First Responder Mapping System in K-12 Schools

LEGISLATIVE AUDITOR'S CONCLUSION:

School districts and law enforcement see both advantages and limitations of the state school mapping system. WASPC can address many limitations by developing training and outreach strategies, using data, and coordinating with school safety centers.

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In 2003, the Legislature directed the Washington Association of Sheriffs and Police Chiefs (WASPC) to create a statewide first responder mapping system for schools and other public buildings. The system is intended to provide information to emergency response agencies for natural disasters,

Maps → Plans → Contacts → [computer display]

Schools enter information into the system

Emergency response agencies and schools have access

Source: JLARC staff analysis.

criminal acts, and other incidents. The mapping system includes floor plans, contact information, utilities, hazards, and other information about school buildings.

In 2019, the Legislature directed the Joint Legislative Audit and Review Committee (JLARC) to review how school districts and emergency response agencies are using the mapping system.

The study included a review of system data and surveys of 295 school districts and 272 law enforcement agencies to assess how they use the state's mapping system. 207 school districts (70%) and 155 law enforcement agencies (57%) responded to the JLARC survey. Based on K-12 enrollment and location, district responses are representative of districts overall. More detail is in Appendix A.

The state pays for the school mapping system database, and school districts currently cover the costs if they update information. Emergency response agencies can access the system at no cost.

Since the 2003-05 biennium, the Legislature has appropriated a total of $24 million to map schools and cover operational costs of the mapping system (e.g., license fees, WASPC program management). For the last six fiscal years (2016-2021), appropriations have totaled $3 million. The funds are provided for operational costs only, not for mapping new schools or updating

information. School districts are not required to update information or map new schools unless funding is available. Currently, school districts that update their information are doing so at their own expense.

At least 33 of the 295 districts use alternative school mapping software that they pay for directly.

In the survey, 80% of school district and 70% of law enforcement agency respondents report using the mapping system. Frequency varies widely, however, and it is unclear if school information is current.

In their survey responses, 80% of district respondents (165 districts) and 70% of law enforcement agency respondents (109 agencies) reported using the system.

From the mapping system data, we found that districts and agencies are logging into the system, but differ in how often they do so. Among districts, for example, 52 logged in on a weekly or daily basis since fiscal year 2016, while 74 logged in once per year or less. For emergency response agencies, 183 agencies logged in once per year or less (*note: this figure is larger than the 109 survey respondents who report using the system because system data also includes emergency management, fire, and dispatch*).

All 295 of Washington's school districts have uploaded information in the state's mapping system. The type of information varies by district and school, and there is limited detail on whether or not the information is current. Only two data elements have a "current as of" date field and it is optional.

Survey found that among districts and agencies that report using the system, 33%-53% intend to use it during an incident

- For districts, the percent of those that report using the system and intend to use it in an incident ranges from 44% to 53%, depending on the type of incident. Just over half of the districts that use the system report they are using it in drills.

- Among law enforcement agencies, the percent that report using the system and intend to use it in an incident ranges from 33% to 41%, depending on the type of incident. Further, 81-90% of the agencies, regardless of whether they currently use the system, report that the information within the system would be useful. However, it is not currently possible for them to know whether most of the information in the system is up-to-date.

There is a small group of opponents to any mapping system, a slightly larger group of strong proponents, and a majority that see advantages but cite perceived limitations

There is a spectrum of opinions about the system. On one end, 20 district and law enforcement survey respondents report neither needing nor wanting a mapping system. On the other end, 47

survey respondents report liking and needing a mapping system. They cite advantages such as functionality, ease of use, and communication tools. The bulk of survey respondents fall in the middle. They identified advantages as well as factors they believe limit their use of the statewide system, such as a cost, data reliability, issues with the system itself, and lack of training.

WASPC needs to develop detailed training and outreach strategies and use mapping system data to inform its program management decisions

JLARC staff also reviewed WASPC's program management. WASPC staff are responsible for training users, working with the system vendor, and conducting outreach. WASPC reports that the number of staff (currently 1.5 full-time employees) limits its ability to reach all potential users. However, it is unclear what the appropriate staffing level should be without specific program plans, goals, and targets. WASPC could leverage its existing resources if it developed detailed training and outreach strategies and used mapping system data to inform its program management decisions.

Mapping is an element of school safety planning and should be coordinated with the work of the new school safety centers created in 2019

The information in the state and alternative school mapping systems is part of overall school safety and security requirements identified in statute. In 2019, the Legislature established school safety centers within the Office of Superintendent of Public Instruction (OSPI) and each of the nine Educational Service Districts (ESDs) to provide training and technical expertise to districts. A majority of districts reported that it would help to have their local ESD coordinate use of the mapping system, particularly to provide additional staff support and training opportunities.

Legislative Auditor Recommendations

1. WASPC should develop and implement detailed training and outreach strategies that have measurable goals and targets.

2. WASPC should periodically review technology standards, address user feedback about technology issues, and use system data to inform its program management decisions.

You can find additional information on the Recommendations tab.

REPORT DETAILS
1. Mapping system is intended to inform emergency response agencies

Legislature created the statewide mapping system to provide information to emergency response agencies

In 2003, the Legislature directed the Washington Association of Sheriffs and Police Chiefs (WASPC) to create a first responder mapping system for public buildings. The intent was to provide emergency response agencies with the information they need to be successful when responding to disasters, criminal acts, and terrorism (RCW 36.28A.060).

Over time, state funding and additional statutory guidance have focused on K-12 schools. For example, RCW 28A.320.125 requires that schools adopt school safety plans "consistent with" the mapping program and that schools conduct at least one drill each year using the mapping system (Appendix C).

In 2019, the Legislature directed the Joint Legislative Audit and Review Committee (JLARC) to review how school districts and emergency response agencies are using the mapping system.

Exhibit 1.1: WASPC and school districts have statutory responsibilities for school mapping

WASPC Responsibilities	District Responsibilities
Create and operate mapping system.	Use mapping software system that complies with standards.
Develop software standards and the type of information to be included.	Implement safe school plan consistent with school mapping system.
Accept mapping information from users of alternate systems.	Forward building mapping information to WASPC.
Make information available to emergency response agencies.	Update information and map buildings if funding is available.
Develop training guidelines for emergency response agencies.	Use mapping system in one drill per year.

Source: JLARC staff summary of key responsibilities in RCW 36.28A.060-070 and RCW 28A.320.125.

Mapping system includes floor plans, contact information, utilities, hazards, and other information about school buildings

When it directed WASPC to create the mapping system in 2003, the Legislature listed six types of information that the system must include: floor plans, fire protection information, evacuation plans, utility information, known hazards, and contact information.

In addition, the Legislature directed WASPC to work with a committee to develop standards for information, software, access, and training. The committee—which included representatives of fire, law enforcement, cities, counties, emergency management, information technology, and schools—adopted standards in 2005.

WASPC offers statewide mapping system with database and a mobile app

A private vendor owns and maintains the software and technology behind the mapping system. WASPC holds a license that allows school districts and emergency response agencies across the state to use it. Per contract with the vendor, the state owns the data within the system.

The system, called Rapid Responder, has three main components: a database, an emergency response interface, and a mobile interface called Easy Alert.

- Districts and schools enter information (e.g., floor plans, contact information) into the database. They also can store emergency plans, record drills, and document incidents.

- During an incident or drill, emergency response agencies and school/district officials access the information in the database using either the emergency response interface or Easy Alert.

Easy Alert allows users to initiate incidents, communicate through text messages, share photos, pin locations with GPS, and document incidents. It is a relatively new feature: WASPC started to introduce it to school districts in August 2017 and to emergency response agencies in August 2018.

Exhibit 1.2: Screen shots of Rapid Responder

Source: JLARC staff rendition of Rapid Responder interfaces.

At least 33 districts use other technologies for school mapping or real-time communication

School districts may use an alternative system that meets the information, software, access, and training standards set by WASPC.

Through interviews and a survey of districts[1], JLARC staff learned that at least 33 of the 295 school districts are using alternatives to the state mapping system. These alternative technologies have varying capabilities that include document templates and storage, live camera feeds, interactive maps, and real-time communication. Additional districts and agencies may be

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[1] 70% response rate, see Appendix A.

using alternative systems that they did not mention in the survey. See Appendix B for more detail.

Best practices for school safety technology suggest that a one-size-fits-all approach is unlikely to work due to differences across districts, including location, size, grade level, and building construction.

The most frequently cited alternative systems are offered through ESD 105's School Safety Operations & Coordination Center (SSOCC)

Educational Service District (ESD) 105 located in Yakima operates a School Safety Operations & Coordination Center (SSOCC) that focuses on helping districts meet state requirements and best practices for school safety. Participating districts choose their level of service. The basic services are support, training, and technical expertise. A full service package also includes data entry, assistance with drills and exercises, on-site training, and community engagement. SSOCC's four-person staff also provide templates for documents, hold monthly consultations with each district, and facilitate discussions between districts and emergency response agencies.

Like WASPC, the SSOCC also offers technology-based mapping and real-time communication tools with a product called SafePointe/InPointe. SSOCC reported to JLARC staff that it could provide support to a district for use of any mapping system, including the state's mapping system (i.e., Rapid Responder). Districts do not have to be part of ESD 105 to purchase the SSOCC's technology-based services and can do so without an SSOCC service package.

The primary intended users of all SSOCC services are schools and districts, rather than emergency response agencies. If a school or district gives emergency response agencies access to the information, the SSOCC will offer training and access to the agencies at no charge.

2. State has appropriated $24 million to date

The state pays for the school mapping system database, and school districts currently cover costs to update if they choose to do so. Emergency response agencies can access the system at no cost.

The Legislature has funded the statewide mapping system since state fiscal year 2004

There are two types of costs related to the mapping system: mapping and operations.

- **Mapping** includes the cost of adding a site to the system's database, including floor plans, evacuation plans, photos, and other critical data. A site is typically a school campus or complex, including all buildings. Under the current contract for the mapping software, up to 2,500 sites can be in the system. There are currently 2,193 K-12 sites and 300 other public sites (e.g., community colleges, critical infrastructure) in the system.

- **Operations** includes payments to the vendor for the system license and maintenance, as well as the cost of WASPC program management. In the 2019-21 biennium, WASPC's program costs were 30% of the $1.23 million appropriation, while the vendor costs were 70%.

Since the 2003-05 biennium, the Legislature has appropriated a total of $24 million for the mapping system. For the last six fiscal years (2016-2021), appropriations have totaled $3 million. The funds are provided for operations costs only, not for mapping new schools or updating information.

School districts are not required to update the information or to map new/remodeled buildings unless funding is available

State law requires that school districts:

- Annually update their safe school plan and upload it — along with current staffing information — to the state mapping system, if funds are available. If they are using an alternative system, they are to send the information to WASPC.

- Map new or remodeled buildings when funding is provided by WASPC or other sources.

JLARC staff surveyed school districts about their use of the mapping system. Of the 207 that responded, 54 districts reported spending time or money to use the system.

- The largest reported cost was for initial mapping of a new or remodeled building. Together, 30 districts reported spending a total of nearly $223,000 and 1,430 hours on mapping.

- In addition, 32 districts reported spending a total of $27,000 and 990 hours to update information.

- Other costs included time to train staff or enter information about drills and incidents.

The cost to map a new or remodeled school is based on the size of the building. Districts may hire WASPC to do the mapping for $0.16/square foot. Based on the median square feet for new schools[2] in the Pacific Northwest, the cost would range from $11,680 to $22,400 per school. Alternatively, a district could do the mapping on its own. In that situation, WASPC charges a fee of $1,000 to $1,500[3] to help cover its costs for database administration.

Districts that opt to use an alternative system are responsible for the entire cost

As noted in section 1, the most common alternative system used is one managed by ESD 105's School Safety Operations & Coordination Center (SSOCC) in Yakima. Since districts choose from a range of services, and technology is charged per student, the costs vary. In the 2018-19 school year, for example, one district paid $1,000 for basic services at one school, while another paid

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[2]As published by the National Clearinghouse for Educational Facilities.
[3]$1,000 for schools up to 100,000 sq. ft.; $1,500 for larger schools.

$42,000 to have all services and technologies at every school and the district office. The average cost per district was $11,000.

Emergency response agencies can access information at no cost

Both the state mapping system and the alternative system offered through ESD 105 provide access to emergency response agencies at no cost.

3. Use of state mapping system varies widely

While 80% of school districts and 70% of law enforcement agencies report using the mapping system, frequency varies widely and it is unclear if school information is current

JLARC staff used the following data sources to evaluate how the statewide system is being used.

- Data stored in the mapping system (see below).

- Survey of school districts (207 of 295 districts responded).

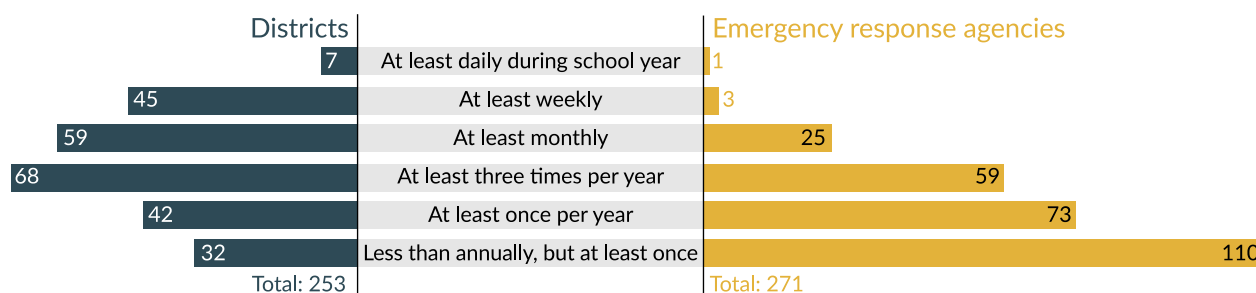- Survey of law enforcement agencies (155 of 272 agencies responded).

Additional information about the surveys can be found in Appendix A.

School districts and emergency response agencies are logging into the state's mapping system

System data indicates that districts and emergency response agencies are accessing the state mapping system (i.e., Rapid Responder and/or Easy Alert).

- **School districts:** 253 of the 295 (87%) districts have had at least one school or district staff member log in since fiscal year 2016.

- **Emergency response agencies:** 271 agencies have logged into the system at least one time since fiscal year 2016. This includes 156 law enforcement agencies, 78 fire departments/districts, and 38 other agencies (e.g., emergency management, dispatch).

Exhibit 3.1: Some districts and emergency response agencies log into the system on a weekly or daily basis, but most log in less routinely

Districts		Emergency response agencies
7	At least daily during school year	1
45	At least weekly	3
59	At least monthly	25
68	At least three times per year	59
42	At least once per year	73
32	Less than annually, but at least once	110
Total: 253		Total: 271

Source: JLARC staff analysis of login data (7/1/2015 through 10/10/2019).

The login information includes both Rapid Responder and the Easy Alert mobile app. As of October 2019, 84 districts and 38 emergency response agencies had logged into the Easy Alert app at least once.

It is unclear whether information in the state's mapping system is current

All 295 of Washington's school districts have uploaded information in the state's mapping system. The type of information varies by district and school, and there is limited detail on whether or not the information is current.

- Districts have the option of indicating a "current as of" date for two data elements in the mapping system: contact information and emergency plans. If a district opts to include it, emergency response agencies will see the date.

- For all other information entered, the mapping system records when the information was last changed, but the emergency response agencies cannot view these dates. Moreover, the dates don't reveal whether or not the information is current. For example, a floor plan uploaded in 2008 may be current or it may be outdated if the school was remodeled since then.

School data in the mapping system
Since the mapping system is designed to respond to an emergency at a specific location, the data is stored by individual school and building.
Use of the system and quality of the information varies by school, even within the same district. A district may have one school that uses the system frequently and another school that uses it rarely.
For this study, JLARC staff summarized the information by district.

Law enforcement agencies report that the mapping information is useful if it is kept current

In response to JLARC staff's survey, law enforcement agencies indicated that the type of information districts enter into the mapping system is useful, particularly contact information (identified by 90% of responding agencies), floor plans (81%), site maps (79%), and interior/exterior photos (78%). Making this type of information available is consistent with best practices set forth in federal guidelines for school emergency operation plans.

Exhibit 3.2: The state's mapping system has information about schools in each district, but it may or may not be current

Type of information	Percent of districts for which the system has...		
	Information for at least one school	Information for all schools	Updated information for at least one school in the last two biennia*
Contact information	100%	42%	88%
Emergency plans	92%	49%	43%
Floor plans and/or interior photos	100%	97%	33%
Fire protection information	100%	87%	28%
Evacuation plans or routes (text and/or images)	96%	72%	22%

Source: JLARC staff analysis of system data as of October 10, 2019. Schools in the analysis include only those with a physical building housing K-12 students.

* Note: Information that has not been updated recently may be current. The system does not indicate when schools or districts last reviewed the information to ensure accuracy.

Among districts and agencies that reported using the system, 33%-53% intend to use it during an incident

In response to the JLARC survey, 165 districts (80% of survey respondents) and 109 law enforcement agencies (70% survey respondents) reported that they use the state's mapping system. This differs from the login data for a number of reasons, including survey respondent knowledge of how and when the system is used by their district or agency. Login data also includes other emergency response agencies (e.g., fire), while the survey was law enforcement only.

According to survey responses, the incidents that the mapping system is designed to support occur infrequently.

- Half of the law enforcement respondents said they happen "once every year or two" and another quarter said they occur "a few times per year."

- About one-third of districts reported that they have had an incident.

JLARC staff asked districts and agencies if they intend to use the system if an incident takes place. Some respondents said they would use it in certain types of incidents (see Exhibit 3.3). The

most common way districts intended to use the system was documenting incidents (60%), followed by initiating a response (46%), and communicating with law enforcement (38%).

Exhibit 3.3: More districts than law enforcement agencies say they would use the system during incidents

Respondents that report using the state mapping system:	Would use the system during incidents involving....			
	Intruder	Natural hazards or disasters	Hazardous materials	Violent crime/threats
School districts (n=165)	53%	53%	49%	44%
Law enforcement agencies (n=109)	33%	37%	34%	41%

Source: JLARC survey data.

Districts are more likely than law enforcement agencies to use the system for drills and planning

Best practices for school safety technology and emergency preparedness emphasize the importance of training, including drills and exercises to practice using the technology and to ensure that plans are effective. While statute states that schools must use the mapping system in at least one drill per year, law enforcement agencies are not required to drill or train with the system.

Exhibit 3.4: Percent of survey respondents that report using the system for drills or planning

Respondents that report using the state mapping system:	Use the system to...			
	Conduct drills	Record drills*	Train officers or deputies	Plan for incident response
School districts (n=165)	56%	64%	N/A	45%
Law enforcement agencies (n=109)	29%	N/A	37%	42%

* System data indicates that 62% of all districts have documented at least one drill in the system since fiscal year 2016. Districts are required to use the system in at least one drill per year, but they are not required to document their drills in the mapping system.

Source: JLARC survey data.

Few fire departments or fire districts use the system

System data shows that 78 of the 271 emergency response agencies that have logged into the system are fire departments or fire districts. Only nine of the fire departments/districts have logged in more than 10 times in the last two biennia.

The Washington Fire Chiefs association reports that additional training and access to the system is needed. WASPC states that it added a part-time staff member in 2019 to begin providing training to fire departments and fire districts.

4. Users perceive advantages and limitations of system

Survey respondents fall into one of three groups when asked for their opinions on the mapping system

JLARC staff surveyed 295 school districts and 272 law enforcement agencies (see Appendix A for details). Survey respondents were asked to provide comments throughout the survey, including identifying advantages and limitations of technology-based mapping systems. Their opinions fell into one of three groups:

1. A small group of opponents to any mapping system.
2. A slightly larger group of strong proponents.
3. A majority that perceive both advantages and limitations.

The 20 respondents that do not need or want a technology-based system are mostly small districts and agencies that did not expect it to be useful during a response

Comments from 14 school districts and six law enforcement agencies indicate that they either do not need or do not want a technology-based mapping system. Many acknowledge that sharing information is a good practice, but do not believe they need a technology system to do so.

Districts cite small schools and rural locations as reasons a technology-based mapping system is not needed. Of the 14 districts, seven have fewer than 500 students, four have 500-999 students, and the remainder are from larger school districts.

- Sample comment: "This is a very rural district, served only by a volunteer fire district and the county sheriff. None of our responding agencies have any real-time access to Rapid Responder, as there is very spotty cell service in the area."

Three of the **law enforcement agencies** serve rural communities and three serve suburban or urban communities. Each report that technology-based systems will not facilitate response in their areas. Rather, officers with firsthand knowledge and non-web-based information are thought to be more useful.

- Sample comment: "Rapid responder does not decrease response time… it only increases it. Not useful at all for a jurisdiction our size."

The 47 respondents that report liking and needing a mapping system cite advantages such as functionality, ease of use, and communication tools

Comments from 29 districts and nine law enforcement agencies indicate that they are strong proponents of the state mapping system. These respondents:

- Give specific examples of how they use the system or explain how it was important to them.

- Report liking the system's functions, central repository of information, and low cost.

- State that it is easy to document drills or incidents and retrieve information.

- Appreciate the real-time communication features in Easy Alert.

- Indicate that the advantages outweigh the limitations and hope that the Legislature continues to support the system.

Case Study: Monroe School District

Monroe School District uses the state mapping system regularly, ensures staff are trained, and coordinates with emergency response agencies. In an interview with JLARC staff, the district's safety manager noted that the district:

- Uses Easy Alert every day for minor - incidents so that they know how to use the system during a major incident.

- Trains staff through an internal training program.

- Regularly updates the Rapid Responder database.

- Works with first responders for training, drills, and tabletop exercises.

Survey and system data indicate that others in Snohomish County also are adopting and using the system.

In addition, ten school districts[4] and two law enforcement agencies are strong proponents of their alternative mapping systems. They cite advantages similar to those identified by users of the state system.

Respondents in the middle group identify both advantages and limitations of the state system

The respondents in the middle are from 144 districts and 128 law enforcement agencies. Their comments do not reflect strong overall opinions, and the limitations they identify are often attributable to program management rather than the mapping system platform. Within this group there are 17 districts and 12 agencies that would like to — or are actively taking steps to — increase their use of the system. Most survey respondents have an equal — or nearly equal — number of positive and negative comments.

As shown below, the top advantages and limitations according to these respondents are:

- **Advantages:** Availability of information, documentation, ease of use, and simultaneous access/communication.

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[4]Three are proponents of both an alternative and the state mapping systems.

- **Limitations:** Cost, data reliability, lack of training, and perceived system issues.

Many of their comments are echoed by those in the strong proponent and opponent groups.

Exhibit 4.1: Key advantages and limitations according to respondents in the middle group

Advantage	School district (SD) respondents	Law enforcement (LE) respondents	Sample statements
Availability of information	36	81	"Police and fire department have easy access to current information, phone numbers, maps, location of key electrical panels and water shut off systems." (SD) "Having detailed maps at quick access. Updated contact information is very handy as well." (LE)
Documentation of incidents and drills	33	n/a	"Data reporting is efficient and helpful." (SD)
Ease of use	9	29	"Easy to use and maintain." (SD) "Easily accessible by officers. Easily accessible by dispatchers." (LE)
Simultaneous use by multiple entities	23	16	"Being able to communicate with law enforcement and with staff in one easy application is really helpful." (SD) "All parties (including dispatch) can access the same information at the same time." (LE)

Limitation	School district (SD) respondents	Law enforcement (LE) respondents	Sample statements
Cost (time or dollars)	46	2	"Time to keep updated; time for ongoing training." (SD)
Data reliability	5	42	"Our school has not kept it updated. Most information aside from building plans are obsolete. The high school still has a principal listed from 2005..." (LE)
Lack of training	57	50	"More training is needed for remote, rural areas. A yearly webinar would be most beneficial to

Limitation	School district (SD) respondents	Law enforcement (LE) respondents	Sample statements
			our principal. The mapping system would be used if training were provided." (SD) "It is essential that training is routinely provided to both law enforcement and the schools on the use of rapid responder. Few of us are familiar with Easy Alert." (LE)
Perceived system issues*	41	68	SD respondents: "Cumbersome and time consuming"; "Difficult program to navigate (in the past that was our experience)"; "It is difficult to access when responding to an event on cell phones with intermittent coverage. It is too large to do a complete download for offline use" (SD) LE respondents: "Takes time to sign in, not easily navigable"; "Connectivity is sometimes an issue"; "Letting us know when there are updates to the systems and/or maps at our schools." "Passwords expiring"; "Not accessible easily on a smart phone."

* WASPC stated that many of the perceived system issues have been addressed. JLARC staff noted, however, that many users were unaware of the fixes.

Source: JLARC staff summary of survey responses. Numbers in the table indicate the number of districts or law enforcement agencies that identified these issues in their responses.

5. WASPC should improve its program management

WASPC needs to develop detailed training and outreach strategies and use mapping system data to inform its program management decisions

Some of the limitations identified by users, such as lack of training and system issues, are associated with WASPC's approach to program management.

The statewide mapping system is operated by 1.5 full-time employees

WASPC is a small organization with 19 total staff, and the mapping system is one of many programs it runs for the state.

The mapping system is staffed with 1.5 full-time employees: a full-time program manager and a part-time program assistant. The part-time position was added in 2019 following an increase in the state appropriation for operations of the mapping system. Together, they are responsible for

conducting trainings, working with the system vendor, and performing outreach. WASPC reports that the number of staff limits its ability to reach all potential users. However, it is unclear what the appropriate staffing level should be without specific program plans, goals and targets.

WASPC's training approach has reached about 10% of all potential users in the last three years

Emergency management best practices emphasize that regular training is an important component of successfully preparing for and responding to incidents.

WASPC does not currently maintain detailed training records. During the course of this review, it compiled a list indicating that it conducted 180 trainings since August 2016. JLARC staff analysis found that these trainings were held at 64 school districts or ESDs, 32 law enforcement agencies, 2 fire agencies, and 10 other locations (e.g., conferences). This is about 10% of the nearly 1,000 districts and emergency response agencies[5] that could use the statewide mapping system. WASPC does not have any records of training conducted before that time. Its records do not include attendee lists, so it is not possible to determine how many users have been trained or if other districts participated.

In addition:

- All trainings are done in person. Given its small staff, the use of technology could make the training more readily available statewide, and could allow attendees to participate in multiple training sessions.

- WASPC has not developed formal training materials and does not provide documents that users can reference after training.

- Training is provided in response to a district or agency request. WASPC does not have a strategy to ensure that districts and agencies have been trained or receive regular training.

- There is not a strategy to train school districts and emergency response agencies that are located in the same geographic area. In order for the system to work as the Legislature intended, both districts and emergency agencies need to use the system.

WASPC does not use system data to manage and prioritize program activities

The database that stores school information also records information about how and when districts and responders use the system. WASPC has not used this system data for program management, communication, or prioritization.

For example, WASPC could review which districts and emergency response agencies are using the system, how often, and how the system is being used. It could use this information to target trainings to infrequent users or suggest that districts review potentially outdated information.

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[5] 295 school districts, 272 city, town, or county law enforcement, 420 fire departments.

WASPC has not formally communicated with districts or emergency response agencies about user needs or system updates

Emergency management best practices suggest that technology tools need to be periodically re-evaluated to ensure they are consistent with current needs.

- WASPC created system standards in 2005. Since then, both technology (e.g., smart phones) and protocols for responding to incidents (e.g., active shooter standard operating procedures) have changed. While the vendor has updated its technology to now include mobile apps, WASPC has not updated its own standards.

- WASPC receives informal user feedback, and passes it to the system vendor, but it has not developed a process to identify user needs, problems users are experiencing, and training opportunities. Many of the system issues reported through the JLARC survey are examples of the types of information that could be used by WASPC and the vendor to address user needs and improve their experiences.

The mapping system sends automated notices and has reference documents that users can access when they are logged in. However, WASPC does not have a formal way to communicate updates, resolution of problems, and new features to users who are not regularly logging in.

Survey results demonstrate that not all users are aware of system features. For example, 65% of law enforcement survey respondents report being unaware of Easy Alert, which WASPC considers to be the most important new feature of the system.

There are no automated mechanisms to upload data from alternate systems

Statute requires school districts to forward initial mapping information and annual updates to WASPC, if funding is available. WASPC is required to make the information available electronically to emergency response agencies. If the district uses Rapid Responder, the information is available in the system. However, for districts that use alternative systems, it is unclear whether and how often the districts have submitted information, and there are no automated mechanisms in place to add it to the mapping system.

Legislative Auditor makes two recommendations to improve WASPC's program management

1. WASPC should develop and implement detailed training and outreach strategies that have measurable goals and targets.

2. WASPC should periodically review technology standards, address user feedback about technology issues, and use system data to inform its program management decisions.

You can find additional information on the Recommendations tab.

6. Mapping should be coordinated with safety center work

Mapping is an element of school safety planning and should be coordinated with the work of the new school safety centers created in 2019

The information in the state and alternative mapping systems is part of overall school safety and security

Statute requires that each school district adopt and implement a safe school plan consistent with the school mapping system. The mapping system and information contained within it are part of safe school planning (RCW 28A.320.125). Additional statutes require districts and schools to address other safety issues such as bullying, weapons, gang activity, suicide, and threat assessment.

School safety best practices recommend that districts and schools:

- Work with community partners (e.g., emergency management staff, law enforcement, fire departments, public officials, and mental health experts) to address school safety and security, develop emergency plans, and conduct regular training.

- Integrate security technology into broader prevention and intervention measures, ranging from security and emergency response plans to crisis response drills and a positive school climate.

Legislature established school safety centers within the Office of Superintendent of Public Instruction (OSPI) and each of the nine Educational Service Districts (ESDs)

The 2019 Legislature codified a network of school safety centers with specific roles and responsibilities, subject to specific funding availability. Many of these centers existed before the codification.

Exhibit 6.1: State and regional school safety centers have complementary responsibilities

	State school safety center	Regional school safety centers
Managed by:	OSPI	One per ESD
Sample responsibilities:	• Provide information about safety planning.	• Coordinate behavioral health. • Coordinate threat assessment[7] services.

[7]A structured process to prevent violence by assessing threats and developing intervention plans.

	State school safety center	Regional school safety centers
	• Maintain a public web site with safety information and research. • Develop model policies and identify best practices. • Work with regional safety centers to provide training, and support district efforts to meet state school safety requirements, including those under RCW 28A.320.125[6].	• Provide school safety training and technical assistance. • Help districts coordinate with community and other partners. • Real-time support and assistance for districts experiencing a crisis. • Other services to support comprehensive safe school planning under RCW 28A.320.125.

Source: JLARC staff analysis.

These roles and responsibilities are consistent with national standards documented by the National School Safety Alliance (NSSA) and the National Institute of Justice. The NSSA also suggests that state centers evaluate the effectiveness of school safety programs.

The 2019 Legislature further directed OSPI to monitor compliance with the requirements for safe school plans, threat assessments, and behavioral health. Subject to specific funding, OSPI must conduct the review no less than once every five years. Information contained within the state's mapping system could support the review, if OSPI worked with WASPC and the system vendor to develop relevant queries of system data.

A majority of districts reported that it would help to have their local ESD coordinate use of the mapping system

The nine ESDs operate their school safety centers differently, with focuses and service models that reflect local needs, budgets, and priorities. In interviews, six stated that they already provide support with safety training or help with drills and exercises.

As required by the study mandate, JLARC staff asked school districts about ESD coordination of the mapping system.

- 70% of districts reported that it would help to have their local ESD coordinate use of the mapping system.

- Broken out by size of district, 76% of small or very small districts[8], 69% of medium districts[9], and 52% of large districts[10] supported ESD coordination.

The districts were also asked to identify advantages and limitations of ESD coordination. The two most commonly mentioned advantages and limitations are shown in the tables below.

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[6]Includes mapping system.
[8]Under 1,000 students
[9]1,000 to 10,000 students
[10]Over 10,000 students

Exhibit 6.2: School districts identified advantages and limitations of ESD coordination

Advantage	School district respondents	Sample statements
Additional staff support	69	"Take some of the burden/load off of the local district." "Hopefully they could help us put our information together in a more effective and efficient manner."
Training	49	"Local training that could be provided on an ongoing basis." "With ESD coordination as Regional Safety Centers, small schools, such as [ours] could receive training annually and discuss the use with other schools in the region."

Limitation	School district respondents	Sample statements
ESD is not local and/or part of the district	29	"The distance away from our district (2 hours)." "Lack of control of our own system."
Cost	28	"Cost to the districts."

Source: JLARC survey data.

Appendix A: Survey Results

207 school districts and 155 law enforcement agencies across the state responded to the JLARC survey

Interactive survey response data is available online

You can view the responses from school districts and law enforcement agencies online. Each tool provides summary information and allows you to search for a specific district or agency.

| Click for interactive school district responses | Click for interactive law enforcement agency responses |

Summary of survey method and response rates

The Washington State University Social and Economic Sciences Research Center managed the survey on JLARC staff's behalf.

- Each of the 295 school districts and 272 law enforcement agencies received a link to the survey via email.

- Unique sign-in codes ensured that only the superintendent, sheriff/police chief, or a designated staff member could provide the information.

- Districts or agencies that did not initially respond received follow-up emails, letters, and phone calls.

Exhibit A1: 207 districts responded to the survey
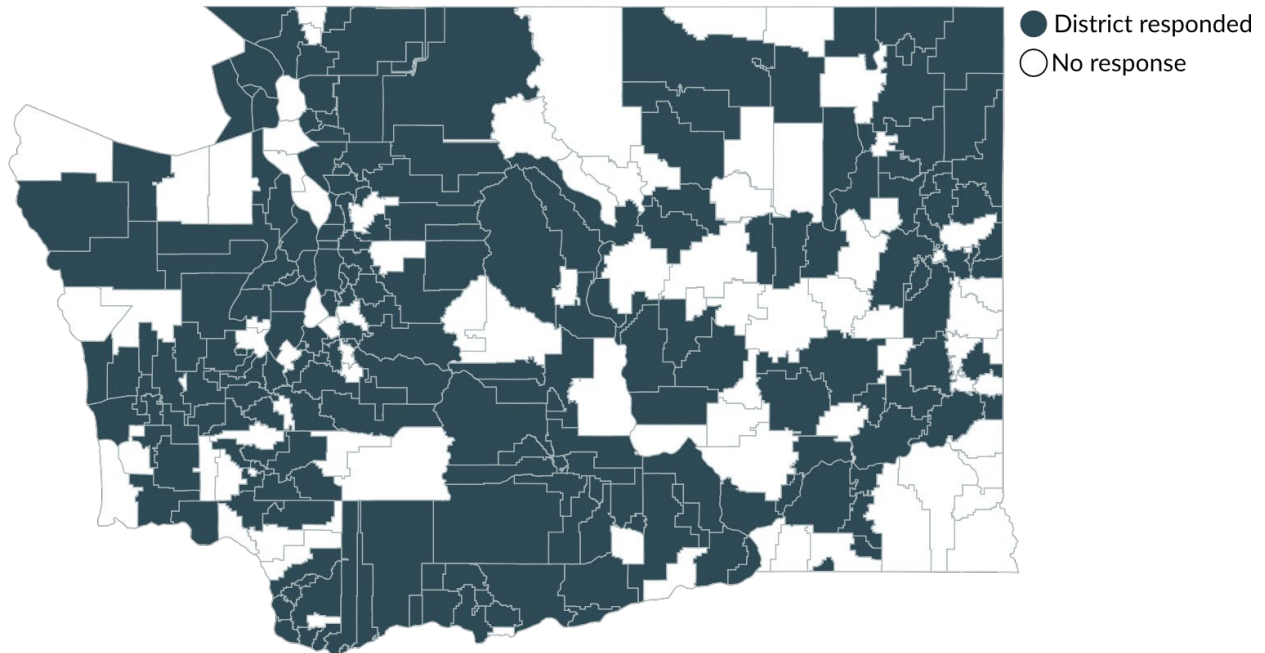
Source: JLARC survey data.

Exhibit A2: Based on K-12 enrollment and location, the responses from 207 school districts to the JLARC survey are representative of districts statewide

K-12 enrollment	Responded	Did not respond	Response rate	Percent of districts	Percent of responses
Under 500	62	38	62%	34%	30%
500-999	28	19	60%	16%	14%
1,000-4,999	65	22	75%	29%	31%
5,000-9,999	23	4	85%	9%	11%
Over 10,000	29	5	85%	12%	14%
Total	207	88	70%	--	--

ESD	Responded	Did not respond	Response rate	Percent of districts	Percent of responses
ESD 101 - Northeast Region	36	23	61%	20%	17%
ESD 105 - South Central Region	20	5	80%	8%	10%
ESD 112 - Southwest Region	24	6	80%	10%	12%
ESD 113 - Capital Region	31	13	70%	15%	15%
ESD 114 - Olympic Region	13	3	81%	5%	6%
ESD 121 - Puget Sound Region	27	7	79%	12%	13%
ESD 123 - Tri-Cities Region	13	10	57%	8%	6%
ESD 171 - North Central Region	15	14	52%	10%	7%
ESD 189 - Northwest Region	28	7	80%	12%	14%

Urban or Rural	Responded	Did not respond	Response rate	Percent of districts	Percent of responses
Urban	72	16	82%	30%	35%
Rural	135	72	65%	70%	65%

Source: JLARC survey data, OSPI data (e.g., enrollment figures, ESD, urban/rural designation).

Exhibit A3: 155 law enforcement agencies responded to the survey

Sheriff's Offices that responded to the survey are highlighted in light blue and police departments that responded are shown in dark blue.
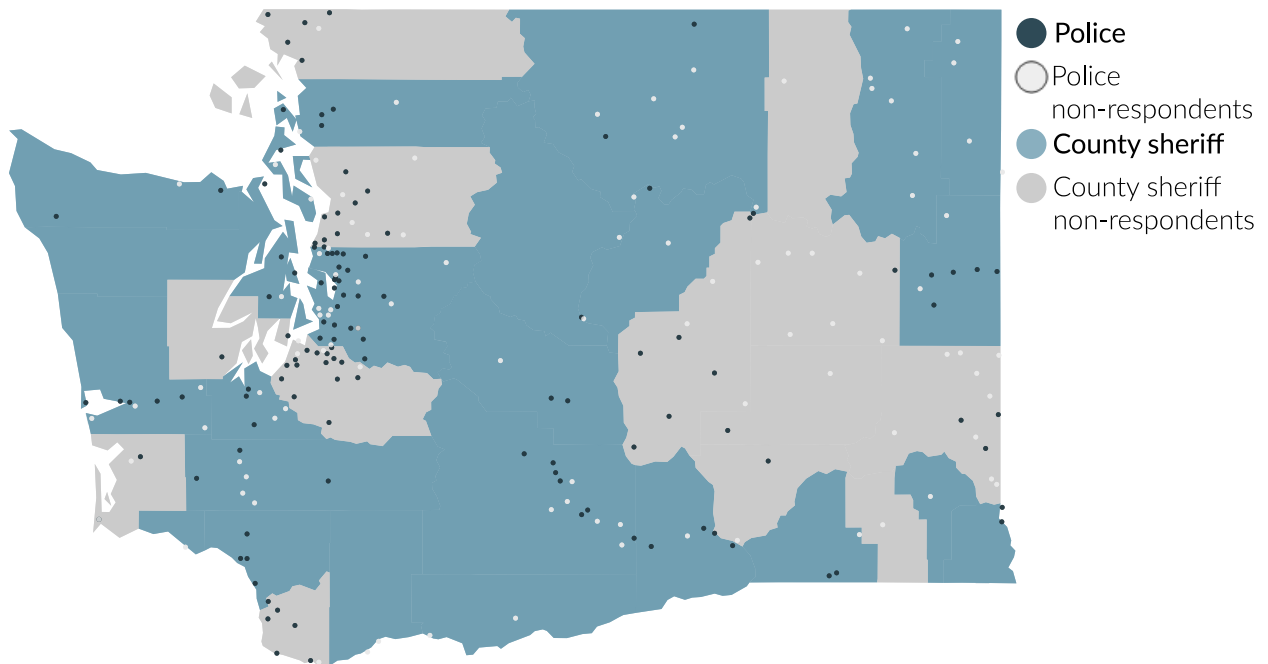
Source: JLARC survey data.

Exhibit A4: Law enforcement responses may not be representative

Agency type	Responded	Did not respond	Response rate	Percent of agencies	Percent of responses
Police	130	103	56%	86%	84%
Sheriff	25	14	64%	14%	16%
Total	155	117	57%	--	--

Population served	Responded	Did not respond	Response rate	Percent of agencies	Percent of responses
Under 1000	5	35	13%	15%	3%
1000 to 4,999	31	44	41%	28%	20%
5,000 to 9,999	25	11	69%	13%	16%
10,000 to 29,999	42	13	76%	20%	27%
30,000 to 100,000	36	10	78%	17%	23%
Over 100,000	16	4	80%	7%	10%

Source: JLARC survey data, OFM population estimates, 2019.

Appendix B: Alternative systems

16 systems identified in the survey

In their responses to JLARC's survey or interviews, school districts and law enforcement agencies reported using 16 technology-based alternative mapping systems or real-time communication platforms. Other systems may be in use but were not mentioned by districts or agencies.

JLARC staff do not have information about whether these systems meet the technology standards required in statute.

Exhibit B1: Alternative mapping systems reported in survey or through interviews

Alternative mapping system	School district	Law enforcement agency
Alert Sense		Douglas County Sheriff, Othello
Alert Spokane		Spokane Valley
Dude Solutions Safety Center		Everett
First Two		Kennewick
Homeland Security	Sedro-Woolley	
Honeywell	Snoqualmie	Snoqualmie
Incident Response		Lynnwood
Infocast	Quincy	Quincy
Informacast	Deer Park, Yakima	College Place
InPointe	Cheney, East Valley (Yakima), Fife, Grandview, Granger, Mt. Baker, Naches, Selah, Toppenish, Wahluke, West Valley (Yakima)	Union Gap
Invision Secure	Puyallup	Puyallup

Alternative mapping system	School district	Law enforcement agency
New World Mobile		Everett, Mercer Island
Rave Mobile Safety	Arlington, Lake Stevens, Sultan	Arlington, Everett, Grandview, Lake Stevens, Mill Creek, Seattle
ReadyOp	Highline	Thurston County Sheriff
SafePointe	Cheney, East Valley (Yakima), Ferndale, Fife, Grandview, Granger, Naches, Seattle, Selah, Toppenish, Wahluke, West Valley (Yakima)	Toppenish, Union Gap
Spillman Mapping		Chelan County Sheriff, Ephrata, Toppenish
SSOCC (ESD 105)	Bickleton, Cle Elum-Roslyn, East Valley (Yakima), Easton, Ephrata, Grandview, Granger, Highland, Kittitas, Mt. Adams, Naches, Selah, Thorp, Toppenish, Union Gap, West Valley (Yakima), Zillah*	Kittitas County Sheriff, Zillah

* Some districts that contract with the SSOCC did not list it as an alternative on the survey.

Source: JLARC survey and interview data.

Appendix C: Applicable statutes

Statute sets forth responsibilities of WASPC and school districts related to the statewide mapping system

Under state law, WASPC is responsible for creating and operating a mapping system and making the information available. With a multi-agency committee, it set software, security, and information standards.

School districts are responsible for implementing a safe school plan that is consistent with the school mapping system. As funds are available, they must map buildings and provide the information to WASPC. They are not required to use WASPC's system, but alternative software must be consistent with the guidelines set by WASPC's committee. They also must use a mapping system in one drill per year.

Exhibit C1: Applicable statutes

WASPC	Districts
RCW 36.28A.060 • Create and operate mapping system. • Make information available to all law enforcement, fire departments, and EMD. • Develop building mapping software and standards. • Pursue federal funds to create the system and develop grants for mapping.	**RCW 36.28A.060** • Use mapping system that complies with standards in 36.28A.070. • Map owned buildings when funding available. • Forward mapping information to WASPC.
RCW 36.28A.070 With committee, set guidelines for: • Type of information, including certain elements. • Software standards. • Information availability and security. • Order in which buildings are mapped. • Training guidelines for CJTC and Fire Marshal.	**RCW 38A.320.125** • Implement safe school plan consistent with school mapping system. • Include required elements. • If funds available, report/record updates to WASPC. • Use mapping system in one drill per year (record in school office).
	RCW 38A.320.126 Work with law enforcement to develop an emergency response system using evolving technology to expedite police response.

Source: JLARC representation of applicable statutes.

Statewide first responder building mapping information system—Creation—Data must be available to law enforcement, military, and fire safety agencies—Standards—Public disclosure exemption

RCW 36.28A.060

(1) When funded, the Washington association of sheriffs and police chiefs shall create and operate a statewide first responder building mapping information system.

(2) All state agencies and local governments must utilize building mapping software that complies with the building mapping software standards established under RCW 36.28A.070 for any building mapped for this purpose after the statewide first responder building mapping information system is operational. If, prior to creation of the statewide building mapping information system, a local government has utilized building mapping software standards established under RCW 36.28A.070, the local government may continue to use its own building mapping system unless the Washington association of sheriffs and police chiefs provides funding to bring the local government's system in compliance with the standards established under RCW 36.28A.070.

(3) All state and local government-owned buildings that are occupied by state or local government employees must be mapped when funding is provided by the Washington association of sheriffs and police chiefs, or from other sources. Nothing in chapter 102, Laws of 2003 requires any state agency or local government to map a building unless the entire cost of mapping the building is provided by the Washington association of sheriffs and police chiefs, or from other sources.

(4) Once the statewide first responder building mapping information system is operational, all state and local government buildings that are mapped must forward their building mapping information data to the Washington association of sheriffs and police chiefs. All participating

privately, federally, and tribally owned buildings may voluntarily forward their mapping and emergency information data to the Washington association of sheriffs and police chiefs. The Washington association of sheriffs and police chiefs may refuse any building mapping information that does not comply with the specifications described in RCW 36.28A.070.

(5) Consistent with the guidelines developed under RCW 36.28A.070, the Washington association of sheriffs and police chiefs shall electronically make the building mapping information available to all state, local, federal, and tribal law enforcement agencies, the military department of Washington state, and fire departments.

(6) Consistent with the guidelines developed under RCW 36.28A.070, the Washington association of sheriffs and police chiefs shall develop building mapping software standards that must be used to participate in the statewide first responder building mapping information system.

(7) The Washington association of sheriffs and police chiefs shall pursue federal funds to:

(a) Create the statewide first responder building mapping information system; and

(b) Develop grants for the mapping of all state and local government buildings in the order determined under RCW 36.28A.070.

(8) All tactical and intelligence information provided to the Washington association of sheriffs and police chiefs under chapter 102, Laws of 2003 is exempt from public disclosure as provided in RCW 42.56.240.

[2005 c 274 § 269; 2003 c 102 § 2.]

NOTES: Intent—2003 c 102:

"The legislature recognizes the extreme dangers present when the safety of our citizens requires first responders such as police and firefighters to evacuate and secure a building. In an effort to prepare for responding to unintended disasters, criminal acts, and acts of terrorism, the legislature intends to create a statewide first responder building mapping information system that will provide all first responders with the information they need to be successful when disaster strikes. The first responder building mapping system in this act is to be developed for a limited and specific purpose and is in no way to be construed as imposing standards or system requirements on any other mapping systems developed and used for any other local government purposes." [2003 c 102 § 1.]

Statewide first responder building mapping information system— Committee established—Development of guidelines

RCW 36.28A.070

(1) The Washington association of sheriffs and police chiefs in consultation with the Washington state emergency management office, the Washington association of county officials, the Washington association of cities, the director of the consolidated technology services agency, the Washington state fire chiefs' association, and the Washington state patrol shall convene a

committee to establish guidelines related to the statewide first responder building mapping information system. The committee shall have the following responsibilities:

(a) Develop the type of information to be included in the statewide first responder building mapping information system. The information shall include, but is not limited to: Floor plans, fire protection information, evacuation plans, utility information, known hazards, and text and digital images showing emergency personnel contact information;

(b) Develop building mapping software standards that must be utilized by all entities participating in the statewide first responder building mapping information system;

(c) Determine the order in which buildings shall be mapped when funding is received;

(d) Develop guidelines on how the information shall be made available. These guidelines shall include detailed procedures and security systems to ensure that the information is only made available to the government entity that either owns the building or is responding to an incident at the building;

(e) Recommend training guidelines regarding using the statewide first responder building mapping information system to the criminal justice training commission and the Washington state patrol fire protection bureau.

(2)(a) Nothing in this section supersedes the authority of the consolidated technology services agency or the technology services board under chapter 43.105 RCW.

(b) Nothing in this section supersedes the authority of state agencies and local governments to control and maintain access to information within their independent systems.

[2015 3rd sp.s. c 1 § 405; 2015 c 225 § 32; 2003 c 102 § 3.]

NOTES:

Effective date—2015 3rd sp.s. c 1 §§ 401-405, 409, 411, and 412: See note following RCW 2.36.057. Intent—2003 c 102: See note following RCW 36.28A.060.

Safe school plans—Requirements—Duties of school districts and schools—Reports—Drills—Rules—First responder agencies

RCW 28A.320.125

(1) The legislature considers it to be a matter of public safety for public schools and staff to have current safe school plans and procedures in place, fully consistent with federal law. The legislature further finds and intends, by requiring safe school plans to be in place, that school districts will become eligible for federal assistance. The legislature further finds that schools are in a position to serve the community in the event of an emergency resulting from natural disasters or man-made disasters.

(2) Schools and school districts shall consider the guidance and resources provided by the state school safety center, established under RCW 28A.300.630, and the regional school safety centers, established under RCW 28A.310.510, when developing their own individual

comprehensive safe school plans. Each school district shall adopt and implement a safe school plan consistent with the school mapping information system pursuant to RCW 36.28A.060. The plan shall:

(a) Include required school safety policies and procedures;

(b) Address emergency mitigation, preparedness, response, and recovery;

(c) Include provisions for assisting and communicating with students and staff, including those with special needs or disabilities;

(d) Include a family-student reunification plan, including procedures for communicating the reunification plan to staff, students, families, and emergency responders;

(e) Use the training guidance provided by the Washington emergency management division of the state military department in collaboration with the state school safety center in the office of the superintendent of public instruction, established under RCW 28A.300.630, and the school safety and student well-being advisory committee, established under RCW 28A.300.635;

(f) Require the building principal to be certified on the incident command system;

(g) Take into account the manner in which the school facilities may be used as a community asset in the event of a community-wide emergency; and

(h) Set guidelines for requesting city or county law enforcement agencies, local fire departments, emergency service providers, and county emergency management agencies to meet with school districts and participate in safety-related drills.

(3) To the extent funds are available, school districts shall annually:

(a) Review and update safe school plans in collaboration with local emergency response agencies;

(b) Conduct an inventory of all hazardous materials;

(c) Update information on the school mapping information system to reflect current staffing and updated plans, including:

(i) Identifying all staff members who are trained on the national incident management system, trained on the incident command system, or are certified on the incident command system; and

(ii) Identifying school transportation procedures for evacuation, to include bus staging areas, evacuation routes, communication systems, parent-student reunification sites, and secondary transportation agreements consistent with the school mapping information system; and

(d) Provide information to all staff on the use of emergency supplies and notification and alert procedures.

(4) To the extent funds are available, school districts shall annually record and report on the information and activities required in subsection (3) of this section to the Washington association of sheriffs and police chiefs.

(5) School districts are encouraged to work with local emergency management agencies and other emergency responders to conduct one tabletop exercise, one functional exercise, and two full-scale exercises within a four-year period.

(6)(a) Due to geographic location, schools have unique safety challenges. It is the responsibility of school principals and administrators to assess the threats and hazards most likely to impact their school, and to practice three basic functional drills, shelter-in-place, lockdown, and evacuation, as these drills relate to those threats and hazards. Some threats or hazards may require the use of more than one basic functional drill.

(b) Schools shall conduct at least one safety-related drill per month, including summer months when school is in session with students. These drills must teach students three basic functional drill responses:

(i) "Shelter-in-place," used to limit the exposure of students and staff to hazardous materials, such as chemical, biological, or radiological contaminants, released into the environment by isolating the inside environment from the outside;

(ii) "Lockdown," used to isolate students and staff from threats of violence, such as suspicious trespassers or armed intruders, that may occur in a school or in the vicinity of a school; and

(iii) "Evacuation," used to move students and staff away from threats, such as fires, oil train spills, lahars, or tsunamis.

(c) The drills described in (b) of this subsection must incorporate the following requirements:

(i) Use of the school mapping information system in at least one of the safety-related drills;

(ii) A pedestrian evacuation drill for schools in mapped lahars or tsunami hazard zones; and

(iii) An earthquake drill using the state-approved earthquake safety technique "drop, cover, and hold."

(d) Schools shall document the date, time, and type (shelter-in-place, lockdown, or evacuate) of each drill required under this subsection (6), and maintain the documentation in the school office.

(e) This subsection (6) is intended to satisfy all federal requirements for comprehensive school emergency drills and evacuations.

(7) Educational service districts are encouraged to apply for federal emergency response and crisis management grants with the assistance of the superintendent of public instruction and the Washington emergency management division of the state military department.

(8) The superintendent of public instruction may adopt rules to implement provisions of this section. These rules may include, but are not limited to, provisions for evacuations, lockdowns, or other components of a comprehensive safe school plan.

(9)(a) Whenever a first responder agency notifies a school of a situation that may necessitate an evacuation or lockdown, the agency must determine if other known schools in the vicinity are similarly threatened. The first responder agency must notify every other known school in the vicinity for which an evacuation or lockdown appears reasonably necessary to the agency's

incident commander unless the agency is unable to notify schools due to duties directly tied to responding to the incident occurring. For purposes of this subsection, "school" includes a private school under chapter 28A.195 RCW.

(b) A first responder agency and its officers, agents, and employees are not liable for any act, or failure to act, under this subsection unless a first responder agency and its officers, agents, and employees acted with willful disregard.

[2019 c 333 § 10; 2019 c 84 § 1; 2017 c 165 § 1; 2013 c 14 § 1; 2009 c 578 § 10; 2007 c 406 § 1; 2002 c 205 § 2.]

NOTES: Reviser's note: This section was amended by 2019 c 84 § 1 and by 2019 c 333 § 10, each without reference to the other. Both amendments are incorporated in the publication of this section under RCW 1.12.025(2). For rule of construction, see RCW 1.12.025(1).

Findings—Intent—2019 c 333: See note following RCW 28A.300.630.

Intent—2019 c 333: See note following RCW 28A.320.124.

Findings—2002 c 205: "Following the tragic events of September 11, 2001, the government's primary role in protecting the health, safety, and well-being of its citizens has been underscored. The legislature recognizes that there is a need to focus on the development and implementation of comprehensive safe school plans for each public school. The legislature recognizes that comprehensive safe school plans for each public school are an integral part of rebuilding public confidence. In developing these plans, the legislature finds that a coordinated effort is essential to ensure the most effective response to any type of emergency. Further, the legislature recognizes that comprehensive safe school plans for each public school are of paramount importance and will help to assure students, parents, guardians, school employees, and school administrators that our schools provide the safest possible learning environment." [2002 c 205 § 1.]

Severability—2002 c 205: "If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected." [2002 c 205 § 5.]

Effective dates—2002 c 205 §§ 2, 3, and 4: "(1) Sections 2 and 4 of this act are necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and take effect immediately [March 27, 2002].

(2) Section 3 of this act takes effect September 1, 2002." [2002 c 205 § 6.]

Emergency response system

RCW 28A.320.126

School districts must work collaboratively with local law enforcement agencies and school security personnel to develop an emergency response system using evolving technology to expedite the response and arrival of law enforcement in the event of a threat or emergency at a school. School districts are encouraged to use the model policies developed by the school safety center in the office of the superintendent of public instruction as a resource. Each school district

must submit a progress report on its implementation of an emergency response system as required under this section to the office of the superintendent of public instruction by December 1, 2014.

[2019 c 333 § 16; 2013 c 233 § 1.]

NOTES: Findings—Intent—2019 c 333: See note following RCW 28A.300.630.

Intent—2019 c 333: See note following RCW 28A.320.124.

RECOMMENDATIONS & RESPONSES
Legislative Auditor Recommendations

The Legislative Auditor makes two recommendations to improve WASPC's program management

School districts and law enforcement see both advantages and limitations of the state school mapping system. WASPC can address many limitations by developing training and outreach strategies, using data, and coordinating with school safety centers.

Recommendation #1: WASPC should develop and implement detailed training and outreach strategies that have measurable goals and targets

Many users of the state mapping system have not received training in recent years and are unaware of system updates and new features. WASPC does not have a systematic way to gather feedback from intended users of the system. WASPC could better identify what it can accomplish within existing resources and improve with additional funding by developing and implementing detailed training and outreach strategies.

At a minimum, the training and outreach strategies should:

- Identify delivery methods (e.g., in person, online, train the trainer) and content (e.g., new user training, refresher training, new features/updates).

- Identify goals and targets, including those for frequency, audience, and delivery method (e.g., number and location of districts and agencies reached by each methods).

- Identify opportunities to partner with other entities (e.g., the Office of the Superintendent of Public Instruction, Educational Service Districts, and Washington Fire Chiefs).

- Measure progress toward goals and targets.

- Gather feedback on training and user needs to periodically update strategies.

WASPC should identify specific actions that can be taken within existing resources and actions that could be implemented if it had additional resources.

Legislation Required:	None

Fiscal Impact:	JLARC staff assume strategies can be developed within existing resources. The strategies should include actions that can be implemented within existing resources. WASPC can also propose actions that could be implemented with additional resources.

Implementation Date:	Strategies due no later than December 2020; implementation is ongoing.

Agency Response:	To be included with Proposed Final Report.

Recommendation #2: WASPC should periodically review technology standards, address user feedback about technology issues, and use system data to inform its program management decisions

A. Review technology standards

Standards guiding the statewide and alternative mapping systems have been in place since 2005. Since then, technology and standard operating procedures directing emergency response have changed, and likely will continue to change in the future. Updated guidelines should address how WASPC will accept data from users of alternative mapping systems and include dates for future reviews.

B. Address user feedback about technology issues

WASPC should review the feedback provided by users in JLARC's survey and work with the system vendor to respond to concerns. This would include prioritizing issues that can be addressed and educating users about misperceptions of existing features.

WASPC and the vendor should add required date fields that indicate when information in the state mapping system was last reviewed or updated (e.g., current-as-of date).

C. Use system data to inform program management decisions

WASPC should work with its vendor to develop standard management reports that allow WASPC to easily determine which districts and emergency response agencies are using the system, how and when they use it, and who should be targeted for training and outreach.

WASPC should coordinate with OSPI and ESDs to determine whether those entities need management reports from the state mapping system. For example, the mapping system may provide information about safe school plans for OSPI's compliance monitoring requirements.

Legislation Required:	None

Fiscal Impact:	JLARC staff assume that this recommendation can be completed within existing resources.

Implementation Date:	Management reports and processes developed by December 2020; implementation ongoing.
Agency Response:	To be included with Proposed Final Report.

Agency Response

Agency response(s) will be included in the proposed final report, planned for April 2020.

Current Recommendation Status

JLARC staff follow up with agencies on Legislative Auditor recommendations for 4 years. Responses from agencies on the latest status of implementing recommendations for this report will be available in 2022.

MORE ABOUT THIS REVIEW
Audit Authority

The Joint Legislative Audit and Review Committee (JLARC) works to make state government operations more efficient and effective. The Committee is comprised of an equal number of House members and Senators, Democrats and Republicans.

JLARC's non-partisan staff auditors, under the direction of the Legislative Auditor, conduct performance audits, program evaluations, sunset reviews, and other analyses assigned by the Legislature and the Committee.

The statutory authority for JLARC, established in Chapter 44.28 RCW, requires the Legislative Auditor to ensure that JLARC studies are conducted in accordance with Generally Accepted Government Auditing Standards, as applicable to the scope of the audit. This study was conducted in accordance with those applicable standards. Those standards require auditors to plan and perform audits to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions based on the audit objectives. The evidence obtained for this JLARC report provides a reasonable basis for the enclosed findings and conclusions, and any exceptions to the application of audit standards have been explicitly disclosed in the body of this report.
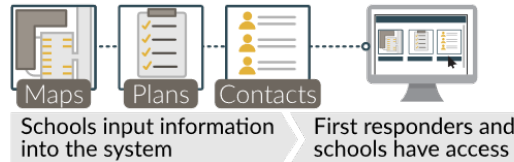
Study Questions

Proposed Study Questions:
First Responder Mapping System for K-12 Schools

State of Washington Joint Legislative Audit and Review Committee   June 2019

Study will review use of the state's first responder building mapping system for public K-12 schools

In 2003, the Legislature directed the Washington Association of Sheriffs and Police Chiefs (WASPC) to create a first responder mapping system for state and local government buildings (RCW 36.28A.060).

Maps   Plans   Contacts

Schools input information into the system

First responders and schools have access

The system is intended to:
- Provide information to emergency agencies responding to disasters, criminal activity, or other incidents at a school.
- Facilitate communication between responding agencies and building personnel.

Legislature provided funding to develop a system and map all public K-12 schools

The Legislature provided funding to WASPC to establish a system accessible to schools and emergency responders. WASPC works with a vendor to maintain an electronic database that includes information such as maps, emergency plans, contacts, evacuation areas, utilities, and known hazards.

School districts are responsible for providing and updating information for the WASPC system, and may also use other mapping systems at the local level. Through the 2013-2015 biennium, the Legislature provided funding to develop the information needed to populate WASPC's system. The Legislature provides ongoing funding to maintain the system.

Study will address questions about use and cost

1. Which school districts have provided information for WASPC's mapping system, and is the information current?
2. Which school districts use a different local system, and are these systems coordinated with WASPC's?
3. What information or systems do school districts and emergency agencies use for actual incidents and safety drills?
4. What are the costs and training needed to use, maintain, and update the system(s) and information? Who incurs the costs?
5. What do school districts and emergency agencies believe are the advantages and disadvantages of the systems?

Study Timeframe
Preliminary Report: January 2020   Proposed Final Report: April 2020

Study Team
Team Lead: Melanie Stidham   (360) 786-5183   melanie.stidham@leg.wa.gov
Research Analyst: Rebecca Connolly   (360) 786-5175   rebecca.connolly@leg.wa.gov
Project Coordinator: Valerie Whitener   (360) 786-5191   valerie.whitener@leg.wa.gov
Legislative Auditor: Keenan Konopaski   (360) 786-5187   keenan.konopaski@leg.wa.gov

Joint Legislative Audit & Review Committee, 106 11th Ave SW, Olympia, WA 98501
(360) 786-5171 ● (360) 786-5180 (fax) ● JLARC@leg.wa.gov ● www.jlarc.leg.wa.gov
Keenan Konopaski, Washington State Legislative Auditor

Proposed Study Questions: First Responder Mapping System

JLARC Study Process

Study Mandate
Budget, legislation, committee direction
→ **Proposed Study Questions**
→ Legislative Auditor's Preliminary Report
→ Legislative Auditor's Proposed Final Report
Agency response included
→ Final Report
Option to append committee comment

⊘ *Committee votes to distribute completed audit*

Methodology

The methodology JLARC staff use when conducting analyses is tailored to the scope of each study, but generally includes the following:

- **Interviews** with stakeholders, agency representatives, and other relevant organizations or individuals.

- **Site visits** to entities that are under review.

- **Document reviews**, including applicable laws and regulations, agency policies and procedures pertaining to study objectives, and published reports, audits or studies on relevant topics.

- **Data analysis**, which may include data collected by agencies and/or data compiled by JLARC staff. Data collection sometimes involves surveys or focus groups.

- **Consultation with experts** when warranted. JLARC staff consult with technical experts when necessary to plan our work, to obtain specialized analysis from experts in the field, and to verify results.

The methods used in this study were conducted in accordance with Generally Accepted Government Auditing Standards.

More details about specific methods related to individual study objectives are described in the body of the report under the report details tab or in technical appendices.

CONTACT
JLARC Authors

Melanie Stidham, **Research Analyst,** 360-786-5183

Rebecca Connolly, **Research Analyst,** 360-786-5175

Valerie Whitener, Audit Coordinator

Keenan Konopaski, Legislative Auditor

Power BI data presentation and graphics:

Liz Thomas, **Committee Technology and Administrative Assistant,** 360-786-5123

Emily Martin, **Committee Communications Administrative Assistant,** 360-786-5288

JLARC Members

Senators

Bob Hasegawa

Mark Mullet, Chair

Rebecca Saldaña

Shelly Short

Dean Takko

Lynda Wilson, Secretary

Keith Wagoner

Representatives

Larry Hoff

Jake Fey

Noel Frame

Christine Kilduff

Vicki Kraft

Ed Orcutt, Vice Chair

Gerry Pollet, Assistant Secretary

Drew Stokesbary