EXTREME TEMPERATURES

Anomalous temperatures, compared to the regional average, are assessed with reference to both cold conditions in the winter months and hot conditions in the summer months.
In this regard, it should be noted that the assessment is carried out during the forecast period:

- from May to September for **high temperatures;**

- from October to April for **cold temperatures.**

Therefore, the column entitled “extreme temperatures” in the matrix of the Hydrological and Hydrogeological Weather Watch/Alert Bulletin indicates high temperatures and cold temperatures in relation to the above. The indicator for assessing the danger of high temperatures is the maximum daily temperature and/or its persistence.
The colour code assessment for high temperatures in the forecast phase is divided into four levels from green to red, and is carried out by comparing the maximum and minimum temperatures forecast with increasing threshold values, which have been associated with event scenarios and the possible effects and consequent damage to the territory, summarised in the following table

HIGH TEMPERATURES			
COLOUR CODE	**THRESOLDS (°C)**	**EVENT SCENARIO**	**POSSIBILE EFFECTS AND DAMAGE**
GREEN	T max ≤ 37°C	Temperatures within the normal range or slightly above.	- Conditions that do not pose a risk to public health do not rule out limited consequences on the health of the most vulnerable individuals.
YELLOW	T max ≥ 38°C or T max ≥ 37°C For at least 2 days	Medium-high temperatures or prolonged over several days.	- - Consequences on the health conditions of the most vulnerable people. - Heatstroke and dehydration following high exposure to the sun and/or physical activity.
ORANGE	T max ≥ 39°C or T max ≥ 38°C For at least 2 days	High temperatures or prolonged temperatures over several days .	- - Significant consequences on the health of the most vulnerable people. Heatstroke and dehydration due to excessive exposure to the sun and/or physical activity. - Local power cuts due to grid overload

RED	T max ≥ 40°C or T max ≥ 39°C For at least 2 days	Very high temperatures or temperatures that persist for several days.	- Serious consequences for the health of the most vulnerable people and possible negative effects on the health of healthy and active people. - Heatstroke and dehydration following excessive exposure to the sun and/or physical activity. - Prolonged and/or widespread power cuts due to grid overload.

The indicator for assessing the danger posed by cold temperatures is a combination of the average temperature and the minimum daily temperature, as both are significant in terms of their effects on individuals, infrastructure and the environment.

The colour code assessment for cold temperatures in the forecast phase is divided into four levels from green to red, and is carried out by comparing the average and minimum temperatures forecast with decreasing threshold values, which have been associated with event scenarios and the possible effects and consequent damage to the territory, summarised in the following table.

COLD TEMPERATURES			
COLOUR CODE	**THRESOLDS (T med o T min)**	**EVENT SCENARIO**	**POSSIBLE EFFECTS AND DAMAGE**
GREEN	T med > 0°C *for plains and hills* T med > - 3°C for mountain areas	Absence of significant foreseeable phenomena.	Unpredictable localised damage cannot be ruled out.
YELLOW	T min < - 8°C or T med < 0°C *for plains and hills* T min < -12°C or T med < - 3°C *for mountain areas*	Cold average daily temperatures or severe minimum temperatures.	- - Problems for the safety of homeless people. - Possible disruption to vehicle traffic due to ice forming on the road surface.
ORANGE	T min < - 12°C or T med < -3°C *for plains and hills* T min <-20° C or T med < - 8° C *for mountain areas*	Very cold average daily temperatures or minimum temperatures.	- Health risks in the event of prolonged exposure to the open air - Disruption to road and rail traffic due to ice formation. - Damage to water supply infrastructure.

RED	T min < -20°C or T med < - 8°C *for plains and hills* T min < -25°C or T med < - 10°C *for mountain areas*	Persistence of cold average daily temperatures, or extremely cold minimum temperatures.	- Risk of frostbite even after brief exposure to the open air. - Severe disruption to road traffic and transport due to ice formation. - Prolonged damage to water supply infrastructure. - Prolonged disruption to public transport, railways and air travel.