



MMIA RISK MANAGEMENT BULLETIN

Municipal Water Tanks

To: MMIA Member-Owners
From: Jim Brandley, Risk Management Strategist
Date: 1/3/2022
RE: Municipal Water Tanks

Dear Members-Owners,

Have you checked your municipal water tank lately?

Does it still exist?

Is it in the same condition as the last time you looked at it?

Have you ever thought about how much it could cost to replace or repair the roof of a municipal water tank or a roof for a water treatment plant structure? In some circumstances, you could buy a nice mansion for what it costs to replace the roof, repair a tank, or replace vital components. Parts to replace the aging tank can cost as much as a new tank. In some cases, parts are unavailable or takes weeks to source. Fabrication of parts or installation of a new tank system can be the only alternatives, which drive costs up and create delays getting back on line. Tanks, parts, and the expertise of installation are not found at the local building supply store. Consideration for engineering, construction, delivery, and installation are all part of the cost and time delay equations.

Professional maintenance and inspection services go a long way to preventing catastrophic roof failures, internal structure compromises, and corrosion. These services can prevent catastrophe from occurring at an inconvenient time and help to maintain the best municipality reputation for providing public services.

Should a catastrophic failure occur, MMIA will first determine whether the loss is a result of a covered peril. Losses arising out of improper maintenance and/or failure to reasonably protect the water tank for example could result in reduced coverage or no coverage under the MMIA Memorandum of Property Coverage exclusions.

SECTION V: GENERAL CONDITIONS

A. EXCLUSIONS

This Memorandum does not cover against any of the following:

- 1. Loss or damage caused by, or resulting from, moths, vermin, termites, or other insects, inherent vice, latent defect, faulty materials, error in design, faulty workmanship, wear, tear or gradual deterioration, contamination, rust, corrosion, wet or dry rot, unless physical loss or damage not otherwise excluded herein ensues and then only for such ensuing loss.*
- 2. Loss or damage caused by or resulting from freezing, unless: (a) the Member uses reasonable steps to maintain heat in the building or structure: or (b) the Member drains the equipment and shut off the water supply if the heat is not maintained.*
- 3. Physical loss or damage by normal settling, shrinkage or expansion in building or foundation.*

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January 3, 2022

The MMIA Property Program has experienced 3 water tank claims since 2018 totaling \$1,700,000 dollars. This averages out to \$566,000 per collapse. Had there been 10 collapses (not unreasonable to expect from a Montana winter), \$5,600,000 would have been the expected price tag for the Property Program. What could be the result of a statewide arctic freeze that compromised a few dozen tanks? Could it ultimately impact the Property Program rates, your municipality's water rates, or even temporarily suspend the resource to your communities?

Cold temperatures for an extended period can result in ice caps forming on the water surface, inhibiting electronic sensors from measuring and controlling water levels in the tank. When tank levels exceed capacity limits due to overfilling, the ice caps that have adhered to the center roof support can begin disconnecting the support from the floor. As water levels increase, causing the support to temporarily lift-up and out of position, the roofing trusses have no core support resulting in a roof collapse. Structural compromises could affect all portions of a tank.

Let's go into the 2021-2022 winter season fully prepared to prevent damage to our water tanks and equipment. Here are a few reminders to help prevent a catastrophe...

- Designate a qualified employee to perform physical inspections of the tank & equipment on a regular basis. Increase the regularity of inspections as freezing weather increases or intensifies during the winter.
- Confirm alarms and monitoring systems are in working order with a battery back-up power source in place.
- Visually check the tank(s) regularly to verify the circulatory system is working.
- Visually check the tank(s) for ice caps and water levels.
- Visually check the tank(s) for structural compromise, corrosion, or broken frame pieces.
- Create and implement regular professional tank inspection and maintenance programs in accordance with industry standards.

Remember... it's your money!!

Learn about the MMIA Member-Owners' Self-Funded Pool and your money on the MMIA website at "[Know where your dough goes.](#)"

If you have any questions, please contact MMIA Risk Management department at:

Website: MMIA.net/RiskManagement

E-mail: riskmgmt@mmia.net

Phone: 800-635-3089