

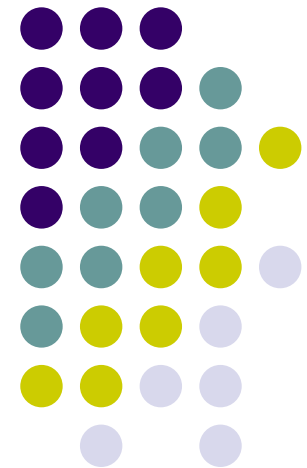
Live with floods in the Greater Paris.

*Flood risk integration in the land use
projects*

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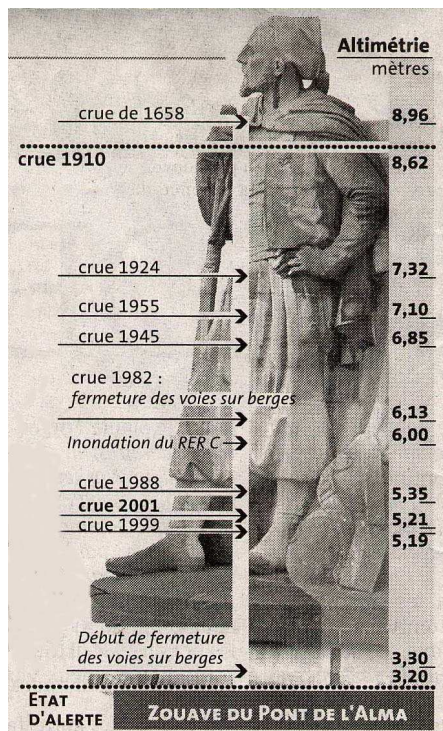
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France.





Introduction

- Flood risk in the Greater Paris
 - Seine : slow rise of the river
 - Flooding frequency



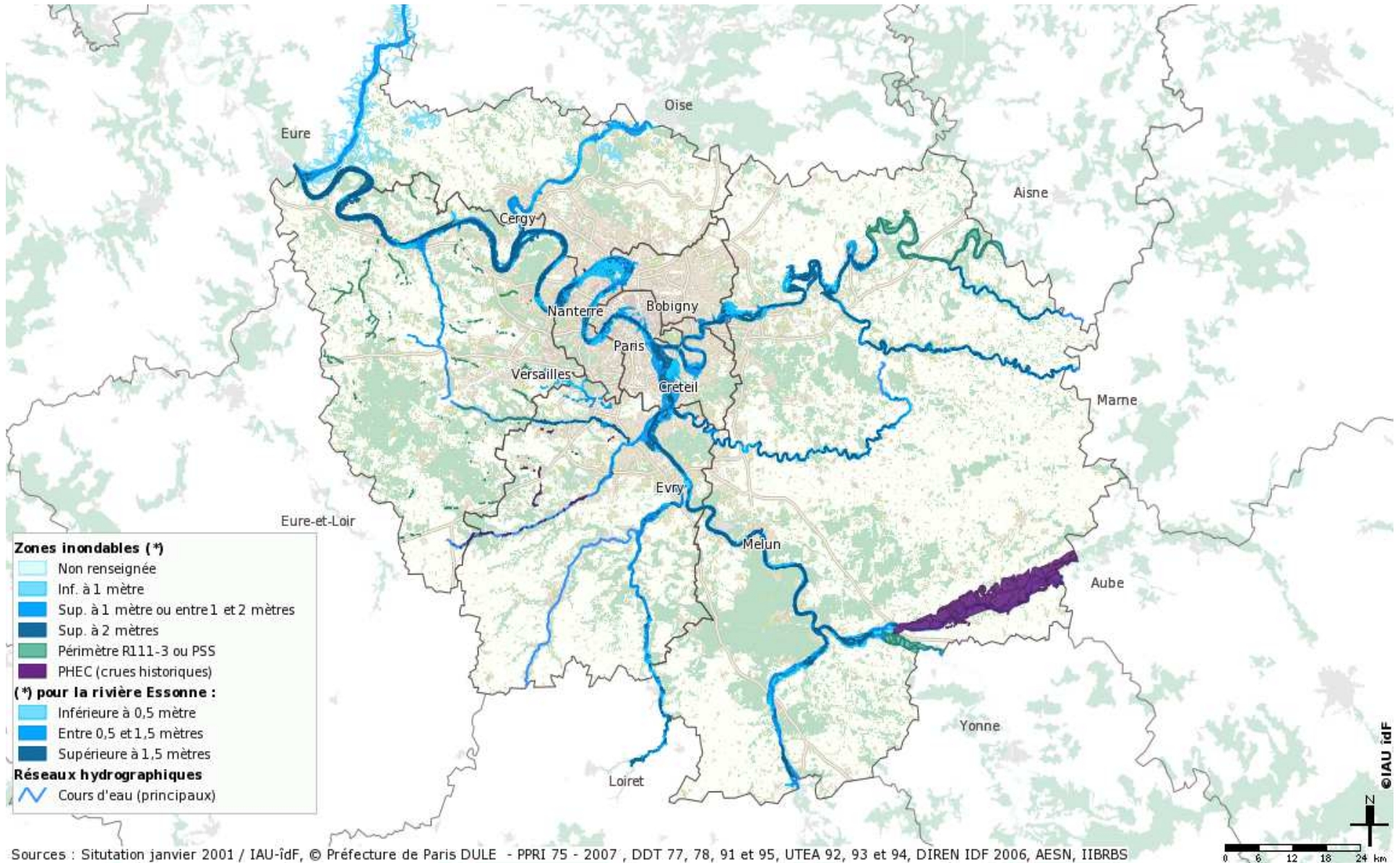
Hydrology.org

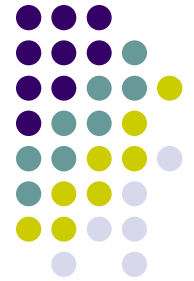
SEINE RIVER : THE EIGHT BIGGEST FLOODS SINCE 1910

	Montereau Fault-Yonne	Saint- Mammès	Melun	Corbeil- Essonnes	Paris Austerlitz	Chatou	Mantes- Limay
1910	5,28 m	7,96 m	6,40 m	6,15 m	8,62 m	27,74 m	8,13 m
1924	5,52 m	7,30 m	5,45 m	5,22 m	7,30 m	27,28 m	7,71 m
1955	4,66 m	7,40 m	5,43 m	5,56 m	7,10 m	27,03 m	7,51 m
1982	3,73 m	6,83 m	5,18 m	5,11 m	6,13 m	26,09 m	6,85 m
1988	2,90 m	5,76 m	4,13 m	4,00 m	5,35 m	25,52 m	6,61 m
1995	2,80 m	5,36 m	3,82 m	3,48 m	4,94 m	25,23 m	6,60 m
1999	2,67 m	5,56 m	4,04 m	3,77 m	5,19 m	25,06 m	6,35 m
2001	3,10 m	5,94 m	4,38 m	3,91 m	5,21 m	25,15 m	6,71 m
Crisis point	3,00 m	5,00 m	3,40 m	3,00 m	3,20 m	23,70 m	5,25 m

Les Dossiers de La Seine en Partage, "Le risque d'inondation en Ile-de-France", 2005.

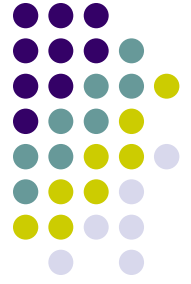
Flooding areas in Ile-de-France





Introduction

- Flood risk management
 - Regulation
 - Land use regulation based on risk mapping
 - Prevention (action plans for floods)
 - Management of the crisis
 - Flood risk directive

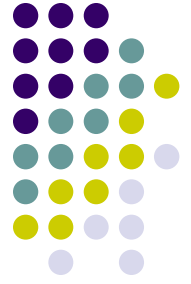


Introduction

- Land use context of Greater Paris
 - 80% of the flooding areas are built in the Ile-de-France region
 - 828 100 inhabitants exposed to floods
 - Real estate pressure
 - 1.5 million additional dwellings by 2030

How the integration of the flood risk enables the implementation of an urban project ?

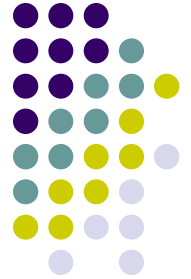
The flood risk through the human sciences



The SMARTeST project

- European project : 7 countries
- Objective : dissemination of measures and technologies aiming at reducing individual vulnerability and improving individual resilience.
- Hard sciences / human sciences.

Topic and key issue



Risk management policy (regulation, prevention, management of the crisis)

Structural and non structural measures to adapt buildings to flood (resist, adapt)



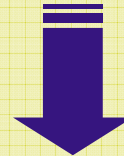
Building in flooding areas

Is the risk integrated or does it vanished in the urban project?



Lack of concern and awareness among stakeholders

The risk management policy is limited to the risk prevention map



How to take into account local specificities in the urban project?

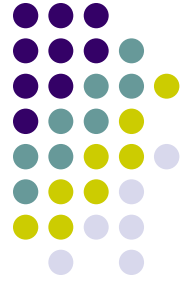
What is the relation between stake-holders empowerment and the taken into account of local specificities in the urban project ?



Method

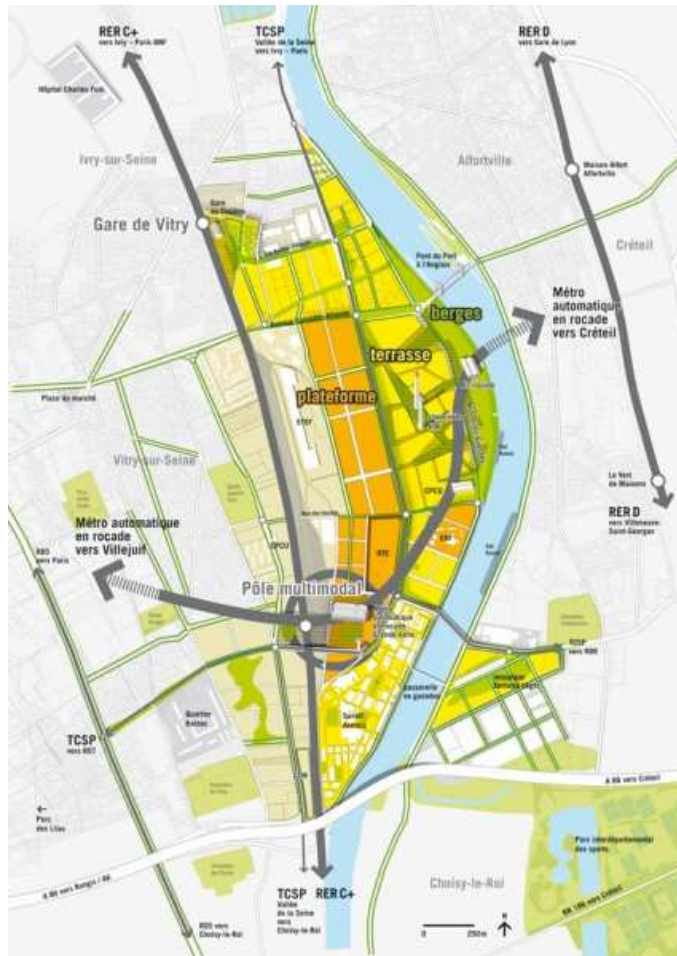
- Urban project / project urbanism
- Interviews (semi-structured) dealt with 4 topics:
 - Regulation
 - Management of the crisis
 - Reducing vulnerability
 - Governance of the urban project
- Interviews with elected representatives, architects, property developers, social landlords, central state services, etc involved in various urban projects

Case study – Les Ardoines



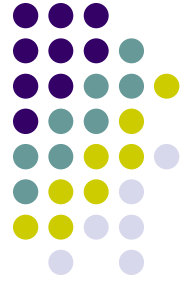


Case study – Les Ardoines



Source : SEURA, 2009.

- Experts group
- Improve the resilience and reduce the vulnerability
- Threshold master plan
- Dilution of the flood risk concern
- Resilience/ vulnerability less important than political issues?



Conclusion

- « Resilience does not depend on us »
- Any interaction between the stakeholders around flood risk
- Integration of the resilience : an afterthought
- Few resilience tools and measures integrated in the urban project