

## Regional Risk Assessment Planning Scenarios

### CYBER INFRASTRUCTURE SCENARIO

Due to increasing home prices across the Denver Metro/North Central Region, the homeless population has significantly overwhelmed shelters. The media has been covering the issue as conditions have worsened over the past year. Many local governments have experienced both actual and virtual protests during city council and board meetings.

Throughout 2018, a relatively new criminal hacking group calling themselves “HAKATTAKJAK” has posted messages boasting about their “computer hacking skills” and taking credit for recent increase in Denial of Service attacks. Additionally, from June 2018, they have had several days on various internet-based underground message forums, stating that they have, “found a huge vulnerability in well-known Industrial Control Systems (ICS) and 911 call centers which [they] will soon offer for sale on several black market websites.”

Details of the vulnerability mentioned by the criminal hacking group and the software or systems affected are unknown. Intelligence is limited because of the relative infancy of the group. No other details are available.

In March 2019, several other suspicious posts have come to the attention of local and state law enforcement as credible threats to the area. A recent posted authored by user HelptheHomelessofColorado reads, “Anyone else want to teach the @COgovernmentleaders and @shelterorgcolorado a lesson and earn some \$\$\$?”

On April 12, 2019 Adams County Arapahoe County, City and County of Denver, Clear Creek County, Douglas County, and Jefferson County all experience severe ransomware attacks that shutdown most of their operations.

On April 13, 2019 Denver Water, Aurora Water, XFINITY and Excel Energy had SCADA attacks causing power outages.

On April 14<sup>th</sup>, 2019 three PSAPs were attacked through software vulnerabilities causing outages, roll overs went to Boulder 911 which overwhelmed the call center and a PSAP in Wyoming had to also assist.

Public Information was a significant challenge. Government operations were slowed to essential functions only.

Standardized Impact Estimates			
Impact Category	Estimate	Impact Category	Estimate
Affected Healthcare Facilities And Social Service Facilities (20 hospitals/150 clinics)	20/150	People Requiring Evacuation (senior care)	250

Animals Requiring Shelter, Food, And Water	10	People Requiring Food and Water	750,000
Businesses Closed Due To The Incident	10,000	People Requiring Long-Term Housing	10
Customers (Without Communication Service)	15,000	People Requiring Medical Care (above normal)	25,000
Customers (Without Power Service)	500,000	People Requiring Rescue (more than normal)	150
Customers (Without Wastewater Service)	30,000	People Requiring Shelter	0
Customers (Without Water Service)	30,000	People Requiring Temporary, Non-Congregate Housing	0
Damaged Natural And Cultural Resources And Historic Properties	72	People With Access And Functional Needs (AFN) Affected	750,000
Exposed Individuals (Hazmat-Related Incidents)	15	People With AFN (Requiring Accessible Shelter)	0
Fatalities	70	People With AFN (Requiring Accessible Long-Term Housing)	1
Hazmat Release Sites	50	People With AFN (Requiring Temporary, Non-Congregate Housing)	1
Jurisdictions Affected	24	People With AFN (Requiring Evacuation)	15
Miles Of Road Affected		People With AFN (Requiring Food and Water)	7,500
Partner Organizations Involved In Incident Management	600	People With Limited English Proficiency Affected	300,000
People Affected	3,000,000	Structure Fires (more than normal with limited water to fight the fire)	30

## **FLOOD SCENARIO**

On September 9<sup>th</sup>, a slow-moving weather system stalled over the mountains along the Front Range of Colorado. This weather system impacted the State over the course of a week and created massive flooding in the majority of the North Central Region (NCR) and North East Region. The floodwaters spread across a range of almost 300 miles from north to south, affecting 24 counties. Governor Jared Polis declared a disaster emergency on September 13<sup>th</sup>, in 15 counties: Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, El Paso, Fremont, Jefferson, Larimer, Logan, Morgan, Pueblo, Washington, and Weld. By September 15<sup>th</sup>, federal emergency declarations covered those 15 counties as well as Clear Creek County and Gilpin. On September 15<sup>th</sup>, two Type II Teams were activated and took command at 5pm. Five Urban Search and Rescue (USAR) teams and air resources were also activated in response to the ever-growing issue. As soon as areas were deemed safe, damage assessment teams were deployed and debris removal and stream recovery were performed. On September 17<sup>th</sup>, the National Oceanic and Atmospheric Administration (NOAA) declared the event a 1,000-year rainfall event, with some seven-day totals approaching 20 inches, exceeding average annual amounts.

The storm system tripled the size of the Platte River running through Northeast Colorado, affecting Boulder, Clear Creek, Jefferson, and Larimer counties. Other flooded river systems, such as Cherry Creek and Plum Creek, affected areas of Highlands Ranch and Douglas County,

as well as residential and business areas of both Castle Rock and Parker. Downtown streets were flooded in Castle Rock.

Major roadways, such as Highway 24 and 36, were damaged and impassable. Highway 83 between Franktown and Parker was 30% flooded and impassible. Other major roadways such as parts of Interstate 25 and Interstate 70 have been damaged as well. Infrastructure crossing points of major water ways such as roads, bridges and rail lines were heavily damaged or destroyed. More than 750 miles of road have been affected. Debris flows/buildups and landslides began to occur along the waterways and in the foothills.

Counties such as Clear Creek and Gilpin that are above 8,000 feet in elevation, experienced significant flooding due to the rise of the water table which flooded out structures from the basement level. Water and wastewater treatment facilities were damaged, causing the customers to switch to bottled water. Extended power outages were caused by downed power lines, substation damage and other electrical infrastructure damage. HAZMAT issues occurred in about 50 areas where oil and gas tanks were destroyed or semi-trucks were submerged or rolled-over on damaged highways. Hospitals and nursing homes were evacuated or activated their COOP plans to shelter in place using bottled water and backup generator power. Furthermore, the areas affected are experiencing water and air (indoor) quality issues, prompting the Department of Public Health to activate.

Within the NCR, the flooding killed 20 people, destroyed 2,542 structures, damaged at least 18,000 other structures, and has affected approximately 3,000,000 people. Some of the hardest hit communities included Jamestown, Lyons, Longmont, Glen Haven, Estes Park, Evans, Castle Rock and Parker. At one point, more than 500 people were missing (all have since been accounted for) and more than 2,000 people were evacuated. Temporary shelters have been set up around the Denver metro area, as 1,000 individuals are in need of some sort of sheltering. There are approximately 160 animals requiring shelter, food and water and some need reunification with their owners. There are over 1,500 businesses that have been closed since the second day of the incident. There are about 60,000 customers without power, 60,000 without wastewater service and 60,000 without water service. There are also 1,000 people who still need to be rescued from their location.

<b>Standardized Impact Estimates</b>			
<b>Impact Category</b>	<b>Estimate</b>	<b>Impact Category</b>	<b>Estimate</b>
Affected Healthcare Facilities And Social Service Organizations	1,000	People Requiring Evacuation	2,000
Animals Requiring Shelter, Food, And Water	163	People Requiring Food and Water	30,000
Businesses Closed Due To The Incident	1,500	People Requiring Long-Term Housing	10,000
Customers (Without Communication Service)	300,000	People Requiring Medical Care	500
Customers (Without Power Service)	60,000	People Requiring Rescue	5,000

Customers (Without Wastewater Service)	60,000	People Requiring Shelter	1,000
Customers (Without Water Service)	60,000	Short-Term Housing	5,000
Damaged Natural And Cultural Resources And Historic Properties	75	People With Access And Functional Needs (AFN) Affected	300,000
Exposed Individuals (Hazmat-Related Incidents)	2,000	People With AFN (Requiring Accessible Shelter)	500
Fatalities	20	People With AFN (Requiring Accessible Long-Term Housing)	50
Hazmat Release Sites	50	People With AFN (Requiring Temporary, Non-Congregate Housing)	50
Jurisdictions Affected	24	People With AFN (Requiring Evacuation)	50
Miles Of Road Affected	750	People With AFN (Requiring Food and Water)	50
Partner Organizations Involved In Incident Management	600	People With Limited English Proficiency Affected	1,000
People Affected	3,000,000	Structure Fires	20

2013 September Floods

### **MULTIPLE WILDLAND FIRE SCENARIO**

Three wildland fires are burning in an overlapped timeframe. The fires started on County owned land in all three locations and then moved partially into federally owned land.

Douglas County Fire – A vehicle crash caused a small fire in Douglas County that started around 9:00am on Thursday July 6<sup>th</sup>. Several fire departments assisted on that day including Tri-lakes Fire, Larkspur Fire, Colorado Springs Fire, South Metro Fire, Castle Rock Fire, Franktown Fire, and Jackson 105. The Douglas County Type IV was called out 2 hours into the incident. The location of the fire threatened 3,000 homes. Local air teams were used through private contracts with Douglas County. Some insurance companies sent resources to a few homes. Red Cross opened three shelters. A Type II team took command at 5pm July 7<sup>th</sup>. Due to several fires burning across the nation, federal assets were limited to a few teams, EMAC requests were sent out on July 8<sup>th</sup>, and the State mobilized the MMA. The fire burned 12,000 acres. This fire gained significant news coverage. Fifty-three homes were lost in Douglas County.

Boulder County Fire- A small foothills fire started in Boulder County around 1pm on Friday July 7<sup>th</sup>. Several local agencies and volunteer fire departments assisted. The Type III Boulder County IMT took command on July 7<sup>th</sup> at 5pm. A Type II team took command on July 8<sup>th</sup> at 7pm. The fire has burned 165 homes and threatened the campus and one-third of the city at one point. Boulder County had local resources that opened five shelter locations.

Jefferson County Fire- A fire started in Jefferson County around 3pm on July 8<sup>th</sup> near a neighborhood with houses that were lighting fireworks. The grass fire near the homes turned into a large wildfire around 6pm July 8<sup>th</sup>. The fire destroyed 150 homes. Some insurance companies sent resources to a few homes. Red Cross opened two shelters.

IPAWS, EverBridge and CodeRED were used during the fires in the form of alerts and warnings. A Regional JIC coordinated public information starting on July 9<sup>th</sup>.

USAR was activated on a limited basis for search teams. The MMA was used to map fire perimeters for all three locations continuously. Local VOADs, Arapahoe Rescue, Volunteer Managers and other Non-governmental Organizations were utilized. EMAC requests included air support and Type II teams. Situational awareness and resource tracking was a significant challenge with three fires located in one region. Feeding responders in the field was a large logistical challenge during the first week of the fires. Commercial and small animals were evacuated, relocated and/or sheltered.

Local recovery teams worked months. Donations were made as soon as July 6<sup>th</sup> at 8pm and continued for several months. Watershed impact was significant and well water had to be flushed. Burn scars remain an issue. Mitigation projects were started a year after the fires.

Standardized Impact Estimates			
Impact Category	Estimate	Impact Category	Estimate
Affected Healthcare Facilities And Social Service Facilities	1,000	People Requiring Pre-evacuation/Evacuation	200,000/65,000
Animals Requiring Shelter, Food, And Water	5,281	People Requiring Food and Water	6,500
Businesses Closed Due To The Incident	900	People Requiring Long-Term Housing	5,000
Customers (Without Communication Service)	1,000	People Requiring Medical Care	2,500
Customers (Without Power Service)	300,000	People Requiring Rescue	100
Customers (Without Wastewater Service)	75,000	People Requiring Shelter	6,500
Customers (Without Water Service)	175,000	People Requiring Temporary, Non-Congregate Housing (short-term housing)	5,000
Damaged Natural And Cultural Resources And Historic Properties	32	People With Access And Functional Needs (AFN) Affected	3000
Exposed Individuals (Hazmat-Related Incidents)	0	People With AFN (Requiring Accessible Shelter)	650
Fatalities	9	People With AFN (Requiring Accessible Long-Term Housing)	500
Hazmat Release Sites	5	People With AFN (Requiring Temporary, Non-Congregate Housing)	500

Jurisdictions Affected	24	People With AFN (Requiring Evacuation)	10
Miles Of Road Affected	500	People With AFN (Requiring Food and Water)	6,500
Partner Organizations Involved In Incident Management	600	People With Limited English Proficiency Affected	1,000
People Affected	300,000	Structure Fires (lost)	368

## CCTA SCENARIO

Car-Quada, a terrorist organization dedicated to disrupting global transportation systems and damaging the manufacturing and operation of transportation related businesses conducts a CCTA in the North Central Region during the day on a weekend at multiple high-population commercial and transportation soft targets.

Attack begins at 12:30pm as one attacker drives a moving truck into a large crowd at a classic car/motor meetup at the Douglas County Fairgrounds (500 Fairgrounds Rd, Castle Rock, CO 80104). The vehicle hits numerous attendees and is eventually stopped by temporary barriers. The driver exits the vehicle and starts shooting at additional attendees with a rifle and handgun. The attacker is neutralized by law enforcement assigned to the event. Early estimates are over 40 killed and 150 injured. Law enforcement also believes the moving truck may have explosives inside.

At 12:35pm, a second attacker starts shooting inside of an F-Line light rail car on the way to Union Station for a Rockies game. After shooting numerous riders, the shooter leaves his weapons and backpack on the train, exits the light rail at the Broadway stop (I-25 & Broadway Station), and is last seen moving north on foot. There are an estimated 45 fatalities and 50 additional injuries.

At 12:45pm, a third attacker hijacks a Flatiron Flyer Bus from Downtown Boulder. The bus, route FF5, is enroute to Anschutz Medical Campus. Dispatch is notified after the bus fails to stop at the US36 & Broomfield Stop. At this time it is unknown whether there are any casualties or what the destination is of the bus. The bus holds a maximum of 57 passengers.

At 1:30pm, four attackers open fire with rifles at the Denver Auto Show located at the Colorado Convention Center (700 14th St, Denver, CO 80202). Panicked attendees flee the building, hide in other off-limit areas of the Convention Center, and take cover in and behind the cars at the auto show. Responders arrive and engage the shooters, at which point they detonate their explosive vests. There are an estimated 75 fatalities and over 200 additional casualties.

Finally, at 6:00pm, a security guard notices a suspicious trucked parked near one of the buildings at the Suncor Refinery (5801 Brighton Blvd, Commerce City, CO 80022). While inspecting the truck, the attacker detonates the VBIED, killing 3 guards and 5 employees inside of the building. Multiple fires breakout and neighboring residential areas are reporting a loss of power. Review of CCTV footage shows the attacker heading east on I-270 in a small sedan shortly after the detonation.

**The next day:**

FBI, ATF, other Federal Agencies, Local Law Enforcement, and the CIAC continue to track down leads and hunt the two remaining at-large attackers. Schools and many businesses in the impacted areas have been shut down, and critical infrastructure owners and operators have increased their security postures with barriers and additional security.

Standardized Impact Estimates			
Impact Category	Estimate	Impact Category	Estimate
Affected Healthcare Facilities And Social Service Organizations	1,000	People Requiring Evacuation	1000
Animals Requiring Shelter, Food, And Water	100	People Requiring Food and Water	5,000
Businesses Closed Due To The Incident	1,000	People Requiring Long-Term Housing	10
Customers (Without Communication Service)	100,000	People Requiring Medical Care	1,500
Customers (Without Power Service)	500	People Requiring Rescue	50
Customers (Without Wastewater Service)	500	People Requiring Shelter	150
Customers (Without Water Service)	500	People Requiring Temporary, Non-Congregate Housing	10
Damaged Natural And Cultural Resources And Historic Properties	5	People With Access And Functional Needs (AFN) Affected	280,000
Exposed Individuals (Hazmat-Related Incidents)	100	People With AFN (Requiring Accessible Shelter)	500
Fatalities	200	People With AFN (Requiring Accessible Long-Term Housing)	100
Hazmat Release Sites	2	People With AFN (Requiring Temporary, Non-Congregate Housing)	100
Jurisdictions Affected	??	People With AFN (Requiring Evacuation)	500
Miles Of Road Affected	500	People With AFN (Requiring Food and Water)	500
Partner Organizations Involved In Incident Management	??	People With Limited English Proficiency Affected	150,000
People Affected	2,800,000	Structure Fires	2