MPD CRIME DATA SYSTEM AUDIT

MILWAUKEE POLICE DEPARTMENT RESPONSE

This report is a response to the audit of the Milwaukee Police Department's Crime Data Systems Project that was conducted by the Comptroller's Office.

II Background

The need for replacement of the Computer Aided Dispatch (CAD) system was identified in the late 1990s, as the system in place at that time was outdated, failing and in need of replacement. In addition, MPD identified the need to implement a new Records Management System (RMS) to replace an outdated manual paper system that provided minimal access and was extremely inefficient. It was determined, at the time, that simultaneous purchase and replacement of these systems would be most economical and in the best interest of the Milwaukee Police Department and the City of Milwaukee.

The MPD Crime Data System project currently costs about $7.3 million. The audit states that that figure excludes the cost of MPD staff time that the audit could not identify. Historically, the police department has never identified the salary cost of personnel assigned to IT projects. Salaries of Police Department employees are considered "sunk" costs that are already budgeted for and are not out-of-pocket expenses that would increase the overall cost of a project.

Of the $7.3 million project cost, $3.8 million or 52% was funded by Federal law enforcement grants. MPD personnel worked tirelessly to identify appropriate grants to reduce the burden that the purchase and implementation of these systems would place on the city budget. Their efforts resulted in reducing the cost to City of Milwaukee taxpayers to $3.5 million. In addition, MPD is holding back almost $1.1 million in contract payments to Tiburon due to incomplete performance by the contractor.

The audit has indicated that important system functions sought and software purchased by MPD are still not operational or are currently underutilized. This statement is inaccurate. Many of the system's important functions and software purchased by MPD are indeed operational at this time. There are some modules, however, that are not completely operational or currently are underutilized.

The audit further indicates that "significant" additional costs will be incurred to make these systems fully operational. While it may be true that MPD will incur some future costs to fully implement this project, there are no current plans to spend significant amounts of money to make the system fully operational. The vast majority of the system is built (estimated at 90%) and configured, and while the rollout of individual modules in the system will require additional training, this training will not be an out-of-pocket expense but will be conducted by the current staff. As to the modification of MPD's current business practices, this does not involve out-of-pocket expenses and may in fact save money by enhancing the efficiency of the Department.

1

The audit indicated that MPD has also installed other extensive computer, telephone, radio and audio/visual technology in recent years. It goes on to state that the Department has expended $39.7 million for new technology, including the Crime Data System, over the last five calendar years. It needs to be understood that the $39.7 million figure is well beyond the scope of an audit of the **Crime Data System**. The $39.7 million figure does not represent only incremental cost of providing new technology for MPD. This figure includes MPD payroll costs of $10.7 million of tax levy-supported funds for MPD personnel assigned to the MPD Technology Division. Furthermore it includes $2.1 million of DPW operating costs for maintenance of SONET (city communications network) and other communications technology.

The $39.7 million figure includes telephone systems, OpenSky radio systems and audiovisual technology for State mandated recording of interrogations, among other things. The Crime Data System project is limited to four integrated subsystems, the Computer Aided Dispatch (CAD), Corrections Management System (CMS), Automated Reporting System (ARS) and Records Management System (RMS). The cost of the Tiburon Crime Data Project is $3.5 million to the City of Milwaukee.

The audit correctly identified that MPD personnel are currently implementing a number of other technology projects that are not part of the Crime Data System. The following projects are being worked on simultaneously with the Crime Data System:

- ❖ Pole cameras
- ❖ In-Squad video
- ❖ Electronic audio/visual recordings of interrogations
- ❖ Video storage and archiving
- ❖ RapID
- ❖ Mobile squad data computers (MDCs)
- ❖ Automated traffic and accident citations (TraCS)
- ❖ Wisconsin Justice Information Sharing (WIJIS)
- ❖ Early Intervention Program (EIP)

III Audit Conclusions and Recommendations

A. Summary Conclusions

The core functions for CAD, CMS, ARS and RMS are implemented and functioning. Since 2005, the MPD crime data reports required by the State have been timely and within acceptable data accuracy limits. Unfortunately, the conversion of the MPD Tiburon data to the State specifications were more complicated than anticipated and initially incurred some delays.

The MPD did encounter some problems with its implementation of the Crime Data System that did result in project delays and an initial delay in reporting Wisconsin Incident Based Reporting System (WIBRS) crime data to the State. Unfortunately, delays are not uncommon when implementing an extensive and complex computer project of this nature. When vendors present their product to a potential customer, they generally minimize potential problems that may be

encountered upon implementation. The timelines they present can be aggressive, not taking into account problems with data conversion and other unforeseen difficulties in the implementation of their product. To be fair to the vendor, it is difficult, if not impossible to foresee some delays until the product is installed and test runs are completed. Once the product is purchased and installed, computer technicians begin to identify problems and work to correct them as they appear. This causes delays in almost all computer projects.

The audit once again states, "important system functions sought and software purchased by MPD are still not operational or are currently underutilized." This statement is inaccurate. Many of the system's important functions and software purchased by MPD are indeed operational at this time. There are some, however, that are not completely operational or currently are underutilized. The auditors and elected officials need to understand that this system and its software were purchased more than five years ago. Some of the software has since become outdated and has been replaced by software that is more contemporary, efficient and provides features not included in the original Tiburon software.

The audit has determined that strong project management and oversight of the Crime Data System project is lacking. The conclusion that MPD did not provide strong project management and oversight is without merit. Project managers met on a weekly basis including representatives of all the disciplines involved in the implementation of the system. Records Management, Identification Division, Communications and Data Services all participated in the implementation of the Crime Data System. The MPD implemented the use of Microsoft SharePoint to further track and document outstanding project issues and to provide timelines for the project. Weekly, monthly, quarterly and annual reports were prepared for project managers to keep everyone involved apprised as to the progress. Meetings with senior Tiburon staff were held on a regular basis and resulted in the replacement of the original project manager and the replacement of the regional project manager.

It is MPD's position that strong management and oversight of the Tiburon system project was lacking by the vendor project management team. Implementation of these projects was hampered by the reorganization of Tiburon to CompuDyne and the subsequent return to Tiburon. MPD management was in constant contact with officials from Tiburon during the project's implementation. Problems were brought to the attention of Tiburon immediately upon discovery; however, Tiburon staff frequently delayed addressing the issues in a timely manner due to other projects throughout the country in which they were involved. Eventually, as was stated earlier, Tiburon replaced the original project manager and regional project manager due to non-responsiveness and expressions of dissatisfaction by MPD personnel. In 2006, MPD administration convinced Tiburon to bring their annual users' conference to Milwaukee. This provided an opportunity for MPD and Tiburon to build a closer relationship that resulted in improved cooperation and responsiveness.

The audit has correctly identified that MPD was not properly staffed to effectively implement this complex project and deal with the deficiencies in Tiburon performance. At the time of implementation, MPD administration was very sensitive to the budget problems experienced by the City of Milwaukee. In an effort to control the costs associated with a project of this nature, a decision was made to attempt implementation using existing Police Department staff. Although

this decision saved the city money in consultant costs, it also created delays in the implementation of these systems. The result was an overworked staff that did the very best they could without the technical expertise necessary to anticipate and correct problems when they appeared. To correct this deficiency, MPD administration has requested nine additional IT positions in the 2008 budget. It is anticipated that these positions will be civilian positions with the necessary education and expertise to move all of our IT projects forward in a timely manner.

I do agree with the Comptroller's assessment that, "Despite these limitations, the fact that the core system functionality is now operational is a significant achievement by the MPD personnel assigned to the project."

The audit recommended that MPD consult with the City Attorney about possible contract claims against Tiburon before formally accepting the system and payout of the holdbacks. It should be noted that MPD officials have met with the City Attorney's contract staff who advised that there was no basis for a claim of damages.

The audit has further recommended that MPD enhance its crime reporting for interested outside parties, focusing on how the Crime Data System can best be used to meet the needs of aldermen and other public officials. MPD makes every effort to keep our elected officials advised as to crime trends and occurrences in their respective districts. Command staff members of the Milwaukee Police Department have met personally with the elected officials to assist them in accessing information through the City Compass system and through the City Website, which provides crime statistics and maps showing crime locations city-wide by Aldermanic district and police districts. Elected officials have been encouraged to stay in close contact with their respective District Captains on crime issues.

Until crime data has been certified through the State system, the distinct possibility exists that the data will change over time. Should the MPD elect to release unverified raw data prematurely, it undoubtedly will find its way to the news media for publication. After the data has been certified and released (and because the data may have changed), the accuracy will be called into question (due to differences from the original data). This will result in reduced public confidence in crime reporting by the Milwaukee Police Department.

B. MPD Crime Data System Description

The Crime Data System Description is accurate.

C. Project Budgeting and Management

The MPD did encounter difficulties with its implementation of the Crime Data System that did result in project delays and an initial delay in reporting WIBRS crime data to the State. Unfortunately, delays are not uncommon when implementing an extensive and complex computer project of this nature. When vendors present their product to a potential customer,

they generally minimize potential problems that may be encountered upon implementation. The timelines they present can be aggressive, not taking into account problems with data conversion and other difficulties in the implementation of their product. Once the product is purchased and installed, computer technicians begin to identify problems and work to correct them as they appear. This causes delays in almost all computer projects.

The audit once again states, "important systems functions sought and software purchased by MPD are still not operational or are currently underutilized." This statement is inaccurate. Many of the system's important functions and software purchase by MPD are indeed operational at this time. There are some modules, however, that are not completely operational or currently are underutilized. Many of the components that are not completely operational are awaiting the purchase and installation of additional technology. For instance, the Automobile Vehicle Locator (AVL) component of CAD requires replacement of radios in squads to become functional. As squad cars are replaced new radios are installed in the new vehicles. Squads not scheduled for replacement are retrofitted with new radios. It will take a period of time before all the squads are equipped with AVL compatible radios.

The audit states that, "The Crime Data System project was not adequately disclosed in City Budgets. Budget authorizations appear to have been distributed to various budget lines over several years…" MPD responds that this recommendation was also made in the audit of the data communications center capital account that was completed subsequent to the purchase of the Tiburon Crime Data System. Since that time, MPD has set up sub-accounts within its capital accounts to track the sometimes numerous projects that are covered under a capital appropriation. MPD does maintain manual records of the costs that are charged to its capital accounts. This includes any unrecorded liabilities that will be paid from the capital appropriations.

Furthermore, the audit states that, "project expenditures were not recorded in discreet project accounts nor were payroll expenditures for MPD staff time on the project tracked through payroll codes. The audit further states that all costs associated with a project including staff salaries should be tracked and charged to project accounts…" MPD responds that until the City changes the way it budgets for capital appropriations, MPD will be unable to charge salaries to the capital accounts. When we use existing personnel, their salaries are included in the City's O&M budget. There are no appropriations in the capital account for City salaries.

The Crime Data System was included in the data communications capital account, PL12080500. It was made clear, at that time, that there was a technology component when requesting appropriations for this project. The original estimate of $11.0 million for technology proved to be totally inadequate once the systems were fully defined and put out for bid. Fortunately, the MPD was able to obtain $3.8 million in grants to offset 52% of the cost of the Crime Data System. Because of the need for several funding sources, it was necessary to use several different budget lines to account for the entire system.

MPD has detailed records of the amount spent on the Crime Data System, both in the capital account PL12080500 and in several grant accounts (with the exception of MPD tax levy-supported salaries).

Subsequent to the audit of the data communications center several years ago, both the Comptroller's office and the Police Department have been following the recommendation to set up more detailed capital sub-accounts to segregate costs. Unfortunately, the data communications center capital account appropriations did not make this distinction, making it difficult to compare appropriations to expenses. Since that time, the radio system and the Automated Fingerprint Information System (AFIS) were set up as separate capital accounts to facilitate this type of an analysis. MPD plans to continue this practice for future projects.

The audit has determined that strong project management and oversight of the Crime Data System project is lacking. The conclusion that MPD did not provide strong project management is without merit. Project managers met on a weekly basis including representatives of all the disciplines involved in the implementation of the system. Records Management, Identification Division, Communications and Data Services all participated in the implementation of the Crime Data System. The MPD implemented the use of Microsoft SharePoint to further track and document outstanding project issues and to provide timelines for the project. Weekly, monthly, quarterly and annual reports were prepared for project managers to keep everyone involved apprised as to the progress of the project. Meetings with senior Tiburon staff were held on a regular basis and resulted in the replacement of both the original Tiburon project manager and regional project manager.

It is MPD's position that strong management and oversight of the Tiburon system project was lacking by the vendor project management team. Implementation of these projects was hampered by the reorganization of Tiburon to CompuDyne and the subsequent return to Tiburon. MPD management was in constant contact with officials from Tiburon during its implementation. Problems were brought to the attention of Tiburon immediately upon discovery; however, Tiburon staff frequently delayed addressing the issues in a timely manner due to other projects in which it was involved throughout the country. Eventually, as was stated earlier, Tiburon replaced the original project manager and the regional project manager due to non-responsiveness and expressions of dissatisfaction by MPD personnel. In 2006, MPD administration convinced Tiburon to bring their annual users' conference to Milwaukee. This provided an opportunity for MPD and Tiburon to build a closer relationship that resulted in improved cooperation and responsiveness.

The audit has acknowledged that MPD did considerably more than the vendor did to monitor the implementation plan. The project contract assigned primary responsibility for project management and system implementation to Tiburon, consistent with the City's Request for Proposal (RFP). The audit further points out that Tiburon was responsible to provide all design, development, installation, consulting, system integration, project management, training and technical services that had been set forth in the Statement of Work (SOW).

The audit has correctly identified that MPD was not properly staffed to effectively implement this complex project and deal with the deficiencies in Tiburon performance. Given the responsibilities assigned to Tiburon in the RFP and SOW, and being sensitive to the budget problems experienced by the City of Milwaukee, a conscious decision was made to attempt implementation of this project using existing police department staff. Although this decision

saved the City money in consulting costs, it also created delays in the implementation of these systems. The result was an overworked staff that did the very best they could without the technical expertise necessary to anticipate and correct problems when they appeared. To correct this deficiency, MPD administration has requested nine additional IT positions with the necessary education and expertise to move all of our IT projects forward in a timely manner.

Once again, I agree with the audit's conclusion that, "Despite these limitations, the fact that the core system functionality is now operational is a significant achievement by the MPD personnel assigned to the project."

Recommendation 1: Budget large capital projects with clearly identifiable projects accounts

The audit findings of the data communications center were published in 2003. At that time it was recommended that the Comptroller's office and the MPD set up more detailed capital sub-accounts to segregate costs. Unfortunately, the Tiburon project was in the purchase process prior to the publishing of the data communications center audit; therefore, the recommendation was not made in time for it to be implemented for use in the Tiburon Crime Data System project accounting. Complicating this matter was the fact that some of the monies dedicated to the Tiburon project were included in the capital accounts related to the data communications center.

Since that time, and as a result of the recommendation of the data communications center, MPD has set up technology projects such as the Automated Fingerprint Information System (AFIS) as separate capital accounts to facilitate cost analysis. MPD intends to continue this practice for future projects.

Recommendation 2: Utilize a standard system development methodology for IT projects

MPD agrees that this method could be used in future projects of this nature.

D. System Implementation

The audit has acknowledged that the core functions of the CAD, CMS, ARS and RMS are implemented and functioning. Furthermore, it is MPD's position that all of the system's important functions are operational. Some of the ancillary systems are being phased in due to budget constraints, are awaiting training (training is not conducted in the summer months due to workload) or have been replaced by more current technology. The following core functions are now operational:

- ❖ Automated 911 call for service processing and squad dispatching in CAD
- ❖ Prisoner booking in CMS
- ❖ Criminal incident reporting in ARS

❖ WIBRS crime data processing and reporting, arrest record processing and arrest warrants in RMS

The above Crime Data System functions support the primary mission of responding to citizen calls, processing those arrested, recording the particular details of each crime and reporting crime statistics, and therefore are essential to MPD operations.

According to the audit, the following system functions are not yet operational:

❖ Mobile data and automated field reporting in ARS: (MPD disagrees with this conclusion.) These functions are completed, but are not yet rolled out or trained. The training has been delayed due to summertime workload. The MDCs required to input reports in the field are currently failing at an alarming rate. Replacements will be purchased through asset forfeiture monies as soon as the Common Council approves the resolution.

❖ Crime Analysis and Geographical Presentation Analyst Systems in RMS: MPD responds that the Crime Analysis Section does extract data from the Tiburon system by using calls for service and offense information to develop density maps for "hot spot" identification and enforcement. The MPD Crime Analysis Section and even more so, the Southeastern Wisconsin Terrorism Alert Center (STAC), which is housed at MPD, utilizes records contained in ARS and CAD to analyze the data and turn it into actionable intelligence. These units utilize specialized software programs to take the raw data and develop it into actionable intelligence for targeted enforcement activity. MPD has also provided several training courses to our personnel to enhance their abilities and move this Department to a level where we become very efficient at predictive analysis. Tiburon is not recognized as a state-of-the-art intelligence analysis software system such as i2 or Penlink, both of which are in the early acquisition stages by our Department. The challenge for intelligence analysts is assembling, grading and analyzing vast amounts of data in a wide variety of formats. The specialized software programs mentioned above assist our intelligence analysts by providing a suite of tools that enables them to organize and analyze disparate data within a common platform. This results in a work product that not only identifies criminal activity, but also enables us to do link analysis and focus our efforts in a more effective and cost efficient manner.

❖ Investigative Case Management in RMS: MPD responds that it should be noted that when the Tiburon representative first displayed the Case Management System to supervisors in the Criminal Investigation Bureau (CIB) in 2002, CIB supervisors noted several deficiencies that would make the system unworkable. Among these deficiencies were the following:
- They would be unable to enter more than one detective's name into the system as working on a case
- They would be unable to enter multiple items of required follow-up into the system and track when they were completed and by whom
- They would be unable to link several cases in the system together, which is critical in the investigations of robbery crews, serial burglars and rapists

The Tiburon representative made a statement to one of the CIB supervisors that the system component was designed more for smaller agencies or agencies that did not pass

investigative follow-up from shift-to-shift, which is critical to our operations and high clearance rates.
- ❖ Traffic Management in RMS: (awaiting TraCS implementation)
- ❖ Guns and Pawned Property in RMS: The Gun module and the Pawned Property module are actually two separate modules in RMS. The Gun module tracks firearm registration and permits to carry concealed weapons. The State of Wisconsin neither registers guns nor issues permits. MPD is currently studying the Pawned Property module as it relates to City Ordinance and Department procedure.
- ❖ Fleet Management in RMS: (MPD utilizes the City's new Fleet Focus system that is functionally superior to the Tiburon module)
- ❖ Special Intelligence in RMS: (A MPD review of this module's functionality is pending)
- ❖ Bio-metric Log-on in RMS: (Tiburon has not yet delivered this module)

According to the audit, the following system functions are only partially operational or are substantially underutilized by MPD

- ❖ Automated Vehicle Locator (AVL) in CAD: (The AVL as described earlier is dependant upon new radio installations in squad cars. As new vehicles replace old vehicles, new radio systems are complete with the capability to use the AVL feature. Many squads are currently equipped with AVL capable radio systems. As the older squads are retrofitted with this equipment, the entire fleet will be AVL equipped.)
- ❖ Master Name Index in RMS: (MPD disagrees with this assessment. The Master Name Index in RMS is fully operational)
- ❖ Property subsystem in RMS: (MPD utilizes the Win-ACE product which is superior to the Tiburon module)
- ❖ Personnel and Training subsystem in RMS
- ❖ Data Warehouse in CAD, ARS and RMS
- ❖ Officer Activity subsystem in RMS

The audit has found that some of these non-operational or incomplete functions seem particularly important for crime fighting. Mobile data and field reporting was a key requirement in the MPD Request for Proposal. It allows patrol officers and investigators to access crime data from their vehicles and complete crime reports in the field. As noted earlier, mobile data and field reporting is operational at this time. It has not been rolled out, however, due to training requirements that cannot take place in the summer months because of the increased workload. Another important factor is that our current MDCs are failing at an alarming rate. New MDCs have been requested in the latest asset forfeiture resolution. Upon approval by the Common Council they will be purchased and installed.

The Crime Analysis issue was discussed on Page 8 of this report, as was the Investigative Case Management issue. The GPS-based AVL that tracks the exact location of vehicles for incident response and officer safety is being phased in. A number of MPD squads are already equipped with this technology and Communications Division personnel are able to track the location of these squads. As was stated earlier, this technology requires a new radio system be installed in the vehicle. As the vehicles are replaced or retrofitted, the new radios are installed and the AVL becomes operational.

The audit states that MPD is in the process of completing the AVL implementation, as well as Traffic Management, Fleet Management and the Personnel and Training subsystems. The AVL component has already been implemented and is being phased in. Tiburon is in the process of completing the AVL recall/history. This feature allows supervisory personnel to recall the historical movements of a vehicle in addition to the original feature of tracking the vehicle on a real time basis. The original Tiburon software did not have the ability to recreate the historical movements of a vehicle.

The audit further states that the MPD did not provide a budget, plan or schedule for making the remaining functionality operational. It is MPD's position that implementation of the aforementioned modules will not require any out-of-pocket costs.

According to the audit, "If fully operational, the Crime Data System should provide the vast majority of the functionality originally sought by MPD. However, as noted above, substantial work remains." MPD disagrees with this statement. It is MPD's position that the system is more than 90% complete. Tiburon is required to deliver Biometrics and an upgrade to the CAD system but all other components are delivered and installed. MPD must study all of the remaining modules and conduct a best business practices study to determine which modules will deliver the most functionality and efficiency.

Problems with the legacy data conversion and other technical issues definitely contributed to delays and an inability to report crime data out of MPD during much of 2005. To shift the manner in which MPD reports statistics to the State from UCR to WIBRS/NIBRS is a huge undertaking. The Tiburon system was originally selected because it was able to report data in the WIBRS/NIBRS format in compliance with the FBI's requirement that all reporting be conducted in this format in the future.

Under the Tiburon system all data is collected in the WIBRS/NIBRS format. The data is sent to the State of Wisconsin in computer language that cannot be converted to UCR data at the local level. The State of Wisconsin takes the data in WIBRS/NIBRS format, runs it through their computer, certifies the data and returns the data to the local police department in UCR format for comparison purposes. The conversion of WIBRS/NIBRS data was more complicated than either the MPD or the State anticipated, resulting in some delays. These delays were unfortunate and caused the MPD to miss the August 2005 deadline for submitting the finalized semi-annual data report to the FBI. MPD is currently submitting reports to the State in a timely manner and within acceptable data accuracy limits.

MPD did experience two Tiburon CAD system failures in 2004 that resulted in negative media reports and led to the request by Alderman Murphy to conduct an audit of the Tiburon system. The experience of these failures prompted MPD to author formal correspondence to Tiburon management to encourage the company to address shortcomings in their project management as it related to the MPD contract. MPD did not consider either system failure to be a major outage. Subsequent to the formal correspondence, changes were made in the Tiburon management team, which greatly improved the response that MPD received when identifying deficiencies in their service.

Crystal Reports training was conducted in July of this year. During the training MPD discovered that Tiburon had not documented the data structure of the MPD databases, which has made it difficult for MPD to develop system queries with the Crystal Reports tool. This deficiency has been brought to the attention of Tiburon project management. Tiburon project management is in the process of addressing this problem at this time.

Training has been a difficult aspect of Tiburon functionality. The original 40 hours of training was reduced to 24 hours because of the difficulty of removing street officers from their assignments for a 40-hour training session. It was felt, at the time, that 24 hours would be sufficient, with additional individual training at the work location for those who needed it. Additional training has been provided at work locations to address specific problems that have been identified by the Technical Division staff. We have learned that different work locations exhibit different training related problems, therefore, it has been beneficial to address them by work location rather than removing all officers for a training period that may not apply to their assignment.

The audit states that there were significant problems with the converted legacy (old system) data and that this resulted in diminished confidence in the system by some MPD users. Furthermore, the audit states that duplicate names were not removed, resulting in multiple records for the same individual or officer. It is true that "duplicate names were not removed, resulting in multiple records for the same individual or officer" when they were previously listed in the Main Frame as a suspect, victim or complainant. Each separate Main Frame entry was carried over and assigned a unique Master Name Index (MNI) number during the data conversion process. This, however, is not the case for persons who have been issued an MPD ID number indicating that they have a criminal arrest record. Any and all errors resulting in duplicate criminal records (MPD ID Numbers) are corrected once discovered and verified through fingerprints. This has been the standard practice for several decades and continues today. The MNI was not compromised during conversion. The old system was transferred intact so as not to corrupt any historical data.

The audit correctly points out that, "Although Tiburon may have been primarily responsible for repeated project delays, MPD was not properly staffed to effectively direct or oversee this complex project and deal with the deficiencies in Tiburon's performance ... Despite these limitations, the core functions of the Crime Data System are operational and MPD staff should be recognized for its accomplishments." At the time of implementation, MPD administration was very sensitive to the budget problems experienced by the City of Milwaukee. In an effort to control the costs associated with a project of this nature, a decision was made to attempt implementation using existing police department staff. Given that Tiburon executed a System Implementation Agreement which states that, "Tiburon shall provide all design, development, installation, consulting, system integration, project management, training and technical services set forth in the Statement of Work..." MPD administration felt comfortable with its decision to use existing MPD personnel to implement the Tiburon project. Unfortunately, use of existing personnel did not work out as planned.

The size and complexity of this IT project required IT skills and training generally unavailable within MPD. To correct this deficiency, MPD administration has requested nine additional IT positions in the 2008 budget. It is anticipated that these positions will be civilian positions with the necessary education and expertise to move all of our IT projects forward in a timely manner.

The audit describes the Tiburon system as "an extensive, data driven, enterprise system affecting essential real time public safety processes throughout MPD, both in central command and in the field." This conclusion could lead one to deduce that public safety has been compromised due to delays that have been experienced in the installation and implementation of the Tiburon system. Although crime data reporting to the State was delayed in 2005, that is no longer the case. Moreover, throughout implementation MPD has continually conducted crime trend analysis on a daily, weekly and monthly basis in addition to the examination of yearly trends.

The Crime Analysis Section (CAS) and even more so, the STAC (Southeastern Wisconsin Terrorism Alert Center), which is housed in MPD, utilize records contained in ARS and CAD to analyze the data and turn it into actionable intelligence. These units utilize specialized software programs, to take the raw data and convert it into actionable intelligence for targeted enforcement activity and for use in predictive analysis. Tiburon is not recognized as a state-of-the-art intelligence analysis software system, such as i2 or Penlink, both of which are in the early acquisition stages by our Department. The challenge for intelligence analysts is assembling, grading and analyzing vast amounts of data in a wide variety of formats. The specialized software programs mentioned above assist our intelligence analysts by providing a suite of tools that enables them to organize and analyze disparate data within a common platform. This results in a work product that not only identifies criminal activity, but also enables us to do link analysis and focus our efforts in a more effective and cost efficient manner.

Recommendation 3: Engage an owner's representative for the remaining system implementation work

This recommendation is in the process of implementation at this time. The Scope of Services for this position has been written and the City of Milwaukee has posted RFP1988 on the City's E-Notify Website relative to this position. The bid is due no later than 8-7-07 and it will take until 8-20-07 to finalize the selection.

Recommendation 4: Address IT staffing issues in MPD

The audit recommends, "The Mayor and Common Council should address the information technology staffing issues in MPD." As has been stated earlier in this response, MPD has requested nine additional civilian IT positions in the 2008 budget to address this issue.

Recommendation 5: Consult City Attorney on possible contract claims

"MPD should consult with the City Attorney about possible contract claims against Tiburon before formally accepting the Crime Data System and the payout of contract holdbacks." As was

stated earlier in this response, MPD has already met with the City Attorney on this issue and it was determined that there was no basis for claim.

E. System Utilization

The audit recognized that, "Since 2005, MPD has submitted timely and accurate crime data reports to the State, which in turn submits the data to the FBI. The RMS is now producing extensive and accurate crime data. The Wisconsin Office of Justice Assistance administers WIBRS crime reporting statewide and confirmed that MPD's monthly crime data submittals have been timely and are accurate, having an error rate consistently below 1 percent. Both the FBI and Wisconsin require that errors be less than 3 percent. The low error rate in WIBRS crime data for Milwaukee is indicative of the quality of MPD's data validation process."

The audit recognizes that these are significant accomplishments, but identified the following areas as having limited the utility of the Crime Data System:

- ❖ Tiburon performance issues, including work products committed to but not provided (MPD responds that Biometrics and an upgrade to the CAD system are all that is left)
- ❖ Database conversion issues resulting in some invalid and corrupted data (MPD is not aware of any corrupted data issues)
- ❖ Insufficient system training of MPD system user personnel (Training will continue after the heavy workload months of summer)
- ❖ Failure to modify and adapt current MPD practices and procedures to take full advantage of the Crime Data System capabilities (MPD will respond to this later in the report as it pertains to the Tiburon Investigative Case Management module)
- ❖ Underutilization of system data, analysis and reporting capabilities (MPD does not agree with this conclusion)

The audit acknowledges that MPD provides aldermen with quarterly crime statistic reports, crime density maps and charts on major crimes. It further states that several aldermen interviewed for this audit expressed a need for more timely crime information. MPD responds that it makes every effort to keep our elected officials advised as to crime trends and occurrences in their respective districts. Command staff members of the Milwaukee Police Department have met personally with the elected officials to assist them in accessing information through the City Compass system and through the City Website, which provides crime statistics and maps showing crime locations city-wide by Aldermanic district and police districts. Elected officials have been encouraged to stay in close contact with their respective District Captains on crime issues and those who have expressed a desire have been provided with the shift commander's telephone number in each district to obtain a daily briefing if they so desire. Aldermen who have expressed dissatisfaction with the information provided have been asked to contact Deputy Inspector Anna Ruzinski with their specific requests as to what crime information they desire but no such contacts have been made as of this date.

Until crime data has been certified through the State system, the distinct possibility exists that the data will change over time. Should the MPD elect to release unverified raw data prematurely to

elected officials, it will undoubtedly find its way to the news media for publication. After the data has been certified and released (raw data always changes as compared to certified data) the accuracy of MPD's reporting will be called into question. This will result in reduced public confidence in crime reporting by the Milwaukee Police Department. This exact situation was experienced several years ago and resulted in accusations by the media that MPD was not being truthful in crime reporting.

CIB personnel assert that the Tiburon Investigative Case Management module is not being utilized because it does not support the way CIB handles its cases. The Police Executive Research Forum (PERF) audit consultants disagree with this assessment. MPD response follows:

The Tiburon Case Management System is not compatible with CIB operations for the following reasons:

1. The Tiburon Case Management System is based on the one-person, one-case theory in which the same detective does all of the investigation and follow-up on a particular case. MPD CIB is a 24-hour operation and follow-up is passed on from shift-to-shift between several detectives, which makes the Tiburon model impractical and unmanageable for MPD application.
2. The MPD follow-up system is monitored by CIB supervisors, who, at a glance, can view all open follow-ups on pending felony cases, and have the responsibility of ensuring that the work is completed and/or passed off to a succeeding shift detective. In order to see any pending follow-up in Tiburon, supervisors would have to open up each individual offense and page to the back to find it. Considering the number of felony cases the CIB investigates on a daily basis, one can see that this system is not workable for Milwaukee. Additionally, if the report is not typed before the change of shift, this information would not be available and the case would languish until it was typed and reviewed by a supervisor.
3. The reason MPD is successful in crime clearances is because we do not let case follow-up sit and wait for one detective to return the following day, return from off days or return from vacation to complete the work. Doing so allows the trail to grow cold and would result in reduced clearance rates for felony crimes. The current MPD system allows follow-up to be tracked and addressed on a shift–to-shift basis.
4. By attaching case management to each incident, it becomes subject to Open Records Law versus an internal work product. Wisconsin's Open Records laws could result in compromise of the investigation if case follow-up were released to the media.
5. The Tiburon system is unable to enter multiple items of required follow-up into the system and track when they were completed and by whom.
6. The Tiburon system has a limited capability to link several cases in the system together. Expansion of this capability is critical in the investigation of robbery crews, serial burglars and rapists.

The audit consultants cited the Kansas City Police Department's Homicide Unit as an example of successful use of the Tiburon Case Management System. Based on this information, MPD Homicide Unit supervisory personnel contacted the Kansas City PD to determine how they

overcame the problems that MPD had identified with this particular system. The Kansas City PD homicide supervisors indicated that they, too, have the same issues that MPD has identified and to this date have not been able to overcome them.

It is important to understand that when the Tiburon representative first displayed the Case Management System to supervisors in the CIB in 2002, CIB supervisors noted the above deficiencies that would make their system unworkable for our purposes. The Tiburon representative responded that this system component was designed for smaller agencies or agencies that did not pass investigative follow-up from shift-to-shift which is critical to our operations and high clearance rates.

Because the PERF consultant disagreed with the MPD assessment of the Tiburon Case Management System, MPD has further explored the Tiburon Case Management component, but has been unable to overcome the potential to compromise open investigations as mentioned in numbers 4, 5 and 6 above.

The audit notes that, "The CIB Sensitive Crimes Division (SCD) maintains a separate legacy database that duplicates criminal offense information in the Crime Data System, requiring the same criminal data to be entered twice." This is not a complete picture of what this database really does. The SCD does put minimal information on reported criminal offenses into the database, but also utilizes this database for many other functions. SCD uses this database for functions that Tiburon does not possess. They also enter information on registered sex offenders, DNA case tracking management, Bureau of Milwaukee Child Welfare (BMCW) referrals which may not result in a criminal offense report, composite drawings, We-Tip information and non-reportable incidents of which SCD may take cognizance for future investigative leads.

The audit identifies that property and evidence data is also entered twice, once in ARS incident reports and then again in the separate WinACE property management application. MPD property personnel have evaluated both the Tiburon property subsystem in RMS and the WinACE property management application and found that the WinACE program is far superior to the Tiburon property subsystem.

MPD agrees that additional training is needed throughout the Department to fully utilize the Tiburon system and its components. Upon hiring the owner's representative, currently out for bid, this individual will be tasked with completing a comprehensive training plan for the Milwaukee Police Department.

Recommendation 6: Enhance crime reporting for public officials and outside parties

MPD makes every effort to keep our elected officials advised as to crime trends and occurrences in their respective districts. This can be difficult as we are a 24/7 operation experiencing many occurrences during every shift. The Captains of the districts are available almost any time that an elected official is in need of their expertise and the Aldermen have been encouraged to stay in close contact with them on crime issues. In addition, every district has a Community Liaison Officer who can be contacted at almost any time by elected officials. Aldermen that have

expressed a desire for crime briefings on a daily basis have been provided with the shift commander's direct telephone number and have been encouraged to call for a daily briefing.

Command staff members of the Milwaukee Police Department have met personally with the elected officials to assist them in accessing information through the City Compass system and through the City Websites, which provide crime statistics and maps showing crime locations city-wide by Aldermanic district and police district. Aldermen who have expressed dissatisfaction with the information provided have been asked to contact Deputy Inspector Anna Ruzinski with their specific requests as to what information they desire but no such contacts have been made as of this date.

MPD is hesitant to release crime data until such time as it has been certified through the State system. Premature release of uncertified raw data has been done in the past in response to pressure by elected officials. Although the data contained a disclaimer that it was uncertified and could change in the future, the media presented the information in news reports. When the certified data was subsequently released, the numbers were not consistent with the uncertified raw data from the previous release. This caused the accuracy of MPD's crime data reporting to be called into question and resulted in reduced public confidence in crime reporting by the Milwaukee Police Department. Furthermore this situation caused the media to accuse the MPD of not being truthful in crime reporting.

MPD agrees that any enhanced reporting should be provided through the City's Compass system so that the reports do not require manual preparation by MPD.

Recommendation 7: Maximize the potential of the MPD Crime Data System

The audit states, "MPD should maximize use of its Crime Data System department-wide and for its crime fighting strategies. Certain installed modules currently are not being used or are underutilized." The audit makes reference to the Tiburon Graphical Presentation Analyst module not being used for crime analysis.

The Crime Analysis Section (CAS) does extract data, both calls for service and offense information to develop density maps for "hot spot" enforcement. CAS and even more so, the Southeastern Wisconsin Terrorism Alert Center (STAC) which is housed in MPD utilize records contained in ARS and CAD to analyze the data and turn it into actionable intelligence. These units utilize specialized software programs to take the raw data and turn it into actionable intelligence for targeted enforcement activity. We have also provided several training courses to our personnel to enhance their ability and move this Department to a level where we become very efficient at predictive analysis. Tiburon is not recognized as a state-of-the-art intelligence analysis software system such as i2 or Penlink, both of which are far superior to the Tiburon Graphical Presentation Analyst module and both of which are in the early acquisition stages by our Department. The challenge for intelligence analysts is assembling, grading and analyzing vast amounts of data in a wide variety of formats. The specialized software programs assist our intelligence analysts by providing a suite of tools that enables them to organize and analyze

disparate data within a common platform. This results in a work product that not only identifies criminal activity, but also enables us to conduct link analysis and focus our efforts in a more effective and cost efficient manner. MPD members will reexamine the capabilities of the Tiburon subsystem to determine if it can compliment the capabilities of the software designed specifically for intelligence analysis.

The audit makes reference to the CIB not using the Tiburon Case Management System module. MPD responds that when the Tiburon representative first displayed the case management to supervisors in the CIB in 2002, CIB supervisors noted several deficiencies that would make the system unworkable. Among these deficiencies were the following:

1. The Tiburon Case Management System is based on the one-person, one-case theory in which the same detective does all of the investigation and follow-up on a particular case. MPD CIB is a 24-hour operation and follow-up is passed on from shift-to-shift between several detectives, which makes the Tiburon model impractical and unmanageable for complicated violent crime offenses.

2. The MPD follow-up system is monitored by CIB supervisors, who, at a glance, can view all open follow-ups on all pending felony cases, and have the responsibility of ensuring that the work is completed and/or passed off to a succeeding shift detective. In order to see any pending follow-up in Tiburon, supervisors would have to go to each individual offense report and open it up then page to the back to locate the required follow-up. Considering the number of felony cases the CIB investigates on a daily basis, one can see that this system is not workable for Milwaukee. Additionally, if the report is not typed before the change of shift, this information would not be available and the case would languish until it was typed and reviewed by a supervisor.

3. The reason MPD is successful in crime clearances is because we do not let case follow-up sit and wait for one detective to return the following day, return from off days or return from vacation to complete the work. Doing so allows the trail to grow cold and would result in reduced clearance rates for felony crimes. The current MPD system allows follow-up to be tracked and addressed on a shift-to-shift basis.

4. By attaching case management to each incident, it becomes subject to Open Records law versus an internal work product. Wisconsin's Open Records laws could result in compromise of the investigation if the follow-up were released to the media.

5. The Tiburon system is unable to enter multiple items of required follow-up into the system and track when they were completed and by whom.

6. The Tiburon system has a limited capability to link several cases in the system together. Expansion of this capability is critical in the investigation of robbery crews, serial burglars and rapists.

The audit consultants cited the Kansas City Police Department's Homicide Unit as an example of successful use of the Tiburon Case Management System. Based on this information, MPD Homicide Unit supervisory personnel contacted the Kansas City PD to determine how they overcame the problems that MPD had identified with this particular system. The Kansas City

PD homicide supervisors indicated that they, too, have the same issues that MPD has identified and to this date have not been able to overcome them.

It is important to understand that when the Tiburon representative first displayed the Case Management System to supervisors in the CIB in 2002, CIB supervisors noted the above deficiencies that would make their system unworkable for our purposes. The Tiburon representative responded that this system component was designed for smaller agencies or agencies that did not pass investigative follow-up from shift-to-shift which is critical to our operations and high clearance rates.

Because the PERF consultant disagreed with the MPD assessment of the Tiburon Case Management System, MPD CIB has further explored the Tiburon Case Management component, but has been unable to overcome the potential to compromise open investigations as mentioned in numbers 4, 5 and 6 above.

The audit makes reference to some MPD work locations retaining "legacy" databases that may be replaceable by the Crime Data System such as the Sensitive Crimes File Maker Pro database. File Maker Pro has capabilities that are not contained in the Tiburon system that are critical to sensitive crime investigations. For instance, File Maker Pro requires that SCD put a minimal amount of information on reported criminal offenses into the database, but it also utilizes this database for many other functions. For instance, File Maker Pro manages information on registered sex offenders, DNA case tracking, Bureau of Milwaukee Child Welfare (BMCW) referrals which may not result in a criminal offense report, composite drawings, We-Tip information and non-reportable incidents of which SCD may take cognizance for future investigative leads.

The audit also identifies the WinACE database as a legacy database stating that property and evidence data is also entered twice, once in ARS incident reports and then again in the separate WinACE property management application. The current WinACE database was purchased after the Tiburon Crime Data System. MPD property personnel have evaluated both the Tiburon property subsystem in RMS and the WinACE property management application and found that the WinACE program is far superior to the Tiburon property subsystem.

MPD is not convinced that we will ever accomplish "full" implementation of the Tiburon Crime Data System and all of its modules, as this system was purchased in 2002. Five years later technology has improved, making some of the system features outdated as new databases and technology are continually developed.

Recommendation 8: Develop a comprehensive training plan

MPD will develop a comprehensive training plan as soon as the "owner's" representative is hired. It is extremely important that the training be presented contemporaneously with the rollout of a feature or system capability. We have learned that if the training is presented prior to feature implementation, personnel are not able to apply what they have learned and they forget how to use the system once it is implemented. Therefore some training has been intentionally

withheld. Furthermore, it is not possible to provide Department-wide training in the busy summer months as workload precludes the removal of officers from the street to attend training sessions.

The original 40 hours of training was reduced to 24 hours because of the difficulty of removing street officers from their assignments for a 40-hour training session. It was felt, at the time, that 24 hours would be sufficient, with additional individual training at the work location for those who needed it. Additional training has been provided at work locations to address specific problems that have been identified by the Technical Division staff. We have learned that different work locations exhibit different training related problems, therefore, it has been beneficial to address them by work location rather than removing all officers for a training period that may not apply to their assignment.

APPENDIX 1

MPD disagrees that costs for computer systems, telephone systems, radio systems and audio/visual systems are appropriate costs to be included in an audit of the **Crime Data System.** This Appendix states that the Department has expended $39.7 million for new technology **including** the Crime Data System, over the last five calendar years. It needs to be understood that the $39.7 million figure is well beyond the scope of the cost of the **Crime Data System.** This figure includes MPD payroll costs of $10.7 million of tax levy-supported funds for MPD personnel assigned to the MPD Technology Division. Furthermore, it includes $2.1 million of DPW operating costs for the maintenance of SONET (city communications network) and other communications technology.

This number includes telephone systems, OpenSky radio systems and audiovisual technology for State-mandated recording of interrogations among other things. The Crime Data System project is limited to four integrated subsystems, the Computer Aided Dispatch (CAD), Corrections Management System (CMS), Automated Reporting System (ARS) and Records Management System (RMS). The cost of the Tiburon Crime Data Project is $3.5 million to the City of Milwaukee.

While MPD agrees with the auditors on the contract total, the detail by funding source on their schedule in Appendix 1 is incorrect, according to MPD records. MPD breaks the payments down as follows:

> Capital funded: $2,368,092
> Grant Funded: $3,806,010
> O&M Funded: $35,016
> EIP Special Funding: $24,064 (an ADJE reclassified this from O&M to the special purpose account.)
>
> Total: $6,233,182
> The amount unpaid of $1,075.434 is correct.

Total Tiburon Contract: $7,308,616.00

APPENDIX 2

Computer Aided Dispatch System (CAD)

The description of CAD is accurate.

Corrections Management System (CMS)

The description of CMS is, for the most part, accurate. It may be interesting to note that when MPD is able to hire Police Services Assistants (formerly known as Community Service Officers) they will be replacing the current "Bookers" in the districts allowing the sworn officers to return to law enforcement duties on the street.

The audit states that, "Getting data from a previous booking requires several steps and there is not an option to copy the data from a previous booking into a new one." While it is correct that an entire booking cannot be copied and pasted to create a new one, a number of the individual fields can, however, be copied and pasted for this purpose.

The audit has determined that a "typical" arrest process can take 30 to 40 minutes. MPD disagrees with their determination. It has been our experience that a "typical" arrest would more likely take from 20 to 30 minutes to process.

It is true that if an officer is second or third in line there can be significant idle time while waiting for the booking. If the arrest was made by a two-officer car, one officer generally begins writing the offense report while the other monitors the prisoner. Delays experienced by one-officer cars were recognized by the administration some time ago. To accomplish more efficient prisoner processing and return of squads to the street, additional booking stations were placed in the busier districts.

Automated Reporting System (ARS)

The audit refers to the manner in which a officer obtains an incident number as follows, "Under current MPD procedures the dispatcher is not allowed to provide the report number over the radio. The auditors were told that the officers must switch to a side radio channel to contact their district console operator and ask that person to telephone the dispatcher for the report number. The district console operator then radios the officer with the report number." This procedure is incorrect. Incident numbers are obtained directly from the dispatchers.

It is true that there is not currently an option to file a report from the Mobile Data System, however as the audit states, "work is underway to support mobile field reporting." An asset forfeiture resolution has been submitted which, if approved by the Common Council, will enable

the MPD to replace current MDCs with more robust and resilient units that will facilitate this effort. At that time, MPD can move forward with the option of reporting from the field.

Records Management System

The description of RMS is accurate.

WIBRS Validation Process

The description of the WIBRS validation process is accurate.

APPENDIX 3

The Gang Information System is listed as "not operational" in Appendix 3. Although the MPD does not use the Tiburon component, we do make extensive use of a different system known as ACISS. ACISS is a Web based system that provides a secure environment for various law enforcement agencies to enter investigative information. This feature allows for easy exchange of information between law enforcement agencies unlike the Tiburon component that is an internal MPD database. This system is maintained by the State of Wisconsin – Department of Justice. The Milwaukee Police Department enters all information on drug and gang investigations into the system, which is also utilized by the State DOJ – Division of Criminal Investigation, the High Intensity Drug Trafficking Area (HIDTA) task force and several drug and gang task forces around the State of Wisconsin. This allows our investigators to immediately deconflict any target, vehicle or location of investigative interest, thereby ensuring there is no duplication of effort by different investigative agencies. It also allows the investigators to immediately share information on the targets and coordinate their activities to more rapidly bring the case to a successful conclusion. The ACISS Web-based system is far superior to the Tiburon component.

The Gun and Pawned Property components are listed as "not operational." The report notes that the Gun module is used to track firearm registration and permits, which MPD has no use for because firearms are not registered nor are permits to carry concealed weapons issued in the State of Wisconsin. MPD utilizes a nationwide ATF database known as E-Trace for firearm tracking on weapons seized by the Milwaukee Police Department. This database has the added capability of tracing the seized firearm, which can provide valuable investigative leads especially when dealing with firearms that have an inter-state connection.

The CIB is currently exploring the possible use of the Tiburon Pawned Property subsystem and the Tiburon Special Intelligence component to determine their usefulness for our Department.

APPENDIX 4

The audit report presented to the Milwaukee Police Department did not contain an attachment for Appendix 4, therefore, there is no MPD response to this appendix.

APPENDIX 5

Appendix 5 was the copy of the letter from Alderman Murphy requesting the audit of the MPD's Tiburon Crime Data system. It requires no response from MPD