

## Mitigating the Risks of Heavy Rain and Flooding on Construction Projects

Last month serves as a valuable reminder to the construction industry that weather poses a constant risk of disruption. May 2023 finished as the fourth wettest May in Denver's history and the sixth wettest month overall on record. The Mile High City's official weather station at DIA recorded 5.53 inches of rainfall for the month. Most of the rainfall (3.75 inches) occurred May 10-11, making it the third largest 2-day rainfall in over 150 years. Even the most vigilant project teams could not have foreseen such historic rain.

While construction projects are vulnerable to various risks, heavy rain and flooding can create sudden and significant challenges that cause costly delays, extensive damage to materials and work in progress, and serious safety hazards. Adverse weather can even disrupt interior work by making the site inaccessible or forcing changes to the planned sequence of work. Water infiltration further risks compromising partially completed structures and stored materials. Most importantly, heavy rain and flooding poses significant safety concerns to workers, as pooling, fast-flowing water, slippery surfaces, and unstable ground conditions increase the likelihood of accidents and injuries.

### On-Site Risk Mitigation

With May behind us, and the potential for more summer showers ahead, now is a good time for contractors to identify and implement proactive measures to protect against adverse weather conditions. Project teams should plan reasonable mitigation efforts to minimize, and perhaps even avoid, potential claims *before* storm clouds appear overhead. The following on-site measures will minimize the risk of weather impacts:

- **Initial site investigation:** Assess soil conditions to identify flood-prone and erosion risk areas. This practice is important to understand how adverse weather will interact with the conditions of the project site.
- **Know local weather trends:** Review prior years' meteorological data to identify generally the kinds of weather patterns the site is expected to experience throughout the life of the project.
- **Site grading/drainage:** Direct water away from construction areas and stored materials, and provide for effective site drainage using slope grading, pumping/dewatering, installing diversion channels, ditches, French drains, or similar systems. These measures help avoid water accumulation and promote runoff.
- **Storage and Protection:** Store construction materials inside, at elevated levels or in waterproof containers to protect them from flooding. In the event of impending storms, take precautions to protect all work, materials, and equipment from exposure, and consider suspending operations in areas that may be impacted.
- **Contingency Plan:** Develop and implement a well-defined contingency plan in the event of heavy rainfall or flooding so that work can resume quickly and safely. The plan should include emergency response protocols, safety measures, and alternative work strategies to minimize disruptions.

### Managing Risk by Contract

Similarly, contractors should take the historic May rainfall as a reminder to review how their prime contracts and subcontracts address and allocate the risks and responsibilities associated with adverse weather, both to

ensure they clearly align with expectations and to limit potential liability. Such an analysis will focus primarily on provisions governing force majeure events, insurance, indemnity, delay, and protection of work. The differing site conditions clause and/or the changes clause may also provide relief in certain circumstances. A few probing questions that can guide this review include the following:

- **How is adverse weather defined (and does it include heavy rain and flooding)?** Construction contracts typically excuse delays caused by adverse weather but vary in how the triggering condition is defined. Securing a weather-related time extension may require the contractor to produce evidence the adverse weather encountered exceeds some pre-determined threshold for expected weather patterns in the region – e.g., greater than the historical 3-year monthly average rainfall. Alternatively, contracts may leave terms like “adverse,” “inclement,” or “unusually severe” undefined and subject to competing interpretations. The preferred contractual approach, for contractors, is to grant relief if weather conditions impact or delay the work. For example, a contract that defines a *weather day* as “when conditions prevent work from proceeding as planned for at least four (4) hours of a scheduled workday,” allows contractors to assess in real time and document contemporaneously when conditions become unsafe, or scheduled work cannot proceed, due to adverse weather.
- **Are weather-related delays excusable and compensable, or just excusable?** Most form contracts (i.e., AIA, ConsensusDocs, etc.) define weather-caused delays as excusable but not compensable. By default, they justify an extension of time only, with no additional compensation. Colorado’s wide-ranging weather patterns and temperature extremes, however, present a greater risk to construction than in many other states. Prudent contractors account for that risk by adding time (and general conditions costs) to the initial project schedule, by employing allowances, and/or by negotiating weather delays to be both excusable and compensable when encountered during construction (ideally at a pre-determined daily rate for extended general conditions).
- **What notice and level/type of proof is required to claim a weather delay?** Ideally, contractors should thoroughly communicate expected weather conditions ahead of time (both to the owner and subcontractors), anticipate potential disruptions, and identify proactive measures. When adverse weather occurs, contractors should further protect their interests through extensive contemporaneous recording of all information about the conditions, delay, and other impacts. Some contracts have heightened standards for placing the owner on notice of weather events as the basis for a delay claim. Contractors should review those contract provisions and diligently comply with the notice requirements both in form and substance. Even if not specifically required, contractors should take photos/videos of impacted work areas and immediately save local news meteorological data before it becomes harder to find.
- **Will the builder’s risk insurance policy provide coverage for all potential costs, delays, and other impacts?** The typical insurance program for a construction project has multiple policies serving different purposes. The builder’s risk policy uniquely protects against risks that occur in the course of ongoing construction. The policy’s main objective is to ensure coverage for project losses or damage from risks such as fire, theft, vandalism, natural disasters, or accidents on the construction site. The specific terms and conditions of the builder’s risk policy can vary depending on the insurer and the type of project. Contractors should carefully review the policy’s terms, conditions, endorsements, and deductibles before signing the construction contract to confirm whether, and to what extent, coverage exists for property damage, delay costs, and other potential weather-related losses.
- **Does the contract properly address impacts that continue after the rain stops?** Contracts often fail to address the potential lingering effects to the project that occur or continue after the heavy rain (or other adverse weather) stops. The disruptive impacts of heavy rain and flooding may continue

well past the storm, even into days where the weather is hot, sunny, and clear. For example, the project may require sitework to restore access and ensure safe working conditions. Wet and muddy conditions may reduce mobility and productivity. Damaged materials may require repair or replacement, which may lead to procurement delays. Machinery and equipment may require additional inspections and repairs before safely returning to operation. Finally, soil erosion, sediment runoff, or even groundwater contamination may require remediation.

### Conclusion

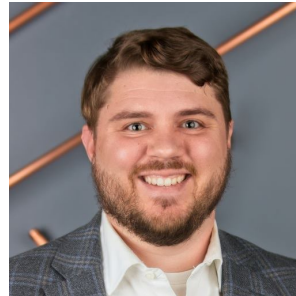
The best time to plan for adverse weather is before work even begins; the second-best time is before adverse weather occurs, and the next best time is *now*. Project teams should ensure the governing contract language addresses the risk of adverse weather and clearly defines what is required and where liability falls when adverse weather occurs. BBG can help with this review and can incorporate custom provisions into your prime contracts and subcontracts to better address the type of risks the recent heavy rain and flooding pose to every project.



**Bret Gunnell**

Partner

[bret@bbglaw.com](mailto:bret@bbglaw.com)



**Andrew Albaugh**

Associate Attorney

[aalbaugh@bbglaw.com](mailto:aalbaugh@bbglaw.com)