

David Waggoner

Waggoner & Ball *Architects*

REBUILD BY DESIGN AND THE NEW ORLEANS WATER PLAN

INFORMING PERSPECTIVES

LINES OF DEFENSE
BEAUTIFUL



LONDON
CULTURAL



LINES OF DEFENSE
INTEGRAL



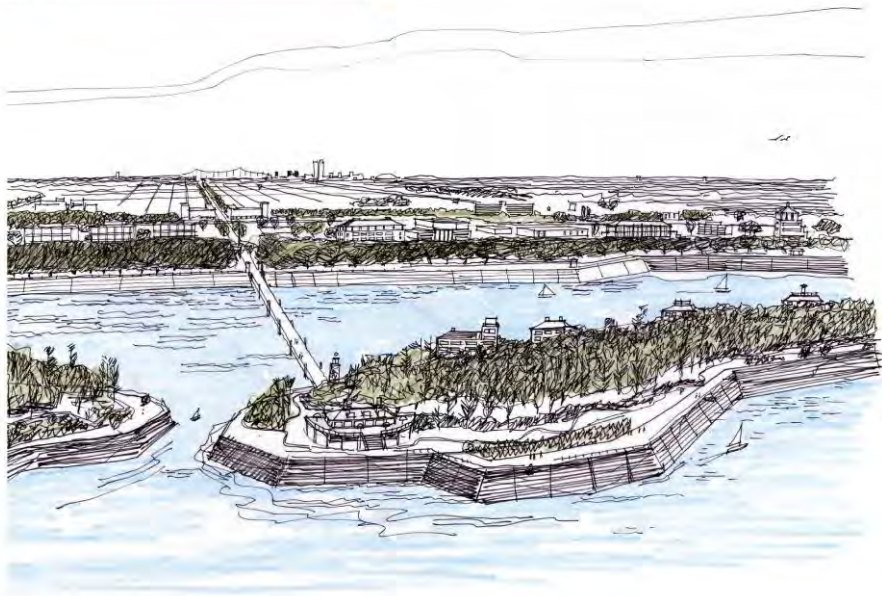
LINES OF DEFENSE
INTEGRAL



LINES OF DEFENSE
GENERATIONAL



LINES OF DEFENSE
INCREMENTAL

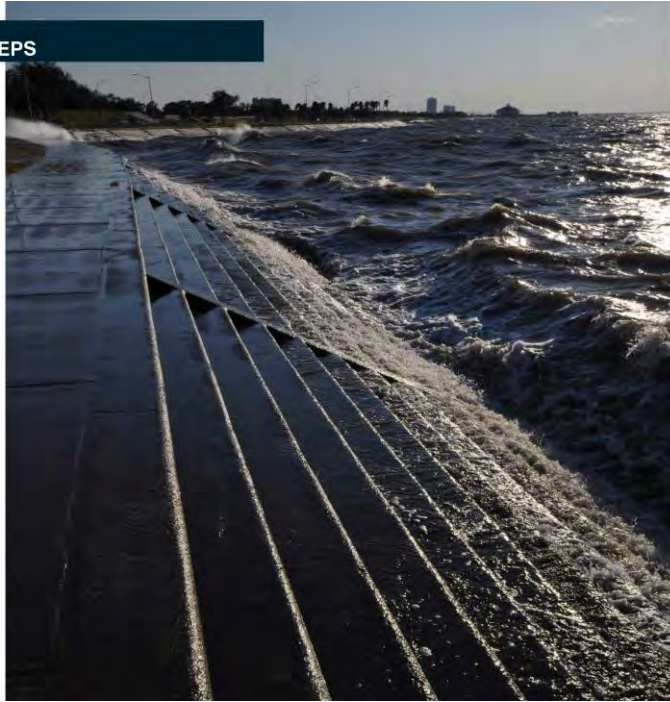


LINES OF DEFENSE
ADAPTABLE

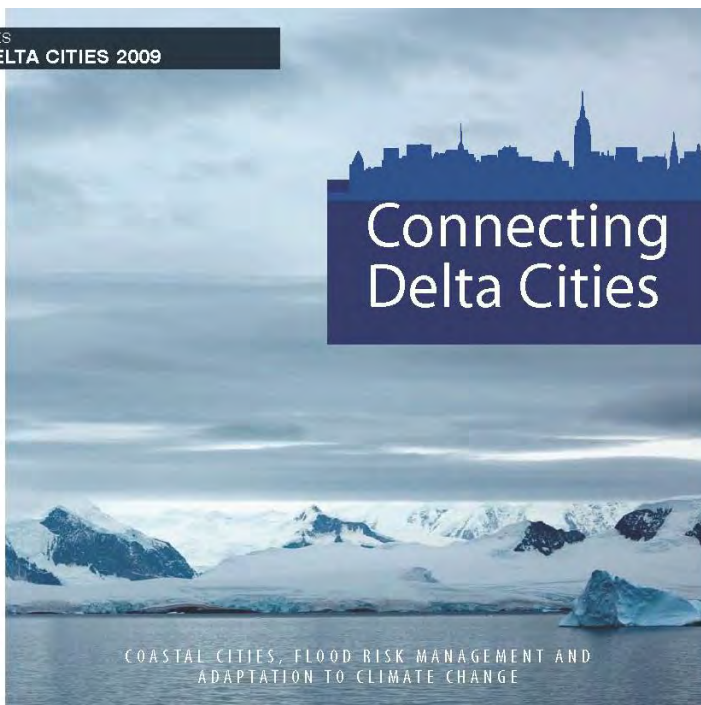




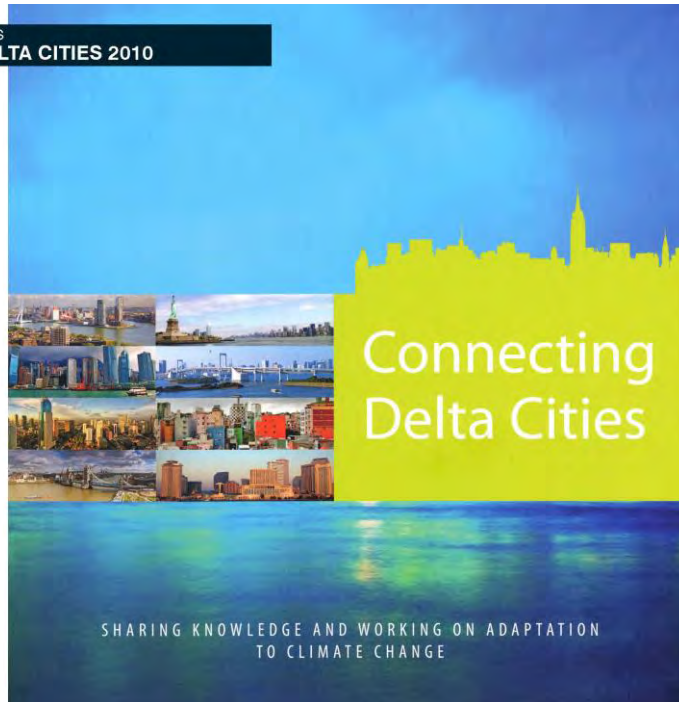
LINES OF DEFENSE
WATER AT THE STEPS



FOSTERING NETWORKS
CONNECTING DELTA CITIES 2009



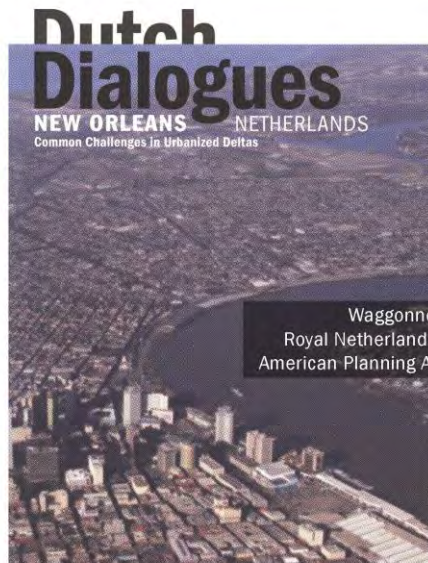
FOSTERING NETWORKS
CONNECTING DELTA CITIES 2010



FOSTERING NETWORKS
CONNECTING DELTA CITIES 2013



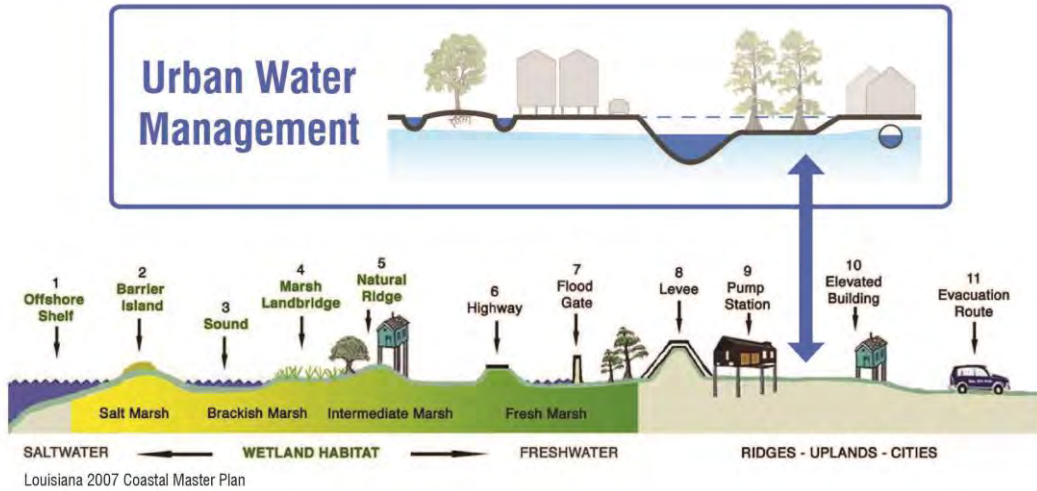
NEW ORLEANS
DUTCH DIALOGUES



DUTCH DIALOGUES
COLLABORATION



NEW ORLEANS
MULTIPLE LINES OF DEFENSE



GREATER NEW ORLEANS URBAN WATER PLAN
DOCUMENTS



LIVINGWITHWATER.COM

GREATER NEW ORLEANS URBAN WATER PLAN DOCUMENTS

Greater New Orleans Urban Water Plan Lafitte Blueway October 2013	Greater New Orleans Urban Water Plan Mirabeau Water Garden October 2013	Greater New Orleans Urban Water Plan Lakeview Floating Streets October 2013	Greater New Orleans Urban Water Plan Canal Street Canal October 2013	Greater New Orleans Urban Water Plan Elmwood Fields and Water Lanes December 2013
Greater New Orleans Urban Water Plan Eastern Water Walk October 2013	Greater New Orleans Urban Water Plan Forty Arpent Canal Zone October 2013	Greater New Orleans Urban Water Plan Urban Analysis October 2013	Greater New Orleans Urban Water Plan Canal Vocabulary October 2013	Greater New Orleans Urban Water Plan Parking Retrofits October 2013
Greater New Orleans Urban Water Plan Jefferson Basin November 2013	Greater New Orleans Urban Water Plan Lakeview District November 2013	Greater New Orleans Urban Water Plan Metropolitan Park Zone November 2013	Greater New Orleans Urban Water Plan Monticello Canal November 2013	Greater New Orleans Urban Water Plan Veterans District November 2013

GREATER NEW ORLEANS URBAN WATER PLAN TEAM & PARTNERS

Manning Architects
 Dana Brown Landscape Architects
 FutureProof
 CDM Smith
 Nelson Engineers
 Dewberry
 GCR
 Eustis Engineering
 Sherwood Design Engineers
 Tulane University
 LSU Coastal Sustainability Studio
 Bright Moments

Arcadis
 Deltares
 Royal Haskoning
 City of Rotterdam
 City of Amsterdam
 H+N+S Landscape Architects
 Bosch Slabbers Landscape Architects
 Robbert de Koning Landscape Architect
 Palmbout Urban Landscapes
 Technical University Delft

Waggoner & Ball Architects



GREATER NEW ORLEANS URBAN WATER PLAN
PROBLEMS IDENTIFIED



- 1** Drainage systems are regularly overwhelmed by too much runoff, causing flooding

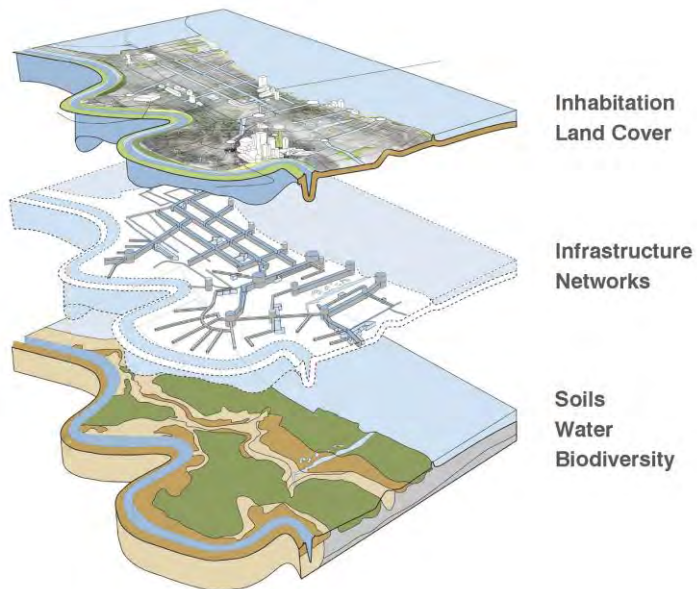


- 2** Excessive pumping causes the land to sink by lowering groundwater levels



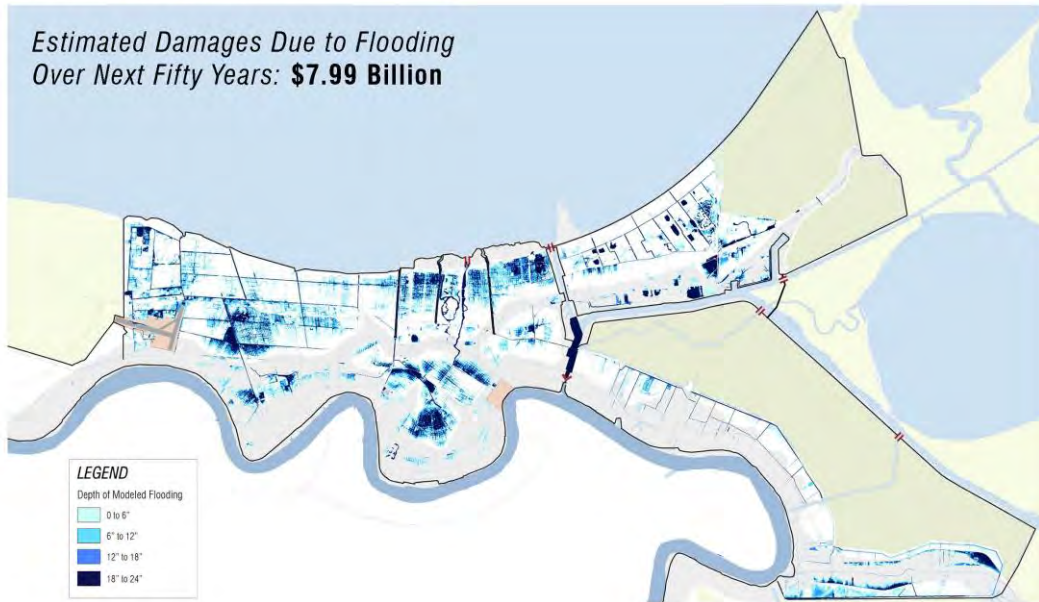
- 3** Critical water assets are wasted, hidden behind walls, buried underground, or pumped out of the city

LIVING WITH WATER
PLANNING APPROACH



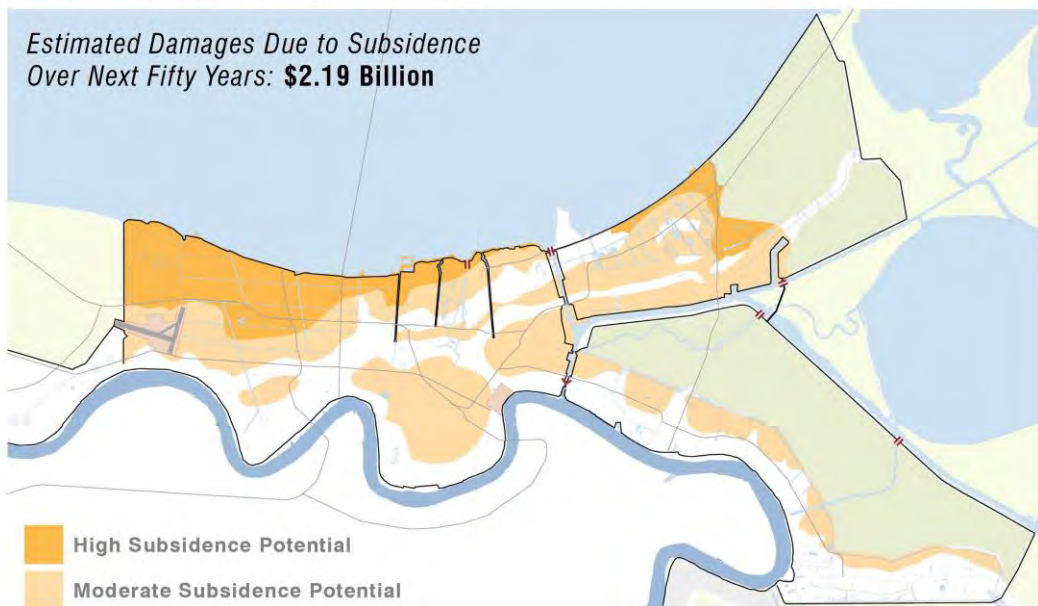
GREATER NEW ORLEANS URBAN WATER PLAN
AVOIDABLE COSTS: FLOODING

*Estimated Damages Due to Flooding
Over Next Fifty Years: **\$7.99 Billion***

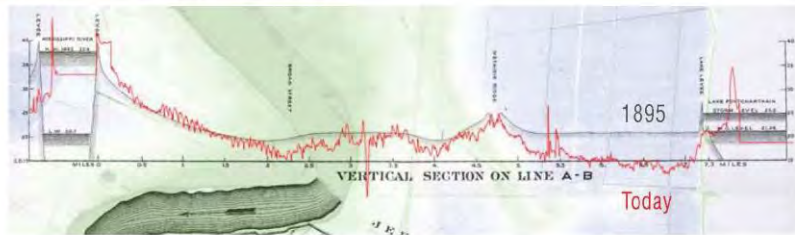


GREATER NEW ORLEANS URBAN WATER PLAN
AVOIDABLE COSTS: SUBSIDENCE

*Estimated Damages Due to Subsidence
Over Next Fifty Years: **\$2.19 Billion***



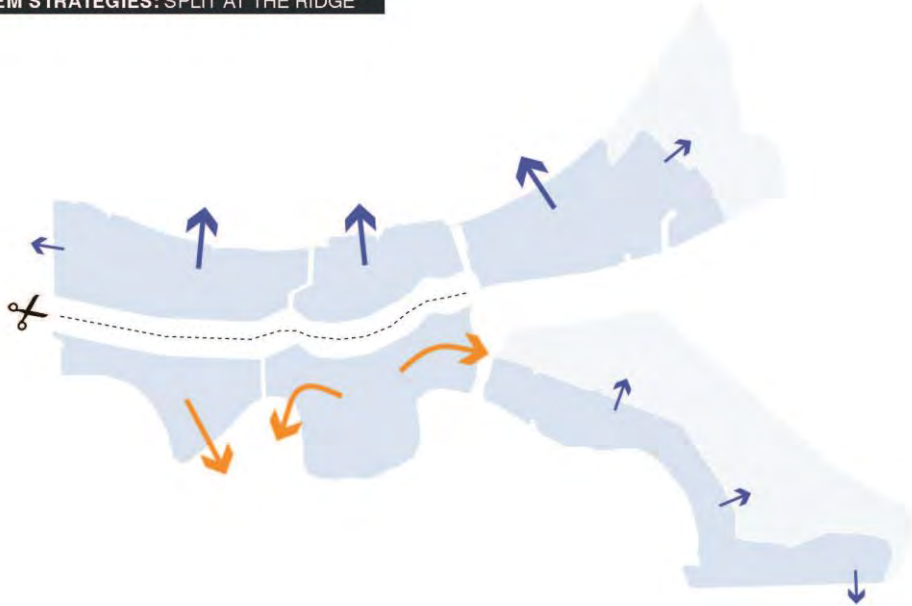
GREATER NEW ORLEANS URBAN WATER PLAN
AVOIDABLE COSTS: SUBSIDENCE



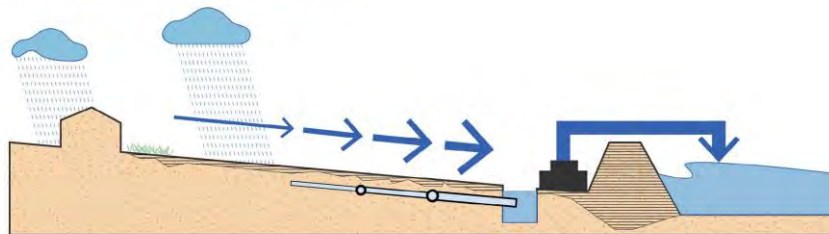
GREATER NEW ORLEANS URBAN WATER PLAN
LANDSCAPE TYPES



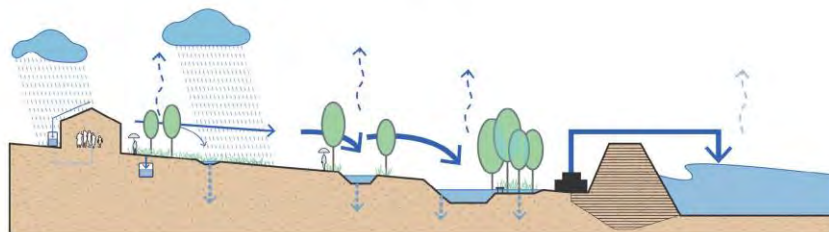
GREATER NEW ORLEANS URBAN WATER PLAN
SYSTEM STRATEGIES: SPLIT AT THE RIDGE



GREATER NEW ORLEANS URBAN WATER PLAN
WATER MANAGEMENT PARADIGM



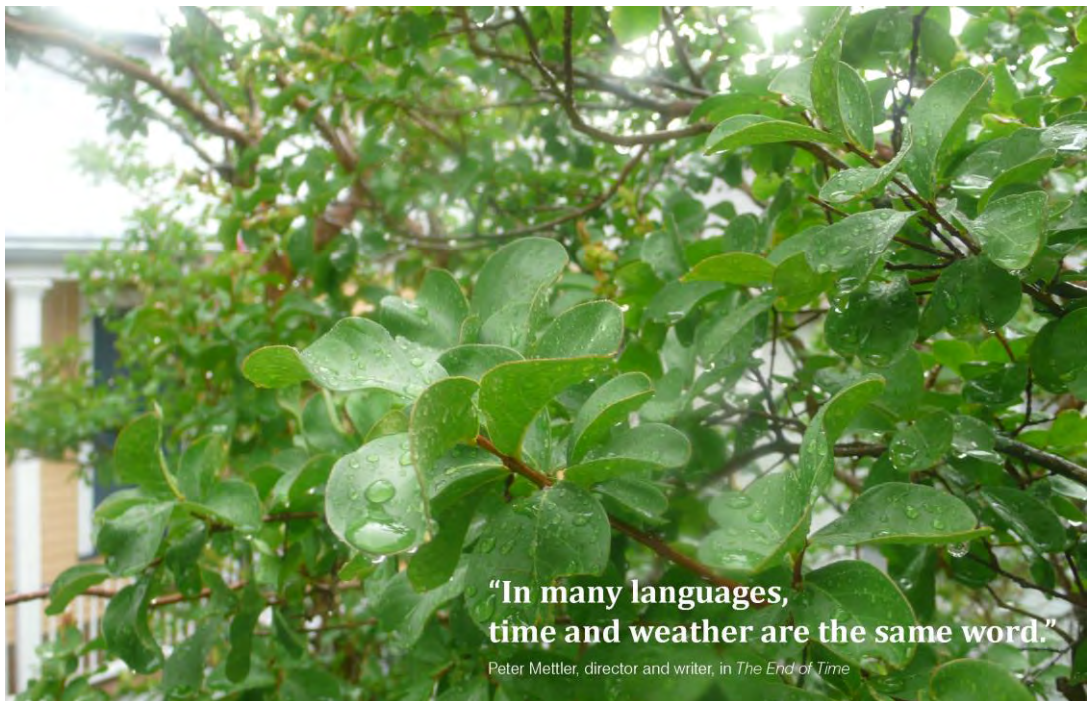
Pipe - Pump - Drain



Slow

Store

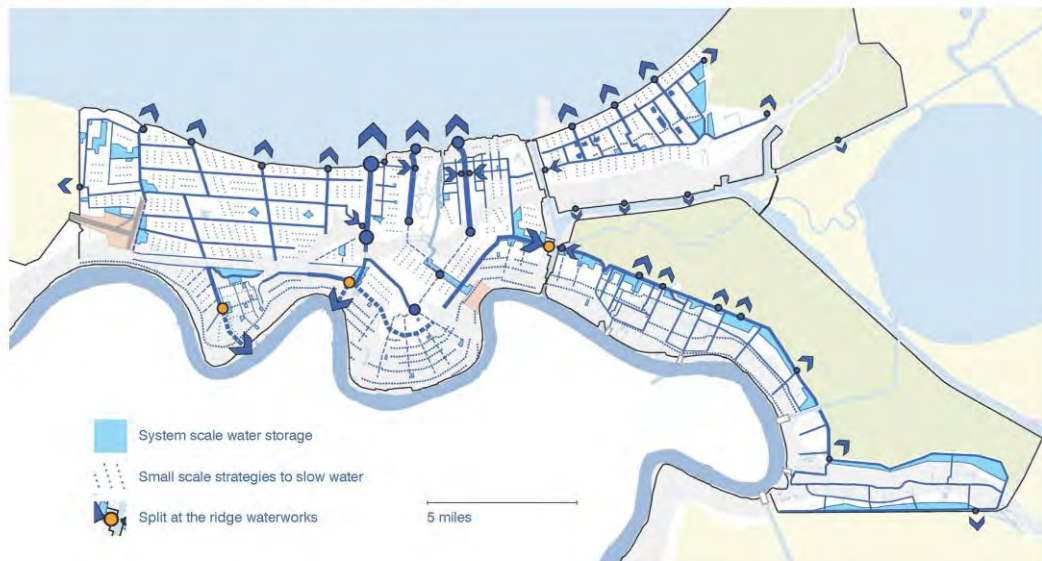
Drain



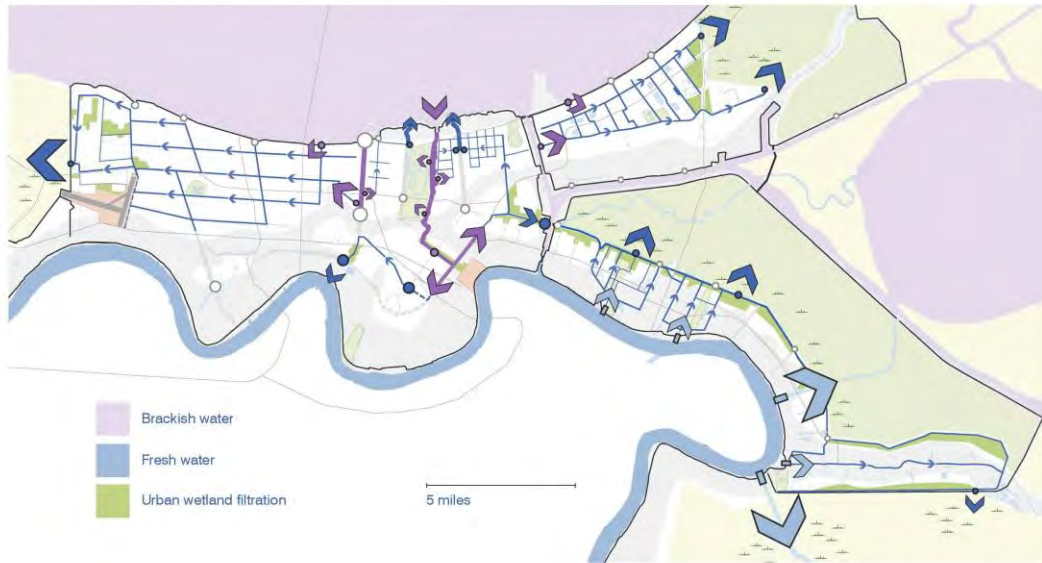
NEW ORLEANS LANDSCAPE OVER TIME



GREATER NEW ORLEANS URBAN WATER PLAN PROPOSED STORMWATER FLOWS



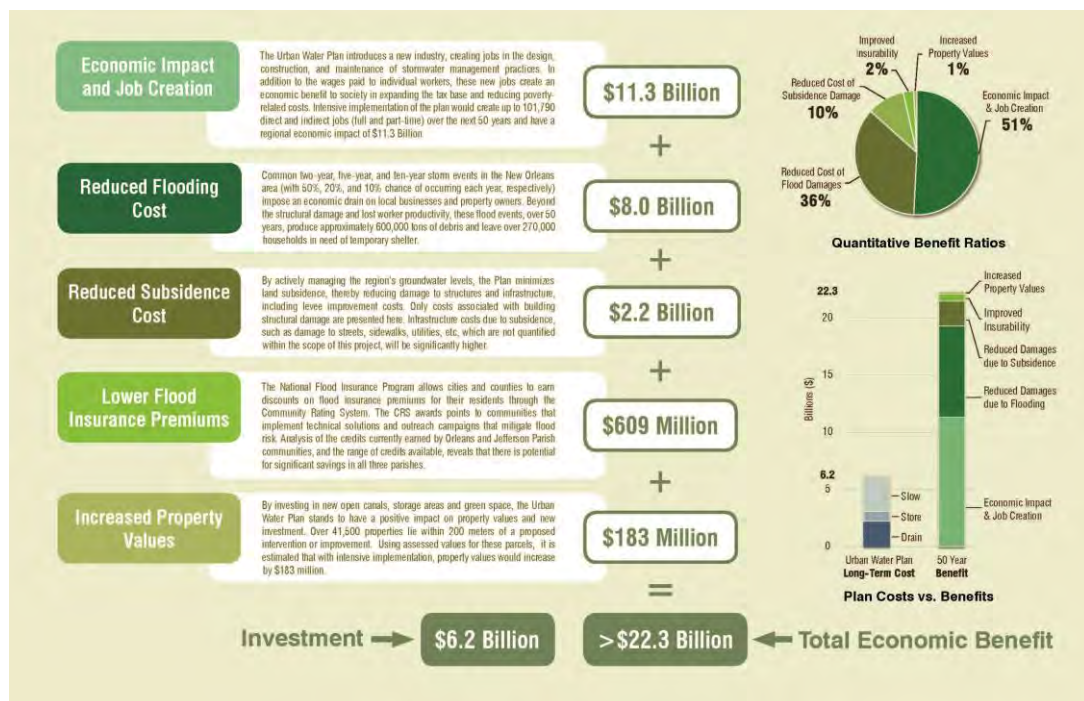
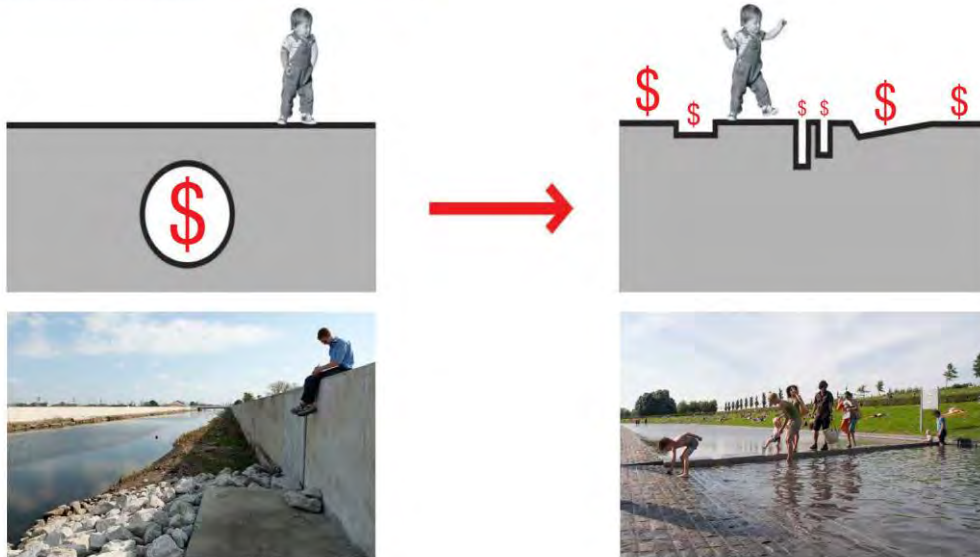
**GREATER NEW ORLEANS URBAN WATER PLAN
PROPOSED DRY SYSTEM FLOWS**



**GREATER NEW ORLEANS URBAN WATER PLAN
LIVING WATER SYSTEM**



GREATER NEW ORLEANS URBAN WATER PLAN INVESTMENT PARADIGM



GREATER NEW ORLEANS URBAN WATER PLAN
ECOLOGICAL & ENVIRONMENTAL BENEFITS



GREATER NEW ORLEANS URBAN WATER PLAN
LIVING IN A BASIN

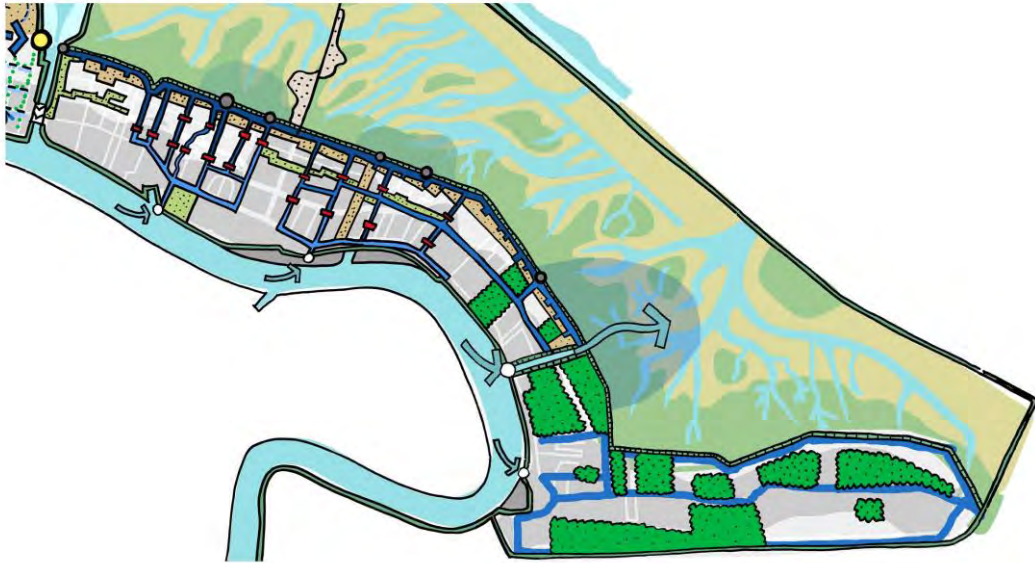
Adaptation will be second nature, as the region, the place which President Jefferson referred to as the "Island of New Orleans," becomes a true delta city.



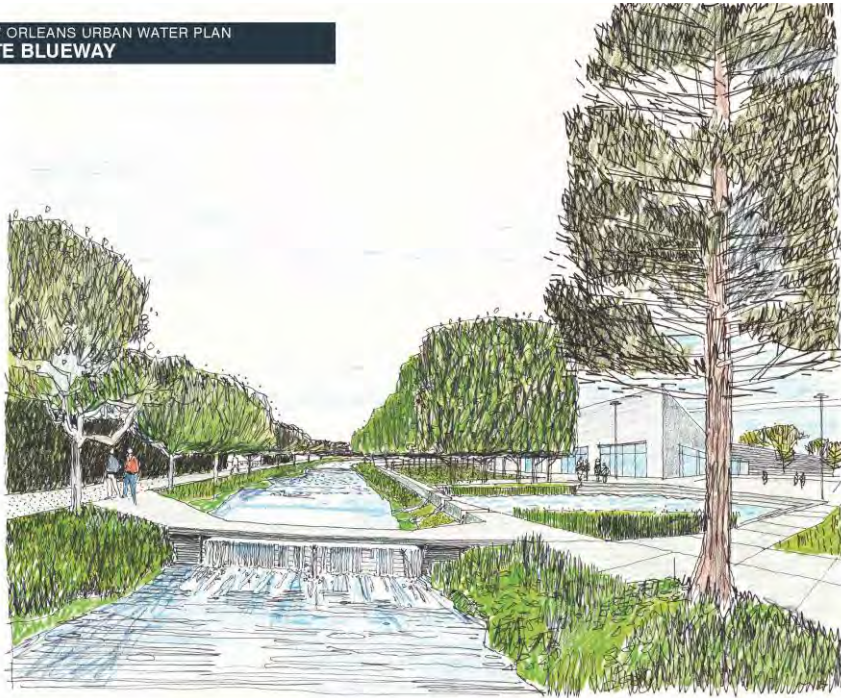
GREATER NEW ORLEANS URBAN WATER PLAN
REGIONAL PLAN



GREATER NEW ORLEANS URBAN WATER PLAN
ST. BERNARD AND ORLEANS BASIN



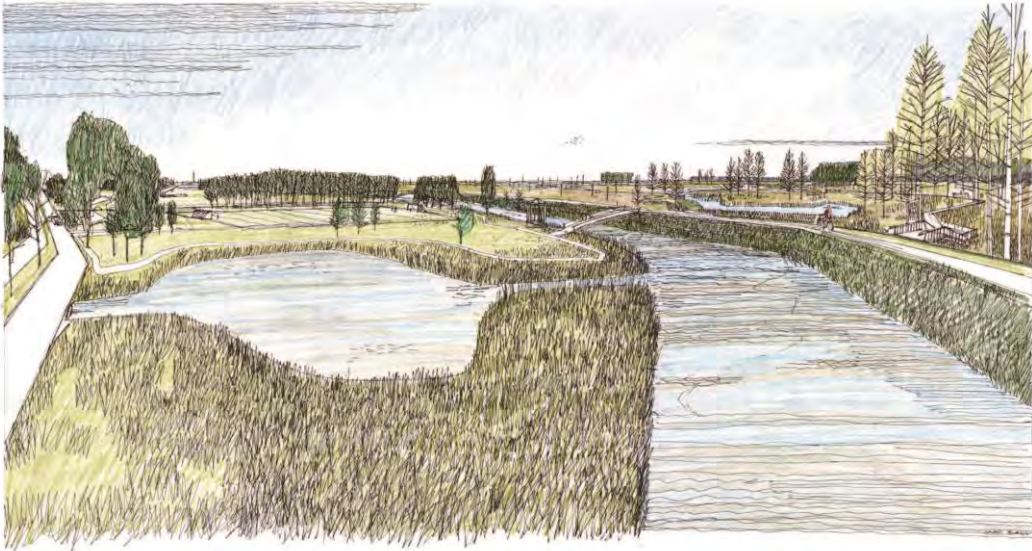
GREATER NEW ORLEANS URBAN WATER PLAN
CHALMETTE BLUEWAY



GREATER NEW ORLEANS URBAN WATER PLAN
CHALMETTE BLUEWAY



GREATER NEW ORLEANS URBAN WATER PLAN
CHALMETTE BLUEWAY



GREATER NEW ORLEANS URBAN WATER PLAN
LOWER NINTH WARD: ADAPTIVE WETLANDS



GREATER NEW ORLEANS URBAN WATER PLAN
ORLEANS EAST BASIN



GREATER NEW ORLEANS URBAN WATER PLAN
ORLEANS EAST BASIN



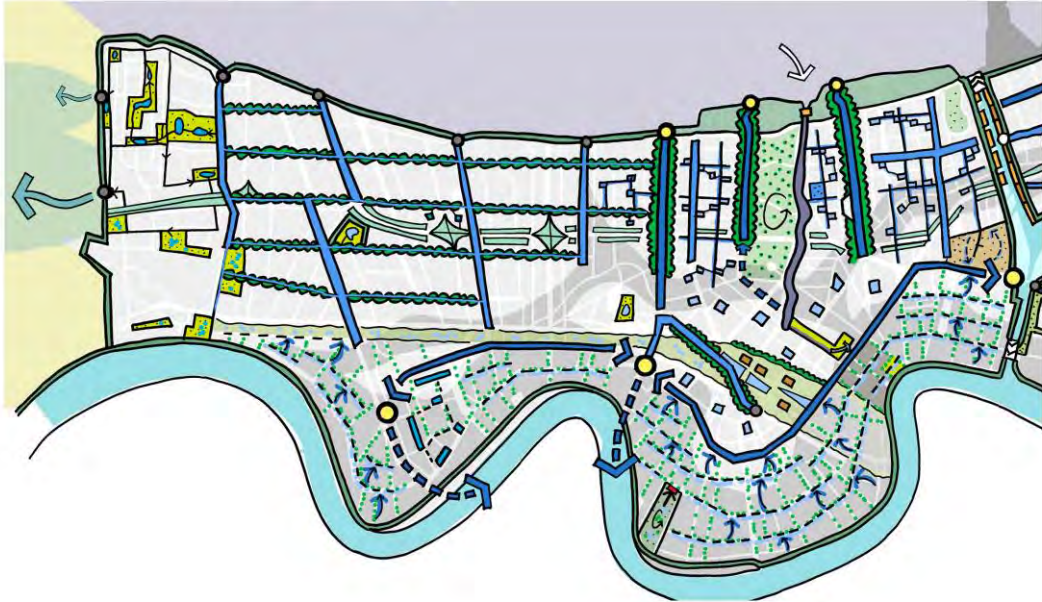
GREATER NEW ORLEANS URBAN WATER PLAN
RETAIL IDENTITY



REBUILD BY DESIGN
HR&A; COOPER ROBERTSON & PARTNERS



GREATER NEW ORLEANS URBAN WATER PLAN
JEFFERSON-ORLEANS BASIN



GREATER NEW ORLEANS URBAN WATER PLAN
KENNER WETLANDS



GREATER NEW ORLEANS URBAN WATER PLAN
ELMWOOD FIELDS AND WATER LANES



GREATER NEW ORLEANS URBAN WATER PLAN
ELMWOOD FIELDS AND WATER LANES



**GREATER NEW ORLEANS URBAN WATER PLAN
ELMWOOD PARKING LOTS AND ROOFTOPS**



**GREATER NEW ORLEANS URBAN WATER PLAN
ELMWOOD PARKING LOTS AND ROOFTOPS**



GREATER NEW ORLEANS URBAN WATER PLAN
TRANSPORTATION AND WATER



GREATER NEW ORLEANS URBAN WATER PLAN
LOWLAND CANALS: TYPICAL CONDITION



GREATER NEW ORLEANS URBAN WATER PLAN
LOWLAND CANALS: PROPOSED CONDITION



GREATER NEW ORLEANS URBAN WATER PLAN
BACKSLOPE STREETS



GREATER NEW ORLEANS URBAN WATER PLAN
BACKSLOPE STREETS EXISTING



GREATER NEW ORLEANS URBAN WATER PLAN
BACKSLOPE STREETS



GREATER NEW ORLEANS URBAN WATER PLAN
MONTICELLO CANAL





**GREATER NEW ORLEANS URBAN WATER PLAN
MONTICELLO ENGINEERED PROPOSAL**



**GREATER NEW ORLEANS URBAN WATER PLAN
HOEY'S BASIN/MONTICELLO CANAL**



GREATER NEW ORLEANS URBAN WATER PLAN
HOEY'S BASIN/MONTICELLO CANAL



GREATER NEW ORLEANS URBAN WATER PLAN
HOLLYGROVE/MONTICELLO CANAL



GREATER NEW ORLEANS URBAN WATER PLAN
LAKEVIEW WATER SYSTEM



GREATER NEW ORLEANS URBAN WATER PLAN
LAKEVIEW FLOATING STREETS



GREATER NEW ORLEANS URBAN WATER PLAN
LAKEVIEW FLOATING STREETS



STREET SWALE PERFORMING DURING A RAIN EVENT



The bioswale as an amenity for the street, improving its everyday urban quality.

GREATER NEW ORLEANS URBAN WATER PLAN LAKEVIEW AND BUCKTOWN



CROSS SECTOR COLLABORATION REBUILD BY DESIGN

Primary Coalition

City of Bridgeport
Bridgeport Housing Authority
Greater Bridgeport Regional Council
Bridgeport Neighborhood Trust
The Nature Conservancy
Bridgeport Regional Business Council

Local Coalition

BGreen 2020 Committees
Bridgeport School Board
Bridgeport Housing Authority
Seaside Village Board of Directors
Marina Village Tenants Association
Mercy Learning
UConn Landscape Design
University of Bridgeport
Aquaculture School
Groundwork Bridgeport
Freeman Center
Save the Sound
B:Hive
JHM Consulting
Poko Partners
O&G
PSEG
Wheelabrator
Santa Energy

Design Team

WAGGONER AND BALL
unabridged Architecture
Gulf Coast Community Design Studio
YALE UNIVERSITY
ARCADIS

Regional Supporters

American Planning Association
City of New Haven
City of Stamford
City of Norwalk
Sierra Club (Fairfield County Group)
Trust for Public Land
GBRC CTAC
Yale Urban Design Workshop

State, Federal & International Supporters

CT DEEP & CT Dept of Labor
DECD
ConnDOT
EMHS
NOAA
EDA
City of Amsterdam

Design Affiliates

Carl Pucci
Kathy Dorgan
Robbert DeKoning
Derek Hoferlin
Don Watson



RBD RESILIENT BRIDGEPORT
UPLAND PEQUONNOCK



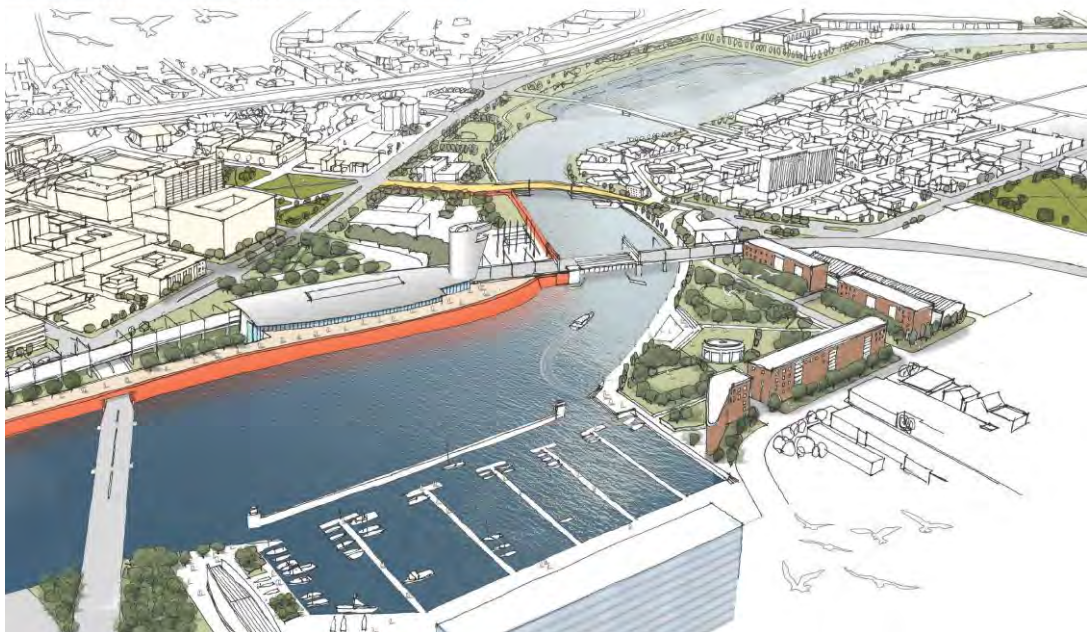
RBD RESILIENT BRIDGEPORT
PEQUONNOCK



RBD RESILIENT BRIDGEPORT
PEQUONNOCK AT DOWNTOWN



RBD RESILIENT BRIDGEPORT
PEQUONNOCK AT DOWNTOWN



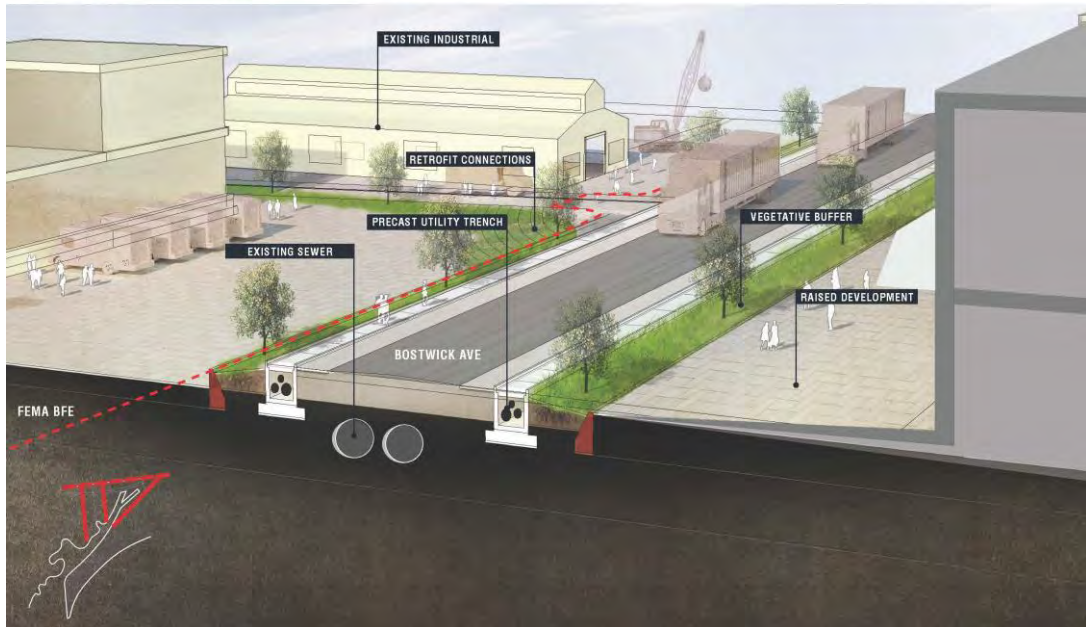
RBD RESILIENT BRIDGEPORT
BLACK ROCK HARBOR



RBD RESILIENT BRIDGEPORT
SOUTH END

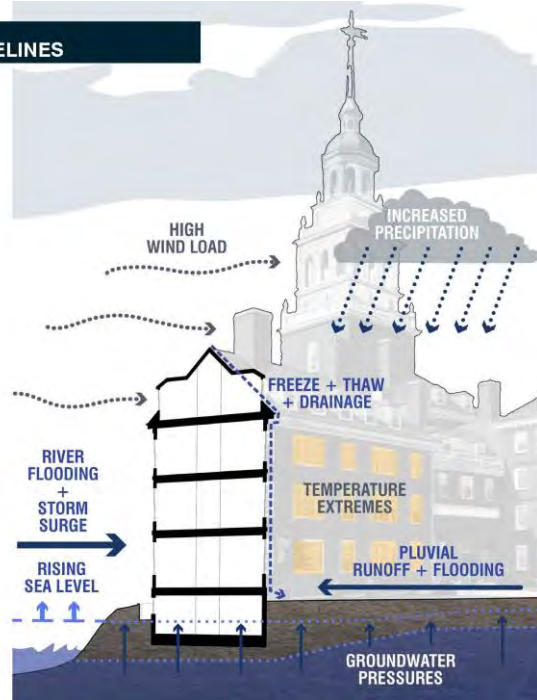


**BLACK ROCK HARBOR
ELEVATED INFRASTRUCTURE CORRIDOR**

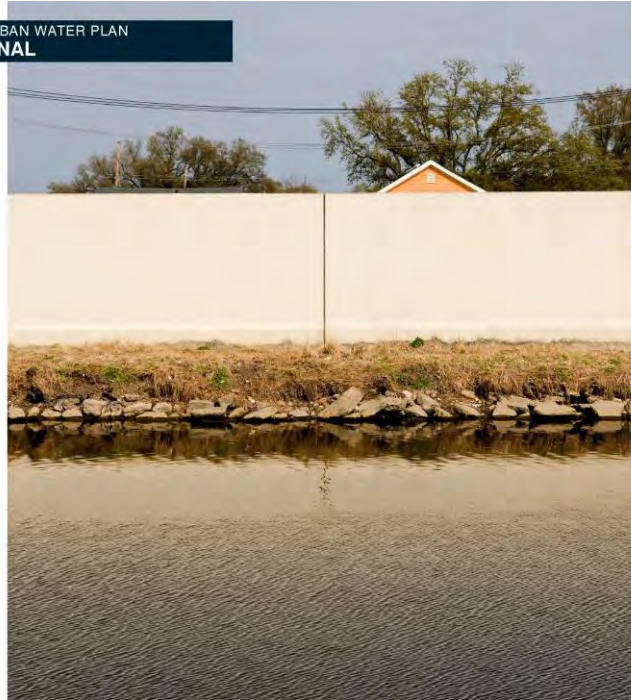


**RESILIENT BRIDGEPORT
SOUTH END**



**RESILIENT NEW ENGLAND
BUILDING DESIGN GUIDELINES****RESILIENT NEW ENGLAND
YALE DESIGN STUDIOS**

GREATER NEW ORLEANS URBAN WATER PLAN
LONDON AVENUE CANAL



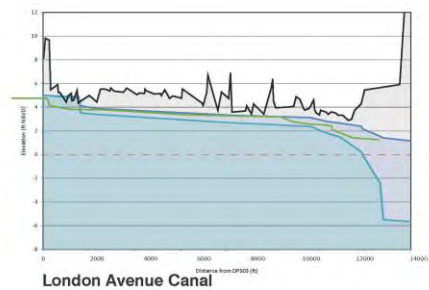
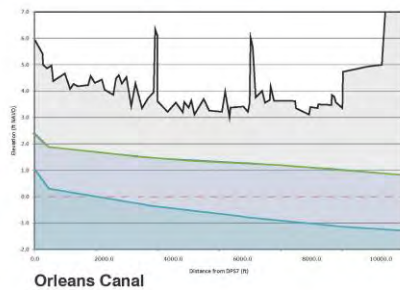
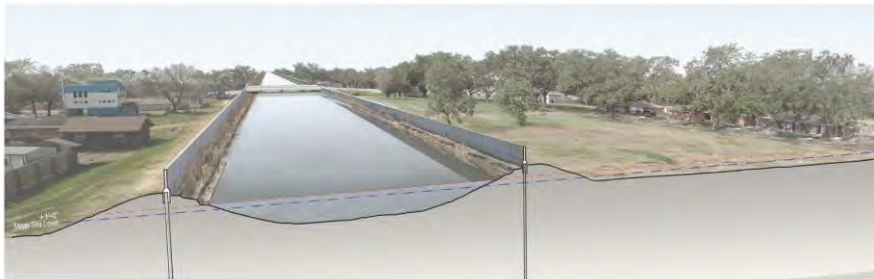
GREATER NEW ORLEANS URBAN WATER PLAN
RECLAIMED WATERFRONTS



GREATER NEW ORLEANS URBAN WATER PLAN
OUTFALL CANALS



GREATER NEW ORLEANS URBAN WATER PLAN
OUTFALL CANALS



GREATER NEW ORLEANS URBAN WATER PLAN
OUTFALL CANALS

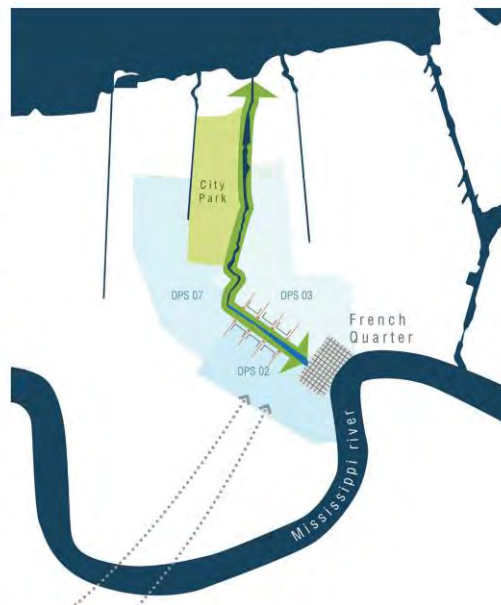


DUTCH DIALOGUES
CITY PARK

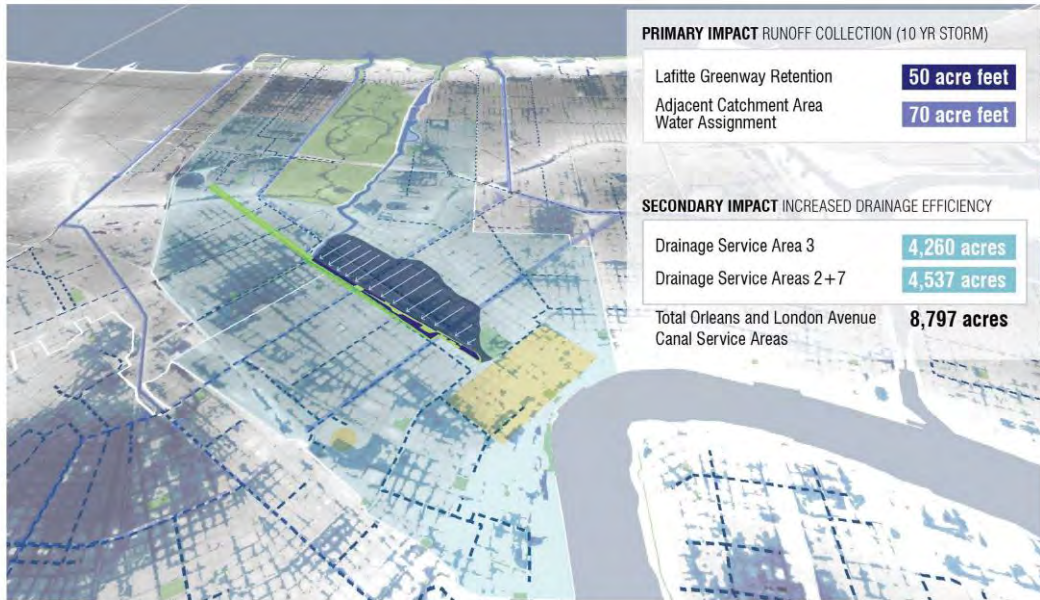




GREATER NEW ORLEANS URBAN WATER PLAN
LAFITTE BLUEWAY: HISTORIC IDENTITY



GREATER NEW ORLEANS URBAN WATER PLAN
LAFITTE BLUEWAY: DRAINAGE IMPACT



GREATER NEW ORLEANS URBAN WATER PLAN
CIRCULATING SYSTEM



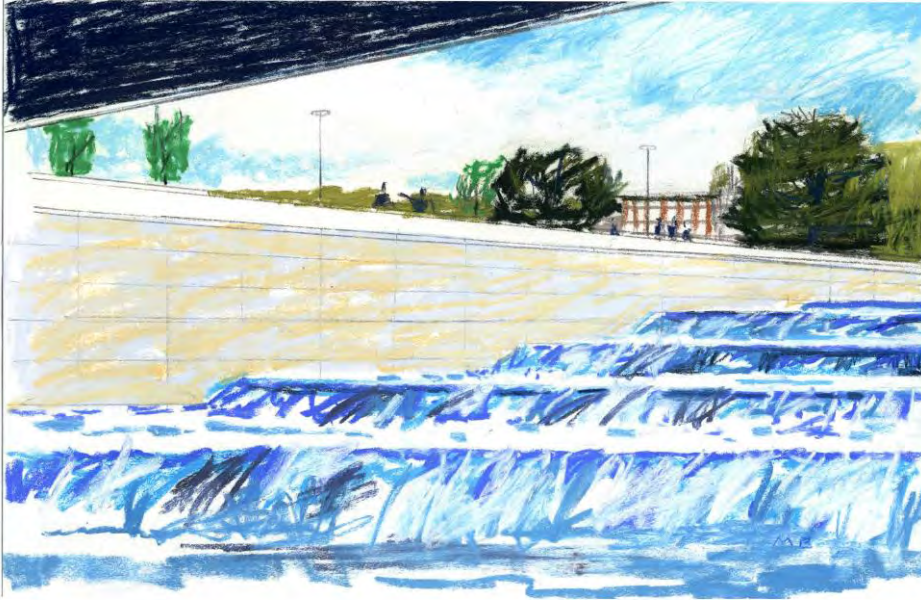
GREATER NEW ORLEANS URBAN WATER PLAN
LAFITTE BLUEWAY



GREATER NEW ORLEANS URBAN WATER PLAN
LAFITTE BLUEWAY: BASIN STREET



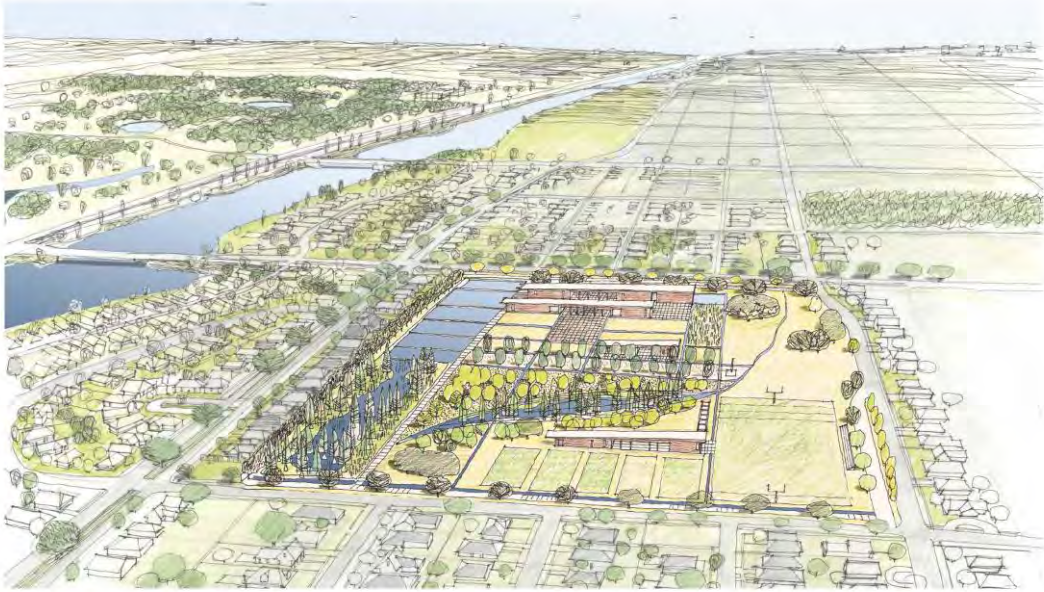
GREATER NEW ORLEANS URBAN WATER PLAN
LAFITTE BLUEWAY CASCADE



GREATER NEW ORLEANS URBAN WATER PLAN
MIRABEAU WATER GARDENS



GREATER NEW ORLEANS URBAN WATER PLAN
MIRABEAU WATER GARDENS



DALI
LIVING WITH WATER



