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Understanding heat islands



What is a heat island?

A heat island is a zone where temperatures are higher than in the surrounding areas.
These elevated temperatures are mainly due to two factors:

- the presence of surfaces such as concrete or asphalt that absorb and retain heat;
- the absence of vegetation that would otherwise provide cooler areas.



How do heat islands impact your daily life?

Heat islands:

- (Public health) they pose a risk of heat stroke, dehydration, and increased mortality, particularly among the most vulnerable groups;
- (Comfort and quality of life) they hinder rest and make public spaces less enjoyable to use;
- (Energy consumption) they lead to greater reliance on air conditioning.



Why map heat islands?



With climate change, heatwaves are occurring more often and with greater intensity.
It is therefore essential to map heat islands in order to:

- Identify their locations;
- Determine where action is needed to eliminate them or mitigate their impacts.

How to mitigate/eliminate heat islands?

The most effective solutions include:

- Planting trees to expand canopy cover;
- Replacing concrete or asphalt with permeable surfaces;
- Installing fountains, ponds, and other water features;
- Using light-colored or reflective materials (e.g., white roofs);
- Improving urban planning by incorporating all of the above measures.



How to simply map heat islands?

By simply combining XEOS ground permeability and tree permeability map layers, heat islands can be automatically identified.



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Contact our specialists to obtain a map of your municipality.

xeosimaging.com

