FLOODING AREAS OF ONYAR RIVER: BUSINESS AND TRAFFIC REPORT

OPEN SOURCE OPPORTUNITIES IN GIS

Summer School

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Education and Culture DG

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Partners Contribution

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Universitat de Girona

The University of Nottingham

Aalto University
School of Science and Technology

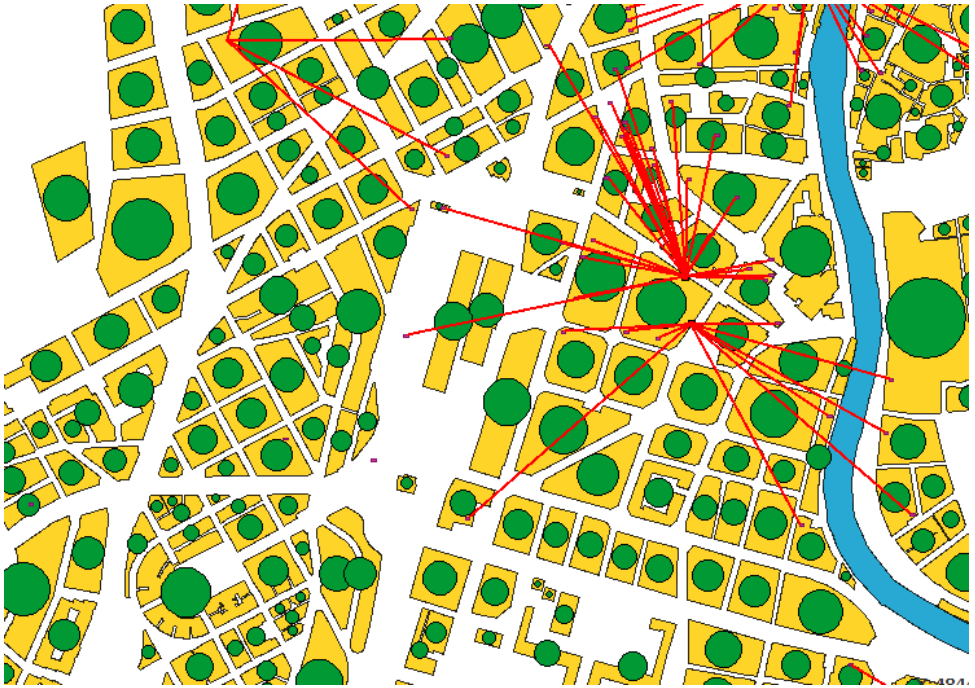
irstv

Partner Collaboration

Universitat de Girona
Departament de Geografia

Introduction

- Our project is about how effect river flooding on the business and population. We have made an analysis to identify which areas would be affect if the river flooded, concretely whichs buildings and business, and we searching for the closest sanitary centre of this places. It would be a useful tool for authorities and emergency services to evacuate the affected area during one flooding episode.

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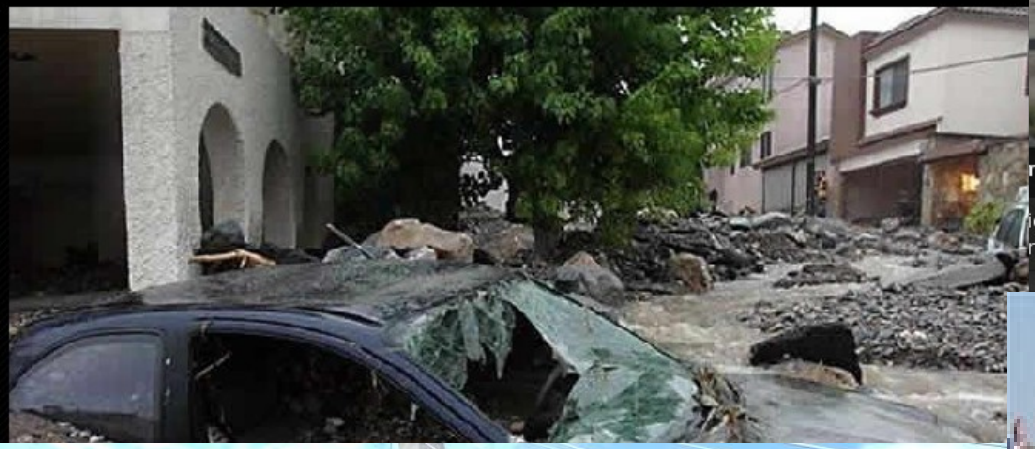
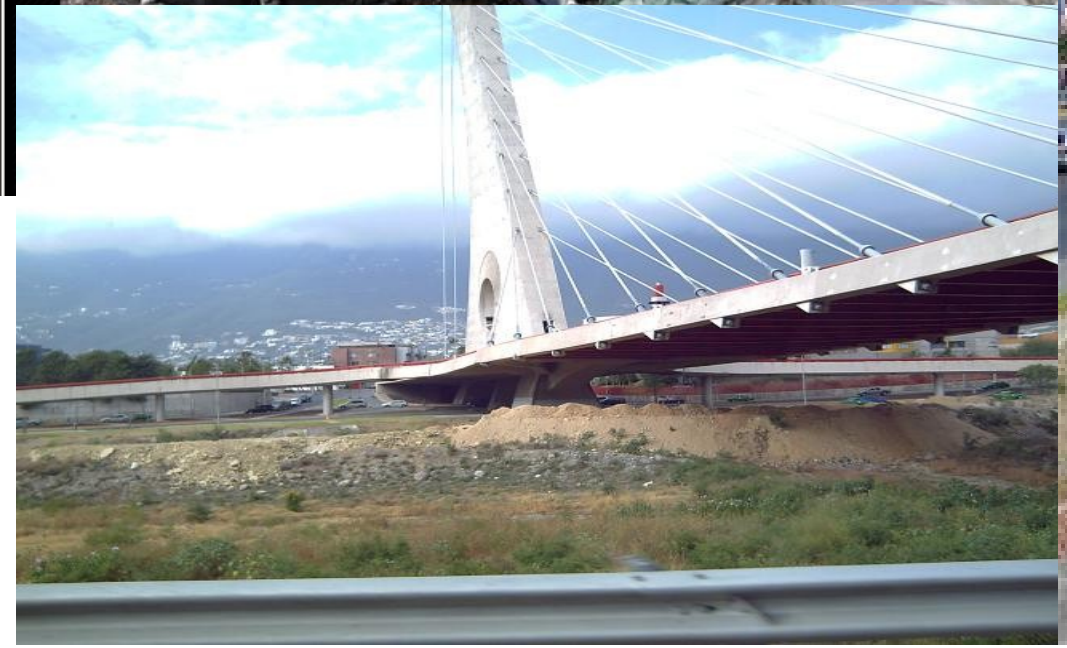
ientos de puestos comerciales que operaban en el cauce, siempre seco, del río Santa Catarina fueron
rrastrados por la corriente del afluente que registra niveles históricos Emilio Vásquez /EL UNIVERSAL



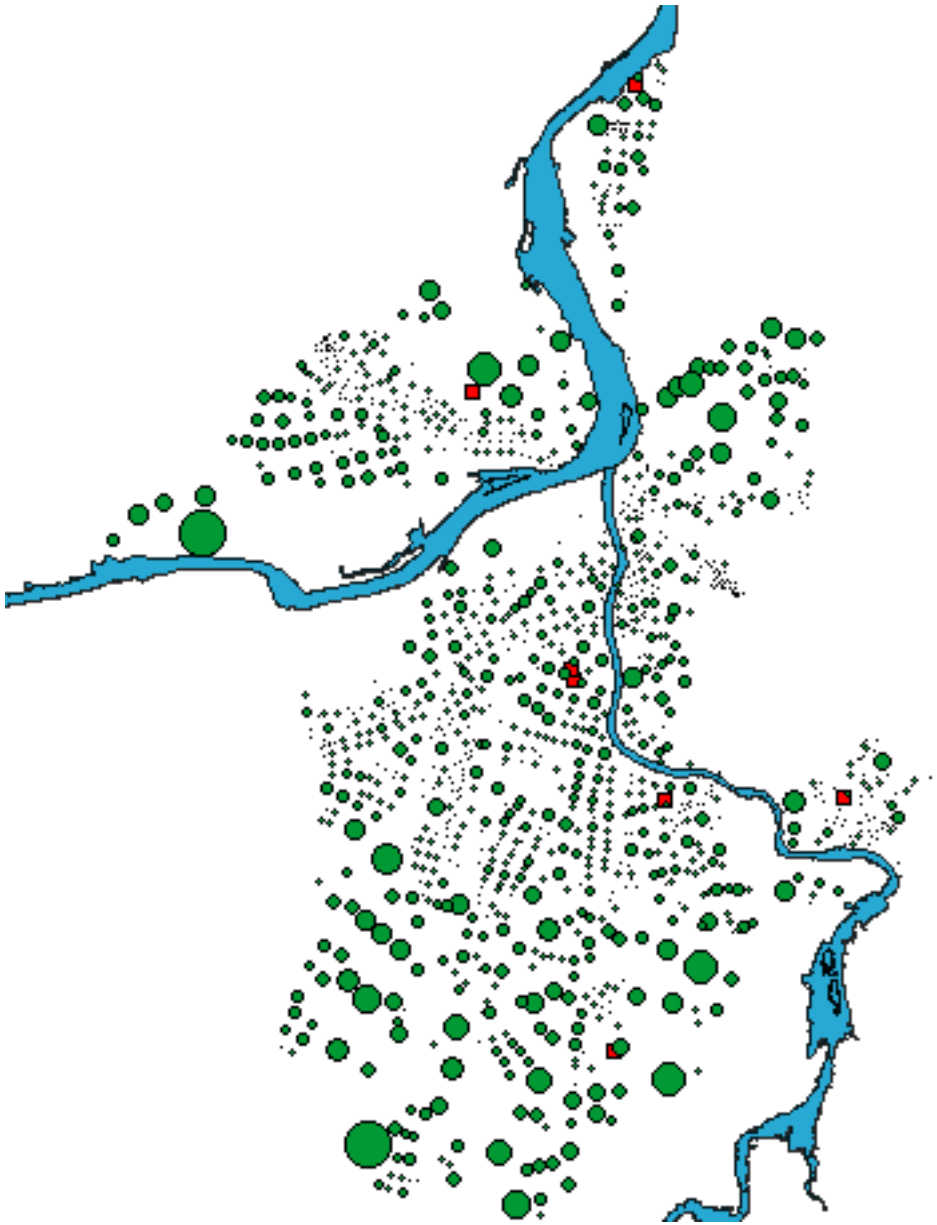


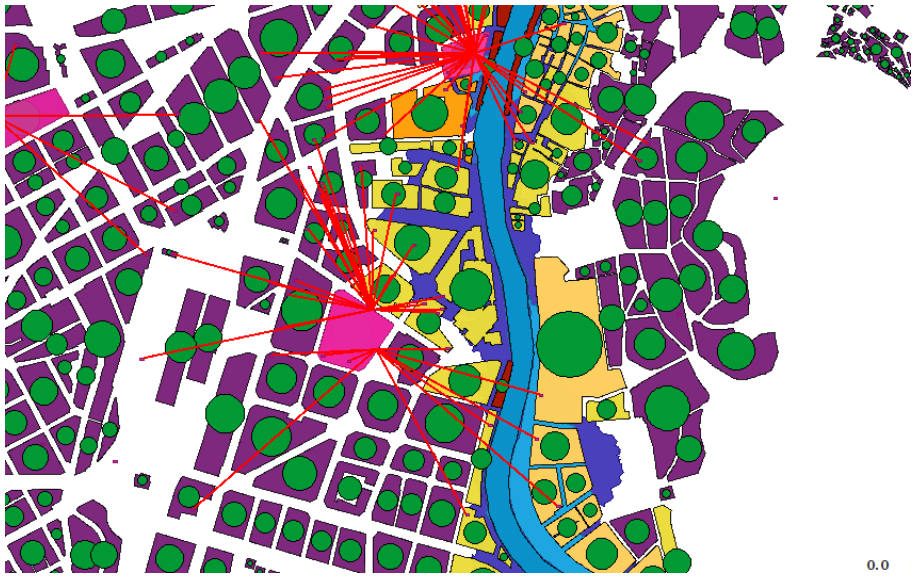
Methodology

- For do this analysis we take in consideration four return periods of flooding:

  - 10 , 50, 100, 500

- *It let us to discern different areas with more and less probability of flooding, so with more and less necessity of attending. In this areas we locate the business centres, schools, cultural centres, communities centres, health centres and interesting buildings to identify which would be flooded. Also we calculate the distance between these important centres and closest sanitary centre. It could be a tool for doing a fastest evacuation of people who are in these areas of the city.*





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Tools used.

- OrbisGIS 3.0
- QuantumGIS
- GeoServer
- XML HTML SQL
- Anna Ribas (it's not a tool)
- Java Scenario

Results

the_geom	long	id_build	id_hosp
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Web Scenario

...

Java Scenario.

- Translate shape file to OSM data
- Read the XML and Process them
- Visualiztion on the java applet
- Color the polygons
- Simulate the flooding and risk management (Beta version)

Questions?