

**Report on the Availability of Appropriate Technology  
to Monitor Domestic Violence Offenders and their Victims  
(Pursuant to P.L. 2013, c. 229)**



**Submitted to Governor Christopher J. Christie**

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**I. Executive Summary**

For the last eight years, the New Jersey State Parole Board has operated an electronic monitoring program using Global Positioning System (GPS) technology to monitor and track certain high-risk convicted offenders. Thus far, that program has been limited to monitoring the location of the offenders. The program envisioned by “Lisa’s Law” adds an additional component to an electronic monitoring program, namely monitoring the location of the victim and notifying that victim and law enforcement when the offender comes within a certain distance of the victim.

The legislatively-proposed pilot program in Ocean County that would implement Lisa’s Law has commendable goals that have the potential to help a victim feel more secure during a daily routine and may deter an offender, with either malicious or innocent intent, from approaching a victim. Devices exist that, with limitations, can track the GPS location of an offender and/or victim. Those devices can come equipped with the capability to send alerts to the victim and/or law enforcement if a particular geographic location, or defined “exclusion zone,” is breached. The offender’s device and the victim’s device also can be synchronized to send an alert if the two devices come within a predetermined proximity of one another.

However, the technology required to implement the program envisioned in Lisa’s Law has limitations. Specifically, uncertainties about the technological functions and application may hinder effective operation at any given time, including: is the monitoring device receiving a GPS and cellular signal; is the device charged and working properly; is the victim carrying the device; did the offender approach the victim intentionally or unintentionally; does the victim know the quickest route to safety; can law enforcement arrive in time? All technological functions must operate flawlessly and must be seamlessly coordinated with the victim’s and law enforcement’s response to enhance the victim’s safety. In addition, several matters remain unresolved that are critical to implementation, including the length of offender participation, the penalty for an offender’s violation of the terms and conditions of program participation, which government entity will monitor and/or respond to alerts, and cost.

In many ways, in an electronic monitoring and victim notification program, the victim’s security is at the mercy of technology. When lives are at stake, the technology and infrastructure that employs that technology must be foolproof. Any shortcoming can expose the victim’s vulnerabilities, sometimes creating a false sense of security for those victims who rely on the protection of law enforcement. While the currently-available technology may support a program designed to deter offenders, there are legitimate concerns that it may not be able to meet the public’s—or victims’—expectation of providing enhanced protection.

## II. Background

New Jersey has specific protocols and procedures in place to respond to domestic violence matters and prosecute contempt charges. Courts may issue stay-away orders to prevent a domestic violence offender from approaching the victim, and law enforcement may seize weapons accessible to a domestic violence offender—either temporarily or permanently. N.J.S.A. 2C:25-21d. An individual can be charged with contempt if that person violates a court-issued temporary or final restraining order. N.J.S.A. 2C:29-9.

A judge, either pretrial or at sentencing, may order as a condition of release that the offender have no contact with the victim. N.J.S.A. 2C:25-26; N.J.S.A. 2C:25-27. Under the authority afforded to the court, a judge may order the electronic monitoring of an offender to ensure compliance with those conditions, just as a judge may order monitoring to oversee compliance with probation conditions on other offenses. However, the infrastructure to accomplish this monitoring may not exist in all jurisdictions.

In late 2013, the New Jersey Senate and Assembly approved an Act that would supplement the existing scheme available to the court by creating a pilot program to track domestic violence offenders. This four-year pilot program, designated “Lisa’s Law,” was limited to Ocean County and sought to provide for the protection of domestic violence victims by alerting victims of the offenders’ whereabouts.

Specifically, Lisa’s Law required the Attorney General and the State Parole Board to establish a new electronic monitoring program that would track offenders who were charged with or convicted of contempt of a domestic violence order in Ocean County. Lisa’s Law also envisioned that the program would track the victim’s location and provide 24-hour monitoring to alert the victim if the offender was nearby. The bill tasked the Attorney General with developing procedures to investigate and report on a 24-hour-per-day basis any offender’s noncompliance with the terms and conditions of the offender’s participation in the program. Under Lisa’s Law, the Court could order electronic monitoring of a particular offender only if the victim provided her informed consent.<sup>1</sup>

In January 2014, the Governor returned Lisa’s Law to the Legislature with recommendations for reconsideration. The Governor applauded the Legislature’s proactive approach to protecting domestic violence victims through the use of emerging technology, but raised questions regarding the availability of technology necessary to support the envisioned pilot program. The Governor recommended that the Attorney General report on the availability of the technology needed to create and implement the Lisa’s Law monitoring program.

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<sup>1</sup> Between 1994 and 2010, four out of five domestic violence victims were women. Prevalence of Domestic Violence, The Advocates for Human Rights, available at [http://www.stopvaw.org/Prevalence\\_of\\_Domestic\\_Violence](http://www.stopvaw.org/Prevalence_of_Domestic_Violence) (citing Shannon Catalano, Bureau of Justice Statistics, Intimate Partner Violence, 1993-2010 (2012) (last visited August 1 2013), available at <http://www.bjs.gov/content/pub/pdf/ipv9310.pdf>). While recognizing that men can be victims of domestic violence and that women can be offenders, for ease of reading, this Report will refer to the victim in the feminine form and the offender in the masculine form. See also Report on the Prevention of Domestic Violence Act: January 1, 2010 – December 31, 2010, Family Practice Division, New Jersey Administrative Office of the Courts, at 2 (77.6% of plaintiffs that filed domestic violence complaints in New Jersey in 2010 were female).

The Legislature approved the Governor’s recommendation. As enacted, P.L. 2013, c. 229 requires the Attorney General to “report to the Governor as to the availability of appropriate technology to monitor the location of dangerous domestic violence offenders and their victims so that the victims may be warned when their attacker is in the vicinity.” This report fulfills that mandate.

### **III. Methodology**

To gather the information necessary to prepare this Report, this Office met in person with two vendors that specialize in electronic monitoring programs, and spoke by phone with a third.<sup>2</sup> We also consulted with experts at the New Jersey State Parole Board, the New Jersey State Police, the New Jersey Division of Criminal Justice, the New Jersey Administrative Office of the Courts, and the United States Pretrial Services and Probation Offices, as well as individuals involved in or familiar with domestic violence monitoring programs in other jurisdictions around the country, including in Johnson County, Kansas, Ramsey County, Minnesota, and Shelby County, Tennessee, and the National Law Enforcement and Corrections Technology Center.<sup>3</sup> In addition, we reviewed legal and scientific literature related to electronic monitoring programs and technology.

### **IV. Technological Functions**

#### **A. GPS and Cellular Technology**

The Global Positioning System is a navigation system comprised of a network of 24 satellites operated by the United States Department of Defense. The satellites transmit signals to GPS receivers. At least three satellites are required to determine the location of a particular point or object. GPS technology can therefore provide near real-time location data that is often accurate to within a few feet.<sup>4</sup>

As a general rule and when functioning properly, authorities can use GPS technology to collect data on the location of an offender. Multiple GPS data points logged on a mapping system can display where an individual is located and has traveled.<sup>5</sup> Law enforcement can log and review information about the offender’s curfew, location, and exclusion zones.

Strong cellular coverage is necessary for a viable and successful tracking program. While an offender’s location is recorded using GPS signals, all communication and data points are transmitted through cellular signals. An active and responsive GPS monitoring program requires strong cellular coverage because of the high volume of data point transmissions.

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<sup>2</sup> The study group tasked with identifying and investigating issues related to the drafting of this report included: Mary Murphy, Deputy Attorney General; Ashlea Newman, Deputy Attorney General; Marie Pirog, Deputy Attorney General; and Ronald Susswein, Assistant Attorney General.

<sup>3</sup> Only one of the jurisdictions contacted monitors the victim as well as the offender. Most jurisdictions that monitor domestic violence offenders do not monitor the victim, but may provide alerts to the victim in certain situations.

<sup>4</sup> Jim Buck, Global Positioning System (GPS) Offender Tracking (November 2013).

<sup>5</sup> Id.

Assorted variables—both natural and man-made—can impact or block GPS and cellular signals for brief or extended periods of time.<sup>6</sup> A satellite may be delayed in the atmosphere, may be out of position, or may be too close to another satellite. All those factors can lead to inaccurate data. In addition, a GPS signal can become distorted as it reflects off natural and man-made objects, such as mountains, rocks, and buildings. GPS signals also are lost when the GPS unit loses “sight” of the satellite, which can occur indoors, underground, in tunnels, or underwater.<sup>7</sup>

Geography and infrastructure also may impact GPS and cellular signals. For example, buildings and other urban structures can interfere with signals and may cause lost or blocked coverage. Another limitation is that, even if a GPS signal can track an offender into a building, the signal cannot track the offender to a particular floor.<sup>8</sup> Additionally, a rural area may not have strong GPS coverage, also leading to lost coverage.

In all, no vendor can guarantee complete coverage at all times. An average person—including tracked offenders—spends about 80 to 90 percent of their time indoors.<sup>9</sup> As such, there are many times throughout the day when a monitoring program could lose contact with an offender. This creates the concern that an offender could exploit these GPS limitations to approach a victim.

When the GPS receiver loses connection with the satellite, or when the signal is inaccurate, cellular coverage can override the GPS signal to search for and transmit an individual’s location. While traditional GPS uses only satellites to determine location, assisted GPS uses such cellular resources to determine a location when GPS is not available.<sup>10</sup> Other types of tracking technologies, such as radio frequency (RF), cellular towers, and advanced forward link trilateration (AFTL), also can be paired with autonomous and assisted GPS to provide more accurate coverage in varying areas and conditions.<sup>11</sup> While some of those alternative tracking technologies can serve as a stopgap to a lost GPS signal, none are as accurate or fast as GPS.

When a receiver loses GPS connection, a secondary signal, such as a cellular signal, often will recognize the location, albeit with a delay of up to one minute. Poor coverage also reduces the battery life of the devices, as the receiver tries to search for an accessible satellite.

## **B. Hardware/Devices**

A GPS tracking system typically consists of a GPS unit, which receives and stores the GPS signals acquired from satellites, and a transmitter, which transmits the stored data through cellular signals.<sup>12</sup> GPS tracking units are available in one- and two-piece configurations.

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<sup>6</sup> GPS System Limitations, available at <http://bi.com/sites/all/themes/BI/pdf/GPSlimitations.pdf>.

<sup>7</sup> Buck, *supra*, note 4.

<sup>8</sup> Shelley M. Santry, Can You Find Me Now? Amanda’s Bill: A Case Study in the Use of GPS in Tracking Pretrial Domestic Violence Offenders, 29 QUINNIPIAC L. REV. 1101, 1120 (2011).

<sup>9</sup> George B. Drake, Using Offender Tracking Technology in Domestic Violence Cases, White Paper, National Law Enforcement and Corrections Technology Center (updated August 2012).

<sup>10</sup> Buck, *supra*, note 4.

<sup>11</sup> See, e.g., GPS System Limitations, *supra*, note 6.

<sup>12</sup> Buck, *supra*, note 4.

A one-piece system contains both the receiver and transmitter in a single unit, typically in the form of a bracelet that the offender wears around his ankle. This one-piece monitoring system also can provide communication capabilities. The monitoring agent or supervising officer may communicate with the offender through pre-defined and recorded voice messages that require offender acknowledgement.<sup>13</sup> Such pre-recorded messages can instruct the offender to “call officer,” “report to office immediately,” or “charge the battery.” Protocols are developed to govern when certain messages are sent. The offender must then acknowledge receipt of the message by pressing a sensor located on the tracking unit.<sup>14</sup>

A two-piece system also is available. In that system, a portable communication device, similar to a cellular phone or smart phone, would receive and transmit the GPS signal and allow the monitoring agent or supervising officer to verbally communicate with the offender using cellular service. The ankle bracelet would be attached to the communications device by radio signal, such that an alert notification would be sent if the communications device failed to receive a radio signal from the bracelet.<sup>15</sup> This radio signal connection prevents the offender from separating the communications device from the ankle bracelet.

The offender must be required to wear a device that remains on his body at all times. This typically takes the form of a tamper-resistant and waterproof ankle bracelet. The ankle bracelets used for domestic violence monitoring would be similar to those currently used by the New Jersey State Parole Board for monitoring sex offenders. The bracelets are typically made of rubber with fiber optic sensors running through the bracelet that send an alert if the offender cuts or stretches the band. The batteries available on tracking units are long-lasting and field-replaceable. One vendor’s ankle bracelet battery option will operate for about 24 hours in optimal conditions before requiring a charge. A drained battery requires about one-and-a-half to two hours to fully recharge. One vendor’s software records a timestamp in the offender’s monitoring database when the offender plugs and unplugs the battery for a charge.

Besides the device worn and carried by the offender, the victim must carry a receiver and transmitter that tracks her location using GPS technology. The victim’s transmitter would be paired with the offender’s device, so that if the two devices came within a set distance, a notification alert would be sent. The supervising officer also can carry a device that allows immediate access to an offender’s location. Only some vendors provide this option, while others require supervisors to access data through a secure website.

Many governmental agencies—including some entities in New Jersey—have used tracking units and communication devices with success. However, those devices sometimes can break or malfunction. When that happens, the monitoring agent and supervising officer can receive an alert about the malfunction. The more devices required for tracking and monitoring, the higher the chance of malfunction. Many vendors will supply the client with a back-up supply of devices so that a malfunctioning device can quickly be swapped with a working device.

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<sup>13</sup> BI ExacuTrack One Factsheet, available at [http://bi.com/sites/all/themes/BI/pdf/factsheet/ETOne\\_Beacon.pdf?9687](http://bi.com/sites/all/themes/BI/pdf/factsheet/ETOne_Beacon.pdf?9687).

<sup>14</sup> Id.

<sup>15</sup> See Mary Ann Scholl, Comment: GPS Monitoring May Cause Orwell to Turn in his Grave, But Will it Escape Constitutional Challenges? A Look at GPS Monitoring of Domestic Violence Offenders in Illinois, 43 J. MARSHALL L. REV. 845, 852 (Spring 2010).

The offender is responsible for charging the battery on the device. Failure to do so, whether intentional or not, renders the transmitter and device useless. And if the program requires the offender to wear the bracelet and carry a GPS/communications device, the offender must ensure that both devices remained charged and operational. The offender also could tamper with the device by cutting the unit off of his ankle or using aluminum foil or a jammer to impede the unit's ability to receive and transmit the GPS signal.<sup>16</sup> Law enforcement eventually would be notified of any equipment failure or violation, but the monitoring officer only would be able to track the offender to the last location where the device received and transmitted a signal.

Similarly, effective monitoring relies on the victim's cooperation, attentiveness, and compliance with the program. The victim's GPS and communications device would not be attached to her body. The victim could forget to bring the GPS/communications device with her, misplace it, or intentionally leave it behind, which would eliminate law enforcement's ability to track and protect her if the offender approaches her location. And given that law enforcement is responsible for protecting that victim, resources would be expended to find her if her location remained unknown for a period of time. Moreover, while participation in the monitoring and notification program may require the victim to carry a program-provided GPS device, she would need to also carry a communications device to receive alerts, which might implicate a cost concern for the victim who cannot afford a suitable cell phone. And some victims may need to rely on the offender to pay the cell phone bills; if the offender knows the victim is relying on that cellular service to receive alerts on his location, he may cancel or threaten to cancel the service. For this reason, there may be instances when the program would need to provide a communications device to the victim as well.

### **C. Exclusion/Inclusion Zones**

Exclusion zones are set areas that an offender is not permitted to enter. Exclusion zones typically mirror the areas restricted in the protective order, and may include the victim's home, workplace, or any other area that the victim frequently visits.<sup>17</sup> Inclusion zones are areas where it is appropriate—or required—for the offender to be present, such as his home, workplace, or treatment center. The boundaries of exclusion and inclusion zones are synchronized with the offender's GPS device. If an offender attempts to breach the barrier of an established zone, a notification alert will be sent.<sup>18</sup> The alert can be customized to function in accordance with applicable protocol, which will determine the recipients of this alert. The victim's GPS transmitter creates a "virtual zone" that travels with her as she moves, such that an alert will sound if the offender comes within a set distance of the victim's device.

Alerts can be sent even before the offender breaches a static or mobile exclusion zone. For example, if a static exclusion zone surrounds the victim's home by 200 yards at any angle, a preliminary warning alert could sound if the offender came within 500 yards of that 200-yard barrier. Similarly, a preliminary alert could be sent as the offender approached the victim's mobile exclusion zone, with a more urgent alert sent once the offender breached the specific radius surrounding the victim.

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<sup>16</sup> Drake, *supra*, note 9.

<sup>17</sup> *Id.*

<sup>18</sup> Santry, *supra*, note 8, at 1119.

Any monitoring program must include the ability to customize the static and mobile exclusion and inclusion zones to each offender and victim. The court and law enforcement will be able to “draw” the zone almost free-hand. This is particularly useful if a major transportation artery is near the victim’s home or work; the zone can be drawn to surround the target location, but permit the offender to access the major highway.

Establishing exclusion zones in urban areas can be difficult, especially if the victim and offender live or frequent establishments within a few blocks of each other. Oftentimes, the victim and offender live or work in the same neighborhood, shop at the same businesses, and/or travel through the same areas. In some situations, the victim and offender live in the same building. Zones must be large enough to allow a sufficient amount of time for communication or response, but small enough to control the frequency of alerts.

#### **D. 24/7 Monitoring of the Offender**

The Lisa’s Law monitoring program envisions that the supervising agency would have constant access to an offender’s location so that the agency could investigate and report any violations. Similarly, the legislation creating the GPS monitoring program for sex offenders required that the State Parole Board investigate and respond to all program violations immediately and at all times.<sup>19</sup> Just as the State Parole Board adopted an active monitoring system to fulfill its statutory mandate, a Lisa’s Law monitoring program also must operate with an active system.

Active GPS systems use cellular technology to transmit information about an offender’s location on a frequent basis. Information is downloaded throughout the day, typically every few minutes, and violations immediately are reported to the monitoring agent or supervising officer.<sup>20</sup> While active cellular technology does not transmit data in real time, this type of monitoring provides more data and potential alerts for monitoring agents and supervising officers to respond to or investigate. The more often a GPS tracking unit transmits data about an offender’s location, the more labor required for monitoring and responding. And costs increase relative to the frequency that an active system acquires and transmits data points.<sup>21</sup>

Passive systems report data points at a less frequent rate. A passive system may provide the same information as an active system, but that information is downloaded only a few times, or perhaps once, every 24 hours.<sup>22</sup> Less frequency typically results in a lower cost. In a hybrid, or on-demand, system, GPS data is transmitted at varying intervals rather than real-time. If a violation occurs, the hybrid system goes active and immediately transmits the data and sends an alert notification.<sup>23</sup> The more communication between the GPS receiver and transmitter, the more often the battery on all devices will require a charge.

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<sup>19</sup> Report on New Jersey’s GPS Monitoring of Sex Offenders, New Jersey State Parole Board, at 3 (Dec. 5, 2007).

<sup>20</sup> Santry, supra, note 8, at 1119.

<sup>21</sup> Buck, supra, note 4.

<sup>22</sup> Santry, supra, note 8, at 1119.

<sup>23</sup> Buck, supra, note 4.



Lisa's Law would require a very active system that would allow the monitoring agent and supervising officer to observe the offender's and victim's real-time locations 24-hours a day. Higher-risk offenders can be more closely monitored with an active system.<sup>24</sup>

The most important data points from a supervising officer's perspective are the location of the offender and victim. The supervising officers can access the real-time location of the program participants through the vendors' software applications. Some tracking applications are only accessible online, while others can be accessed from the supervising officer's cellular device. Regardless, and when functioning properly, those applications provide 24/7 access to location data, participant status, and monitoring tasks. Supervising officers can view their caseloads, enroll offenders, set offender schedules and terms, create inclusion and exclusion zones, customize alert notification and alert escalation procedures, and close alerts.<sup>25</sup> Supervisors also can access the alert and notification history of any particular offender. One vendor's software provides the supervising officer with access to a map on the officer's smart phone that pinpoints the location of every offender under the officer's supervision. The supervisor also could view a map of a particular offender's location in relation to the established exclusion and inclusion zones for that offender. An offender's location can be found at any time by "pinging" the offender's tracking unit.

If an offender carries a separate communication device with two-way voice communication capabilities, the supervising officer (or the monitoring center) can use voice verification technology to confirm that the offender is the person speaking with the officer (or operator). By utilizing voice communication, the officer can verbally notify an offender of upcoming treatment sessions or court appearances or inform the offender that he may be approaching the boundary of an exclusion zone.

Unique curfew or location restrictions can be placed on every participating offender. Through cellular service, supervising officers can enter those restrictions into the database and upload them to the offender's tracking unit. When those restrictions are synchronized with the offender's tracking unit, an instantaneous alert can be sent if the offender violates any of the programmed restrictions.<sup>26</sup> In addition, these data points can demonstrate that an offender is successfully complying with location restrictions, curfew times, and other treatment programs.

#### **E. 24/7 Tracking of the Victim**

Lisa's Law contemplates a system where the victim also is tracked and monitored by the monitoring agent and law enforcement. To do so, authorities would require constant access to the victim's location so that they could respond appropriately if the offender breached a certain distance barrier. As mentioned above, the victim must carry a GPS tracking device that would transmit her location at all times to the monitoring center and law enforcement, which would require an active tracking system. By tracking the victim, authorities always could be aware of her location, even if the program lost GPS contact with the offender for a brief or extended period of time.

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<sup>24</sup> Jack Waldo, Implementing a GPS Tracking Program for Community-based Offenders: What You Need to Know, at 4 (Sept. 2009).

<sup>25</sup> BI ExacuTrack One Factsheet, *supra*, note 13.

<sup>26</sup> Buck, *supra*, note 4.

Even though participation in the Lisa's Law program would require the victim's informed consent, victims may feel hesitant to surrender their sense of privacy by permitting public officials to track their movements. Indeed, one jurisdiction received no victim participation despite offering a victim tracking and notification element as part of its domestic violence offender monitoring program.

One potential method to combat this hesitation is to utilize firmware that does not record or reveal the victim's location to anyone, even law enforcement. Instead, the victim's GPS receiver and transmitter would recognize her GPS signal in relation to the offender's GPS signal, and would send an alert to the victim and law enforcement if the offender's signal came within a certain distance. Confidential and private data would not be revealed unless and until a proximity conflict occurred.

But in many ways, the success of any program like the one envisioned by Lisa's Law requires that law enforcement keep a watchful eye over—and appropriately respond to—the victim. As one vendor recognized, given that the program's objective is to ensure the safety of the victim, knowing the victim's location is an important piece to ensuring a successful response. Indeed, the swiftest response to a potential attack requires immediate access to the victim's whereabouts. Law enforcement must know where a victim is located to provide the most effective protection. But as mentioned above, even an active tracking system transmits a location data point only once every few minutes. As such, when the victim is on the move, the monitoring center and law enforcement may not have up-to-date information about the victim's whereabouts because the victim could have moved since the last transmission.

Specific privacy concerns also arise when a victim of domestic violence seeks protection at a shelter. When a victim agrees to participate in the victim notification program, law enforcement could learn that a victim is residing at a shelter because they are monitoring her whereabouts to ensure the offender remains a safe distance from the victim. But some of the shelters that house domestic violence victims are unknown even to police.<sup>27</sup> As a result, some victims may opt out of participating in the program for this reason, or may abandon their participation in favor of privacy at a shelter.

Furthermore, constant tracking has the potential to infringe on a victim's everyday-sense of privacy. By tracking her whereabouts for the purposes of the monitoring program, law enforcement can observe her day-to-day movements and appointments, which can reveal information about her personal life. Regardless of any concern about loss of privacy, however, some victims may still opt in favor of participating in a monitoring program.

A successful victim notification component of any electronic monitoring program relies on the victim's commitment and comfort with a high level of accountability. The victim must always carry the tracking device, and cannot attempt to contact or reconcile with the offender on her own. While law enforcement and the Court have the legal authority to seek to direct or restrict the offender's movements and actions, the victim is personally responsible for her own level of commitment to facilitating the effectiveness of the program.

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<sup>27</sup> Shelters and Safehouses, The Advocates for Human Rights, available at <http://www1.umn.edu/humanrts/svaw/domestic/link/shelters.htm>.

## **F. Alerts**

As proposed, Lisa's Law requires that law enforcement investigate and report violations on a 24-hour-per-day basis. The alert protocol is therefore a critical element of the monitoring program. Vendors typically allow the client, and even the individual supervising officer, to customize the alerts and notifications received. Examples of situations that would warrant an alert or notification include: low battery; damaged equipment; bracelet removed; lost GPS or cellular signal; approaching exclusion zone; breached exclusion zone; or curfew violation.

Most often, the vendor providing the hardware and software utilizes its own monitoring center to receive and screen alerts. That vendor-specific monitoring center operates 24 hours a day, seven days a week, and receives all alerts and notifications. When the database transmits a signal that conflicts with an exclusion zone, a time curfew, a specific distance barrier between the victim's device and the offender's device, or any other term or condition programmed into the offender's unit, the device sends an alert to the monitoring center. The monitoring center's response will depend on the protocols established by the supervising agency. Examples of potential responses by the monitoring center operator include:

- Contact the supervising officer by phone call, text message, e-mail, or a combination of those three.
- Contact law enforcement in the municipality where the alert originated.
- Contact 9-1-1 dispatch.
- Contact the victim by phone call, text message, e-mail, or a combination of those three.
- Contact the offender by phone call, text message, e-mail, or a combination of those three.
- A combination of any of the above.

Several jurisdictions have chosen to monitor offenders using internal resources rather than using a third-party monitoring center. This option provides greater control and accountability over the alerts and responses to those alerts. Specifically, one jurisdiction contacts the offender directly if a proximity alert sounds to verbally guide the offender away from the exclusion zone. In another jurisdiction, law enforcement officers and case managers are responsible for monitoring the offenders on a proactive basis by tracking and watching the offenders' movements through transmitted data points on a computer screen.

The response protocol for certain alerts could require the monitoring center to automatically forward the alert to the supervising officer, victim, or both. Again, such an alert could take several forms, and could contain varying degrees of information. An immediate text message or e-mail sent to the victim may simply warn her of the offender's proximity without any detail. One vendor offers to call the victim to alert her of a proximity violation in addition to sending her a text or e-mail. Whatever the form of the alert, the victim must be able to receive those alerts on a mobile communications device.

Too many alerts can place a significant and possibly counterproductive burden on the supervising agency and supervising officer—especially in circumstances when alerts are unnecessary. The more resources required to respond to and investigate alerts and notifications, the

higher the cost of the program. Rather than receiving real-time alerts every time an offender breaches a specific distance barrier or has an equipment or battery failure, supervisors could receive daily reports on an offender's violations and location. Or the supervisor could increase the time tolerance before receiving an alert. For example, an alert signaling the loss of GPS signal may sound after 30 consecutive minutes of no signal. But those options may defeat the purpose of an active and responsive 24-hour-a-day monitoring program. If the supervisor does not know until the next day that an offender approached or breached an unauthorized area, it may be too late. Or the offender could intentionally block the GPS signal using aluminum foil or a jammer, knowing that he has 30 minutes before law enforcement knows about the loss of signal.<sup>28</sup>

The contemplated Lisa's Law program would require law enforcement to investigate every alert or notification. But some of those alerts could be triggered by unintentional behavior or activity. For example, after receiving a proximity alert, both the victim and offender could respond by taking a route that places them within closer proximity of each other, especially if the offender has no information about how to retreat to avoid the victim. Also consider a situation where the victim's GPS device sends an alert if the offender approaches her location within a mile. The offender, attempting to comply with the one-mile restriction, chooses a driving route that is typically outside of one mile. He then encounters a road detour. That road detour takes him within a mile of the victim. Or, perhaps, the victim unwittingly moved within a mile of the offender while the offender drove on that detour. Under a traditional court protective order without electronic monitoring and notification, the two would never know they were within a mile of each other in either situation. But now, law enforcement must respond to an innocuous incident, diverting resources from other monitoring tasks. And for the offender, that one unintentional miscue could have serious consequences.

To limit the number of alerts received, one jurisdiction's monitoring unit constantly monitors a screen that shows the real-time location of all participating offenders. Officers can then proactively respond to any potential or real violations. While this option may work for a program monitoring only a limited number of offenders, it is neither functional nor practical to monitor several hundred offenders and victims by watching real-time data points on a computer screen.

One of the main objectives of Lisa's Law is to protect the victims of domestic violence. Therefore, the victim's response once she receives an alert is a critical moment. The level of detail provided to the victim about the offender's whereabouts may govern her response. Certainly, the more information she has, the more likely she can engage in an informed response. But even if the victim receives an alert that informs her of the offender's exact location and coordinates, she may not be in a familiar area where she would know the route to a potential safe zone. On the other hand, a simple proximity alert (informing her only that the offender breached a zone) may not provide sufficient information to guide her response. And either type of alert could put her directly in the offender's path if they both chose the same response route. Unless law enforcement immediately responds to every alert, the victim's safety is not ensured.

Unfortunately, both the offender and the victim can, if they so desire, manipulate the alert system to bring about consequences that are inconsistent with the purpose of the program. The offender could use the alert system as a way to terrorize the victim. For example, the offender

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<sup>28</sup> Drake, *supra*, note 9.

could intentionally enter certain exclusion zones or hover around the border knowing that the victim will receive an alert every time the offender breaches that boundary. A supervising officer may recognize this pattern in the offender's location history and would need to address the behavior as appropriate. Frequent alerts—whether intentional or unintentional—could have a negative effect on the victim's peace of mind.

Moreover, an offender could use the alerts to his advantage to confirm that he has entered an exclusion zone, or is close to the victim. Some jurisdictions that are managing an offender monitoring program choose to not inform the offender of the static exclusion zone boundaries because doing so would provide the offender with information about the location of the victim's home or workplace. Thus, the offender may decide to "test" those static zones to learn the boundaries. If the monitoring center automatically alerts the offender to his presence in an unauthorized area, he may use that information to his advantage to try to approach the victim. To counteract this possibility, law enforcement (as opposed to the monitoring center) could notify the offender of the proximity alert and advise the offender on how to retreat. But a human rather than automated response could cause additional delay in attempting to remove the offender from the unauthorized area.

The victim also could use the alert system to inconvenience or bring unwarranted law enforcement scrutiny to the offender. For example, the victim could approach the offender with the goal of setting off an alert indicating the offender is too close to the victim. While a review of the victim's and offender's location history may show that the victim prompted the alert, if both parties are moving at the same time, the situation may dictate a response to protect the victim, to the detriment of the offender. A map displaying location data points cannot decipher intent. In addition, the victim could give the tracking and notification device to a proxy so that the proxy has access to the offender's location. Armed with that knowledge, the proxy or the victim could engage in revenge or retaliation against the offender.

## **G. Response**

The response to an alert or notification arguably constitutes the most important part of the electronic monitoring program. The efforts dedicated to the tracking and monitoring program are nullified if the supervising agency and the victim cannot or do not respond appropriately and successfully.

*Supervising officer/law enforcement response.* Once the supervising officer receives an alert notification, he or she can respond as appropriate. The officer can check to see that a GPS signal has been reestablished, contact the offender to instruct him to charge the battery, or obtain a warrant if the offender has removed the bracelet. The officer also could respond to the offender's or the victim's location, or contact local law enforcement for assistance or back-up. One jurisdiction dispatches a local officer to conduct a welfare check on the victim each time a proximity alert sounds and its monitoring center cannot reach the victim by phone.

*Offender response.* One jurisdiction engaged in direct verbal communication with the offender to guide the offender away from an exclusion zone. For example, if a proximity alert was

not cleared within several minutes by the offender's own movements away from the zone, the agency would call the offender to steer the offender away from the area causing the alert.

*Victim response.* The victim's response largely is dependent on how much information she has about the offender's whereabouts. Again, a simple proximity alert provides no instruction on how she should respond or from where the offender is approaching. One vendor proposes that its monitoring center operators can call the victim and provide verbal guidance on how to respond. The call-center operators can be trained to follow any response protocol, including guiding the victim to safety or summoning local law enforcement reinforcements. This vendor also offers to train the victim on how to respond in a particular situation.

If an offender breaches a particular zone, the notification and response protocol is triggered. The alert or notification originates at the monitoring center. One vendor indicates that its monitoring center responds to alerts and notifies officers within an average of less than five minutes.<sup>29</sup> The monitoring center then follows its protocol, which may include routing the alert to the victim and supervising officer. The victim responds based on her training or instincts. And the supervising officer either responds himself, or contacts local law enforcement to respond on his behalf or as back-up.

By the time any officer arrives at the scene, a several-minute delay may have transpired. From an optimistic perspective, law enforcement will arrive at the scene in sufficient time to apprehend the offender and protect the victim. In reality, a five-minute delay can provide a determined offender sufficient time to arrive at the victim's location and fulfill his intentions. Law enforcement may not be able to respond or react in time to prevent a violent attack from a determined offender.<sup>30</sup>

A supervising officer can respond to any alert when he or she is on duty. But those officers cannot be on-call 24/7, and thus the victim must often rely on other law enforcement personnel who may not be as familiar with the victim and the offender. If the monitoring center receives an alert originating in a location other than the victim's own municipality, the operator could contact a local police department to respond to the alert. Or a roving emergency response team affiliated with the agency operating the electronic monitoring program could respond. Those options could add to the delay in response time. And if the victim has traveled to another county or even state, and the offender followed, then the operator or supervising officer must contact that outside jurisdiction. In that situation, the time it takes for law enforcement to respond could increase even more.

As mentioned previously, the victim's response is critical to her safety. Indeed, if a victim receives an alert via text message or e-mail that the offender is in the vicinity, the expectation is that the victim will respond. Training the victim on potential response tactics and strategies may help her to seek safety in the event of a proximity alert. The victim's successful response may partially be contingent on her knowing something about the offender's whereabouts or the direction from which he is approaching. And her ability to protect herself will depend on her surroundings. If she is inside a building, she can use walls and doors as cover. But if she is outside, she may not have

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<sup>29</sup> BI Monitoring Operations: Monitoring Success, available at <http://bi.com/sites/all/themes/BI/pdf/GuardCenterSuccess.pdf>.

<sup>30</sup> Santry, supra, note 8, at 1120.

that same protection. As an alternative, one jurisdiction alerts the victim about the offender's proximity breach and instructs the victim to call 9-1-1.

Upon receiving a proximity alert and while waiting for law enforcement response, the victim may resort to self-protection: the victim now knows the offender is in the vicinity and may react excessively with violence. Or, wanting to flee as quickly as possible, an impulsive response could put the victim or others in danger. Either reaction by the victim could create a significant public safety issue. While training could help to alleviate this concern, the supervising agency cannot control the victim's actions when law enforcement is not present.

While a monitoring-center operator can provide the victim with some guidance on how to respond to a particular alert, that operator only has access to limited information. For example, the operator may not know anything about the area where the victim is located besides what the operator views on a computer screen map, and thus may not be able to provide sound or detailed advice on how the victim should retreat or take cover. In fact, even with good intentions, the operator could exacerbate the problem by guiding the victim closer to the offender or placing her in other danger, such as guiding her in the wrong direction on a one-way street. In addition, the operator often will not have access to the victim's real-time location because location data points transfer only every few minutes, even on an active system.

## V. Cost

The Lisa's Law bill as passed by the Senate and Assembly included several forms of revenue intended to help offset the cost of the program. First, an offender ordered to participate in the program would pay a monitoring fee of \$250.00, which the Court may waive if it finds an extreme financial hardship. In addition, the offender may be ordered to pay all or a portion of the costs and expenses affiliated with his or her participation in the electronic monitoring program, based on the offender's ability to pay. The bill also proposed the imposition of civil penalties on those convicted of an act of domestic violence. All of those monies would be deposited into the Domestic Violence Victim Notification Fund and used to defray the costs of the electronic monitoring and victim notification program.

Operating an active GPS monitoring system like the one contemplated in Lisa's Law would cost about \$10.00 to \$14.00 per offender per day, which typically includes access to the vendor's hardware, software, and support. Initial training sessions for all victims, offenders, supervising officers, and other court and law enforcement personnel would cost about \$1,140.00 per day for six hours of training. After the program is operational, any additional training would cost about \$760.00 for four hours of training and \$1,140.00 for six hours of training.<sup>31</sup>

The Ocean County Prosecutor's Office handles a docket of about 500 individuals per year that are charged with or convicted of contempt.<sup>32</sup> If half of those individuals (250) were eligible for and participated in the pilot program, the program cost for the hardware, software, and support could range between \$912,500.00 and \$1,277,500.00 per year. Three weeks of all-day training

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<sup>31</sup> The hardware, software, support, and training costs are based on one vendor's estimates.

<sup>32</sup> In 2010, New Jersey courts received a total of 7,382 contempt filings. 2010 Report on the Prevention of Domestic Violence Act, at Introduction.

equals about \$17,100.00 (one week each for training the offenders, victims, and supervising/monitoring personnel). Total vendor costs may therefore equal between \$929,600.00 and \$1,294,600.00. Vendors may offer a discount that corresponds with the number of units activated per year.

Those figures do not include the cost of the personnel and manpower resources necessary to operate and supervise the program. By way of example, the State Parole Board currently has a team of supervising parole officers who monitor the sex offenders in its electronic monitoring program. It costs about \$130,000.00 per year to maintain a Senior Parole Officer and \$140,000.00 per year to maintain an Assistant District Patrol Officer; those figures include salary, fringe benefits, vehicle, and equipment. Each officer supervises about 30-32 offenders.

If 250 offenders participated in an Ocean County electronic monitoring and victim notification pilot program, at least nine supervising officers would be required to handle those offenders, with each officer supervising 30 offenders. Ideally, supervising officers would maintain a lower caseload of domestic violence offenders, possibly in the range of 15-20 offenders per officer. However, even if each officer supervised 30 offenders, it could cost approximately \$1,215,000.00 per year to maintain those officers (nine officers at an average expense of \$135,000.00 per year).

Those supervising officers could not be on duty 24 hours a day. Again, as an example, the State Parole Board's sex offender monitoring program maintains two or three response teams that rove and cover the entire state when the supervising officers are off duty. Those teams respond to any alerts and violations received during the evening and night hours. But those teams can respond to only one alert at a time. As such, if all teams are busy, it could take several hours for a team to respond to an alert or notification.<sup>33</sup>

Maintaining a quick response time and close oversight of the offenders is essential to successfully protect the victim. But we must keep in mind that the costs associated with providing 24/7 monitoring and ensuring a quick response time likely will require significant resources over and above the cost of the hardware and software.

## **VI. Infrastructure Considerations**

The Lisa's Law legislation proposed that several State agencies would collaborate to implement the pilot program: the Office of the Attorney General, the State Parole Board, Ocean County law enforcement, and the Administrative Office of the Courts. While the legislation provided guidance on certain components of the program, it did not comment on several critical elements of law enforcement infrastructure, including, but not limited to:

What agency or division would operate the program? Should a State agency operate the program, or should Ocean County law enforcement (either a county-wide agency or local

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<sup>33</sup> Given the extensive personnel, management, and response resources required for a successful monitoring program, even a program monitoring 20 offenders would impose a significant financial burden on current law enforcement resources.



departments) implement and operate the pilot program? Would that same agency or division provide the monitoring and response resources?

Once the operating/monitoring/responding agencies are identified, do those agencies need to create a new infrastructure to execute the program requirements? Who will be responsible for allocating monitoring resources? Should Ocean County provide the resources, or should local municipalities be responsible for the resources used in their jurisdiction? And are the resources allocated to execute the monitoring program used at the expense of other law enforcement activities?

## **VII. Other Considerations**

In addition to the considerations identified above, several other critical elements related to program participation and violation of the program requirements remain unanswered, including, but not limited to:

- Would the program utilize an external monitoring center or internal resources for monitoring offenders and victims?
- How long would an offender participate in the program?
- Would law enforcement use the monitoring capabilities to determine whether an offender has complied with other conditions of release, such as treatment programs, evaluations, or reporting requirements?
- Would the program provide the victim with a communications device, or would she be required to provide her own?
- Should/will an offender face additional charges if he violates the terms and conditions of the program by violating an exclusion or inclusion zone?
- What is the penalty for violating the terms and conditions of the program?
- Must an officer make an immediate decision about whether the breach was intentional or unintentional?
- Is it appropriate to send alerts to a victim's personal communication device?

The answers to these infrastructure and participation questions will affect the viability, impact, and cost of the monitoring program.

## **VIII. Conclusion**

The State Parole Board's electronic monitoring of sex offenders demonstrates that technology can be used to successfully monitor high-risk individuals. Advancements in technology have made it possible for law enforcement to keep a watchful eye over offenders in an effort to protect those in need. To that end, currently-available technology can deliver the foundation for an electronic monitoring program to track domestic violence offenders and their victims.

Yet we must remain mindful that the technology, in a word, is imperfect. GPS and cellular signals can be unreliable, the offender and/or victim can manipulate GPS and communications devices, and even the fastest technology still involves a delayed law enforcement response. GPS monitoring does not provide a victim with guaranteed protection; it only can warn the victim and

law enforcement personnel when the offender enters certain areas. And electronic monitoring does not prevent the offender from using a proxy to approach and harass the victim.<sup>34</sup>

Furthermore, unlike the sex offender monitoring program, which retains complete control over the operation because the offender is subject to the control and custody of authorities such as the State Parole Board and the court, no law enforcement or court personnel can control the actions of the victim. As such, the victim could choose to abandon her GPS or communication device in favor of reconciling with the offender, give her device to a proxy for the purpose of retaliation or revenge, or simply forget to carry her device on any particular occasion. Or she may choose privacy over participation in the program, either opting not to participate in the program at all, or abandoning participation on any given day. Perhaps the biggest challenge is the inability to direct the victim to guaranteed safety in the event of an impending attack. And alerts may trigger a victim's self-defense response, putting both the offender and bystanders in potential danger. A monitoring and notification program must avoid creating more public safety issues than the program seeks to resolve.

Law enforcement will play a critical role in the success of any electronic monitoring program. To that end, it is essential to identify an appropriate infrastructure that allocates sufficient resources to the operating, monitoring, and responding agencies. Those law enforcement resources—separate from the cost of the hardware and software necessary to operate the program—must be balanced with the resources required to fulfill other law enforcement obligations.

We also must recognize that constant monitoring can create a false sense of security for those victims who need real security against their violent attackers, as well as for the public who is relying on law enforcement to protect those victims.<sup>35</sup> To that end, the bail reform legislation recently passed by our Legislature and signed by the Governor will allow courts to retain those individuals that pose the greatest risk to the community as its pretrial detention provisions expressly apply to domestic violence offenses. If approved by a majority of New Jersey voters this November, such preventative detention has the potential to keep the most dangerous attackers away from the victims entirely. Those reforms could minimize the need for the Lisa's Law monitoring program, which similarly is designed to protect domestic violence victims from repeated attacks.

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<sup>34</sup> Amanda Rhodes, Strengthening the Guard: The Use of GPS Surveillance to Enforce Domestic Violence Protection Orders, TENNESSEE JOURNAL OF RACE, GENDER, & SOCIAL JUSTICE, Vol. 2, Iss. 1, Article 6, 143 (2013).

<sup>35</sup> Santry, supra, note 8, at 1119-20 (“the public has a limited understanding of what GPS monitoring can accomplish, which creates the significant potential for a false sense of security”).