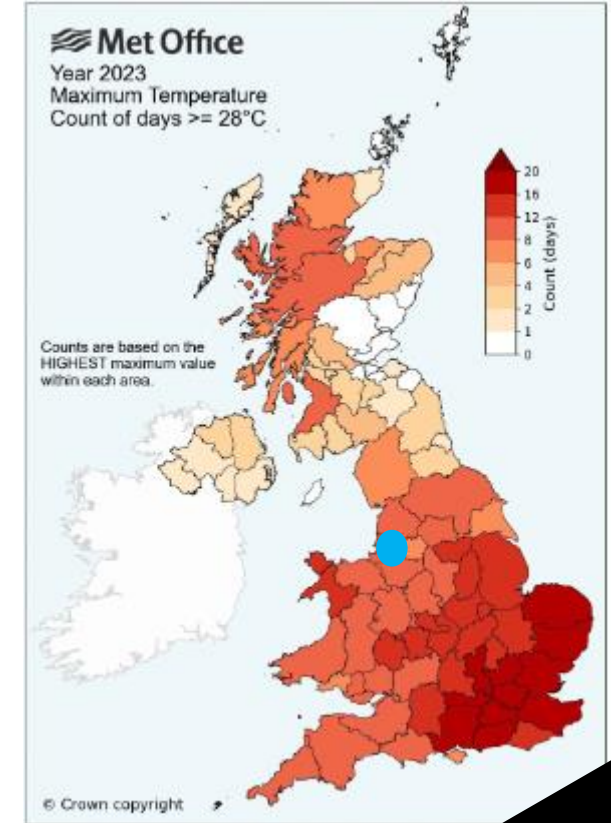
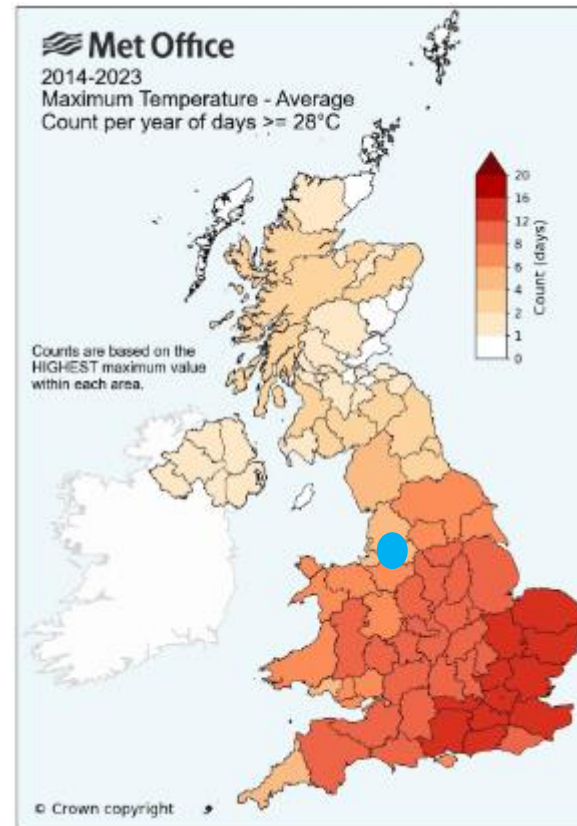


**PLAN CRISIS RESPONSE TO
NATURAL DISASTER AND
EXTREME WEATHER
CO-OP LIVE**



EXTREME WEATHER – HEAT RISK – CO-OP LIVE

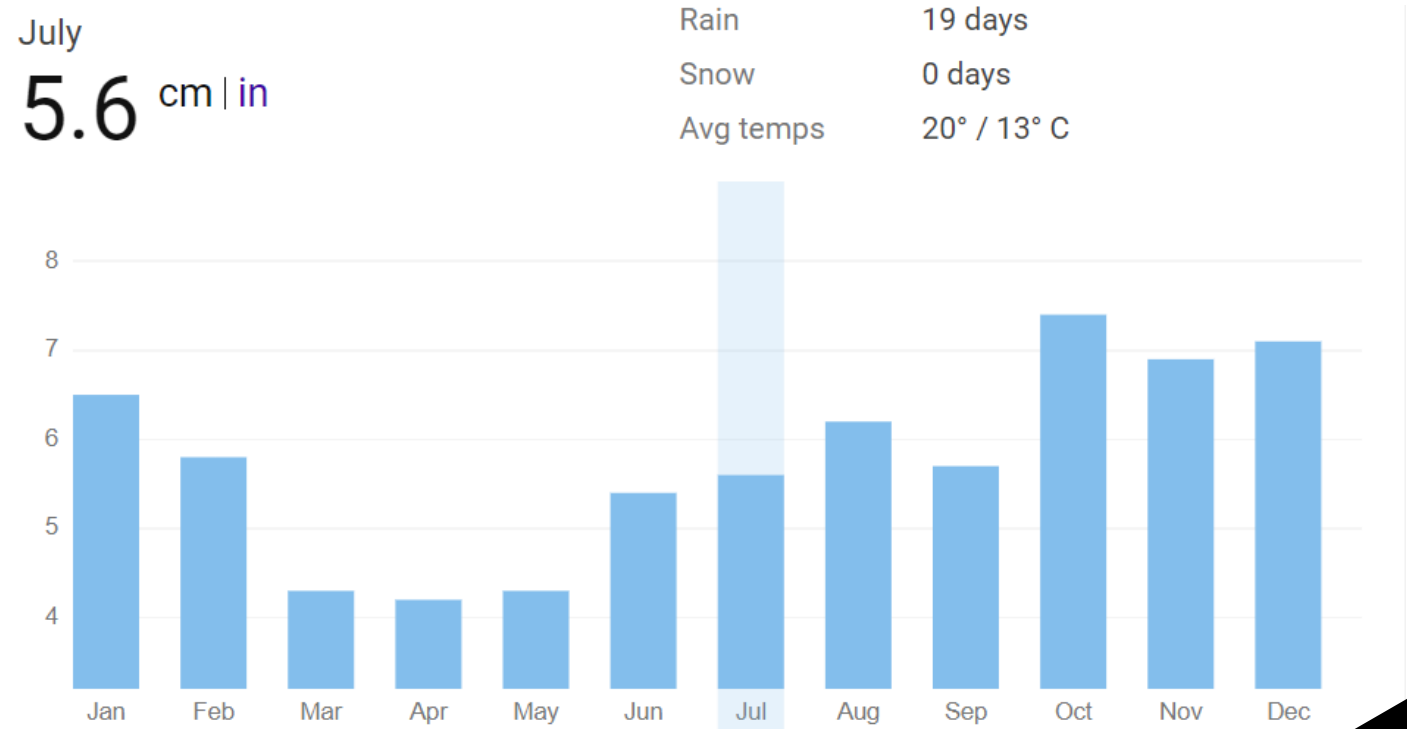
- Co-op Live is a new, purpose-built music lead venue in Manchester, UK
- Manchester is in the Northwest of the England
- The region has modest and balanced weather patterns and sees only limited examples of extreme weather
- The region does not a history of extreme heat, data from the UK MET office shows the region at the lowest level of extreme heat risk, with circa 2-4 days per year over 28° C.
- However, due to climate change this is projected to increase to 8-12 days over 28° C by 2023.
- The venue is well prepared for this temperature range as it is a new building. Yet increasing temperature will put additional pressure on the HVAC system to maintain a comfortable internal temperature.
- Whilst increased heat is not a direct risk to the venue it will have an impact on fans attending events and infrastructure around Co-op Live (e.g. local tram lines). These are something that we will need to monitor and adapt to when required.
- For example, when Pearl Jam played at Co-op Live, we had many fans waiting outside a few days before the show. As it was a warm day, we provided free water to support their welfare.



[Temperature extremes and records most affected by UK's changing climate - Met Office](#)

AVERAGE RAIN FALL – CO-OP LIVE

- The Pennine mountain range is East of Manchester, these mountains help to create a rain shadow over Manchester.
- Manchester is famous for its rain, but this is generally well managed.
- Whilst it does rain a lot, this is usually gentle volumes over a prolonged period rather than a heavy burst of rain over a short period of time
- The average rainfall in July is 5.6cm. The lowest is around 4cm in Mar-May. With most rain falling in October at around 7cm. So there is not a large variance in the monthly rainfall averages.
- Whilst flooding is not generally an issue in Manchester, the venue has adapted to reduce this risk further.
- A 600k litre rainwater harvesting tank collects the rainwater runoff from the roof at Co-op Live. This is used to flush the toilets. But equally reduce the pressure on the sewage system during heavy rain.
- Green space has been incorporated around Co-op Live and this will help absorb rain water and slow the flow to local drainage and sewer routes.



[annual rainfall Manchester UK - Search \(bing.com\)](#)

FLOOD RISK CO-OP LIVE

Flood Risk

- The MET office allows you to search by post code to identify flood risk in a certain area. Searching for Co-op Live confirmed that are to be a **very low risk** to floods.
- To the best of our knowledge the area around the site has not flooded in living memory.
- This is both surface water flooding and from rivers and seas.
- The flooding risk due to groundwater and reservoirs is ranked “unlikely” by the MET office
- Whilst the site is next to a canal as these are manmade, they are well managed from a flood risk perspective. Co-op Live is circa 20 meters higher than the canal.
- From looking at the flood risk maps. The highest risk to is around the transport connections to Co-op Live being impacted. The Tram at Holt Town as this is a higher risk, with a flood risk of 3.3% chance per year. Should this happen there are alternative ways to get to Co-op Live, so this could be managed

Yearly chance of flooding

Very low

Low

Medium

High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

► [Why surface water flooding is a problem](#)

Rivers and the sea

[More about your rivers and sea flood risk](#)

Yearly chance of flooding

Very low

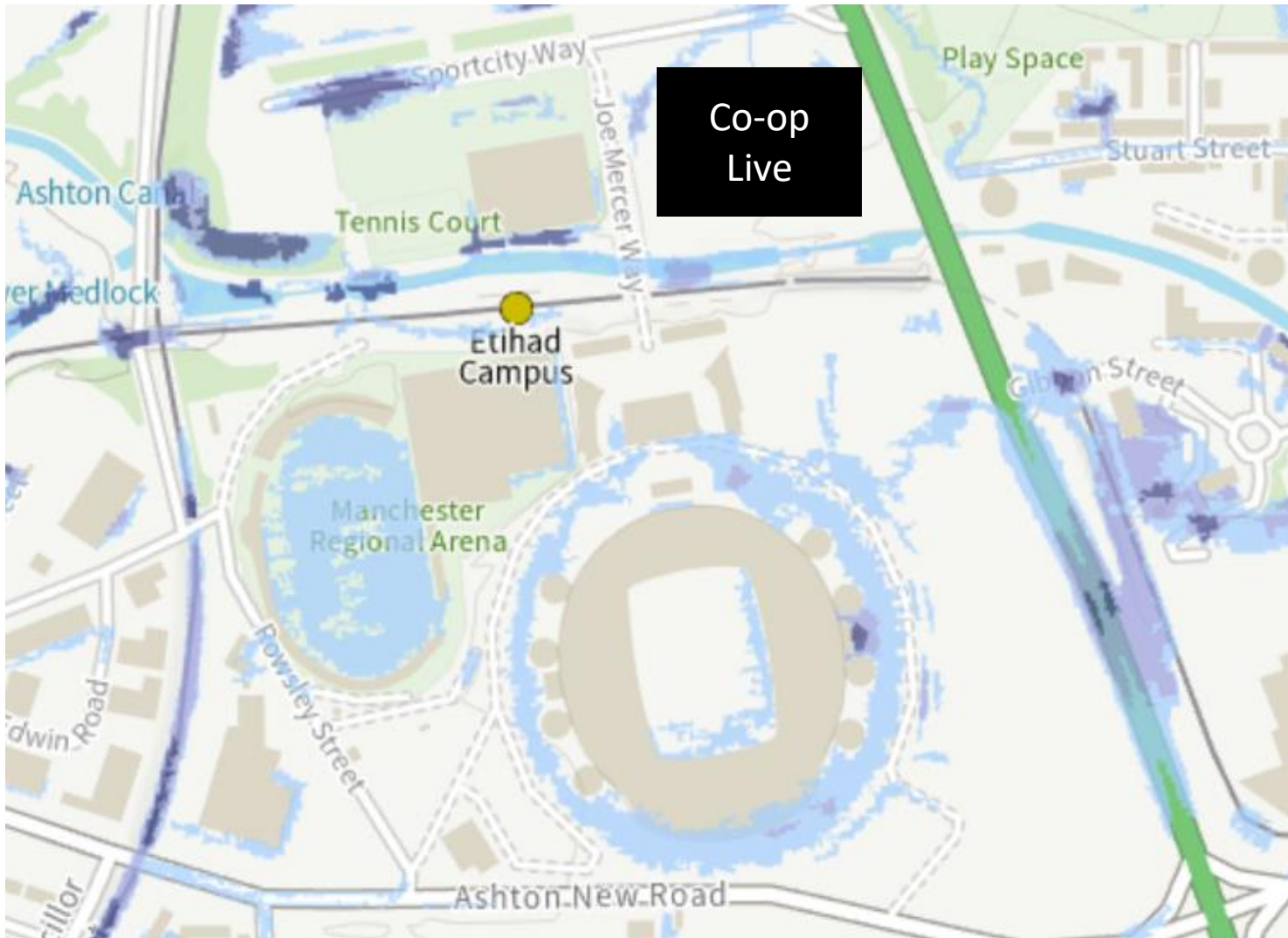
Low

Medium

High

[Your long term flood risk assessment - Check your long term flood risk - GOV.UK \(check-long-term-flood-risk.service.gov.uk\)](#)

SURFACE WATER FLOOD RISK MAP – CO-OP LIVE



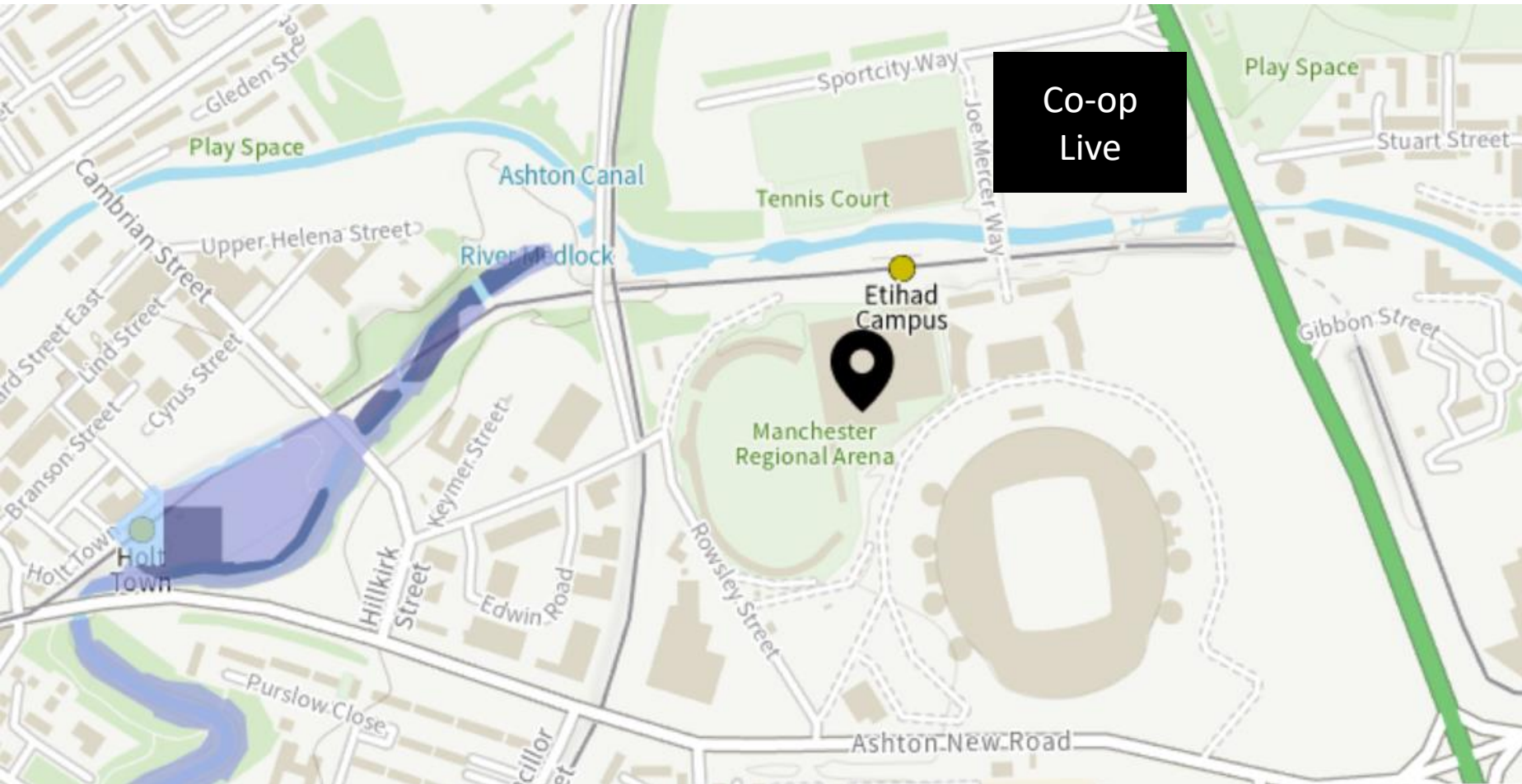
- Extent
- High risk
More than 3.3% chance each year
- Medium risk
Between 1% and 3.3% chance each year
- Low risk
Between 0.1% and 1% chance each year

○ Depth

Map details

[See flood risk on a map - Check your long term flood risk - GOV.UK \(check-long-term-flood-risk.service.gov.uk\)](https://check-long-term-flood-risk.service.gov.uk)

RIVER FLOOD RISK MAP – CO-OP LIVE



- Extent
- High risk
More than 3.3% chance each year
- Medium risk
Between 1% and 3.3% chance each year
- Low risk
Between 0.1% and 1% chance each year
- Very low risk
Less than 0.1% chance each year

[See flood risk on a map - Check your long term flood risk - GOV.UK \(check-long-term-flood-risk.service.gov.uk\)](https://check-long-term-flood-risk.service.gov.uk)

EXTREME WEATHER SUMMARY – CO-OP LIVE

- Due to the geographic location of Co-op Live, it is sites in an area of moderate temperature, which reduces the chances and severity of extreme weather events.
- Whilst Manchester is well known for its rain, the rainfall is generally speaking well spread across the year. There is no living record of flooding in the area.
- The MET office ranks the risk of flooding around Co-op Live as Very Low , indicting a 0.1 % chance on flooding.
- Localised flooding could impact local transport connections to Co-op Live via the local tram network, as parts of this are in a higher risk area. However, the tram lines are slightly elevated from the surrounding lower lie land which should help to manage this risk.
- Manchester is no exception, and like the rest of the world, will be impacted by climate change. The MET office project an increase in extreme heat, measured as number of days above 28C. Forecasting a modest increase for Manchester from 2-4 days now compared to a projection of 8-12 days by 2030.
- The areas around Manchester are more rural with open moorland. These have started to see an increase in wildfires over the past 5-10 years. Yet these are not considered a direct risk to the venue as they are circa 20+ miles away.

In conclusion whilst we need to be aware of the changing climate and extreme weather in Manchester and how it will impact Co-op Live. It presents a very low risk to Co-op Live.

EMERGENCY ACTION PLAN – CO-OP LIVE

- Co-op Live has created a series of Emergency Action Plans to cover all possible scenarios that may occur in and around the venue.
- These are created by our Head of Health and Safety (Chris Stoves), with input from across the business.
- They are stored on the central SharePoint, so they are accessible to everyone in Co-op Live
- Senior leadership has been briefed on the plans and regular training takes place.
- In the event of an incident becoming an emergency, the same command structure (Gold, Silver and Bronze) as used in the normal day to running of events. Steps up and takes control of the situation.
- The Venue General Manager, Operations Director, Head of Venue Management (and deputies), Head of Health and Safety and Head of Security are designated to take the lead in emergency situations.
- A single named person will be appointed as the appropriate Gold, Silver or Bronze leader, depending on the severity of the incident.
- The guidance covers possible emergency situations such as Flooding, Fire through to Terrorist attack.
- Guidance is structured in to 3 documents - These are included in the application.
 - OM SO5 - Contingency Plans
 - OMSO6 - Fire Safety
 - OM SO36 - Incident Management plan

PLAN CRISIS RESPONSE – CRITERIA

Strategies & Tactics

Solutions Providers

ACCESS STANDARD

Bronze Performance Award



Requires:

Identify most likely extreme weather events in region and history of impact on area. Conduct study to gauge frequency and typical seasonality of such events, especially focused on last 10 years of weather events.

Implement Emergency Action Plan (EAP) in place which accounts for extreme weather and natural disasters typical to the venues location and region. At least 2 key personnel must be designated to lead in times of disaster relief.

Silver Performance Award



Requires:

All items in Bronze.

Ensure EAP is available to all employees via intranet or centrally-accessible location.

Ensure EAP addresses at least 3 of the following community needs:

- On-site water storage
- On-site water purification
- On-site food storage
- Staging sleeping or temporary hospitality needs
- Backup power availability
- Evacuation routes for visitors

Gold Performance Award



Requires:

All items in Silver.

Key personnel (identified in Bronze) provided proper training to respond to extreme weather conditions and safely account for all staff and visitors receive training for site-specific weather threats at least 1 time per year.

Review the EAP annually and make adjustments as need. EAP must be republished every 2 years at minimum to ensure all information is up-to-date.

Ensure EAP addresses at least 5 of the following community

- On-site water storage
- On-site water purification
- On-site food storage
- Staging sleeping or temporary hospitality needs
- Backup power availability
- Evacuation routes for visitors