Managing Risks Associated with Extreme Weather Events

by Cindy King, Director of Membership Services and Human Resources

ON THE AFTERNOON OF May 20, 2022, a tornado touched down in the City of Gaylord. Incredibly, the EF-3 tornado stayed on the ground for 20 minutes, leaving a 16-mile-long path of destruction that killed two people, injured 44, and caused significant property damage to homes and businesses.

Winds estimated at up to 150 mph uprooted trees, downed power lines, flipped vehicles, and tore off roofs. According to Yahoo News, "Damaging wind began to roll through the Midwest due to a long stretch of low atmospheric pressure. The storm turned into what's called a supercell thunderstorm, a type of storm which can produce conditions ripe for damage."[1]

Michigan's tornado history

Sadly, Michigan is not immune to tornadoes. In 2012, Dexter was struck by a tornado that caused $9.1 million in damage, impacting 266 homes. In May 1980, five people were killed and 79 injured when a

The tornado that ripped through the City of Gaylord was a supercell thunderstorm packing winds up to 150 mph.

tornado touched down in Kalamazoo. In May 1964, 11 were killed and 224 injured when a tornado struck Anchor Bay near Mt. Clemens.

Prior to the Gaylord storm, Michigan had not experienced tornado-related fatalities since 1997. Loss of life and serious injuries are always heartbreaking. Property damage or losses are also devastating.

Facing threats together

MMRMA's Board of Directors has identified extreme weather events as a potential environmental threat to our members and the long-term success of our entity public risk pool.

The City of Gaylord is in Ostego County, an MMRMA member. While member-owned property did not sustain major damage,

the impact on the area is nevertheless enormous.

Otsego County Commissioner Doug Johnson, who serves on MMRMA's Board of Directors, said, "This storm has hit the area hard. The losses are tragic, but we are resilient and have been blessed with an outpouring of support."

Extreme weather has the potential to drive up claims and costs for repairing damaged property. It also affects public entity pools' ability to secure reinsurance coverage for higher exposure claims.

Other extreme weather events faced by MMRMA members include torrential rains, flooding, ice, heavy snow, and severe cold. Recently, several members experienced rains that caused dam failures and flooded streets and homes.

Each such event is painful for those who lose loved ones, get injured, or whose valued property is destroyed. Weather events also pose complex challenges for members who must manage cleanup and restoration—and address public outcry that the entity should have been better prepared.

Storm and weather patterns

According to Weather.gov, you've likely seen a supercell thunderstorm "if you have ever looked at the sky on a May or June day and have seen a very tall storm cloud

1 https://news.yahoo.com/gaylord-tornado-killed-1-injured-031614701.html

CYBER RISK MANAGEMENT, PART 10

# MMRMA Resources Can Help Members Manage Cyber Risks

by Daniel Bourdeau,
Cybersecurity Practice Leader

DAILY HEADLINES PROCLAIM the relentless onslaught of sophisticated phishing attacks, ransomware, and other types of data breaches. The proliferation of artificial intelligence and ransomware-for-service—which allows even a novice criminal to run effective and lucrative attack operations for a few hundred dollars—has raised the level of risk for everyone. In 2021, according to Forbes, the attacks against government networks increased nearly 50 percent from the year before.

No matter the size or complexity of your organization or the kinds of data you use and store, threat actors are interested in extracting and monetizing your data, reputation, and ransom payment.

Training goes a long way

Employee training on cybersecurity threats is among the most effective investments members can make. MMRMA offers grant funding to offset 50% of the cost, up to an aggregate limit of $25,000, for employee cybersecurity training. Many members have used these funds to help buy KnowBe4 security programs to educate employees and measure their susceptibility and resiliency to email phishing attacks.
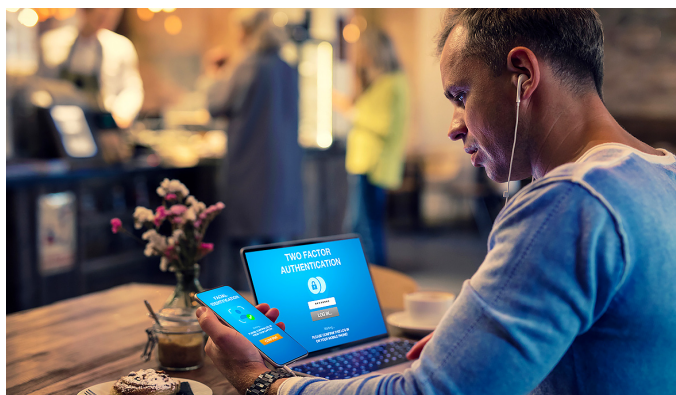
Cisa.gov (Cybersecurity & Infrastructure Security Agency) and FedVTE (Federal Virtual Training Environment) also offer an extensive library of training options, as does the private sector.

Layers of security can help

Implementing and enforcing two-factor authentication (2FA) across systems and services is also a critical step members and their technology vendors or staff should tackle without delay.

According to Verizon's 2021 Data Breach Investigation Report, 2FA can reduce the attack success rate by as much as 91%. Many services routinely used by MMRMA members can enable 2FA with little technical effort—and often for free. MMRMA also offers grants of 50%, up to $10,000, to help members implement 2FA. Considering the efficacy, ease of setup, and widening use, there has never been a better time to roll out or expand use of 2FA in member offices.

Keeping current is a must

It is essential to routinely tend to one of the oldest (and perhaps most loathed) technology tasks: patching computers, servers, network infrastructure, and software. As Log4j proved in 2021, a single vulnerability in a program buried within multiple applications can leave tens of thousands of organizations vulnerable to cyberattacks.

Vulnerabilities are cataloged in the National Vulnerability Database (nvd.nist.gov), where they're assigned a unique Common Vulnerabilities and Exposure identifier (CVE). Vulnerabilities are also assigned a Common Vulnerability Scoring System, or CVSS, which quantifies the severity of a given vulnerability. Each day, one or more vulnerabilities are added to the database, making such updating an arduous task.

Assessing, remediating risks

An independent third-party vulnerability assessment or network penetration test are highly effective tools for gaining knowledge about and power over your operations.

Technology staff may feel they know every cable, port, switch, firewall rule, and computer on your network and how they all interact, which might be the case on a routine day. However, a network, devices, and data behave in dramatically different ways when a threat actor gains access and control. Here too, MMRMA is investing in members by providing 50% funding, up to $10,000, for an assessment that could yield a roadmap to a more resilient technical operation.

MMRMA launched a new RECTify cybersecurity grant in December 2021. RECTify (Remediate Emerging Cybersecurity Threats) provides $1 million of tiered funding, up to $15,000 per member, to help members invest in systems and services to find and patch the most severe vulnerabilities within six months of being cataloged.

Cybersecurity is an area of critical risk that can't be avoided, but there are ways to minimize its likelihood and severity. We recognize our membership's broad spectrum of system size, complexities, and technical capabilites, and have designed these grants to help all members take steps to reduce their data breach and reputational risks.

Updates to RAP, CAP Grants Provide Increased, New Funding

by Cara Ceci, Member Resources Manager

SINCE THE INCEPTION OF MMRMA's Risk Avoidance Program (RAP) and Certification and Accreditation Program (CAP) in 1997, the Membership Committee has reviewed over 5,000 applications and approved more than $22 million in funding for a variety of members' risk mitigation efforts.

Each year, with the guidance and recommendations of MMRMA staff, the Membership Committee reviews and updates RAP and CAP grant guidelines to keep these programs timely and of utmost benefit to members. At its May 11, 2022 meeting, the Membership Committee made significant updates to the Standard Grant Guidelines.

Changes to Standard Grant Guidelines

Rolling aggregate limits were removed. Members that reach maximum limits for specific categories and wish to request additional funds will be required to detail the project and funding request via the long-form, New Project Application. These requests will be considered on a case-by-case basis.

In-Car Cameras: Funding has been expanded to ALL municipal vehicles; the maximum aggregate limit was increased from $30,000 to $50,000 per member.
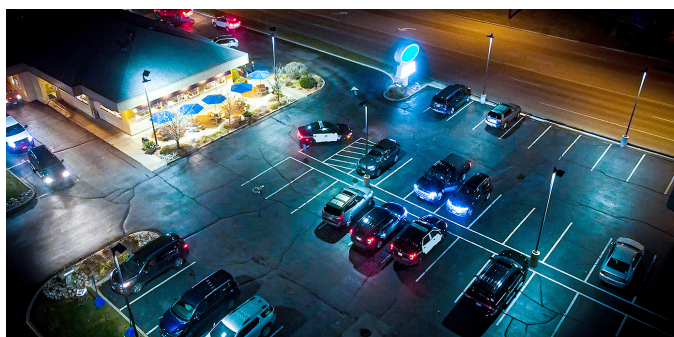
RAP grants may be used to improve security lighting in parking lots.

Digital Cameras and Security: Funding was clarified for projects that include digital cameras and associated components; automatic door locks/badge ID access systems; lighting for parking lots and similar security; fencing as it relates to protecting member property, and panic buttons/duress alarms. Funding does NOT include ballistic or bullet-proof glass.

Training Simulators: Funding has been reinstated at 50%, up to a maximum of $50,000 per member.

Lift Free Health Facilities: Funding was increased to 50%, up to $5,000 per device, with a maximum of $10,000 per member.

Body Worn Cameras: Funding has been expanded to ALL municipal departments.

Emergency Generators: Funding has been broadened to include water pumping stations and member facilities that contain food storage operations as well as storage and/or refrigeration of med-

ication. **NOTE:** Only those members with MMRMA sewer backup coverage are eligible for this funding.

Data Storage: Funding was expanded to include data storage for any municipal department associated with body cameras and in-car camera systems only. Funding will provide 50%, up to $50,000 per member, including the annual cost of cloud storage services.

New Funding Opportunities

Portable Pumps: 50%, up to $25,000, for portable pumps for water/sewer departments to assist with maintenance operations and emergency flooding. **NOTE:** Only those members with MMRMA sewer backup coverage are eligible for this funding.

Vactor Jet Sewer Cleaner Communication Radio System: 50%, up to $5,000 per system, for radio communication systems only for Vactor Jet equipment.

In June, Whitefish Point on Lake Superior becomes one of the world's great migration hot spots for raptors, songbirds, and waterfowl. The endangered piping plover (above) nests here, as do the spruce grouse and the crossbill, a finch with a distinctive coloration: males are red or orange, females green or yellow. Whitefish Point is also home to a historic life-saving station and a small but still active commercial fishing fleet.

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that has an anvil that stretches as far east as you can see. Supercells are the least common type of thunderstorm, but they have a high propensity to produce severe weather, including damaging winds, very large hail, and sometimes weak to violent tornadoes."

The article continues, "What makes a supercell unique from all other thunderstorm types is that it contains a deep and persistent rotating updraft called a mesocyclone. If the environment is favorable, supercell thunderstorms can last for several hours." [2]

A National Geographic article notes that "Types of extreme weather, such as tornadoes, are exhibiting changes which may be linked to climate change, but scientific understanding isn't detailed enough to project direction and magnitude of future change... we still have a lot to learn about how climate change might affect tornadoes." [3]
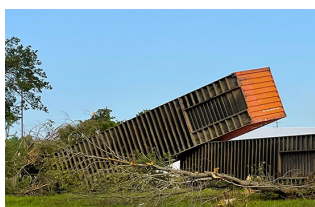
The tornado flipped two-ton storage containers as if they were cardboard boxes.

Preparing for emergencies

What can members do to prepare for extreme weather events? Proper emergency management planning is key. Entities can draw on the expertise of federal, state, and county resources and local first responders, including the Federal Emergency Management Agency (FEMA), Homeland Security, and the Michigan Department of Emergency Management. Nonprofit organizations such as the American Red Cross and Michigan Disaster Response and Recovery may also be of help.

Grants and resources

MMRMA grants can help members invest in risk miti-

gation tools, including data storage, emergency generators for pump/lift stations, and sewer cameras.

The Membership Committee recently approved funding for a member to purchase an emergency notification system to warn residents of an impending extreme weather or other significant event (see sidebar, page 3).

MMRMA also offers resources to guide members in preparing for weather-related risks, including *Risk Management Planning for Special Events, Metal Halide Lightning Safety Tips, Snow Load Safety Guide— FEMA, Winter Safety Tips, Surface Ice/Frigid Water Rescue, Water/Beach Safety Guidelines,* and more.

The gravity of the destruction caused by the tornado in Gaylord cannot be minimized, nor can the heartbreaking loss of life and property. MMRMA is monitoring and developing tools to help manage the ongoing risks members face today and in the future.

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2 https://www.weather.gov/ama/supercell

3 https://www.nationalgeographic.org/article/tornadoes-and-climate-change/

Grant Updates, continued from page 3

Equipment Continuation/ Assurance Plans for Law Enforcement: 25% of the yearly costs associated with equipment assurance/continuation plans over a 5-year agreement. Members must apply annually for funding.

RECTify Cybersecurity Grant
MMRMA also recently

launched the innovative Remediate Emerging Cybersecurity Threats (RECTify) grant opportunity (see page 2 for more).

Members are encouraged to log in to the MMRMA member portal to access grant documents, applications, and other valuable member resources.

New CAP Grants

Certified Labor Relations Leader (CLRL)

Certified Pool Operator (CPO)

No Longer Funded

Commission on Accreditation Funding for law enforcement accreditation will focus on the Michigan Law Enforcement Accreditation Program (MLEAP).