, turnaround times for closed tickets, and aging of open tickets.

Agency Response			
Analysis			
Please provide additional comments as deemed necessary.	N/A		
Recommendation 7a	Agree	Estimated Completion Date:	Completed
Please provide details of corrective action or explain disagreement.	CitiWatch had recognized this deficiency prior to this audit process and switched VMS, along with our technological maintenance vendor. Since that change, there are formal procedures in place, including ticketing systems, automated email notifications from the VMS, as well as a tracking process. We are currently showing a 93% operational uptime rate, as we work through long delivery times for camera inventory orders, etc.		
Recommendation 7b	Agree	Estimated Completion Date:	Completed
Please provide details of corrective action or explain disagreement.	CitiWatch now utilizes the City's Solar Winds ticketing system. This system also links together our technological maintenance vendor's tracking system (SOAR). Both systems provide turnaround times and tracking of tickets.		

AUDIT TEAM

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