

The impact of temperature-related hazards on rolling stock

Key to climate hazards

Temperature

- Drought
Increasing periods of drought
- Extreme temperature
Increase in extreme temperature values
- Heatwave
Heatwave/prolonged high temperatures
- Fire
Forest fires in the vicinity of tracks
- Cold/frost
Cold snap/frost
- Thunderstorm/lightning
Lightning

Water

- Rain/snow/hail
Increasing periods of drought
- Flooding
Increasing periods of drought
- Marine submersion
Rise in sea level

Wind

- Strong wind
High winds, cyclones, tornadoes
- Snowstorm
High winds, snow and ice
- Sandstorm
High winds and sand

Solid mass movement

- Solid mass movement
Avalanches, landslides, mudslides, rockfalls, subsidence

Type of impact



Impact with **LONG-TERM CONSEQUENCES**



Impact with **MEDIUM-TERM CONSEQUENCES** on network operations: adaptive measures needed to keep trains running (e.g. TSR), and if nothing is done, traffic will inevitably come to a halt



Impact with **IMMEDIATE MAJOR CONSEQUENCES** for network operations (e.g. stopping traffic)

