



LE PLAN  
CLIMAT  
ÉNERGIE  
DE PARIS

# Paris Climate Actions Plan

## Resilience of the energy system

5th Forum on the Climate-Energy Security Nexus  
4th November 2014

# Challenges of a robust city

*From 2020*

## Heatwave

Public health and city networks

*From now on*

## Flood

City and public services

*After 2050*

## Water resource

Scarcity anticipation

*From 2020*

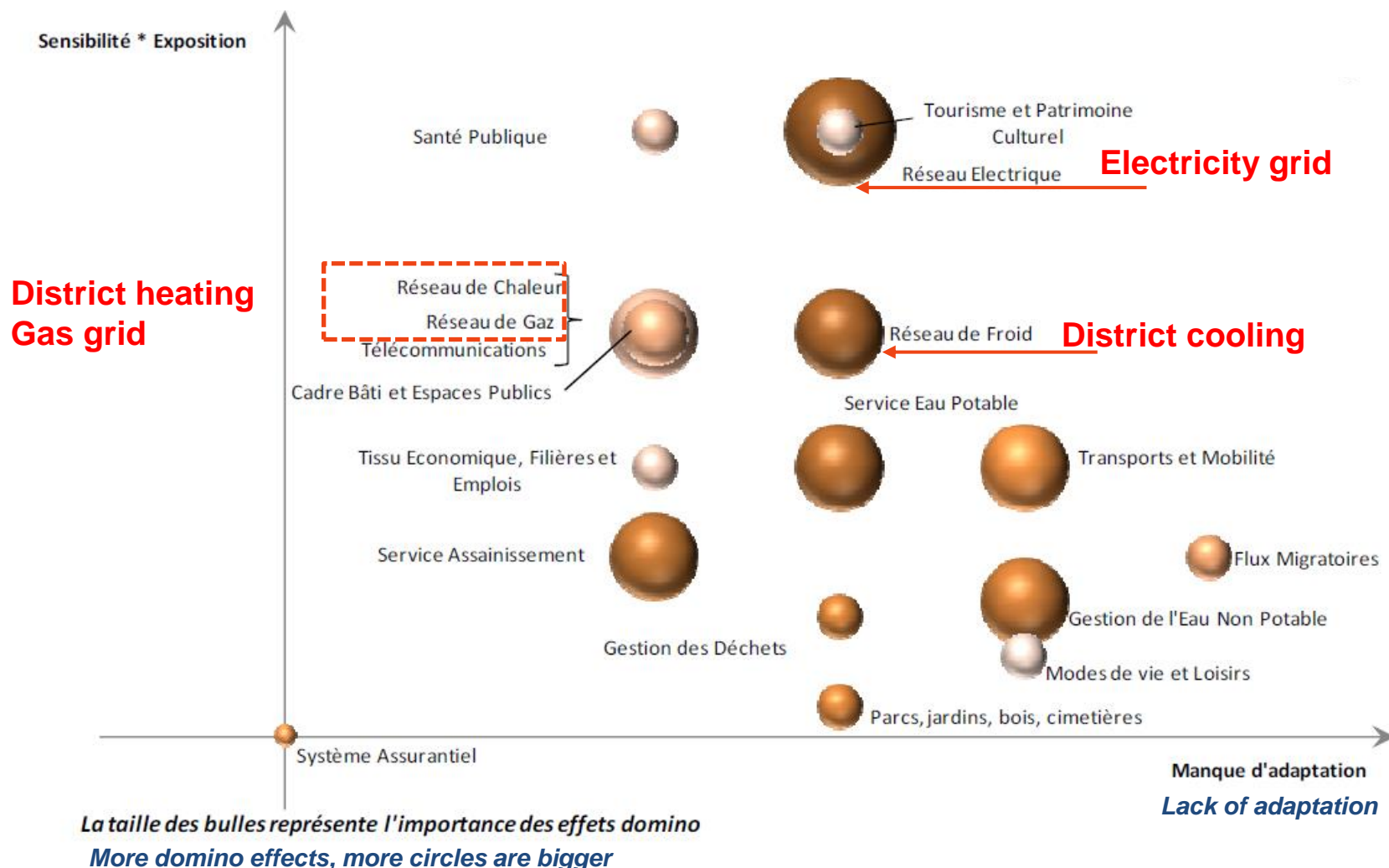
## Energy resource

*From now on*

## Biodiversity

Preservation to maintain a  
quality of life

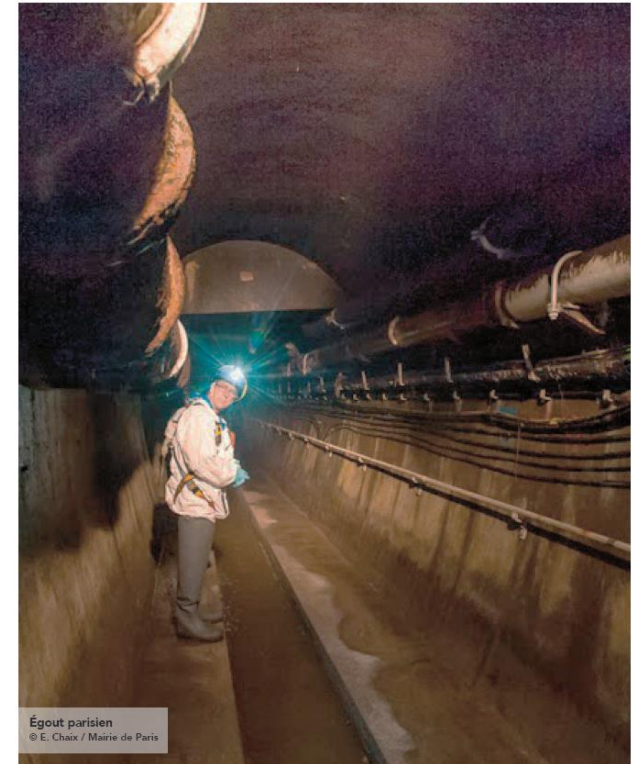
# Energy system « adaptation crash test »





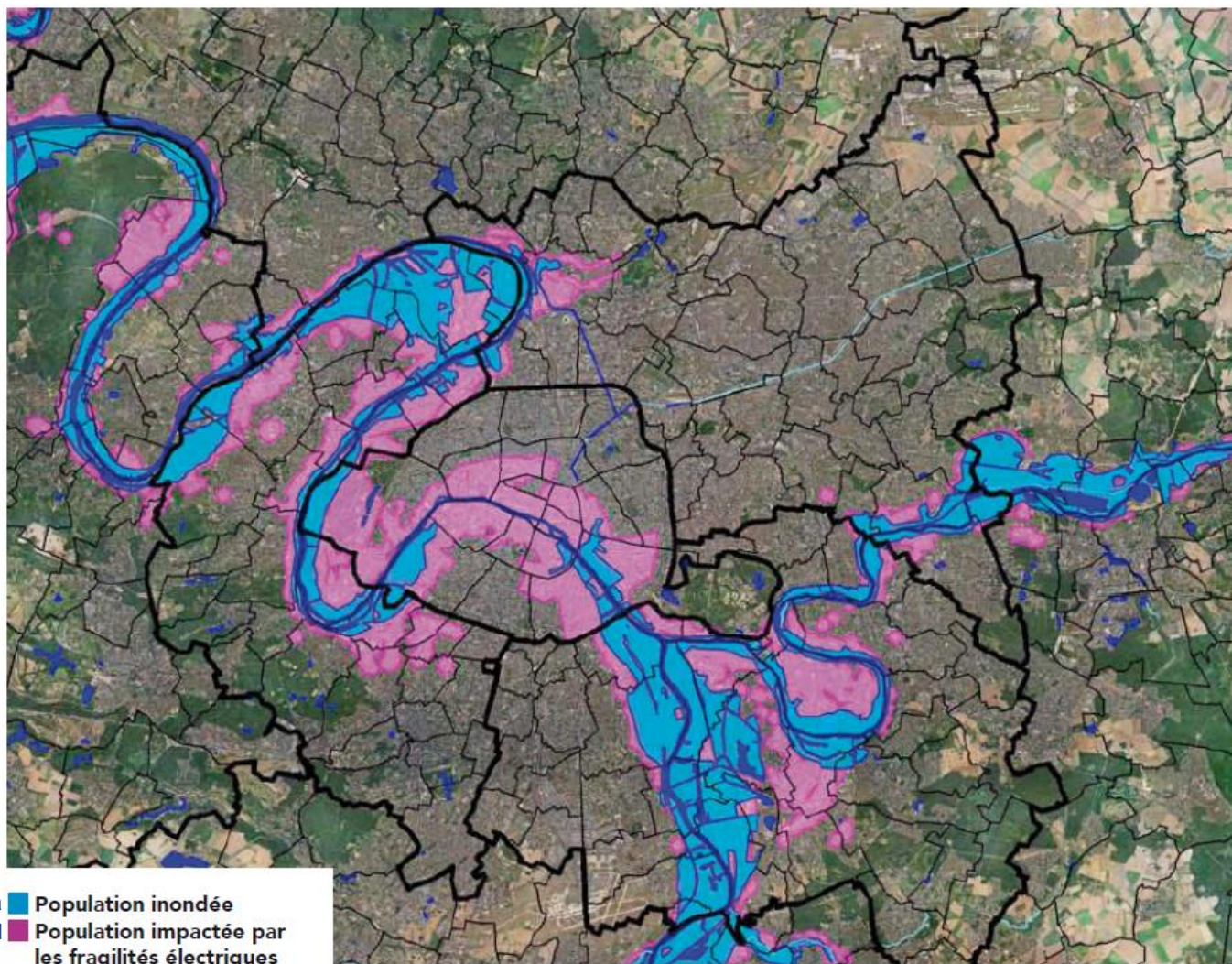
# Paris' underground networks

- ▲ 2,400 km of sewer tunnel
- ▲ 1,800 km of drinkable water
- ▲ 1,000 km of non-drinkable water
- ▲ 550 km of district heating
- ▲ 144 km of district cooling
- ▲ 10,000 km electric cables
- ▲ 3,200 km gas pipes



# Electricity failures in case of river flood

**MasterPlan  
2010-2040**  
*Decrease  
population  
impacted by  
consequences of  
flood on electric  
grid*

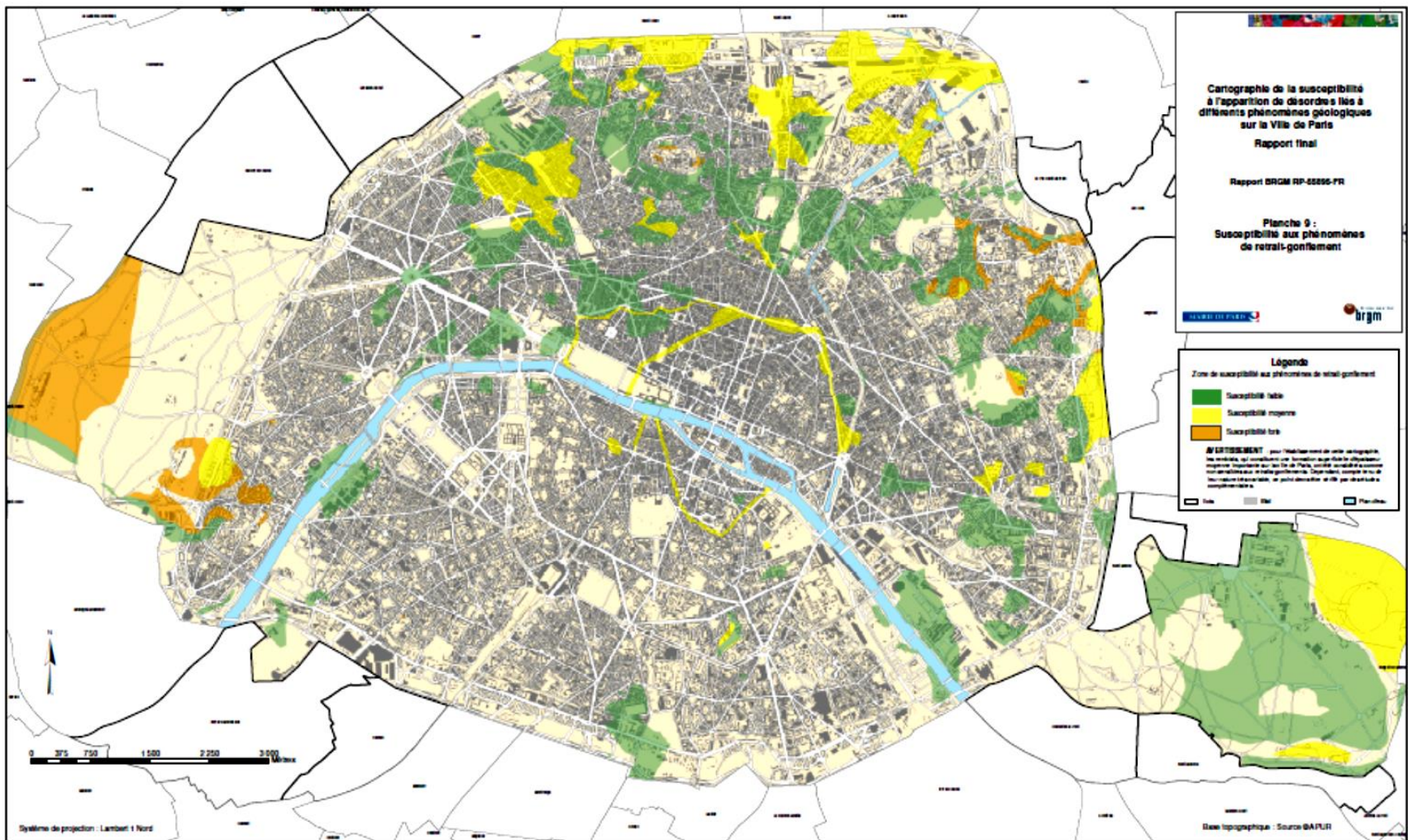


Population impactée par les zones de fragilité électrique en 2000,  
dans l'hypothèse d'une crue de type 1910

Source: Secrétariat Général de la Zone de Défense et de sécurité (SGZD) avec zoom sur Paris



# Subsidence prone areas (clay soils)

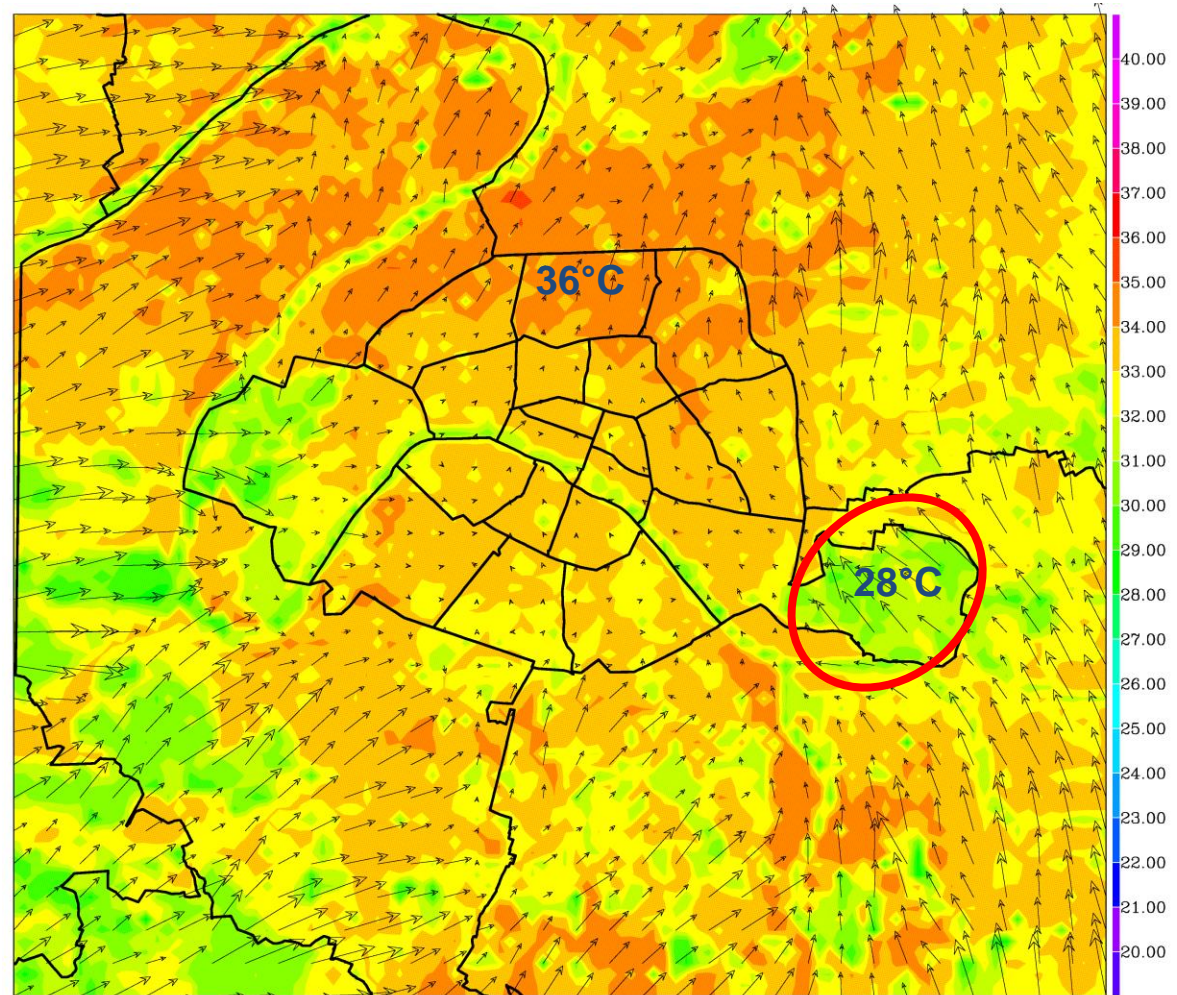


## Gas and steam grid security



# Urban Heat Island

- Risk of **black-out**
- Increasing of **air-conditioning demand**
- **Health safety**



2003, August 11<sup>th</sup>, 2:00 AM

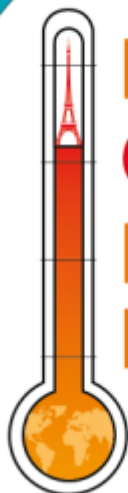
- ▲ **TIME !**
- ▲ **Downscaling national tools to local level**
- ▲ **Obligation to have local adaptation regulations**
- ▲ **Improving weather forecast services**



Merci !

Thank You !

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