# **The Chicago River**

### **Transformed, Exploited, and Abused – but Still Alive**



### Mike Bryson

Sustainability Studies Program at RU Chicago River Student Congress 23 February 2013









The Des Plaines River in downtown Joliet, IL (2011)



### **Chicago's River**



### Upper North Branch of the Chicago River (Oct. 2012)







North Branch of the Chicago River (Spring 2010)







A chicken standing upon Bubbly Creek, c.1911 (Chicago Historical Society)







The Morton Salt Plant, North Branch of the Chicago River (Oct. 2011)



# **Reversed and Invaded**

#### A river reversed, a problem created

The Chicago and Calumet rivers were once tiny waterways that trickled into Lake Michigan. Begining in 1900 the city dug a series of canals that reversed their flows so they could carry the city's waste into the Mississippi River basin, and away from the lake – the city's drinking water source. A push is now under way to engineer a system to re-establish the natural hydrological divide between Lake Michigan and the Mississippi.





Sources: Great Lakes Fishery Commission

Source: Milwaukee Journal-Sentinel (2010)



# Yet Still a Living Ecosystem



The North Branch, seen from Ronan Park (Oct. 2012)

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## **Conserving the River**

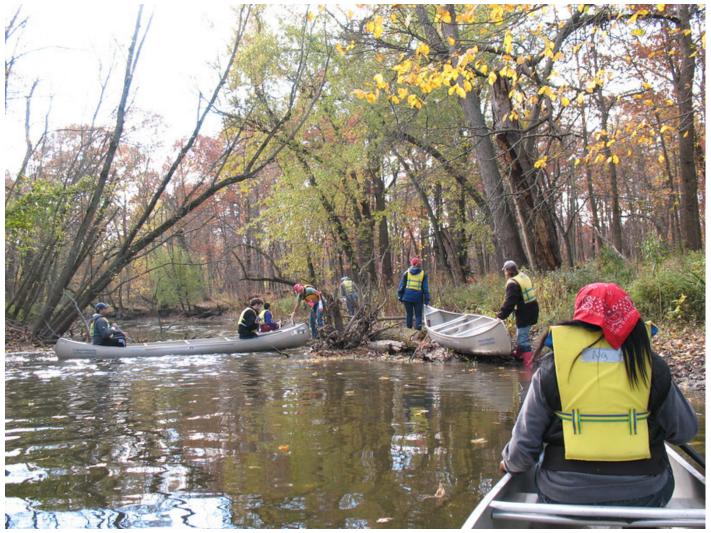


Understanding the river as a modified natural ecosystem (natural sciences)Developing water quality policies (social and natural sciences)Representing the river as a cultural resource (arts and humanities)Restoring the river: water quality, biodiversity, riparian zone vegetation, citizen access and recreation (all disciplines)

### **Cultivating a sense of place**

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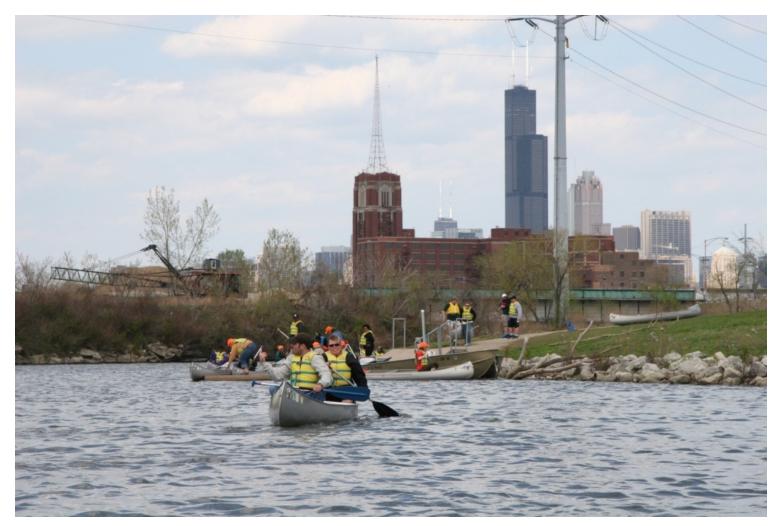
## **Canoeing the North Branch**



Paddling the West Fork of the Upper North Branch: here we portage around a fallen tree, within the greenway of the Cook County Forest Preserve (October 2012)

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## **Canoeing the South Branch**



Canoe trip down Bubbly Creek, an industrialized tributary of the South Branch of the Chicago River (May 2009)



## **Canoeing the Confluence**



Heading south into the Loop where the branches meet; Wolf Point in the background (October 2011)



Temperature

pН

Turbidity

Dissolved oxygen (DO)

Nutrients (nitrate / phosphate

Bacterial indicators (coliform)

# Using the Tools of Science



Metals and organic contaminants (lead, copper, benzene, PCBs, hexavalent chromium)

Emerging contaminants (pharmaceuticals, synthetic hormones, flame retardants)

**Combined Sewage Outfall** 

Confluence of the North and South Branches (October 2011)



## Creating Opportunities for Discovery



Identifying macro-invertebrates from the Chicago River's North Branch (May 2010)







Photo by Ryan Hodgson-Rigsbee ("The River" 2010)



## Linking Land and River



Growing Power's Iron Street Farm, on the west bank of Bubbly Creek (2012)



### **Planting a Seed**





Photo by Ryan Hodgson-Rigsbee ("The River" 2010)