



Grant Effectiveness Case Study: Las Vegas

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FEMA



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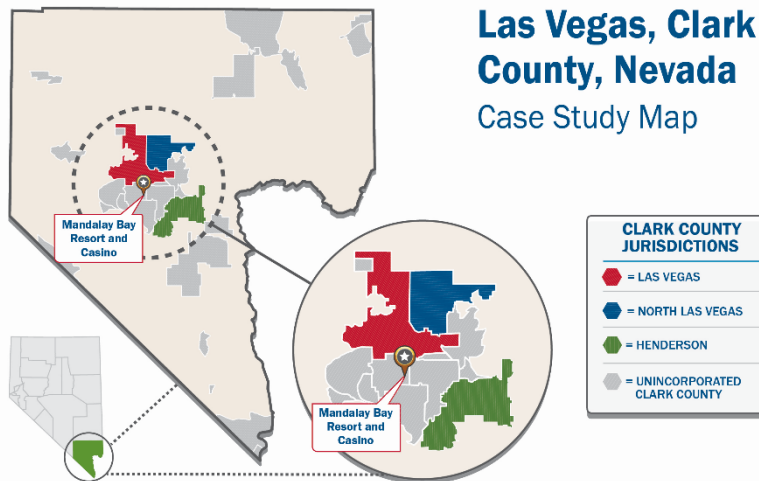
I. Overview

In 2019, the Federal Emergency Management Agency (FEMA) conducted a grant effectiveness case study of the Las Vegas urban area to understand how the state and local jurisdictions use preparedness grants to increase their emergency preparedness and counterterrorism capabilities. Specifically, FEMA examined how the Las Vegas urban area used grant funds to close capability gaps and examined the impact that those investments had on the area’s response to the October 1, 2017, incident (1 October) at the Route 91 Harvest festival.

Overall, the case study found that FEMA preparedness grants played a significant role in the Las Vegas urban area’s ability to prepare for, mitigate, and respond to the 1 October incident. The investments highlighted in this report represent a snapshot of years of planning in the urban area, including capability building and sustaining projects that prepared the region for an effective response to the incident and, ultimately, saved lives.

To inform this case study, FEMA drew from information that the Las Vegas urban area provided through various grant program requirements and from the 1 October After-Action Report (AAR) supported by the FEMA National Exercise Division (NED; dated August 24, 2018). FEMA conducted a site visit to the Las Vegas urban area in July 2019 to discuss the prioritization and use of the preparedness grant funds within the urban area. Staff from the FEMA National Preparedness Assessment Division (NPAD) collected information with the participation of the following state and local agencies in Nevada:

- Nevada Department of Public Safety, Division of Emergency Management – Homeland Security (*by telephone*)
- City of Las Vegas, Las Vegas Fire and Rescue (LVFR)
- City of Las Vegas, Office of Emergency Management
- Clark County Office of the Coroner/ Medical Examiner (CCOCME)
- Clark County Fire Department (CCFD), Office of Emergency Management
- City of Henderson Fire Department, Emergency Management and Safety
- Las Vegas Metropolitan Police Department (LVMPD)
- City of North Las Vegas, Office of Emergency Management and Homeland Security





II. About the Las Vegas Urban Area

The Las Vegas urban area is situated in the southeast corner of Nevada and encompasses the cities of Las Vegas, Henderson, North Las Vegas, Boulder, Mesquite, and unincorporated Clark County. It shapes its homeland security and emergency management priorities, investments, and practices in part on the regional characteristics below.

- Clark County, which encompasses the Las Vegas Valley, spans more than 8,000 square miles and is roughly the size of the state of New Jersey.
- The Las Vegas metro area is one of the top 10 fastest growing metropolitan areas in the countryⁱ and accounts for more than 73% of Nevada’s population. The metro area’s population has nearly tripled over the last three decades from 852,646ⁱⁱ in 1990 to 2,231,646 in 2018.ⁱⁱⁱ
- In addition to the growing number of residents, the number of people who visit Las Vegas has more than doubled in the last 30 years, from 20,954,420 visitors in 1990 to 42,116,800 in 2018.^{iv} Tourism accounts for 30.7% of the region’s gross economic output. The region’s hotels and casinos, which include 14 of the largest 25 hotels in the world^v, account for 16.8% of the region’s total employment.^{vi}
- Conventions and special events generate a large share of Las Vegas’s tourism revenue. Las Vegas hosted more than 6.5 million convention attendees in 2018^{vii} and routinely hosts the President of the United States, presidential campaigns during election seasons, and other high-profile guests. The number of large events will increase in 2020 with the introduction of a new football stadium and a National Football League team.
- The region is situated near two sites that use and/or create nuclear or hazardous materials. The Nevada Test Site, a Department of Energy reservation used to test nuclear devices, is located roughly 60 miles from the City of North Las Vegas, and the Black Mountain Industrial Complex, a titanium metal processing plant, is in the City of Henderson.
- Between 2010 and 2015, Nevada was the fifth most seismically active state in the country.^{viii} Since 1850, Nevada has experienced more than 220,000 recorded earthquakes, of which 23 have registered between a 6 and 7.3 magnitude. In 2008, Nevada experienced two major earthquakes, including the 6.0 Wells earthquake that damaged 35 out of approximately 80 buildings in the affected area.^{ix} Additionally, the state’s proximity to California, the second most seismically active state, affects the area’s threat of sustaining damage from an earthquake.^x

“The core strength of the Las Vegas urban area is the collaborative approach used by our partners and stakeholders to accomplish our work. Whether it’s deciding how Homeland Security funds should be allocated or in assisting during a real-world event, we work together in the best interests of the community as a whole.”

— John Steinbeck, Clark County Fire Chief

Local officials in the Las Vegas urban area attribute the successful management of these unique circumstances to the coordination and collaboration of the Las Vegas urban area’s multiple jurisdictions. Leaders in each of the jurisdictions’ law enforcement, fire, and emergency management departments are committed to building and maintaining strong partnerships with one another and working together to coordinate and prioritize funding for the benefit of the entire Las Vegas urban area. These close-working relationships allow the urban area to more effectively leverage the preparedness dollars it receives and to prepare for and respond to incidents that threaten the safety and security of the entire Las Vegas urban area.

Over the past 10 years, Nevada has received over \$140 million in a combination of Homeland Security Grant Program (HSGP) and Emergency Management Performance Grant (EMPG) funding. Although



EMPG funding levels have remained relatively stable, HSGP funding levels, including the State Homeland Security Program (SHSP) and Urban Area Security Initiative (UASI), have fluctuated over time. Since 2009, the amount of Las Vegas’s UASI funds has varied significantly year to year. Las Vegas received over \$8 million in UASI funds in Fiscal Year (FY) 2009, \$1.8 million in FY 2012, and zero dollars the following year in FY 2013. Since 2014, Las Vegas has received UASI funds each year, most recently receiving \$5 million in FY 2019.

Threats and Hazards

In accordance with the Department of Homeland Security (DHS) HSGP Notice of Funding Opportunity (NOFO) guidance, the Las Vegas urban area has completed the [Threat and Hazard Identification and Risk Assessment \(THIRA\)](#) every year since 2014. The THIRA is a comprehensive risk and capability analysis that is conducted to understand the various threats and hazards that the area faces. The Las Vegas urban area brings together representatives from local jurisdictions and works with the Nevada Department of Public Safety, Division of Emergency Management – Homeland Security to identify all threats and hazards when completing the THIRA.

In 2018, the Las Vegas urban area completed the [Stakeholder Preparedness Review \(SPR\)](#) for the first time as part of the FY 2018 HSGP NOFO requirement. The SPR is a comprehensive assessment of a state or urban area’s current capabilities. Grant recipients complete the SPR alongside the THIRA process and include input from the previously listed state and local representatives from the Las Vegas urban area. In their SPR, the Las Vegas urban area reported on 38 capability targets that assess 19 core capabilities.

The collaborative THIRA and SPR processes also feed into the Las Vegas urban area’s HSGP grant management. Officials in the Las Vegas urban area use the findings of the THIRA and SPR processes to inform the year’s preparedness priorities, which subsequently inform how the urban area will invest their HSGP dollars.

III. 1 October Incident and the Use of Preparedness Capability Investments

On October 1, 2017, a gunman opened fire from the 32nd floor of the Mandalay Bay Resort and Casino into the crowd of the Route 91 Harvest festival, killing 58 people and wounding more than 850. To date, the mass shooting remains the deadliest in modern U.S. history.

“Las Vegas urban area emergency managers and others who rely heavily on grant funding for programs have become adept at leveraging various funding sources to accomplish both short-term and long-term programmatic goals. Our ability to share resources, phase in projects, and align grant funding sources with our priorities is key to our success as an urban area.”
— John Steinbeck, Clark County Fire Chief

Because the incident took place in unincorporated Clark County, it required a coordinated response from multiple emergency management, police, fire, and emergency medical services (EMS) agencies across Clark County, the City of Las Vegas, the City of North Las Vegas, the City of Henderson, and the City of Mesquite. The cooperation between these agencies and jurisdictions was a critical factor in the timely and effective response. These jurisdictions and agencies relied heavily on HSGP-funded plans, training, and equipment to respond to the incident.

In response to lessons learned from global events, such as the coordinated attack on Mumbai in 2008, the Las Vegas urban area made investments in operational coordination and communication capabilities and prioritized key trainings that proved useful during the response to the 1 October incident. The Las Vegas urban area used multiple Federal funding sources to support these investments, including state and local funds:



- Federal grants:
 - Homeland Security Grant Program (HSGP)
 - State Homeland Security Program (SHSP)
 - Urban Area Security Initiative (UASI)
 - Emergency Management Performance Grant (EMPG; requires 50% match)
 - Metropolitan Medical Response System (MMRS)
- Other Nevada-specific funding vehicles:
 - State Emergency Response Commission (SERC)
 - Local Emergency Planning Committee (LEPC)

The descriptions below highlight investments that contributed to the Las Vegas urban area’s preparedness and response to the 1 October incident, investments made since the 1 October incident to address gaps in preparedness, and other preparedness grant investments. Each investment’s primary funding source(s) are listed in brackets. [Appendix A](#) contains more detailed project narrative descriptions for each of these investments.

Grant-funded Investments Pre-1 October Incident

- **Personal Protective Equipment (PPE), Fire and Police** [HSGP] – The PPE available to first responders significantly impacted the fire/EMS and police responses to the incident. The Clark County, City of Las Vegas, and City of Henderson fire departments were equipped with ballistic vests, helmets, artery protectors, and other tactical gear during the incident. This equipment allowed firefighters and EMS to access the warm zone—the area surrounding an active shooter event that law enforcement considers to be clear but not secure—to begin treatment and extraction sooner than otherwise possible. Additionally, local police used ballistic PPE, including ballistic shields, to respond to the incident immediately. Case study participants directly credited this equipment and the expedited response it enabled with changing fire response protocol, which in turn saved lives.
- **Incident Command System (ICS) Training** [EMPG, HSGP] – Each of the local agencies provide ICS training to city employees using a mix of EMPG and local dollars. The ICS training program, provided through FEMA’s Emergency Management Institute (EMI), consists of a series of web-based and/or field-based trainings that are specific to various incident management structures and job functions in operations, logistics, planning, and administration. Law enforcement, fire, emergency management, and other public agencies throughout the Las Vegas urban area require employees to complete the relevant levels of ICS training. The ICS trainings proved useful during the 1 October incident, as all jurisdictions and agencies communicated with a shared understanding of emergency management terminology and processes, thus minimizing confusion during the response to the incident.
- **Multi-Agency Coordination Center (MACC)** [HSGP, EMPG] – During the 1 October incident, emergency management and law enforcement representatives from the cities of Las Vegas, North Las Vegas, Henderson, and Clark County came together in the MACC to align response efforts across jurisdictions. HSGP-funded videoconferencing equipment made it possible for the MACC to communicate with the LVMPD Department Operations Center, the Fusion Center, and the City of Henderson’s Emergency Operations Center (EOC) and was critical in the coordination of the

“These fire guys were outfitted with the [mass casualty incident] tactical gear, their thigh protectors, their artery protectors, their helmets, all that. This is one of the projects that I fully believed helped save people in this process.”

— Kelli Anderson, Emergency Management Programs Manager, Nevada Division of Emergency Management – Homeland Security



area commands. Investments in the MACC included trainings and exercises focused on using the MACC during an incident. The Clark County emergency manager also created emergency support function (ESF) checklists, which has allowed new ESF employees to understand at a glance the role and expected tasks of that ESF.

- **Fusion Center [Southern Nevada Counter Terrorism Center (SNCTC)] [HSGP]** – LVMPD operates and supports a Fusion Center as part of the DHS National Network of Fusion Centers. The SNCTC helps safeguard the community by serving as a dynamic public safety nexus to proactively detect, deter, and defend against crime and terrorism. The SNCTC collects and provides information to support intelligence streams at the national, state, and local levels and provides mechanisms for information exchange and collaboration across the levels of government. LVMPD uses HSGP funds to support much of the equipment in the Fusion Center, including the computers, plotter printers, and cameras used to inform the Fusion Center network. HSGP funds also support several software systems that allow critical operations and information-sharing to take place and that were sourced during the response to the 1 October incident. From 2016 to 2019, the Las Vegas urban area used \$2.65 million in UASI funds and \$2.66 million in SHSP funds to support the Fusion Center. During the 1 October incident, the Fusion Center was the hub for all incoming information and fielded more than 1,100 tips received in the wake of the incident. The grant-funded computers and surveillance cameras also supported the Fusion Center’s response to the 1 October incident and allowed the Fusion Center to coordinate with incident commanders to share information with first responders in real time.
- **Mass Fatality Planning and Training [HSGP]** – In 2009, the Clark County Office of the Coroner/Medical Examiner (CCOCME) used grant funds to host a mass fatality preparedness workshop, which included a training and a tabletop exercise, with three counties in Southern Nevada. Following the workshop, Clark County conducted a full-scale exercise of a Family Assistance Center (FAC), which was ultimately helpful during the implementation of the FAC during the 1 October incident. The state also used grant dollars to create mass fatality plans for each of the 17 Nevada counties; those plans were used in the response to the incident. The plans were the basis for the Recovery Center established following the immediate aftermath of the incident.
- **Family Assistance Center (FAC) [HSGP]** – Following the 1 October incident, Clark County set up an FAC to provide services to affected individuals and families. The FAC opened on October 2, 2017, and immediately began providing information to survivors and families, conducting investigations to identify decedents, notifying next of kin, and providing crisis counseling. In the following weeks, the FAC provided additional services, such as on-site childcare, ground and air transportation, legal aide, crime victim benefits and compensation, counseling and spiritual care, personal effects return, and donation management. The FAC closed on October 20, 2017, after assisting 4,356 individuals.
- **All-Hazard Regional Multi-Agency Operations and Response (ARMOR) [HSGP]** – In addition to Las Vegas’s bomb squad, the urban area’s chemical, biological, radiological, nuclear, and explosive (CBRNE) response capabilities are further enhanced by the LVMPD’s ARMOR division. ARMOR is a collaborative effort of multiple law enforcement agencies across Southern Nevada that provide equipment and expertise in the detection, response, mitigation, and investigation of chemical, biological, radioactive, and nuclear (CBRN) incidents. ARMOR serves as a force multiplier for the UASI and has responded to nearly 1,500 calls, including Special Weapons and Tactics (SWAT) support, bomb threats, discovered explosive devices, and detonations since 2015. During the 1 October incident, the ARMOR division assisted the bomb squad by providing HSGP-funded robots to assist in the investigation.
- **Las Vegas Fire and Rescue (LVFR) Bomb Squad [HSGP]** – The 1 October incident also



included a potential bomb threat, when LVMPD discovered explosive precursors in a minivan. LVMPD notified LVFR who responded with the bomb squad. LVMPD explosive detection dogs (EDD) conducted a canine assessment of the vehicle. The LVFR bomb squad and hazardous materials (HazMat) team, along with ARMOR, responded jointly to the incident. The teams used a variety of grant-funded equipment, including a remote-controlled robot, to approach the vehicle and mitigate the situation.

- **Metropolitan Medical Response System (MMRS) [HSGP]** – The City of Las Vegas’s investments built and sustained MMRS capabilities in the years leading up to the 1 October incident. The goals of the MMRS projects were to decrease morbidity and mortality and increase survivability in the immediate aftermath of an attack. MMRS projects focus on the integration of law enforcement, fire, emergency management, health, and medical systems to ensure a coordinated response to a mass casualty incident. During the 1 October incident, the all-hospital radio channel, purchased with Federal grant dollars, allowed unit leaders on the scene to communicate directly with hospitals to coordinate transport.
- **Emergency Operations Center (EOC) and EOC Standardization [HSGP, EMPG]** – The cities of Las Vegas, North Las Vegas, and Henderson each maintain their own Emergency Operations Centers (EOC). Various agencies use the EOCs to respond to incidents and to conduct trainings and exercises as needed. In recent years, the Las Vegas urban area standardized EOC operations across jurisdictions so that jurisdictions can easily share information and personnel can adapt easily in each EOC within the urban area. During 1 October, the City of Henderson activated their EOC in accordance with their incident response plans to coordinate the hundreds of Henderson Police Department officers who responded to the incident.
- **Community Emergency Response Team (CERT) [UASI]** – The Las Vegas urban area uses \$225,000 each year to support CERT. The program trains volunteers on disaster preparedness skills such as fire safety, light search and rescue, disaster medical operations, and team organization. The Las Vegas Office of Emergency Management provides training to over 800 people each year.

Grant-Funded Investments Post-1 October Incident

- **Multi-Assault Counter Terrorism Action Capabilities (MACTAC) [HSGP]** – The MACTAC program is an active assailant response program that the LVMPD adopted following the 2008 coordinated, multi-shooter terrorist attacks in Mumbai, India. The MACTAC training program focuses on regional, multi-jurisdictional, and multi-agency preparedness to promote rapid incident response coordination to more quickly engage a threat and avoid over-convergence. MACTAC bridges the gap between SWAT and patrol officers and has integrated its processes with the SNCTC. The program enables frontline first responders to use advanced tactics and equipment to respond to and mitigate high-threat incidents that only specialized teams, such as SWAT, may have addressed previously. During the 1 October incident, first responders from police and fire departments in the cities of Las Vegas, North Las Vegas, and Henderson served on strike teams to respond to staging as needed. Case study participants credited the coordinated and efficient response during 1 October to the MACTAC training.
- **Throw Kits [HSGP]** – During the immediate aftermath of the incident, first responders experienced a shortage of bandages and quickly realized the need for stop-the-bleed-style throw kits to allow civilians to help one another until survivors could access necessary medical services. Following the incident, Clark County used \$70,000 in re-obligated FY 2017 UASI funds to purchase 2,500 kits that were distributed to Clark County and the cities of Las Vegas, North Las Vegas, and Henderson.



- **Mass Casualty Incident Plan [HSGP]** – The effective response to the 1 October incident by the CCOCME demonstrates the value of previous mass casualty incident trainings and exercises. The Las Vegas urban area funded the creation of a new mass casualty incident plan to account for the lessons learned during the incident. The new plan will include fire and EMS support in response to active shooter incidents and will incorporate ballistic PPE to support the triage, treatment, and extraction of people in active zones (areas that police have not yet cleared during an active shooter event) during an incident.
- **Patient Tracking [HSGP]** – Following the 1 October incident, Clark County personnel identified the need for a software-based patient tracking program to improve the flow and accuracy of data on individuals during an incident. The Las Vegas urban area acquired a web-based platform to centralize and organize data on thousands of individuals during planned events and emergencies. Responders can upload patient data, such as status and location, to a central database where authorized individuals can access it to assist with coordination efforts. The system is compatible with Web Emergency Operations Center (WebEOC) and the Hospital Available Beds for Emergencies and Disasters (HAvBED) system, which shares information between hospitals and responders to coordinate hospital dispatch in an emergency.

Other Preparedness Grant Investments

- **Radiation and Nuclear Detection [HSGP]** – A national nuclear security site is located just 60 miles from the Las Vegas urban area. Materials delivered to and from the site travel directly through the urban area, using transportation thoroughfares. To protect the community, agencies in the Las Vegas urban area joined the State of Nevada Preventative Radiological/Nuclear Detection Program. The members of the program have used \$75,555 in FY 2018 UASI funds to purchase radioisotope identification devices (RID), advanced handheld devices used to detect and identify radioactive materials, including those attributed to a potential radiological dispersal or nuclear device. The urban area uses counter terrorism operations support (CTOS) training through the Center for Radiological Nuclear Training at the Nevada National Nuclear Site and the National Domestic Preparedness Consortium to ensure screeners are trained to use the equipment and respond to radiation and nuclear incidents. In 2018, the jurisdictions deployed radiation detection capabilities at 113 large capacity and dignitary events and responded to four radiological incidents.
- **HazMat Teams [HSGP]** – The cities of Las Vegas and Henderson currently operate HazMat teams within the urban area. The City of Las Vegas/LVFR HazMat team is the only Type I HazMat team in Southern Nevada that can operate in a CBRNE/Weapons of Mass Destruction (WMD) environment. The team routinely serves the entire urban area, the Southern Nevada region, and occasionally beyond state lines. The City of Las Vegas is currently working with the City of Henderson as they continue to grow and develop their HazMat team, currently a Type II team. The LVMPD ARMOR task force also expands on the Las Vegas urban area’s HazMat capabilities and works as a force multiplier alongside the neighboring LVFR bomb squad by housing and providing specialty CBRN equipment and expertise for any jurisdiction in the urban area to use as needed. Although the LVFR bomb squad mitigates explosives, ARMOR officers conduct all follow-up and investigations related to criminal events with explosives.
- **Community Preparedness Educational Materials [EMPG, HSGP]** – As part of the DHS Citizen Corps program, the cities of North Las Vegas and Henderson used Federal funds to support the development and distribution of materials to prepare the local communities for emergency situations. The City of North Las Vegas used \$1,500 in EMPG funds to create materials to educate children and families on ways to prepare for and react to events such as earthquakes, floods, thunderstorms, chemical threats, and fire. The City of Henderson used \$24,000 in EMPG funds to create the Captain Kit program, consisting of animated videos and



activities to educate children on emergency preparedness.

- **Joint Counterterrorism Awareness Workshop Series (JCTAWS) [DHS]** – Clark County participated in the JCTAWS in October 2012 to improve the county’s capability to prepare for, protect against, and respond to complex terrorist attacks. Case study participants said the JCTAWS—operated by the National Counterterrorism Center, DHS, and the Federal Bureau of Investigation (FBI)—was essential to the effective response to the October 1 incident and prepared responders, managers, and leaders to respond without hesitation and in a well-coordinated manner. Officials in the City of Las Vegas and the City of Henderson fire departments as well as representatives from the LVMPD attributed the successful coordination to the “muscle memory” built over repeated, relevant trainings. DHS funds JCTAWS directly, so the Las Vegas urban area did not use HSGP funds to support this program.

IV. Funding History and Grant Allocation Strategy

From FY 2009 to FY 2019, Nevada received over \$144 million in FEMA preparedness grant funds. These funds supported the building and sustainment of capabilities that contributed significantly to the Las Vegas urban area’s ability to mitigate and respond to the 1 October incident.

Table 1: Nevada Preparedness Grant Funds, FY 2009–FY 2019

Grant Program	Award Amounts (in thousands)											
	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	Total
SHSP	\$8,572	\$9,162	\$5,452	\$2,801	\$3,459	\$3,733	\$3,735	\$3,802	\$3,752	\$3,980	\$4,078	\$52,526
UASI	\$8,163	\$8,435	\$6,000	\$1,827	\$0	\$1,000	\$3,247	\$2,962	\$2,837	\$5,000	\$5,000	\$44,471
EMPG	\$3,834	\$4,141	\$4,141	\$4,306	\$4,240	\$4,464	\$4,472	\$4,491	\$4,514	\$4,536	\$4,552	\$47,691
Total	\$20,569	\$21,738	\$15,593	\$8,934	\$7,699	\$9,197	\$11,454	\$11,255	\$11,103	\$13,516	\$13,630	\$144,688

Funding Strategy

Setting Priorities

Before selecting which projects will receive HSGP funds, the Nevada Division of Emergency Management – Homeland Security sets priorities that inform the project proposal and selection process for HSGP, including SHSP and UASI funds. Until 2019, members of the Nevada Commission on Homeland Security set the year’s priorities by reviewing the state’s most recent SPR to determine current capability levels across all 32 core capabilities listed in the National Preparedness Goal. Each member of the commission then ranked their top 10 core capabilities in order of priority. The commission consolidated the rankings to determine the final top 10 priorities. Among those priorities, members determined the final top five priorities for the state.

This process changed in March 2019. The new process involves the State Administrative Agency (SAA) and the Urban Area Administrator (UAA) determining a list of strategic capabilities to address in proposed projects for HSGP funds. The Nevada Resilience Commission, which serves as the central coordinating body for all Nevada resilience efforts, also provides input on the development of the capabilities.



Regional Coordination

The coordination of specific investment priorities across jurisdictions was another key component of the region’s successful investment strategy leading up to the 1 October incident. To avoid redundancy and to expand the utility of the UASI money within the neighboring jurisdictions, agency leaders across Clark County and the cities of Las Vegas, North Las Vegas, and Henderson coordinate equipment and training proposals to reduce competition for grant funds with the understanding that capabilities in one jurisdiction serve the whole urban area

HSGP Decision-Making Structures and Processes

Urban Area Security Initiative (UASI)

The Las Vegas urban area uses a competitive review process to determine which projects will receive UASI investments. The Clark County Office of Emergency Management (CC OEM) leads the selection process, which begins in the Las Vegas Urban Area Working Group (UAWG). The UAWG is managed by the Clark County Fire Department (CCFD), with its chief serving as the UAWG chair. The UAWG has 11 voting members and houses specialty subcommittees to weigh in on specific areas, such as cybersecurity and interoperable communications.

Six to eight weeks before the anticipated release of the HSGP NOFO, the UAWG requests project proposals from eligible jurisdictions that wish to receive UASI funds. Local jurisdictions submit proposals for UASI-funded projects that are informed by the latest Las Vegas THIRA and address the same top five priorities established at the state level. Next, each voting member of the UAWG ranks all of the proposals based on funding priority and gives additional favor to projects that are replicable in other jurisdictions. The rankings of each member are collected and used to determine a final ranking across all UAWG voting members. Starting with the highest ranked project, the UAWG selects projects to fund in rank order until they have allocated all available funds. Following the UAWG’s selection, the state reviews the selected projects and can choose to decline a selected project or to elevate a project that was not initially selected.

“Using a strategic, collaborative approach to assess project proposals for grant funding has helped us maximize resources and build strong capabilities over time. The Las Vegas urban area has a long track record of implementing meaningful programs and projects that have increased our capabilities over time.”

— John Steinbeck, Clark County Fire Chief

The voting members of the UAWG are:

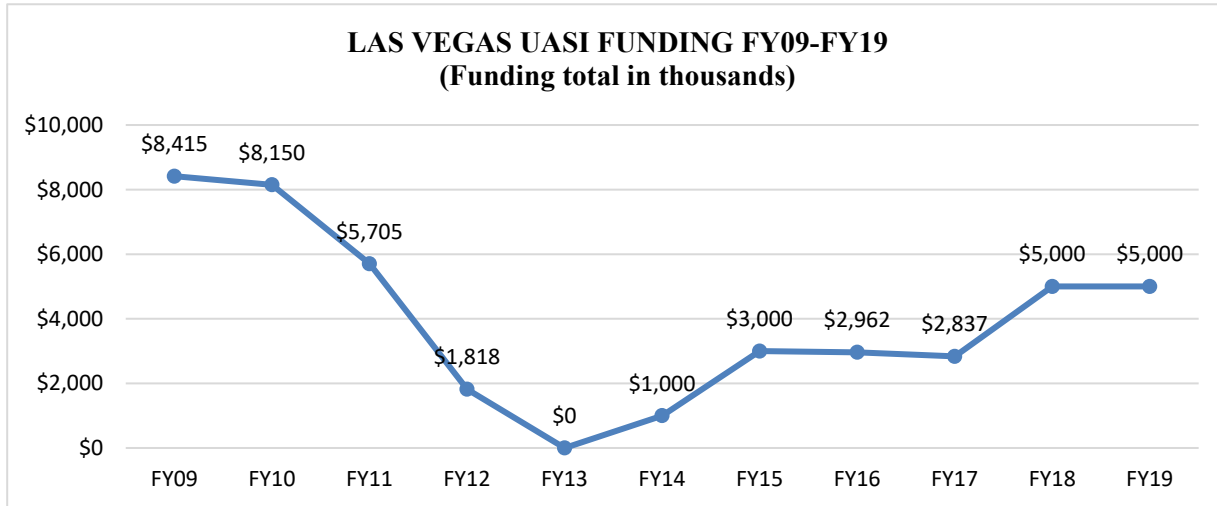
- Clark County
- City of Las Vegas
- City of North Las Vegas
- City of Henderson
- Boulder City
- Mesquite
- Las Vegas Paiute Tribe
- Las Vegas Metropolitan Police Department
- Clark County School District
- Southern Nevada Health District
- Southern Nevada Voluntary Organization Active in Disaster (VOAD)



Beginning in 2018, the Las Vegas UAWG identified long-term sustainment projects that were not included in the competition for Federal funds. These projects automatically receive funds to sustain existing efforts. These priorities include the Fusion Center, the bomb squad, and MMRS.

The SAA retains 5% of the awarded UASI funds to support the management and administration costs associated with administering the grant and passes the remaining 95% through to the Las Vegas urban area.

Figure 1: Las Vegas UASI Funding History



State Homeland Security Grant Program (SHSP)

FEMA awarded the State of Nevada more than \$49 million in SHSP funds between FY 2009 and 2019. Nevada allocated nearly \$4 million of those funds to projects in the Las Vegas urban area. The process for project selection at the state level closely mirrors that of the urban area. Four weeks before the release of the HSGP NOFO, Nevada requests proposals for projects that address the priorities put forth by the Nevada Commission on Homeland Security. The Nevada Division of Emergency Management closely aligns priorities with Nevada’s THIRA/SPR. Nevada considers the Federal priorities and funding levels from the previous year to inform project priorities and to estimate the dollars that will be available, and it prioritizes projects that are replicable in other jurisdictions.

Nevada holds six public meetings to review proposals that include meetings of the Las Vegas urban area, the Nevada Resilience Committee, the Financial Committee, and the Nevada Homeland Security Commission. The first meetings occur before the release of the NOFO and call upon applicants to present their projects and receive input and feedback from the members of the Nevada Resilience Committee. After DHS releases the HSGP NOFO, the Nevada Resilience Committee votes for projects to fund based on the actual funding availability and the stated priorities for the new grant year. The voting process is similar to the ranking process used by the Las Vegas UAWG during the UASI project selection process.

Once the Nevada Resilience Committee selects which projects to fund, the committee submits their selected projects for consideration to the Finance Committee, a subcommittee of the Nevada Homeland Security Commission. Chaired by the governor, the commission serves as the final layer of approval for project selection.

Other Funding Sources

Emergency Management Performance Grant (EMPG)

The Las Vegas urban area also relies on EMPG funds to build and sustain their emergency management



capabilities. Over the past 10 years, FEMA has awarded the state of Nevada almost \$47 million in EMPG funds. The Nevada Division of Emergency Management – Homeland Security retains 50% of the funds for state-level operations and the other half is allocated to local jurisdictions. The EMPG program requires a 50% match from the state. This poses a significant challenge for the state and limits the amount of funding it can receive from the program.

Nevada sets additional requirements to local jurisdictions for EMPG funds. For example, the State of Nevada requires its EMPG recipients to complete three exercises each year.

Other Nevada-Specific Funding Vehicles

State Emergency Response Commission (SERC)

The State of Nevada created the State Emergency Response Commission (SERC) following the establishment of the 1987 Federal Emergency Planning Community Right-to-Know Act (EPCRA). The law required the formation of the SERC with the purpose of protecting the state against the effects of hazardous materials. The SERC consists of up to 25 members appointed by the governor, including representatives from state and local government organizations, private industry, and the general public.

The SERC designates planning districts throughout the state, within which they appoint a Local Emergency Planning Committee (LEPC) to coordinate required activities. The SERC coordinates and supervises the activities of the LEPCs to ensure that each complies with state and EPCRA requirements such as collecting chemical inventory reports, providing funds through grants, and processing requests for public information. The SERC must also ensure that each LEPC has an approved Hazardous Materials Emergency Response Plan.

The SERC also serves as the fiscal pass-through for the Department of Transportation’s Hazardous Materials Emergency Preparedness (HMEP) grants and the Nevada Operational, Planning, Training, Equipment (OPTE) grants to the LEPCs. Additionally, the SERC administers the United We Stand fund, which addresses terrorism in the state and is supported by the sale of specialized license plates that were introduced after the terrorist attacks on September 11, 2001.

The Nevada Highway Fund supports the operations of the SERC. Additionally, the EPCRA requires that the SERC collects fees on chemical inventory reporting, which it uses to fund state and local agencies’ planning, training, and equipment activities related to hazardous material incidents.

Local Emergency Planning Committee (LEPC)

LEPCs oversee and coordinate activities within each of the 17 planning districts designated by the SERC. The SERC provides funds to the LEPCs to supplement homeland security funds for activities such as planning, training, and procuring equipment to prevent, protect against, mitigate, and respond to hazardous material incidents. The LEPC is also charged with fulfilling public requests for information. The Clark County LEPC, which is also administered by the Las Vegas Urban Area Administrator, receives approximately \$50,000 to \$70,000 annually in SERC funds.

V. Grant Recipient Program Feedback

Throughout the case study, FEMA solicited feedback from state and local stakeholders on DHS/FEMA grant programs and on possible Federal-level improvements to support grant recipients. Local officials in the Las Vegas urban area provided program feedback on the level of funding the urban area has received and on the risk formula used to determine funding levels.

- **Preparedness Grant Funding-Level Consistency:** HSGP funding levels vary year to year. For example, in 2009, the Las Vegas urban area received over \$8 million in UASI funds. Five years later, in 2013, the urban area received zero dollars in UASI funds. Since that time, grant dollars for the UASI program have not reached 2009 levels. Case study participants stated that the



uncertainty in the level of funding awarded each year limits the efficiency in managing grant-funded programs year over year. Additionally, case study participants noted that the level of provided funding limits the area’s ability to both sustain existing capabilities and build identified capability gaps.

- **EMPG Funding Levels:** The Las Vegas urban area depends on EMPG funds to both sustain and build their emergency management capabilities. The EMPG funding levels are partly based on the state’s population as determined in 2010. Given Nevada’s rapidly expanding population, particularly in the Las Vegas urban area and with their unique threats and hazards, case study participants reported that the program does not adequately cover their needs. Additionally, they noted that the overall funding levels provided by the program are too small to effectively and efficiently fund both the necessary sustainment of current capabilities and the building of new capabilities.

VI. Conclusion

On October 1, 2017, public safety personnel across teams, agencies, and cities came together in the Las Vegas urban area to respond to an unprecedented act of mass violence that claimed the lives of 58 people and left more than 850 people injured. As the Las Vegas community mourns the tragedy, public safety personnel continue to honor all of those affected through their lasting commitment to continuous improvement and to providing the highest level of service and protection to their community. The response to the incident cost over \$5 million and was covered by individual agencies, whereas the equipment and knowledge used during the incident were supported by the grants offered by FEMA.

The findings from this case study illustrate the significant impact of preparedness grant dollars on the Las Vegas urban area’s effective response to the 1 October incident. State and local stakeholders credit grant-funded investments made before the incident, such as trainings and protective equipment, with saving lives. In the wake of the tragedy, Las Vegas has further informed its grant investment strategy to account for capability gaps realized during the incident.

FEMA will use the results from this and other case studies to enhance preparedness programs, develop tailored technical assistance, and better communicate the impacts of preparedness and mitigation grant programs to Federal stakeholders, including Congress, state governments, local jurisdictions, and tribal governments.

“The tragedy of the 1 October shooting has had significant, long-term impacts on our community. The only silver lining from the lessons we learned from that terrible event is that we were able to take a critical look at our strengths and gaps and initiate quick, meaningful corrective actions. With the help of the State Division of Emergency Management and FEMA, we were able to reprogram existing funds and seek additional funding to support those improvements. Without the sacrifice and consensus of the Las Vegas Urban Area Working Group, we would not have been able to take those initial steps toward better preparedness, response, and recovery.”

— John Steinbeck, Clark County Fire Chief



Appendix A: Project Narratives

This appendix presents detailed descriptions of select investments—funded by Federal, state, and local funding sources—that the Las Vegas urban area completed to increase their preparedness capabilities. The appendix presents investments in three sections: investments impacting the 1 October incident, investments made in response to the 1 October incident, and additional preparedness investments.

Investments Used During the 1 October Incident

Incident Command System (ICS) Training [EMPG]

ICS training is a program provided through FEMA’s Emergency Management Institute designed to increase participants’ knowledge of incident command. Police, fire, and emergency management personnel across the Las Vegas urban area set requirements to complete ICS training specific to their job function and level. The cities of Las Vegas, Henderson, and North Las Vegas require some level of ICS training for all public employees.

In addition to the FEMA-provided trainings, the Southern Nevada Fire Operations Hostile Mass Casualty Incident (MCI) working group developed an integrated fire response policy and ICS training to augment law enforcement’s existing response policies that address active shooter incidents and complex coordinated attacks. Additionally, the Clark County Fire Department (CCFD) developed the street-level ICS, a simplified approach to the ICS training that incorporates the changing role of CCFD personnel as support for responding to incidents. CCFD assembled a group of 19 captains with expertise in ICS to assist in leading training scenarios. As of 2016, more than 200 officers from local emergency response agencies had attended the training.

During the 1 October incident, personnel from various jurisdictions were able to effectively work together within the unified command structure and communicate effectively as a result of these trainings.

Fusion Center (Southern Nevada Counter Terrorism Center [SNCTC]) [HSGP]

The Department of Homeland Security (DHS) National Network of Fusion Centers is a critical component of DHS’s intelligence capabilities. The network collects and exchanges information among state, local, tribal, and private sector stakeholders, and it complements other Federal intelligence streams. The Las Vegas Metropolitan Police Department (LVMPD) hosts the SNCTC, which contributes to the national network of information-sharing and collects information to support local law enforcement.



Picture 1: Southern Nevada Counter Terrorism Center

In the last few years, LVMPD has launched the Technical Operations Section within the Fusion Center to enhance the LVMPD’s use of real-time intelligence and of technologies to detect, prevent, and respond to crime. Technical Operations houses three teams: the Fusion Watch Operations Unit (Fusion Watch), the Crime Gun Intelligence Center (CGIC), and the Technical and Surveillance Squad (TASS). In response to a high volume of calls from certain parts of the Las Vegas Strip, TASS has installed additional cameras to support surveillance and crime prevention efforts. The agency currently has approximately 100 cameras on the Las Vegas Strip and between 450 and 500 cameras altogether. The Fusion Center used its network of more than 150 cameras during the immediate response to the 1 October incident, including identifying the location of the gunman.



The Fusion Watch desk serves as Las Vegas’s center for information-gathering and functions as a “24/7 virtual crime-fighting unit.” The Fusion Watch desk uses facial recognition technology, real-time crime monitoring, and suspicious activity reporting (SAR) to detect and prevent crime. Within a nine-month period in 2017, the Fusion Watch desk captured 2,077 incidents on public safety cameras, detected 487 incidents of gunshots, and provided 2,677 requests for officer assistance. LVMPD has operated the Fusion Watch desk since the inception of the Fusion Center in 2007. The new Technical Operations Section now oversees this function. Within the Fusion Center, the video wall, technology, and systems for monitoring traffic, cameras, and critical calls were all purchased with HSGP funds.

Because the SNCTC is so critical to the operations of law enforcement in the area, it is excluded from the competitive project selection process used by the Urban Area Working Group (UAWG). As of 2019, 7.4% of the Fusion Center’s operating budget, approximately \$1 million each year, is funded by SHSP and UASI. These HSGP funds do not support personnel, rather they support equipment, such as systems, tools, technologies, and programs that are part of the information network.

During the 1 October incident, the SNCTC served as the hub for all tip information that came in from the tip line and other sources. The Fusion Watch Desk fielded more than 1,100 tips during the incident and leveraged several critical software systems that support functions such as relationship diagrams, social media monitoring, and information-sharing to inform the immediate response. LVMPD officials also noted the important role that training within the Fusion Center played on the department’s ability to respond in the wake of the incident.

Las Vegas Fire and Rescue Bomb Squad [HSGP]

Las Vegas has operated a bomb squad since 1972. The squad has held a Type I rating since the inception of FEMA’s rating system. The Las Vegas bomb squad operates out of Las Vegas Fire and Rescue and serves the entire Southern Nevada region as well as northeast California and northwest Arizona. In total, the Las Vegas bomb squad includes 13 personnel, all of whom are certified firefighters, Federal Bureau of Investigation (FBI)-certified bomb techs, deputized U.S. Marshals, members of the joint terrorism task force, and category one Nevada peace officers, the highest level of law enforcement in the state. Bomb squad personnel are also certified fire investigators and serve as arson investigators within the Las Vegas Fire Department (LVFD).

The bomb squad relies on grant funds to maintain the program, specifically the specialized equipment that the program requires. In years with lower funding levels, the bomb squad has been at risk of losing its Type I rating, the highest rating available based upon FEMA’s standardized capability criteria. In 2016, the Las Vegas bomb squad used \$452,000 from SHSP funds to purchase portable X-ray imaging equipment to help technicians examine possible explosives. In 2017, Las Vegas used an additional \$32,000 in SHSP funds to enhance the bomb squad’s ability to detect and respond to chemical, biological, radiological, nuclear, and explosive (CBRNE) threats. The 2017 funds went toward purchasing an explosive ordnance device robot, training technicians to use the robot, and deploying the robot to special events.

During the 1 October incident, officers investigated the shooter’s car parked in the garage at the Mandalay Bay Resort and Casino. Officers discovered explosive materials and notified Las Vegas Fire and Rescue (LVFR) who responded. Following a canine assessment of the car, responders called the bomb squad to the scene. The LVFR bomb squad/CBRNE unit and LVMPD All-Hazard Regional Multi-Agency Operations and Response (ARMOR) responded jointly to the incident. LVMPD secured the vehicle while North Las Vegas Special Weapons and Tactics (SWAT), with assistance from ARMOR, responded to and secured the suspect’s residence. Teams used a grant-funded robot to approach the vehicle and assess the threat. Local officials noted that the incident brought attention to the importance of adequate bomb squad equipment.

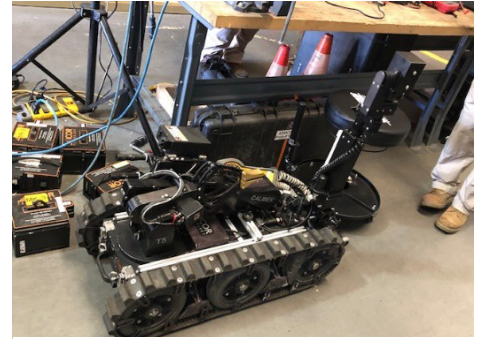


ARMOR [HSGP]

In addition to Las Vegas's bomb squad, the urban area's CBRNE response capabilities are further enhanced by the LVMPD's ARMOR division.

ARMOR is a collaborative effort of multiple law enforcement agencies across Southern Nevada that provides equipment and expertise in the detection, response, mitigation, and investigation of chemical, biological, radioactive, and nuclear (CBRN) incidents. ARMOR serves as a force multiplier for the Las Vegas urban area and has responded to nearly 1,500 calls, including SWAT support, bomb threats, discovered explosive devices, and detonations since 2015.

During the 1 October incident, the ARMOR division assisted the bomb squad by providing HSGP-funded robots to assist in the investigation.



Picture 2: The robot used on 1 October.

Metropolitan Medical Response System (MMRS) [HSGP, MMRS]

The Las Vegas urban area began its MMRS program in 2000. Incidents, such as the 1995 Oklahoma City bombing, the 2001 anthrax attacks, and the 2009 bird flu pandemic, influenced the decision to begin and continue the MMRS program. The purpose of the MMRS program is to enhance the area's operational coordination, intelligence, and information-sharing capabilities across law enforcement, fire, emergency management, health, and medical systems to promote a coordinated response in the event of a mass casualty incident. The program also seeks to decrease morbidity and mortality and increase survivability following an incident.

Through the MMRS program, officials developed plans, conducted trainings and exercises, and acquired equipment, such as ballistic Personal Protective Equipment (PPE) for medical responders, pharmaceuticals, and other specialized response equipment. The program has also supported the Hospital Available Beds for Emergencies and Disasters (HAVBED) system, which allows incident commanders to know how many beds are available at specific local hospitals to coordinate the dispatch of patients. The MMRS program also used federal grant dollars to purchase 800 MHz radios for all the hospitals in the Las Vegas urban area to ensure that they can communicate with incident command. MMRS also hosted Incident Management Training (IMT) to build operational coordination, information and intelligence, and information-sharing capabilities. Since 2011, the Las Vegas urban area has used more than \$200,000 in UASI funds to support IMT training activities.

Funding to support MMRS has declined since the program's inception. In 2011, the program received additional funding from the Federal MMRS grant program, which was eliminated by Congress in 2011. Since the loss of funding, the Las Vegas urban area has focused its grant-funded efforts on sustaining current capabilities rather than building new ones. The lead MMRS coordinator has also reduced his time on the project to 50% to account for the loss of funding. In 2017, the program received \$1.7 million in UASI funds to support the 50% MMRS coordinator position and to sustain other capabilities through investments such as providing maintenance on the syndromic surveillance First Watch Real-Time Early Warning System and the all-hospital radio channel, which was used during the 1 October incident to connect unit leaders on the scene to the nearby emergency rooms.



Multi-Agency Coordination Center (MACC) [HSGP]

During incidents that cross jurisdictional boundaries or require coordination among jurisdictions, the UASI turns to the Multi-Agency Coordination Center (MACC), which, in addition to serving as Clark County’s regular emergency operations center (EOC), is equipped to support additional staff and connect the nearby jurisdictions in a unified command structure. Clark County Emergency Management staff maintain the facility and ensure that equipment, such as computers, television screens, and backup generators, stand ready for deployment at a moment’s notice. Because the 1 October incident occurred in unincorporated Clark County, the county activated the MACC to support the coordination of teams across multiple jurisdictions. Responders from across the Las Vegas urban area convened in the MACC to establish a unified command structure. On October 1, 2017, the MACC activated at a Level 1 at 10:15 p.m.—10 minutes after the first shots were fired at the Mandalay Bay Resort and Casino—and elevated to a Level 2 at 10:35 p.m.¹ Leaders from Clark County, the cities of Las Vegas, Henderson, North Las Vegas, Mesquite, and others responded to the MACC where they coordinated their respective commands. The MACC remained open for 3.5 days following the incident, when it demobilized to the Family Assistance Center (FAC).



Picture 3: Multi-Agency Coordination Center (MACC) located at the Clark County Office of Emergency Management. During the 1 October incident, incident command operated out of the MACC.

Leaders used the MACC’s grant-funded equipment, including computers and a videoconferencing service, to coordinate with responders in their respective department operation center. Additionally, the Web Emergency Operations Center (WebEOC) platform, purchased with and sustained with HSGP, allowed emergency managers to organize resources and communicate with responders.

Clark County used HSGP funds to host trainings and exercises focused on operating the MACC during an incident to further support personnel. Between 2015 and 2017, Clark County participated in or hosted an average of 20 training or exercise activities related to MACC activation, which helped prepare personnel for activation during the 1 October incident and contributed to an efficient and successful incident response. Following the 1 October incident, Clark County’s Office of Emergency Management developed job-specific emergency support function (ESF) checklists, which describe the main functions of each role within the MACC to support operations during an activation. These checklists allow employees who are new to a specific ESF to understand at a glance the role and expected tasks of that ESF. The various jurisdictions in the Las Vegas urban area have coordinated to ensure that each EOC and the MACC operate in the same way to ensure consistency and to support a unified command.

In 2017, Clark County used \$544,000 in UASI funds to convert an existing training room to serve as the upgraded MACC. HSGP funds also supported the equipment used to operate the MACC such as computers and audio/visual equipment.

¹ A Level 2 activation occurs for an emergency that meets or could meet all of the following criteria: involves a large area, significant population, or critical facilities; requires implementation of a large-scale evacuation or in-place sheltering; requires temporary shelter and mass care operations; and requires community-wide warning and public instructions.



EOC and EOC Standardization [HSGP, EMPG]

Each municipality within the Las Vegas urban area has an EOC that serves as the hub for coordination during an incident. In Clark County, the MACC serves dual roles as both the MACC and the county’s EOC. In recent years, the urban area standardized EOC operations across jurisdictions so that jurisdictions can easily share information and personnel can adapt easily in each EOC within the urban area.

Two examples of standardized EOC operations are the use of a single WebEOC platform and the uniform EOC boards used in each jurisdiction. The Las Vegas urban area invested \$76,164 in FY 2015 UASI funds in WebEOC modules, with an annual maintenance of \$35,500, that allow users to organize resources and communicate with responders. All jurisdictions in the urban area use the same WebEOC, and local leaders continue to advocate for standardization at the state level. Between 2014 and 2019, Clark County activated the WebEOC 148 times. In addition to the web platform, EOC personnel use large poster boards—EOC boards—to manually capture information as a fail-safe against loss of data or access to the web platform. These boards are identical across the jurisdictions, which promotes the easy exchange of information during an incident and after. Standardization efforts drew upon \$40,000 FY 2008 SHSP funds.

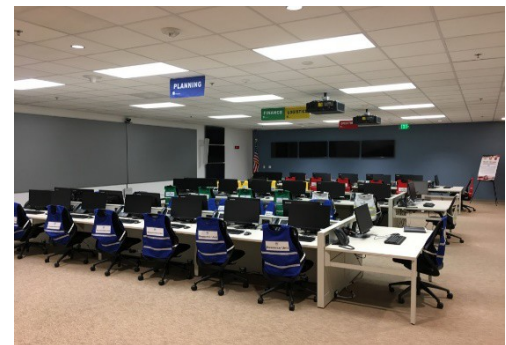
HSGP and EMPG funds also supported enhancements to EOCs across the urban area. The City of Henderson used \$252,633 in FY 2016 UASI funds to support the EOC’s equipment, including audio/visual equipment and installation, security systems, the IT mainframe, various hardware, and telephone/data wiring. Before these investments, the City of Henderson EOC was located in a 700 square foot room that strained to fit the necessary personnel and lacked proper equipment. The investments allowed the City of Henderson to establish a newer, larger EOC with updated technology, such as videoconferencing, that greatly improves the EOC’s capabilities.

During the 1 October incident, Clark County activated the MACC because the incident occurred in unincorporated Clark County and involved the coordination of teams across multiple jurisdictions. In addition to the MACC, the City of Henderson also activated its EOC because of the large number of personnel the city deployed to respond to the incident.

Beyond the 1 October incident, various agencies use the EOCs to conduct trainings and exercises and to respond to incidents. The spaces also host the UAWG and Local Emergency Planning Committee (LEPC) meetings.



Picture 4: The City of Henderson EOC before HSGP investment. Approximately 700 square feet with limited capacity.



Picture 5: The City of Henderson EOC after HSGP investment. Approximately 4,000 square feet with robust capacity.



Picture 6: Standardized EOC boards used in each EOC in the Las Vegas urban area.

Mass Fatality Planning and Training [HSGP]

In 2007, Clark County used HSGP funds to host a mass fatality training and exercise for the Southern Nevada region, including Washoe County and other rural counties, using \$500,000 in FY 2009 UASI funds and \$70,000 in SHSP funds. The exercise and training focused on producing the statewide mass fatality plan used in each of the 17 Nevada counties. In 2010, the Clark County Office of the Coroner and Medical Examiner (CCOCME) used HSGP funds to host a full-scale exercise of the mass fatality plan.

Just one year after the exercise, 11 people died and 69 were injured from a crash at the Reno Air Show. Washoe County deployed the mass fatality plan in response to the incident to test its effectiveness in a real-world setting. Local participants noted that the response further illustrated the plan’s importance and the need for a Family Assistance Center (FAC), which the mass fatality plan recommended, in response to such incidents.

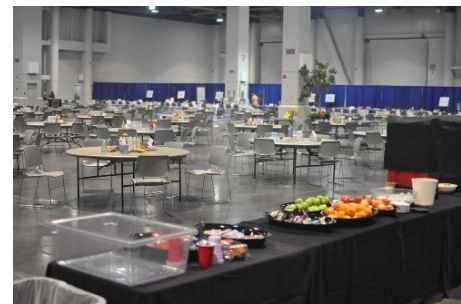
In response to the 1 October incident, Clark County deployed the mass fatality plan and instituted the FAC (described below). The incident again highlighted the importance of the mass fatality training, and since the incident, the Las Vegas urban area has invested \$65,000 in FY 2019 HSGP funds to update mass fatality plans that further incorporate the fire department and emergency medical services (EMS) in response to active shooter scenarios.

Following the 1 October incident, the Las Vegas urban area reported an increase in its fatality management services capabilities in their 2018 Stakeholder Preparedness Report (SPR). Clark County plans to update the mass fatality plan to incorporate lessons learned during the 1 October incident and to allow for training, tabletop exercises, and full-scale exercises of the morgue.

FAC [HSGP]

The CCOCME and the Clark County Fire Department, Office of Emergency Management set up and operated the FAC following the incident. The FAC, which operationalized the county’s mass fatality plan, provided services to affected individuals and families. The FAC opened at the Las Vegas Convention Center on October 2—one day after the incident—and provided information to survivors and families, conducted investigations to identify decedents, notified next of kin, and provided crisis counseling to survivors and families. Beyond the immediate aftermath of the incident, the FAC also offered the following services:

- On-site childcare
- Ground and air transportation
- Legal aid



Picture 7: Family Assistance Center respite area



- Crime victim benefits and compensation
- Counseling and spiritual care
- Personal effects return
- Donation management

The FAC assisted 4,356 individuals and remained open until October 20, 2017, when the Recovery Center/Vegas Strong Resiliency Center (VSRC) opened. The VSRC built upon the work of the FAC to offer long-term support services to survivors. The VSRC offers behavioral and mental health resources to survivors. The VSRC continues to provide services to the Las Vegas community.

Personal Protective Equipment (PPE), Fire and Police [HSGP]

Fire

The City of Las Vegas and City of Henderson fire departments determined the need for ballistic personal protective equipment (PPE) following a 2013 incident at the Los Angeles International Airport. During the active shooter incident, neither fire nor EMS personnel were able to reach the Transportation Security Administration agent after he was shot because they lacked the appropriate equipment to reach him in the “warm zone.” As a result, the officer lay unattended for more than 30 minutes. Following this incident, fire captains and chiefs in the Las Vegas urban area contacted the Nevada Division of Emergency Management – Homeland Security to request PPE for firefighters so that they could respond faster in an active shooter situation. The urban area invested \$118,708 FY 2011 and \$136,935 in FY 2018 funds to purchase 298 sets of ballistic PPE for Clark County firefighters and EMS, which were used to support the response during the 1 October incident.



Picture 8: Clark County Fire Department personnel in ballistic personal protective equipment during the 1 October incident.

During the response to the 1 October incident, ballistic PPE vests allowed fire and EMS personnel to access the “warm zone” of the incident to reach those who had been wounded, to begin treatment, and to extract survivors. This equipment, and the expedited response the equipment allowed, is directly credited with changing fire response protocol and saving lives.

“On that night on October 1, the fact that we [had] ballistic vests on every engine and every rescue, told every firefighter that we’re going to run that call different and that we’re not going to just stand by and wait until it’s all clear...They’re actually going to rush in and go try to save people.”

— Ryan Turner, Division Chief of Emergency Management and Safety, City of Henderson Fire Department

Following the incident, the Las Vegas urban area received DHS approval to use FY 2018 and FY 2019 HSGP funds to purchase additional ballistics PPE. The City of Las Vegas now owns 400 sets of ballistic PPEs and has become the first jurisdiction in the country to provide access to PPE for every seat in a fire engine. Nevada was the first state to receive approval to purchase ballistic PPE for firefighters.

Police

In North Las Vegas, however, officers who responded to the incident did not have adequate PPE, and in some cases, the responding officers used expired shields. The 1 October incident response also illustrated both the value of the equipment as well as the need for additional investment in ballistic shields. Since the incident, North Las Vegas has used \$35,000 in HSGP funds to acquire four new shields and is still in need of at least an additional four.



Community Emergency Response Teams (CERT) [UASI]

The Las Vegas urban area uses \$225,000 each year to support the CERT. The Las Vegas CERT program began in 1999 and provides education to volunteers on disaster preparedness skills such as fire safety, light search and rescue, disaster medical operations, and team organization^{xi}. The training is focused on the hazards that are most likely to impact the area in which volunteers live and serve. The Las Vegas Office of Emergency Management provides CERT training on behalf of the Las Vegas urban area and noted that the program has grown exponentially with continued UASI support.

Two Nevada CERT-trained instructors attended the Route 91 Harvest festival and were present during the shooting. After the incident, the instructors credited the CERT program with the life-saving activities they used that night. The Las Vegas Office of Emergency Management provides training to over 800 people each year.

Investments Made After the 1 October Incident

Multi-Assault Counter Terrorism Action Capabilities (MACTAC) [HSGP]

Following the 2008 multi-shooter, coordinated terrorist attack in Mumbai, India, the LVMPD implemented the MACTAC program. MACTAC is a counter-terrorism training program operated through the LVMPD that is focused on multi-agency coordination during critical incidents, such as active shooter, hostage situations, and/or siege in conjunction with responding tactical teams. First responders begin MACTAC training in the police and fire academies and must recertify their training each year. MACTAC trainers work closely with SWAT to train patrol officers to use SWAT tactics when responding to active assailant situations. In addition to patrol officers, MACTAC training provides counter-terrorism tactical response strategy to police, fire, and emergency medical services. The program enables all first responders to respond to high-threat incidents that may have previously been addressed only by specialized teams such as SWAT. This approach expands the traditional role of the patrol officer and the overall response capabilities of the Las Vegas urban area.



Picture 9: A MACTAC training example.

During the 1 October response, hundreds of Southern Nevada law enforcement officers responded from multiple jurisdictions to the incident. Police and fire personnel from these jurisdictions served on strike teams and responded to staging as needed. The MACTAC training allowed personnel from each jurisdiction to have a shared understanding of the unified command, to work together effectively, and to use common terminology during the response. Officials in the Las Vegas urban area and police officers credited their coordinated and efficient response to the MACTAC training.

To extend the reach of the MACTAC program, LVMPD instituted a train-the-trainer program that allows representatives from other jurisdictions to receive in-depth, instructor-level MACTAC training. To date, 10 jurisdictions in Nevada are cadre training certified. The MACTAC program also includes a cross-training component to encourage cooperation among police and fire personnel. For example, during their trainings, the police department invites firefighter trainees to learn more about police-specific capabilities. Likewise, police officers attend a day of fire training to gain an appreciation for the skills and contributions of the fire department. Students learn the skills and knowledge that personnel from the other jurisdictions can provide in order to have a fuller understanding of Las Vegas's full capabilities across departments. This association among the groups encourages improved coordination for any future incidents.



In 2019, LVMPD received \$481,841 in UASI funds to support this program. Specifically, the funds supported a training of the operational coordination and communications plans defined in the Hostile Event policy that Southern Nevada Fire Operations revised following the 1 October incident in response to recommendations outlined in the 1 October After-Action Report supported by FEMA National Exercise Division (NED). The goals of the training were to improve coordination and communication within LVMPD and the CCFD by focusing on a multi-agency response to critical incidents requiring a unified command structure.

Throw Kits [HSGP]

In the immediate aftermath of the incident, the Las Vegas urban area experienced a shortage of bandages. Following the incident, the Las Vegas urban area acquired throw kits to address this need.



Picture 10: A throw kit.

Throw kits are stop-the-bleed-style kits of first aid materials such as bandages and tourniquets. They are pre-deployed in preparation for an incident and to alleviate the immediate demand for EMS by allowing citizens to help each other if possible.

With support from Nevada Department of Public Safety, Division of Emergency Management – Homeland Security Clark County purchased throw kits using re-obligated funds following the 1 October incident. Upon receipt, Clark County passed the kits out to other jurisdictions in the area.

In 2018, Clark County used \$70,000 in UASI funds to purchase 2,500 kits shared across jurisdictions, including the cities of Las Vegas, North Las Vegas, Henderson, and the Clark County School District.

Mass Casualty Incident Plan [HSGP]

The 1 October incident demonstrated the value of a Mass Casualty Incident Plan. Las Vegas used HSGP funds to support the creation of a mass casualty incident plan in 2007 and the exercise of that plan in 2010. The plan and exercise served as the blueprint for the response to the 1 October incident.

Following the 1 October incident, Clark County invested HSGP funds to create of a new Mass Casualty Incident Plan, which considers the lessons learned during the 1 October incident. For example, now, fire and EMS have an expanded role in incident response as a result of the use of ballistic PPE. The use of such equipment allows fire and EMS personnel to respond to the “warm zone” for triage, treatment, and extraction.



Picture 11: Mass casualty incident trailer purchased with FY 2008 UASI grant funds.

Patient Tracking [HSGP]

During the 1 October incident, the Las Vegas urban area identified a gap in their ability to collect and share information on impacted individuals. To address lessons learned during the 1 October incident, the Las Vegas urban area adopted a patient tracking system to improve the flow and accuracy of information and to track individuals during an incident, using an integrated software platform. The deployment of this system benefits a variety of incident response functions, including emergency medical response, emergency management coordinators, fire department, the FAC, and hospitals. The platform can use a smartphone to scan an individual’s driver’s license to quickly collect the individual’s information, and the platform is compliant with Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations. Patient data, such as status and location, uploads to a central database accessed by authorized individuals to assist with further coordination efforts. The system is compatible with the Las Vegas urban area’s WebEOC and HAvBED systems and shares information between hospitals and responders to



coordinate hospital dispatch in an emergency.

In FY 2018, Las Vegas used \$300,000 in UASI funds to support the procurement and set up of the patient tracking system, a needs assessment related to patient tracking, and training and exercises related to the information-sharing capabilities the system supports.

Other Grant-Funded Investments

Community Preparedness Education Materials [EMPG, HSGP]

The cities of North Las Vegas and Henderson used Federal funds to support the development and distribution of community preparedness educational materials to prepare families and children for emergency situations. The City of North Las Vegas used \$1,500 in FY 2018 EMPG funds to create materials aimed at educating children and families on ways to prepare for and react to possible



Picture 13: Captain Kit, a character featured in the Captain Kit and the Ready Crew youth-focused educational materials from the City of Henderson.

events such as earthquakes, floods, thunderstorms, chemical threats, and fire. In 2018, the City of North Las Vegas distributed 3,000 EMPG-funded community preparedness materials to members of the community. The City of North Las Vegas also partnered with the American Red Cross on additional programming geared toward children in emergency situations.

Similarly, in EMPG FY 2014–2017, Henderson used approximately \$31,000 to purchase brochures, emergency preparedness wheels, pocket guides, rack cards, and supplies for educational events such as Emergency Preparedness Week, National Preparedness Month, and the Great Nevada Shakeout. Additionally, the City of Henderson used \$24,000 in FY 2017 EMPG funds to create the Captain Kit program, consisting of an animated video and activities to educate children on home preparedness. Since the inception of the Captain Kit Program, Henderson had 11,150 face-to-face interactions with members of the community. To date, the Captain Kit online video has been viewed 603 times.



Picture 12: City of North Las Vegas community preparedness materials

Radiation and Nuclear Detection [HSGP]

A national nuclear security site is located just 60 miles from the Las Vegas urban area. Materials delivered to and from the site travel directly through the urban area. To protect the community, agencies in the urban area have used HSGP funds to build up their radiological nuclear detection capabilities. This includes the development of a robust preventive radiological nuclear detection (PRND) program designed to prevent the illicit development, transport, or use of radiological or nuclear materials anywhere in the Las Vegas urban area. This involves primary and advanced secondary radiological screeners and related detection equipment. These screeners have also received advanced training through the U.S. Department of Energy’s (DOE) Counterterrorism Operations Support (CTOS)/Center for Radiological and Nuclear Training. With FEMA concurrence, CTOS coordinates the development and delivery of PRND and interdiction training to first responders with the Department of Homeland Security’s Domestic Nuclear Detection Office. In the Las Vegas urban area, approximately 60 personnel have received primary and/or secondary screener training from CTOS. The City of Las Vegas used \$75,500 in FY 2018 UASI funds as well as support from the DOE to support PRND equipment. Within the city, the ARMOR unit has purchased over \$2,126,000 in radiation detection and identification equipment for portal, handheld, mobile vehicle, and airborne PRND purposes since 2005.

LVMPD, including the LVMPD ARMOR Division, LVFR’s bomb squad, and the Henderson Fire Department’s bomb squad, have entered a memorandum of understanding (MOU), agreeing to respond



to CBRNE calls together. The multiple agencies are also named together as a task force in the state PRND plan and function as a task force in prevention, mitigation, and response tasks. Agencies also coordinate the procurement of specialty radiological and nuclear detection equipment. For example, the various agencies recently used \$75,500 in HSGP funds to jointly purchase radioisotope identification devices (RID), which are highly advanced handheld devices used to detect and identify radioactive materials. In 2018, members of the task force performed sweeps at 113 events and responded to four radiological/nuclear incidents. Since 2005, the ARMOR unit has responded to 71 radiological/nuclear incidents, involving possible exposure, theft, and release of radiological material.



Picture 14: Radioisotope Identification Device (RID)

Hazardous Materials (HazMat) [HSGP]

Type I Team

The Las Vegas urban area is home to two HazMat teams. The City of Las Vegas Fire Department currently operates the main HazMat team in the area, which includes 93 HazMat techs and is housed jointly with the bomb squad. The team, which is the only Type I HazMat team in Southern Nevada, routinely serves beyond the boundaries of Las Vegas and, in rare cases, beyond state lines. In 2018, the Las Vegas HazMat team responded to 57 Level II or higher HazMat incidents.

In FY 2017, the Las Vegas HazMat team used \$285,500 in UASI funds to replace and upgrade outdated CBRNE technology. The Las Vegas urban area used the money to purchase monitors used to screen, detect, and identify unknown materials. This equipment helps determine safe zones and areas of exclusions during HazMat incidents and provides critical information to incident command. In 2017, LVFR invested \$406,170 in HSGP funds to build and sustain their HazMat capabilities. FEMA preparedness grants are critical for sustaining this capability, and during years with lower funding, the HazMat team has been in jeopardy of losing its Type I status.

Type II Team

The City of Henderson continues to grow and develop its HazMat team. Currently a Type II team, the City of Henderson's HazMat unit has 33 members, including three battalion chiefs, one operations support officer, six fire captains, eight fire engineers, nine firefighters/paramedics, and six firefighters. In FY 2011 and 2012, Henderson used \$200,000 in UASI funds and \$216,475 in SHSP funds to purchase PPE and equipment, including helmets, duffle bags, rifle plates, plate harnesses, gloves, boots, chlorine kits, and National Fire Protection Association (NFPA) 1994 Class 2 terrorism incident protective ensembles. In 2015, the City of Henderson used \$544,000 in Federal funds to acquire a Hazardous Materials Response Vehicle to respond to and mitigate hazardous materials incidents such as those that might occur at the Black Mountain Industrial Complex and other high-risk hazardous materials facilities in the Las Vegas urban area. In 2018, the Henderson HazMat team responded to 167 HazMat calls in the Las Vegas urban area.

LVMPD's ARMOR Task Force

The LVMPD ARMOR task force contributes HazMat capabilities to the Las Vegas urban area. ARMOR is LVMPD's task force of multiple law enforcement agencies across Southern Nevada that provides equipment and expertise in the detection, response, mitigation, and investigation of CBRN incidents. Between 2015 and 2017, the ARMOR task force received over \$1.5 million in HSGP funds to sustain capabilities for the extension of warranty agreements, to renew technical support contracts, and to purchase CBRN equipment, including high-speed video platforms for investigation and identification of explosive or incendiary material and liquid, solid, and gaseous incidents, involving possible exposure, theft, and release of radiological material.

The Las Vegas Joint Counterterrorism Agency Workshop Series (JCTAWS) [DHS]

JCTAWS is a series of trainings operated by the National Counterterrorism Center, DHS, and the FBI and is funded directly by DHS. The purpose of the JCTAWS is to increase local jurisdictions' abilities to prepare for, protect against, and respond to complex terrorist attacks. The trainings focus on increasing the operational coordination and communications core capabilities through a variety of exercises that are specific to Las Vegas. The exercises address areas of concern such as suspicious activity reporting, mass casualty care, unified command, high-threat response operations, and family reunification.

Las Vegas officials credit the JCTAWS trainings, in conjunction with the MACTAC, ICS, and other trainings, with providing essential practice so that all personnel can operate off "muscle memory" during a real-world incident.

In March 2018, following the 1 October incident, FEMA sponsored the Integrated Emergency Management Course (IEMC) entitled Preparing Communities for a Complex Coordinated Attack (CCA) in Clark County. The CCA IEMC was a community-specific training initiative to improve the ability of local jurisdictions with a higher likelihood of experiencing a high-threat incident to prepare for, protect against, and respond to complex coordinated attacks. The four-day, workshop-style program brought together tactical-level first responders from different disciplines and agencies to define the challenges associated with a coordinated whole community response to a CCA against multiple targets.



Picture 15: City of Henderson HazMat Response Vehicle chemical detection, classification, and identification equipment.



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