Rethinking New Orleans After Hurricane Katrina
Class Project Presentations from URPL 969
Applied GIS Workshop

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Agenda

• Background on URPL 969 (10 min)
• Two Class Project Presentations (20 min with 5 min for questions)
• General Discussion/Future Directions (15 min)
The course originated from my frustration trying to find a way to offer my help, despite having served as the GIS Manager for the City of New Orleans for several years. I also knew that 17 energetic and motivated graduate students could accomplish a lot.
• The environmental setting of New Orleans
  – NOVA special – “The Storm that Drowned a City”
  – Trends in sea-level rise, subsidence and wetland loss
• Do you know what it means to miss New Orleans?
  – Why New Orleans Matters, Tom Piazza
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• Collaboration Resources
  – Jeff Bohrer and Cathy Riley, UW-Madison DoIT
  – MyWebSpace (1 GB Group Directory)
  – Weblog
  – WisLineWeb
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• Working with New Orleans GIS Data
  – Lab exercises for elevation, benchmarks, parcels, and TIGER data
  – Symbology, Spatial Analyst, ArcScene, Web Map Services, Joins, Add Event Theme, Summarize, Address geocoding,…
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• Coastal Hazards
  – Phil Keillor, Coastal Engineer and Alan Lulloff, Association of State Floodplain Managers

The safe development paradox is that in trying to make hazardous areas safer the federal government has in fact substantially increased the potential for catastrophic property damages and economic loss.

The local government paradox is that while their citizens bear the brunt of human suffering and financial loss in disasters, local officials pay insufficient attention to policies to limit vulnerability.
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- Disaster Response and Recovery
  - Chris Diller, GIS Manager, Wisconsin Department of Military Affairs and Larry Reed, Southwest Region Director, Wisconsin Emergency Management
  - Vale, Lawrence J. and Thomas J. Campanella (Eds.). 2005. The Resilient City: How Modern Cities Recover from Disaster

Model of Recovery Activity As Applied to New Orleans
1) emergency responses (1 month)
2) restoration of the restorable (1 year)
3) reconstruction of the destroyed for functional replacement (10 years)
4) reconstruction for commemoration, betterment, and development (100 years)
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- Sustainable Development
  - James Schwab, American Planning Association

**Tools for Sustainability Planning**

- Plan-making;
- Visioning;
- Review of proposals and alternatives;
- Sustainability indicators;
- Ecological footprint analysis;
- GIS and mapping;
- Environmental assessment;
- Development path analysis;
- Consistency provisions;
- Intergovernmental incentives and mandates;
- Education and communications;
- Organizing and coalition-building
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• Public Participation GIS
  – Michael Barndt, Nonprofit Center of Milwaukee, Inc.

PPGIS Examples

Greater New Orleans Community Data Center (http://www.gnocdc.org)

Providence Plans (http://www.provplan.net)

Hopeworks ‘N Camden (http://www.hopeworks.org)

Neighborhood Knowledge Los Angeles (http://nkla.ucla.edu/)
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- Hurricane Katrina Response/Recovery GIS Application Papers (available on-line)
  - City of New Orleans, Jefferson Parish, N.O. RPC
  - Louisiana GIS Council
  - FEMA, NOAA,
  - GIS Corps, Katrina Image Warehouse

- Paper Organization
  - Background
  - Nature of the application/functionality/analysis
  - Impacts/benefits to society
  - Future directions/needs
URPL 969-Class GIS Projects

- Original Project Idea: Assisting efforts of the Greater New Orleans Community Data Center
  - WisLineWeb event March 22nd with Joy Bonaguro
- Lecture on March 29th by Bert and Linda Stitt who have been facilitating a community visioning process in the Pontilly neighborhood in New Orleans.

Since 2001, this website has been the most widely used source for information about New Orleans' 73 neighborhoods and the 10 surrounding parishes. Post-Katrina, we’ve been working hard to round up reliable estimates to help inform the many decisions that organizations now need to make.
URPL 969-Class GIS Projects

• GIS Analysis Project for New Orleans
  – Criteria: A project that will fill a planning need, that utilizes appropriate GIS skills for the class, that can be accomplished from Madison (using collaborative software...), and that can be completed by the end of April.
  – WisLineWeb event March 24th
    • John Davis, Louisiana Sea Grant
    • Dubravka Gilic, New Orleans City Planning Commission
    • Patrick Haughey and Isabelle Maret, University of New Orleans
    • Virginia Burkett, USGS National Wetlands Research Center
    • Kathrine Cargo, Orleans Parish Communications District (911)
    • Joy Bonaguro, Greater New Orleans Community Data Center
Neighborhood Planning GIS Template

• Discovering well-designed web mapping sites from around the country that support neighborhood planning and analyzing whether they would be useful in post-Katrina New Orleans.

• Creating a matrix of GIS data needed to support neighborhood planning post-Katrina, whether these data exist in digital format, whether they are accessible, and how to acquire them.

• Bundling these data sets for the Pontilly neighborhood and beginning to conduct some analyses to test out the GIS template concept.
Subsidence Trends and Elevation

- Examining subsidence and elevation data in Orleans Parish and exploring methods to relate subsidence trends to an elevation surface so we can get an idea of what the elevation of New Orleans will be in the future.
- This is very exploratory in nature.
Project Presentations

- Campus Presentation: Fri. April 28\textsuperscript{th} 1-2:15
- Today’s WisLineWeb Participants (Wed. May 3\textsuperscript{rd})
  - New Orleans City Planning Commission
  - University of New Orleans
  - USGS National Wetlands Research Center
  - Nonprofit Center of Milwaukee
Next Steps

• Put Project Reports on Class Web Site
• Visit to New Orleans May 4th through May 7th
  – Meeting with City of New Orleans planning and GIS staff on the morning of Friday, May 5th.
• Potential for one or two students to continue working on the projects during the summer?