

# Colleen M. McHugh

## Senior Adaptation Planner - The Water Institute of the Gulf

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### Education

#### **M.S. in City Planning with a Certificate in Urban Design, 2013**

Massachusetts Institute of Technology, Cambridge, Massachusetts

#### **B.S. in Global Studies with a Minor in Geography, 2009**

University of California, Los Angeles, Los Angeles, California

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### Professional Experience:

<b>The Water Institute of the Gulf</b> Baton Rouge, Louisiana <ul style="list-style-type: none"><li>• <i>Senior Adaptation Planner</i></li></ul>	<b>2018-Present</b>
<b>Office of Resilience and Sustainability</b> New Orleans, Louisiana <ul style="list-style-type: none"><li>• <i>Resilience Design Manager</i></li></ul>	<b>2016-2018</b>
<b>New Orleans Redevelopment Authority</b> New Orleans, Louisiana <ul style="list-style-type: none"><li>• <i>Resilience Planner</i></li><li>• <i>Resilience Planning Fellow</i></li><li>• <i>Strategy Intern</i></li></ul>	<b>2012-2016</b>
<b>MIT Research Assistant</b> Massachusetts Institute of Technology, Cambridge, Massachusetts <ul style="list-style-type: none"><li>• <i>Administrative Office Coordinator</i></li></ul>	<b>2011-2013</b>
<b>SPUR</b> San Francisco, California <ul style="list-style-type: none"><li>• <i>Editorial Assistant</i></li></ul>	<b>2009-2011</b>

### Applicable Skills:

- Research and Analysis: policy analysis, spatial and data analysis, field research, collaborative strategizing, interdisciplinary research
- Communication and Management: managing multidisciplinary teams, presenting in public, writing for diverse audiences, engaging creatively with stakeholders and communities

- Visual Design and Mapping: Illustrator, InDesign, Photoshop, ArcGIS, photography, urban design, diagramming + sketching

## **RECENT PROJECTS AND PUBLICATONS**

### **1. Gentilly Resilience District: National Disaster Resilience Competition**

**New Orleans. Ongoing. <https://nola.gov/resilience/gentilly/>**

The City of New Orleans participated in HUD's National Disaster Resilience Competition in 2015, which sought innovative and transferable solutions to some of the most pressing risks facing local communities. I worked on the City's \$141M-award winning proposal for and early implementation of the Gentilly Resilience District, a network of integrated initiatives across the neighborhoods of the Gentilly area that will reduce flood risk, slow land subsidence, spur economic opportunity, improve health, encourage neighborhood revitalization, and adapt the city to a changing natural environment.

### **2. Climate Action for a Resilient New Orleans: 50% by 2030**

**New Orleans. July 2017. <https://nola.gov/climateaction/>**

The City of New Orleans' first climate action strategy proposes 11 strategies and 25 actions to reduce greenhouse gas emissions 50 percent by 2030. I served on the core team that developed the strategy as an editor, writer, and director of graphic content. I worked to align the vision of the climate action strategy with the city's resilience strategy, produced original infographics, and laid out the design for the final report.

### **3. Planning Tools for Climate Adaptation**

**New Orleans, Trust for Public Land, Deltares. 2016-2017.**

I served as the City of New Orleans' project manager overseeing the development of two planning tools to support smart, data-driven, and collaborative decision making about where and how to invest in green infrastructure and climate adaptation projects. The Trust for Public Land Climate Smart Cities decision support tool is a GIS-based online mapping portal that uses local data to prioritize investments in climate action based on environmental, social, and health data. The Deltares Adaptation Support Tool facilitates design workshops where a range of stakeholders can identify and compare potential green infrastructure measures for a project site and quantify their performance in meeting climate adaptation goals.

### **4. Resilient New Orleans: Strategic Actions to Shape Our Future City**

**New Orleans. August 2015. <https://nola.gov/resilientnola/>**

The City of New Orleans' resilience strategy, guided by 100 Resilient Cities, proposes bold yet pragmatic actions to adapt the city to a changing natural environment, invest in equity, create flexible and reliable systems, and prepare for future shocks. I served on the core team that developed the strategy as a planner, writer, editor, photographer, mapmaker, and graphics director. We developed this strategy by researching the challenges facing New Orleans, gathering input from stakeholders with relevant knowledge and expertise, and sourcing best practices from around the world. We investigated the city's shocks, stresses, and assets. We met with local organizations and stakeholders to understand how the city's resilience is perceived today, to gather local best practices, and devise new approaches.

### **5. Low-Maintenance Landscape Strategies for Vacant Land**

**New Orleans Redevelopment Authority, LSU Urban Landscape Lab. 2014-2015.**

I worked with landscape architects at LSU to research and implement ecologically and economically sustainable landscape designs, including wildflower meadows and cypress groves, on vacant land owned and maintained by the New Orleans Redevelopment Authority.

### **6. Future Grounds Design Competition**

**New Orleans Authority, Van Alen Institute. 2015. <https://www.vanalen.org/projects/future-ground/>**

Future Ground was a design competition that invited multidisciplinary teams to generate flexible design and policy strategies to reuse vacant land in New Orleans, transforming abandoned landscapes into resources for the current and future city. I served as the project manager at the New Orleans Redevelopment Authority working with Van Alen Institute and the selected design teams in a six-month design process culminating in a final report of policy and design recommendations.

**PUBLICATIONS**

1. Park, K., Powers, S.P., Bosarge, G.S., & Jung, H.-S. (2014). Plugging the leak: Barrier island restoration following Hurricane Katrina enhances larval retention and improves salinity regime for oysters in Mobile Bay, Alabama, *Marine Environmental Research*, 94:48-55.
2. Das, H.S. & Jung, H.-S. (2013). An efficient tool to assess risk of storm surge using data mining. *Costal Hazards*, American Society of Civil Engineers.
3. Deng, Z.-Q., Jung, H.-S., & Ghimire, B. (2010). Effect of channel size on solute residence time distribution in rivers. *Advances in Water Resources*, DOI: 10.1016/j.advwatres.2010.06.016.
4. Jung, H.-S. & Deng, Z.-Q. (2010). Modeling of nitrogen retention in Amite River. *Water, Air, & Soil Pollution*, DOI:10.1007/s11270-010-0487-9.
5. Deng, Z.-Q. & Jung, H.-S. (2009). Variable Residence Time Based Model for Solute Transport in Streams. *Water Resources Research*, 45, W03415, doi:10.1029/2008WR007000.
6. Deng, Z.-Q. & Jung, H.-S. (2009). Scaling dispersion model for pollutant transport in river. *Environmental Modeling & Software*, 24:627-631.
7. Deng, Z.-Q., Lima, J., & Jung, H.-S. (2008). Sediment transport rate-based model for rainfall-induced soil erosion. *Catena*, 76:54-62.
8. Park, K., Jung, H.-S., Kim, H.-S., & Ahn, S.M. (2005). Three-dimensional hydrodynamic-eutrophication model (HEM-3D): Application to Kwang-Yang Bay, Korea. *Marine Environmental Research*, 60(2), 171-193.

**CONFERENCE PROCEEDINGS AND PRESENTATIONS**

1. Mobile Workshop: Building Resilience with Green Infrastructure. National Planning Conference. American Planning Association. New Orleans. April 2018.
2. Panel: Career Pathways in Recovery and Resilience. National Planning Conference. American Planning Association. New Orleans. April 2018.
3. Panel: Designing for a Resilient Future Moderator. American Institute of Architects, New Orleans Chapter. November 2017.
4. Panel: Climate Resilient Cities Greenbuild Conference. US Green Buildings Council. Boston. November 2017.

5. Speaker: Resilient New Orleans, from vision to action Environmental Justice Forum, Lower Ninth Ward. CSED. New Orleans. November 2017.
6. Speaker: Resilient Water Management Neighborhood Leaders Roundtable. City of New Orleans. September 2017.
7. Webinar: Climate Smart Cities Implementation in New Orleans Trust for Public Land. September 2017.
8. Mobile Workshop: Building Resilience with Green Infrastructure. One Water Summit. US Water Alliance. New Orleans. June 2017.
9. Workshop: Louisiana Community Resilience Institute with northern Louisiana Mayors LSU Coastal Sustainability Studio. Alexandria, LA. March 2017.
10. Panel: New Orleans, Resilient Delta City New Orleans Regional Leadership Institute. November 2016.
11. Panel: Creative Strategies and Solutions for Addressing the Challenge of Urban Land Vacancy American Society of Landscape Architects Annual Meeting. New Orleans. October 2016.
12. Panel: Vacant Land - Empowering Stakeholders, Creating Opportunities Planning on the Edge Conference. APA Louisiana Chapter. Houma, LA. March 2016.
13. Panel: Vacant Land Design Competitions Reclaiming Vacant Properties Conference. Center for Community Progress. Detroit. April 2015.
14. Regional Resilience Workshop Smart Growth Summit. Center for Planning Excellence. Baton Rouge. November 2015.
15. From Beignets to Buildings: Resilience & Rebuilding in the Aftermath of Katrina Greenbuild Conference. US Green Buildings Council. New Orleans. November 2014.