CUSTOMER ADVISORY COMMITTEE

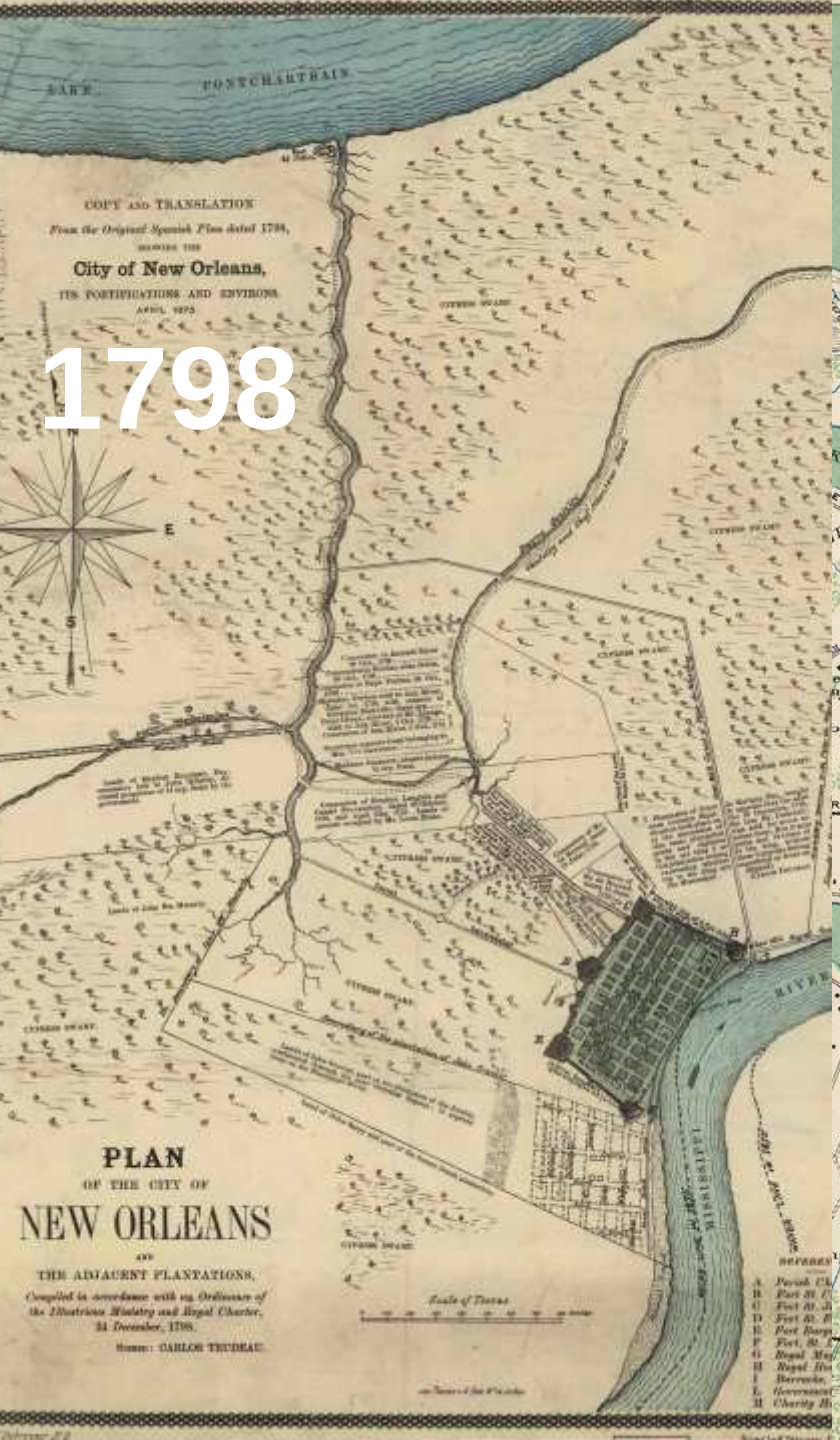
January 15, 2021

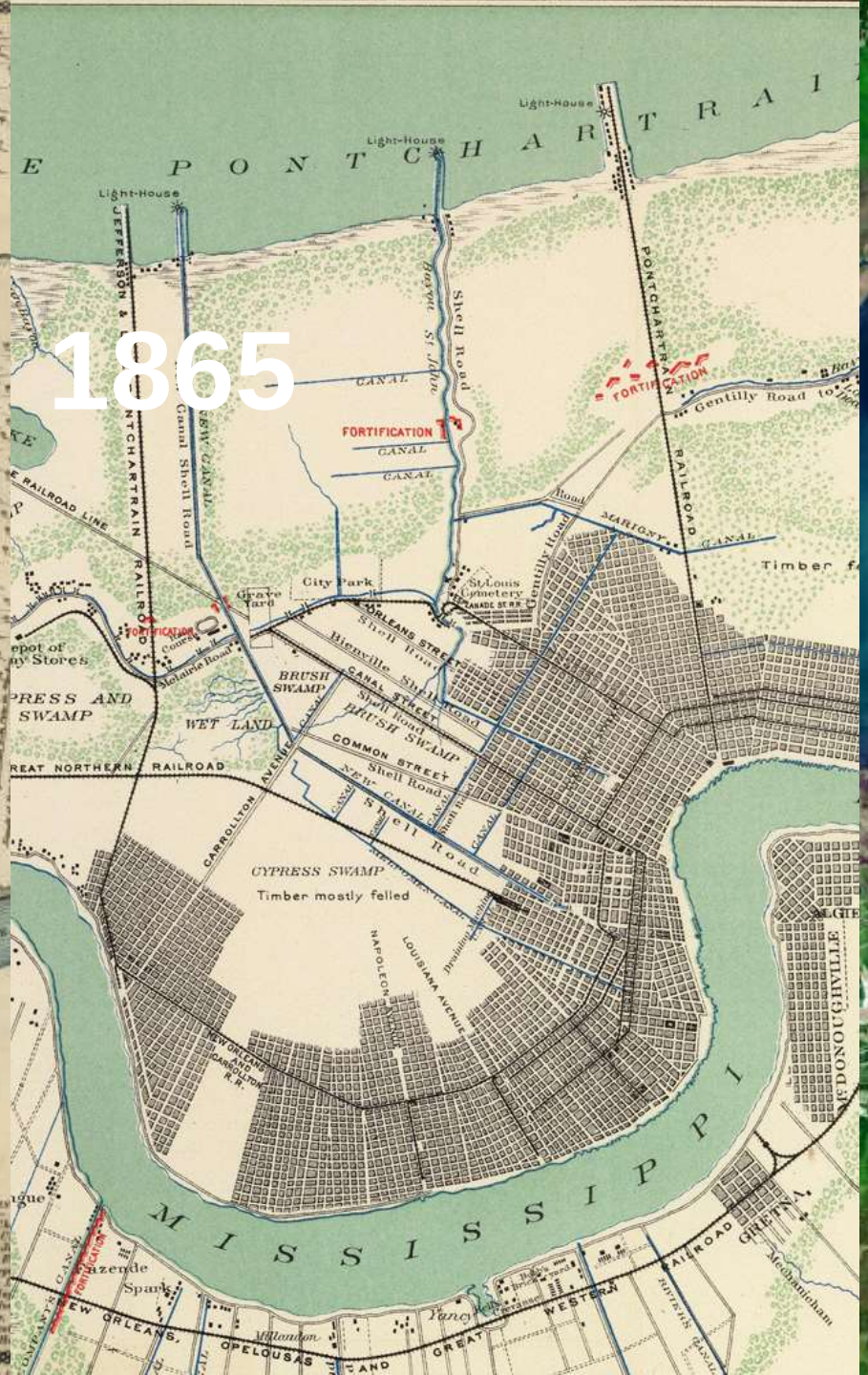
GROUND RULES

- Please keep your microphone muted unless you are speaking to reduce background noise
- Be sure to say your name before you speak so everyone knows who is speaking
- To be respectful of everyone’s time, please keep remarks brief and to the point so we can end on time
- Members of the public can submit comments via the Q&A feature

AGENDA

- Roll Call
- Drainage Overview
  - History
  - Existing System
  - Future Vision
- Next Steps

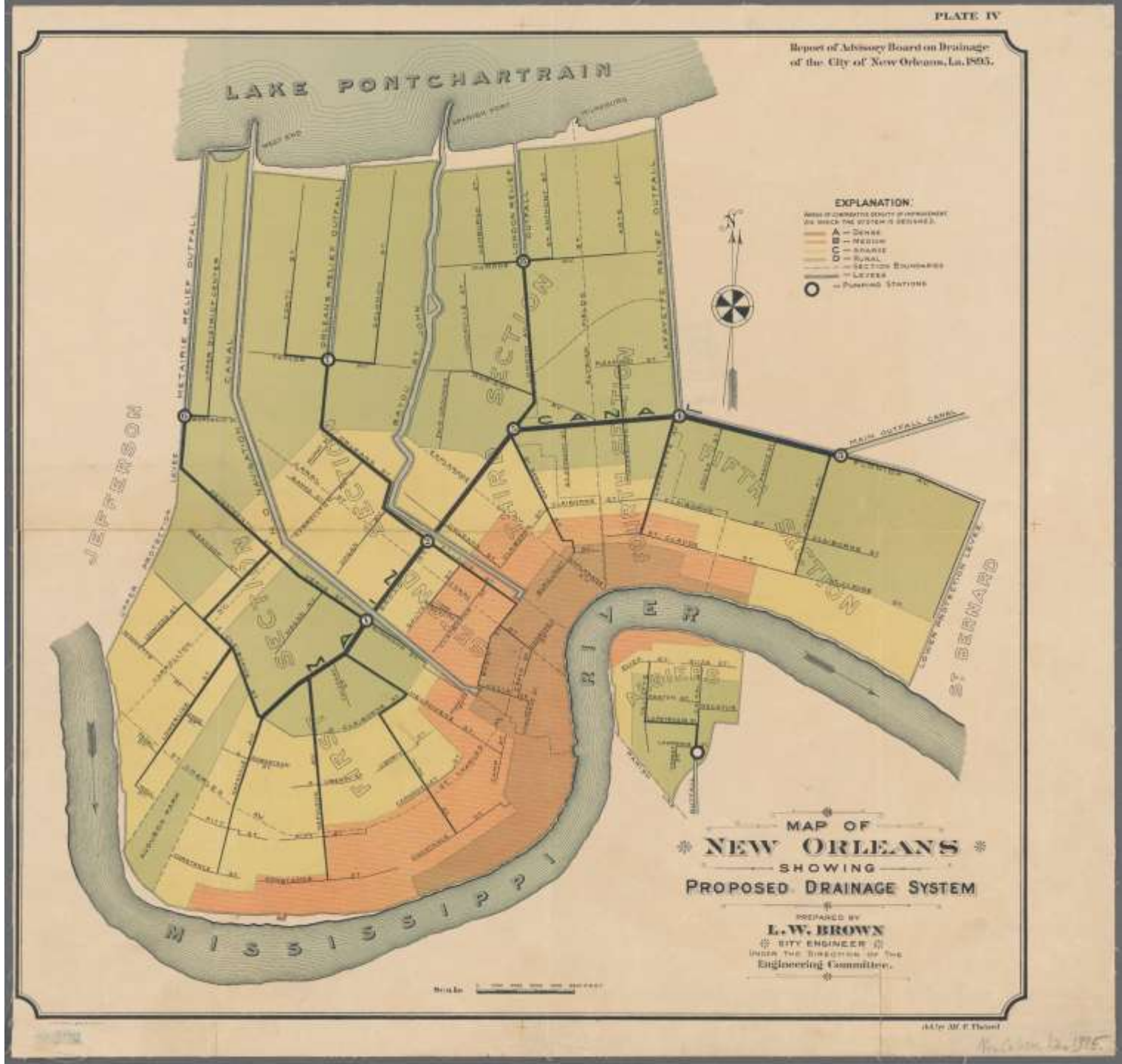

1798
COPY AND TRANSLATION
From the Original Spanish Plan dated 1798,
City of New Orleans,
ITS FORTIFICATIONS AND ENVIRONS
PLAN
OF THE CITY OF
NEW ORLEANS
AND
THE ADJACENT PLANTATIONS,
Compiled in accordance with my Ordinance of the Illustrious Ministry and Royal Charter,
31 December, 1798.
Name: CARLOS TRUDEAU


1865
Light-House
Shell Road
CANAL
FORTIFICATION
Gentilly Road
RAILROAD
City Park
Grave Yard
St Louis Cemetery
ORLEANS STREET
Bienville
BRUSH SWAMP
CANAL STREET
COMMON STREET
WET LAND
GREAT NORTHERN RAILROAD
CARROLLTON AVENUE
CYPRESS SWAMP
Timber mostly felled
NAPOLEON AVENUE
LOUISIANA AVENUE
MISSISSIPPI
NEW ORLEANS, OPELOUSAS AND GREAT WESTERN RAILROAD


2015

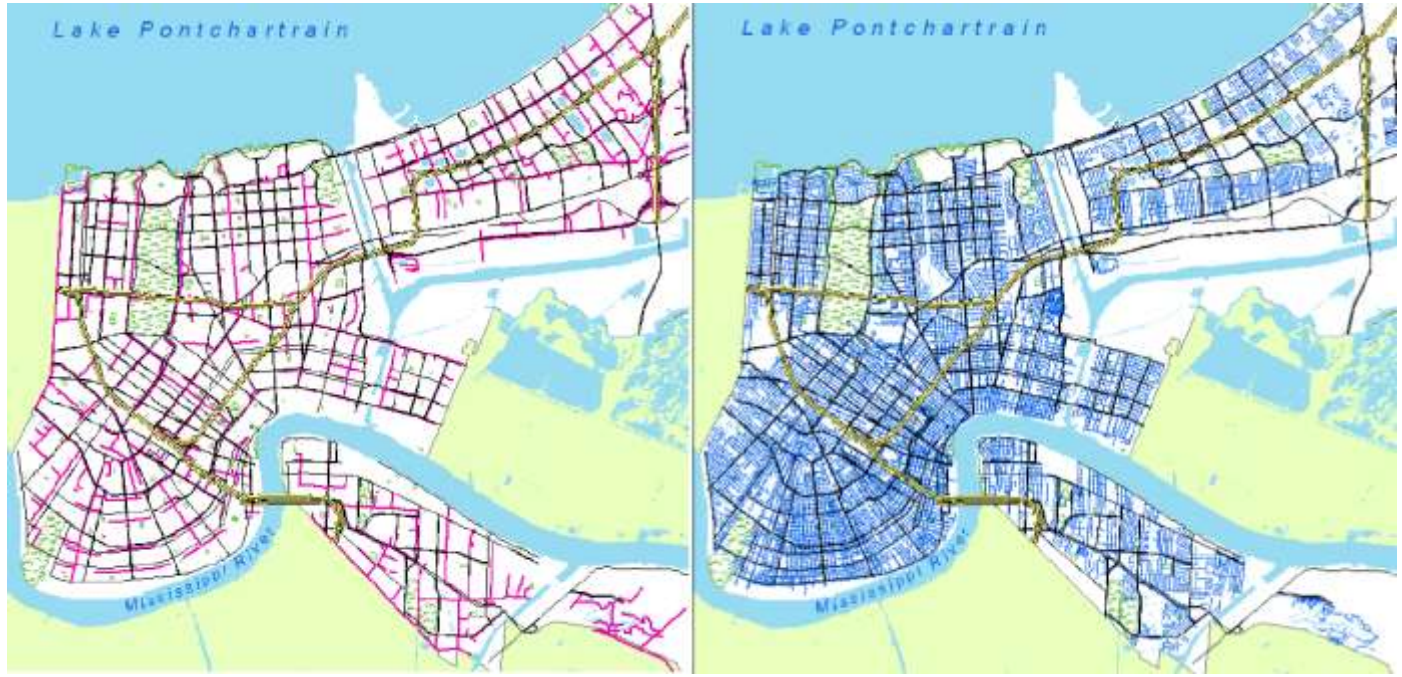
HISTORY

- New Orleans Drainage Commission formed in 1895
- Charged with implementing Drainage Master Plan
- Driven by need to reduce nuisance flooding as well as yellow fever, malaria, and drinking water contamination
- Combined with SWBNO in 1903



SYSTEM

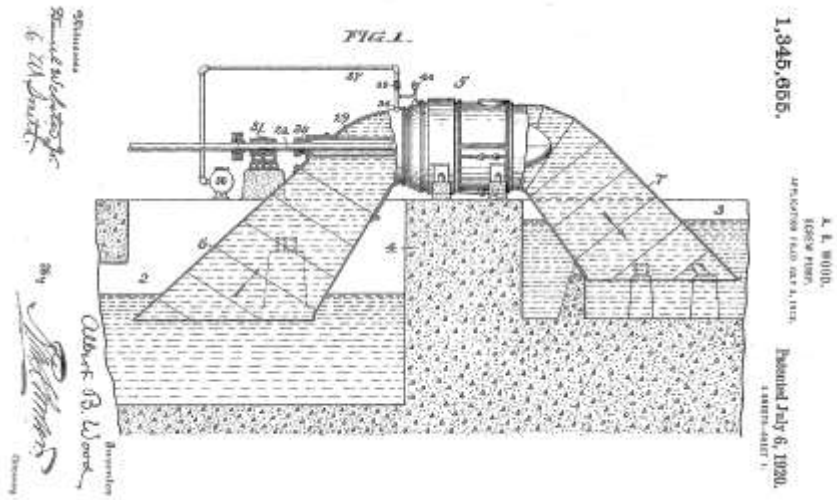
- SWBNO:
  - 235 miles of pipe/canals
  - 24 pump stations
  - Power plant
  - $66.9 M 2017 O&M
- City:
  - 1,288 miles of pipe
  - 68,000+ catch basins
  - $6M 2017 O&M

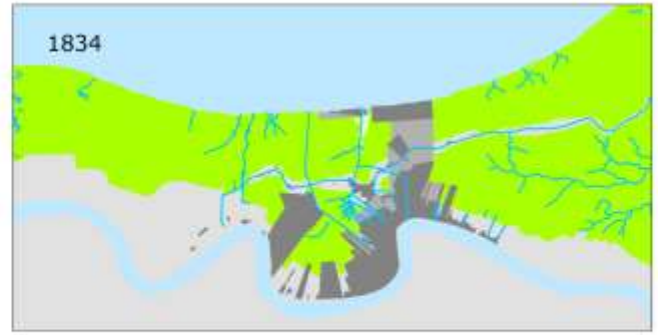


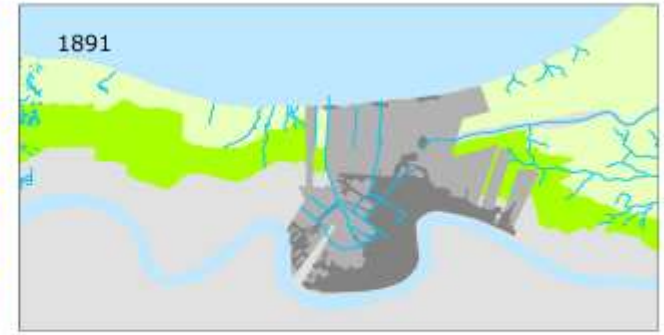
WOOD SCREW PUMP

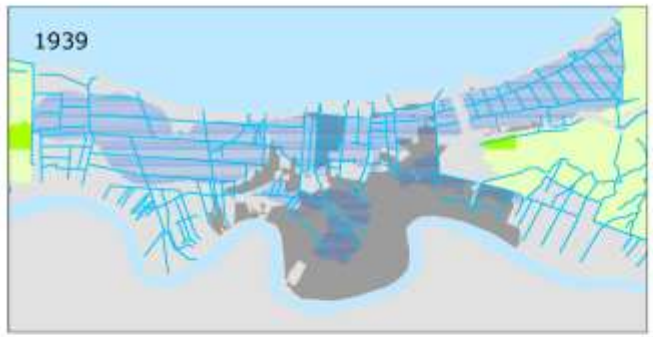
- Invented 1913 by SWBNO General Superintendent Albert Baldwin Wood
- “The largest and most efficient low-lift pumps in the world.”
- Used in The Netherlands, Egypt, China, and India
- Many original pumps still in service
- Allowed for further expansion of the City into former swampland

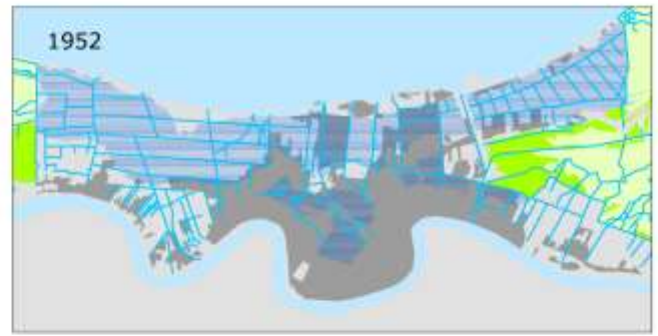
Figure 60. Drainage Pumping Station No. 6. View of interior looking east; in the foreground are 250 cfs vertical centrifugal pump motors. The remainder of the pumps are Wood screw pumps; in the foreground are two 12' pumps, and in the background are four 14' pumps.

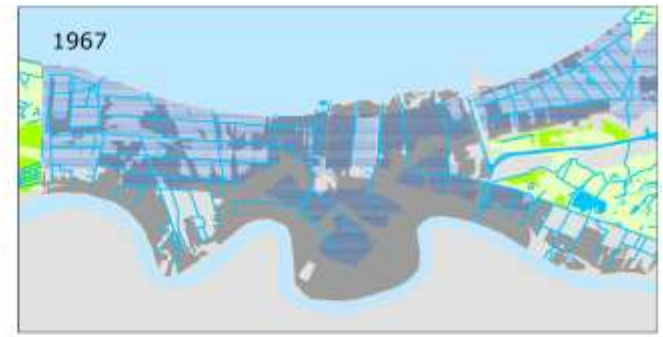


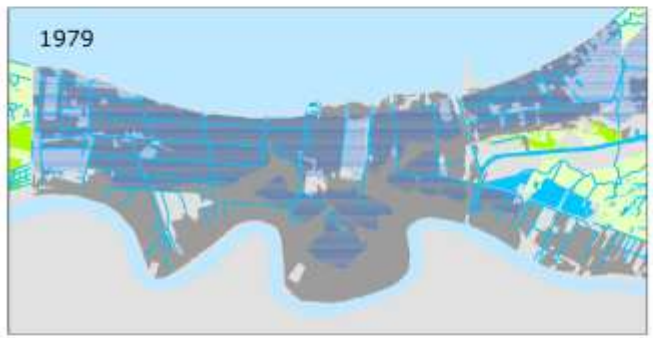


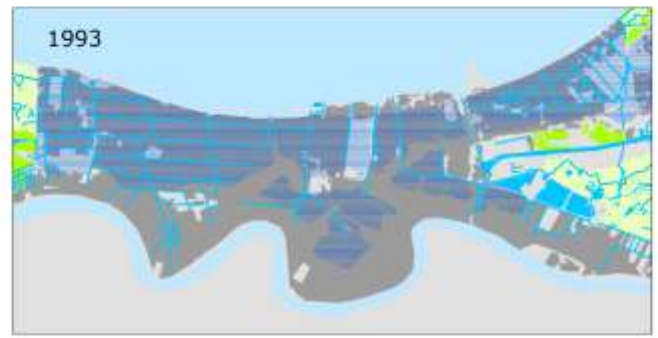


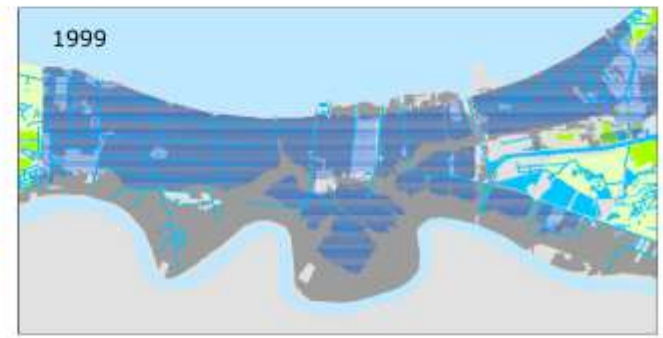


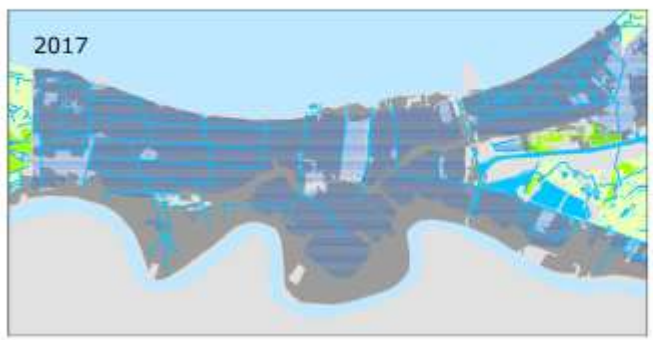


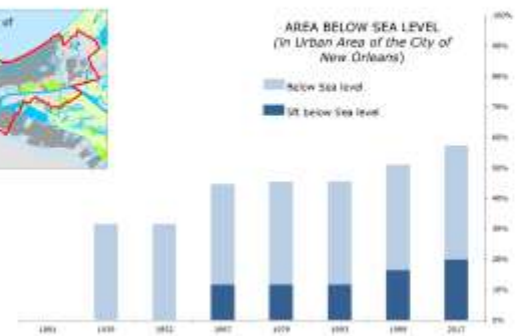






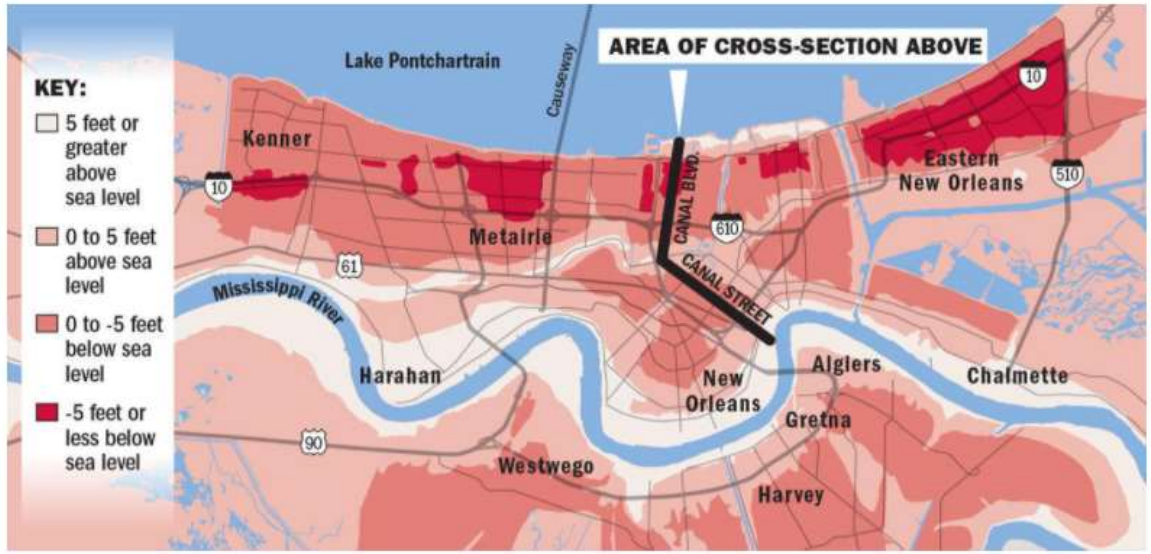


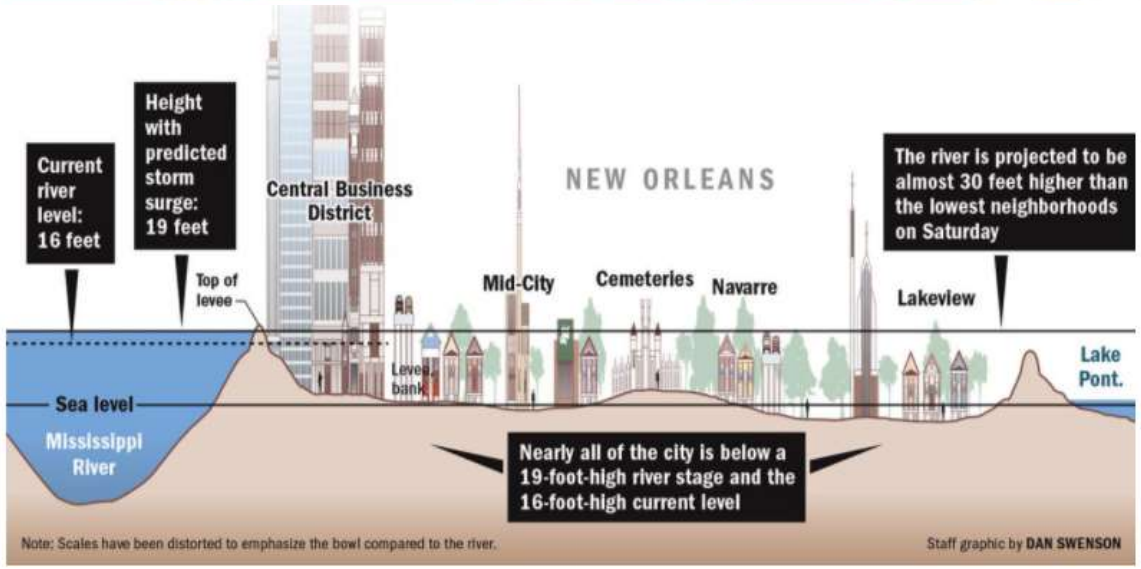


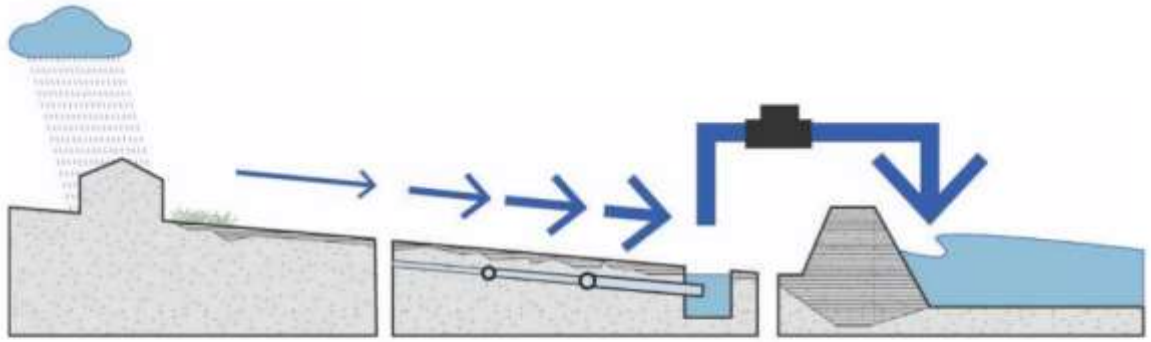


Deltares
Enabling Delta Life

WHY PUMP?







Pave

Urban surfaces, including streets and parking lots, are paved with impervious materials that shed stormwater directly into storm drains and prevent that water from soaking into the ground.

Pipe

Underground pipes and culverts are often overwhelmed by stormwater, causing backed-up storm drains to overflow into streets. These pipes do not allow stormwater flowing through them to infiltrate into surrounding soils.

Pump

Fed by drainage pipes and canals, powerful pumps at the perimeter of each basin lift stormwater over the levees into Lake Pontchartrain, the Inner Harbor, and the Central Wetlands Unit.


city drainage
DRAINAGE BASIN
DRAINAGE CANALS
CULVERTS BELOW STREETS
DIRECTION OF PUMPING
PUMP STATION
LAKE PONTCHARTRAIN
MISSISSIPPI RIVER
CITY PARK
DWYER
ELAINE
1
2
3
4
5
6
7
10
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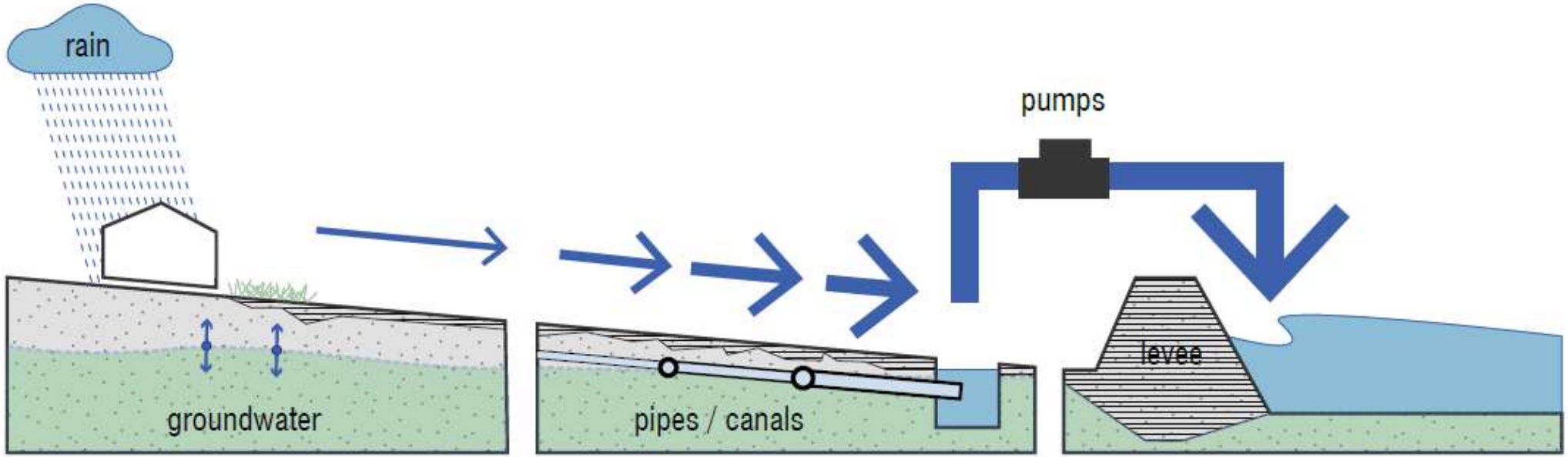
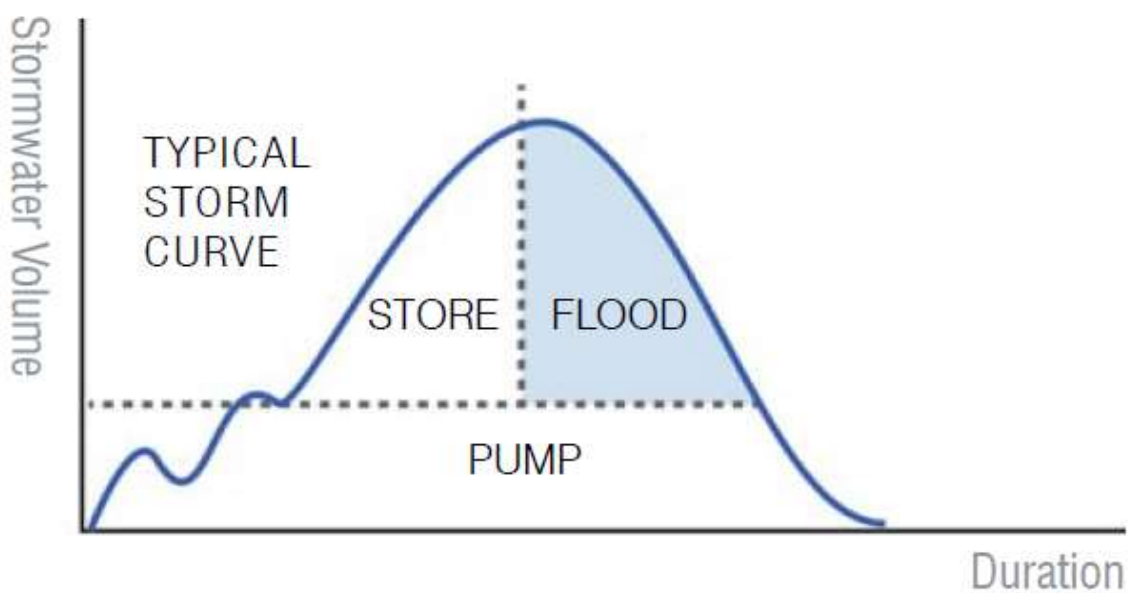
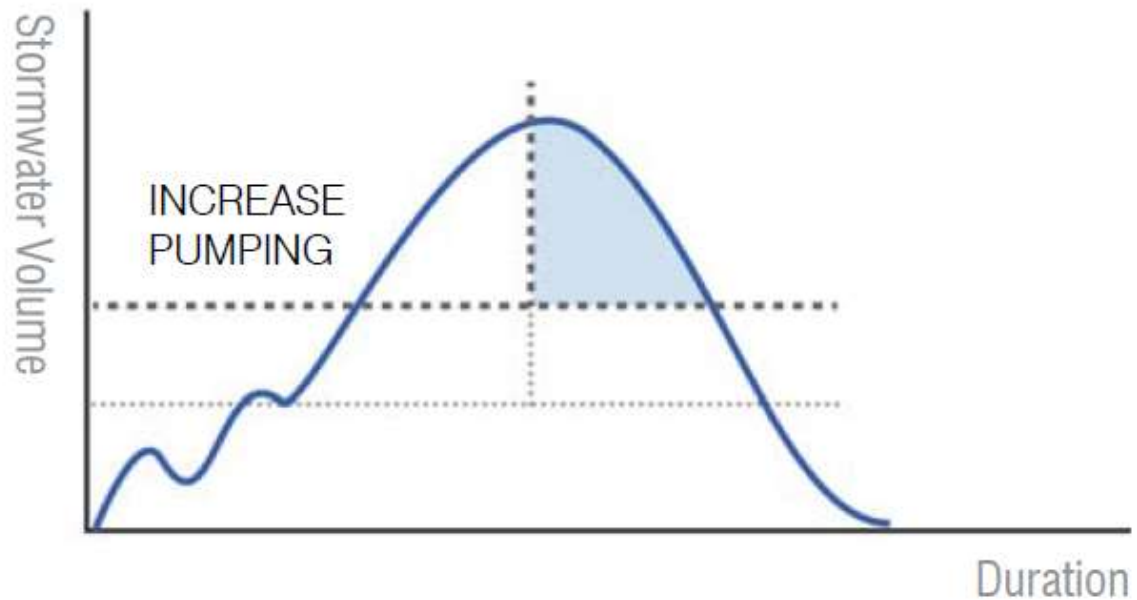
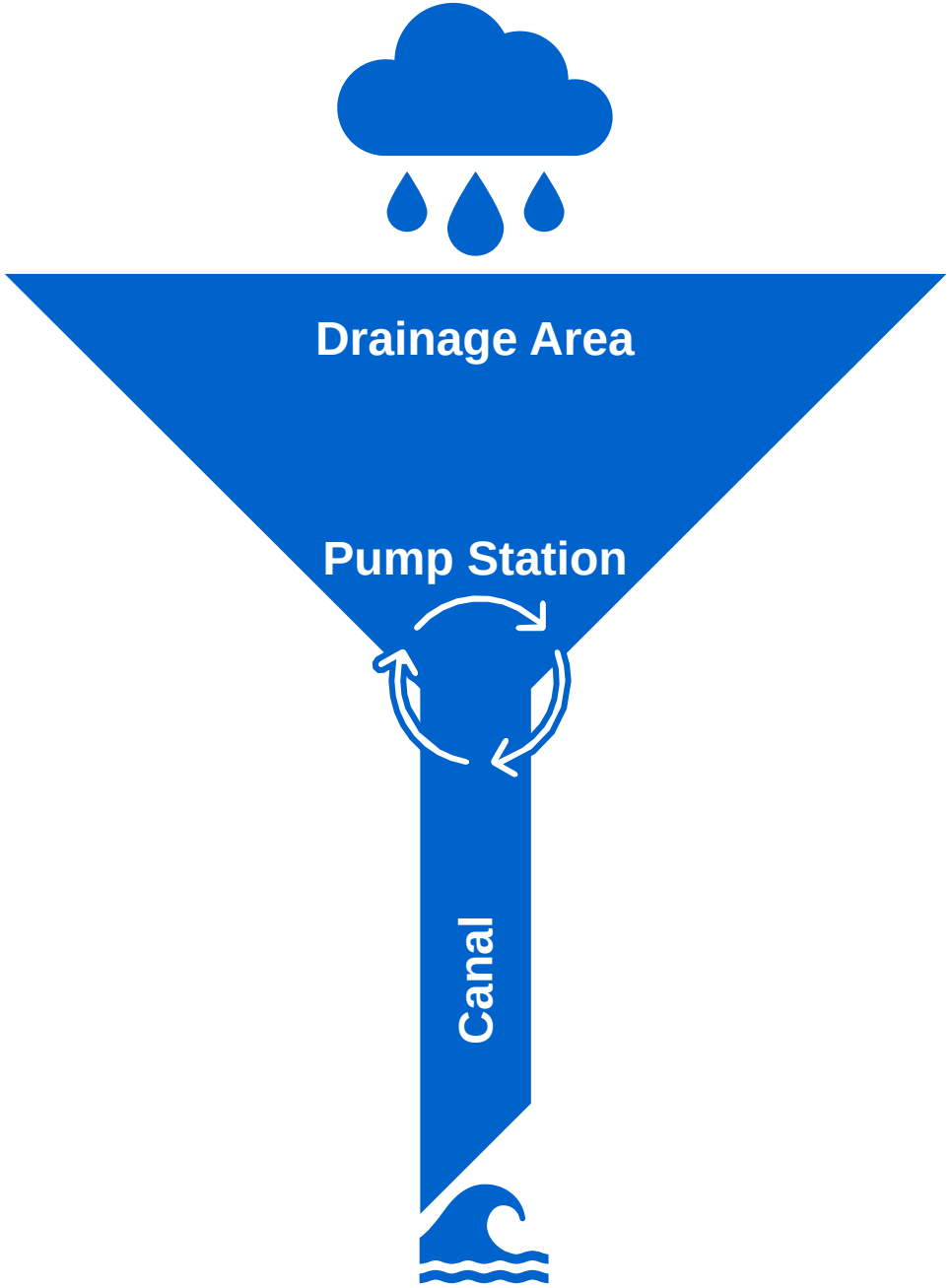
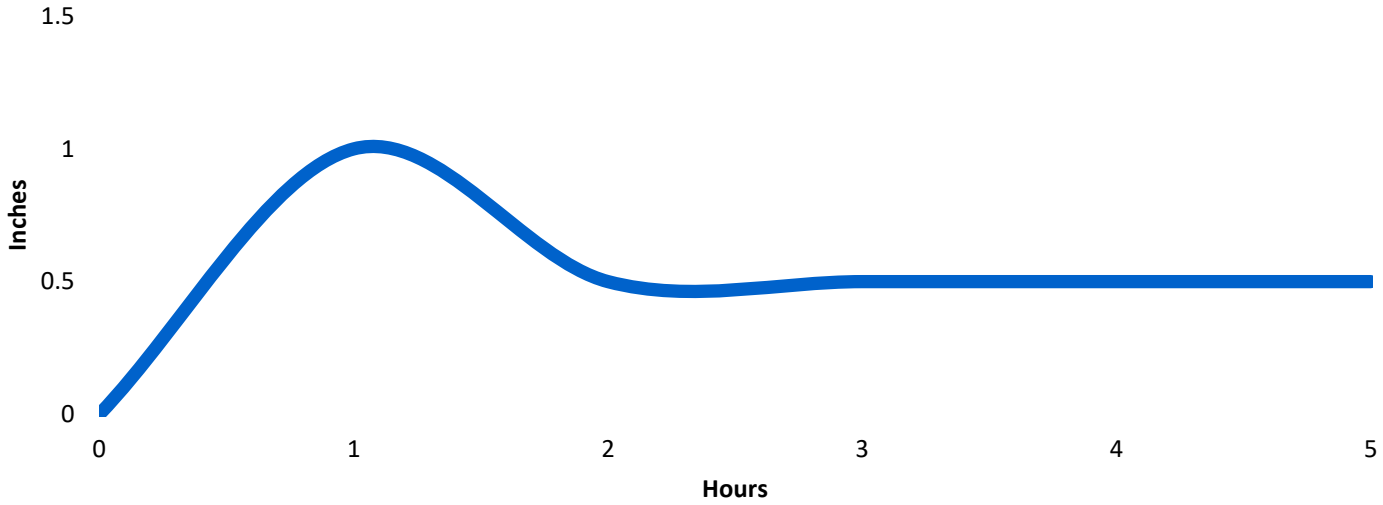

rain
pumps
groundwater
pipes / canals
levee
Pave + Pipe
Pump
Drain


Stormwater Volume
TYPICAL
STORM
CURVE
STORE
FLOOD
PUMP
Duration

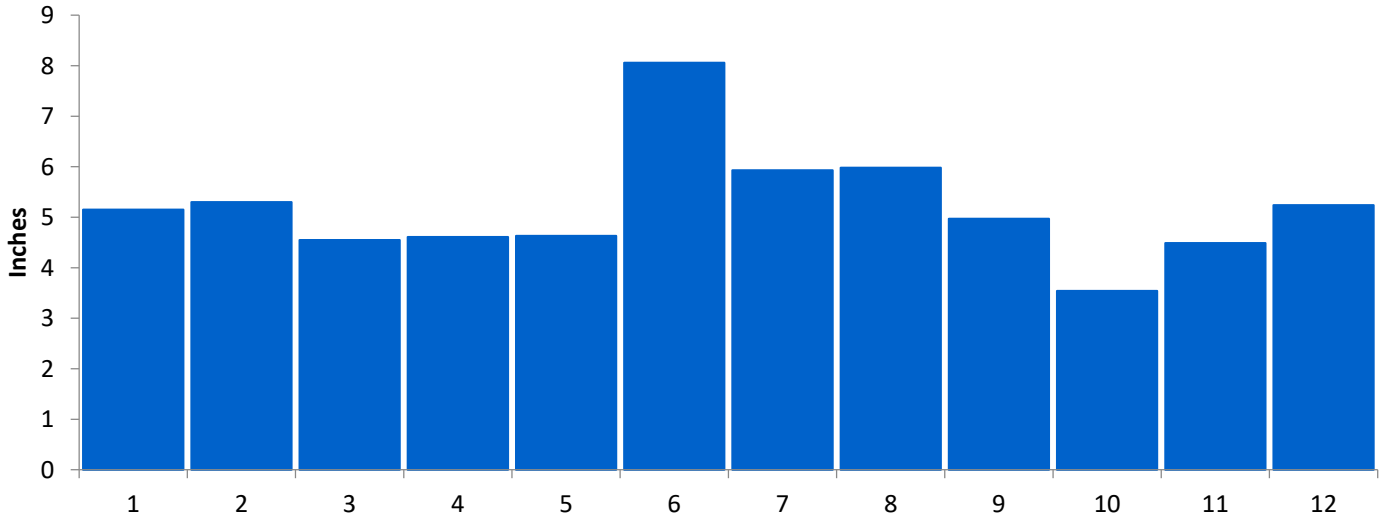

Stormwater Volume
INCREASE
PUMPING
Duration


Drainage Area
Pump Station
Canal

Pumping Capacity

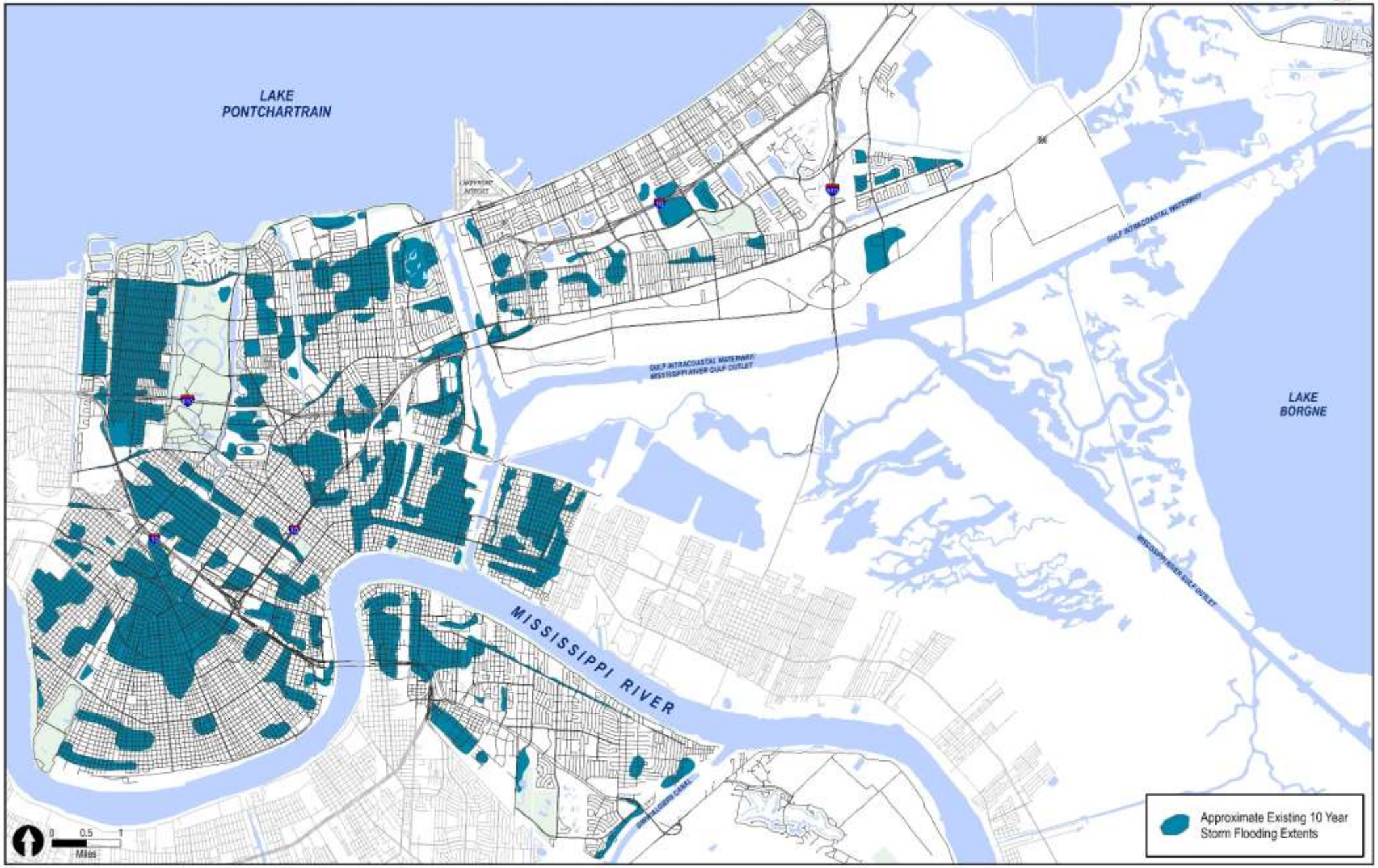


Average Rainfall

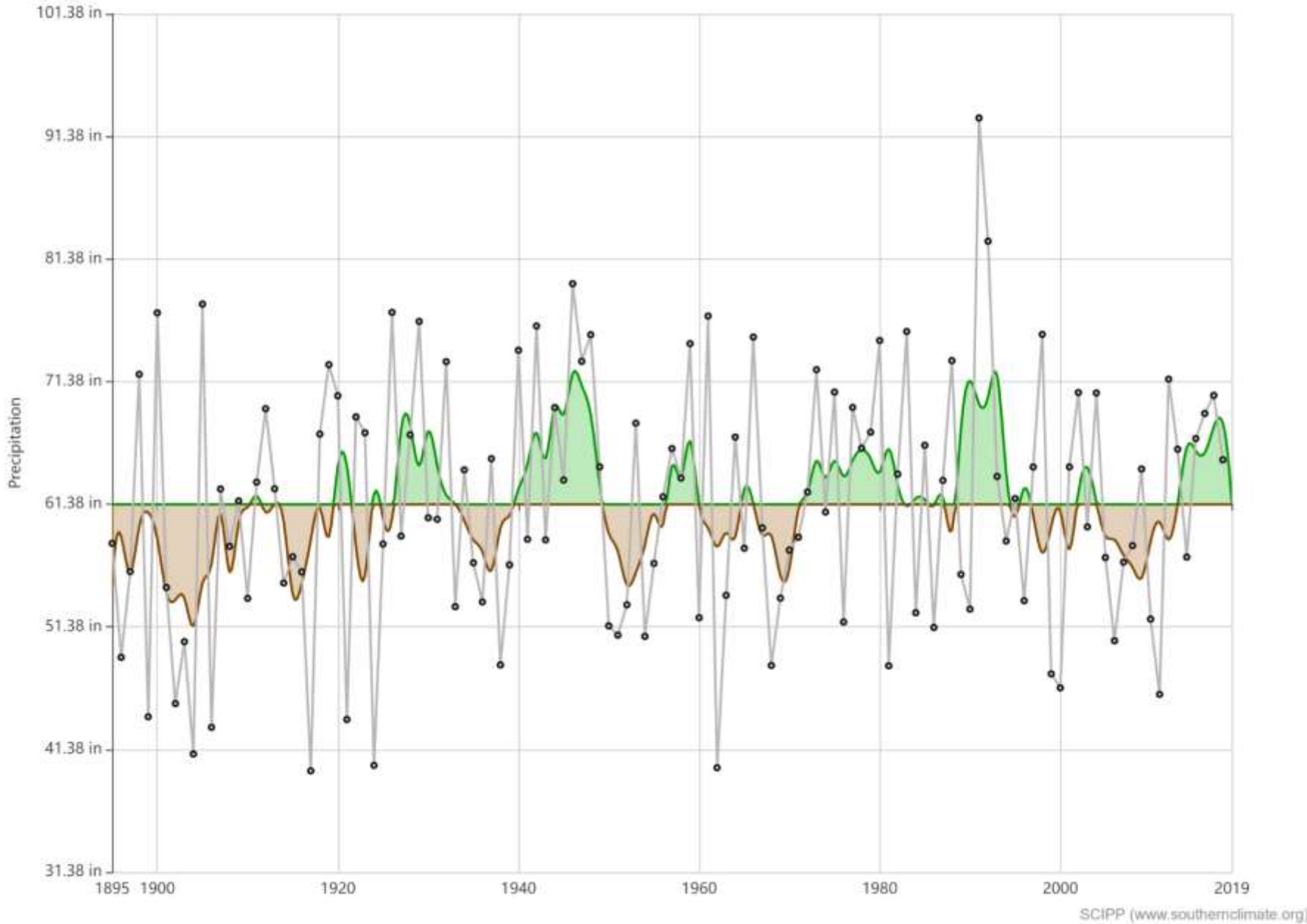


EXISTING 10 YEAR STORM FLOODING

City of New Orleans Department of Public Works: 9 December 2015



Climate Trends - State: LA, Season: Annual



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

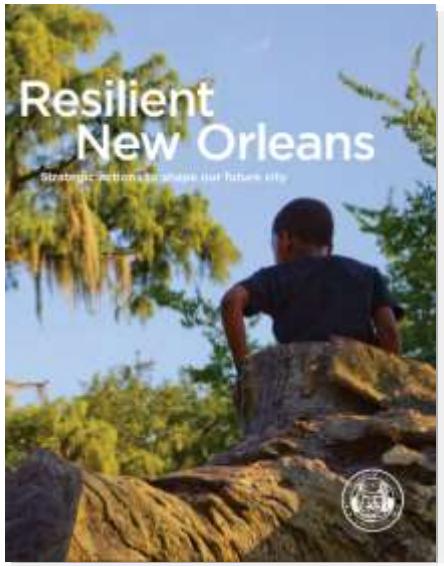
2 Excessive pumping causes the land to sink by lowering groundwater levels.

3 Critical water assets are wasted, hidden behind walls, buried underground, or pumped out of sight.


Plan for
the 21st Century
NEW ORLEANS 2030 1 EXECUTIVE SUMMARY
AUGUST 2010 [AS AMENDED THROUGH 2012]


Greater New Orleans
Urban Water Plan
Vision
Waggonner & Ball Architects
September 2013


Green Infrastructure
Plan
Sewerage and Water Board of New Orleans
4/24/2014

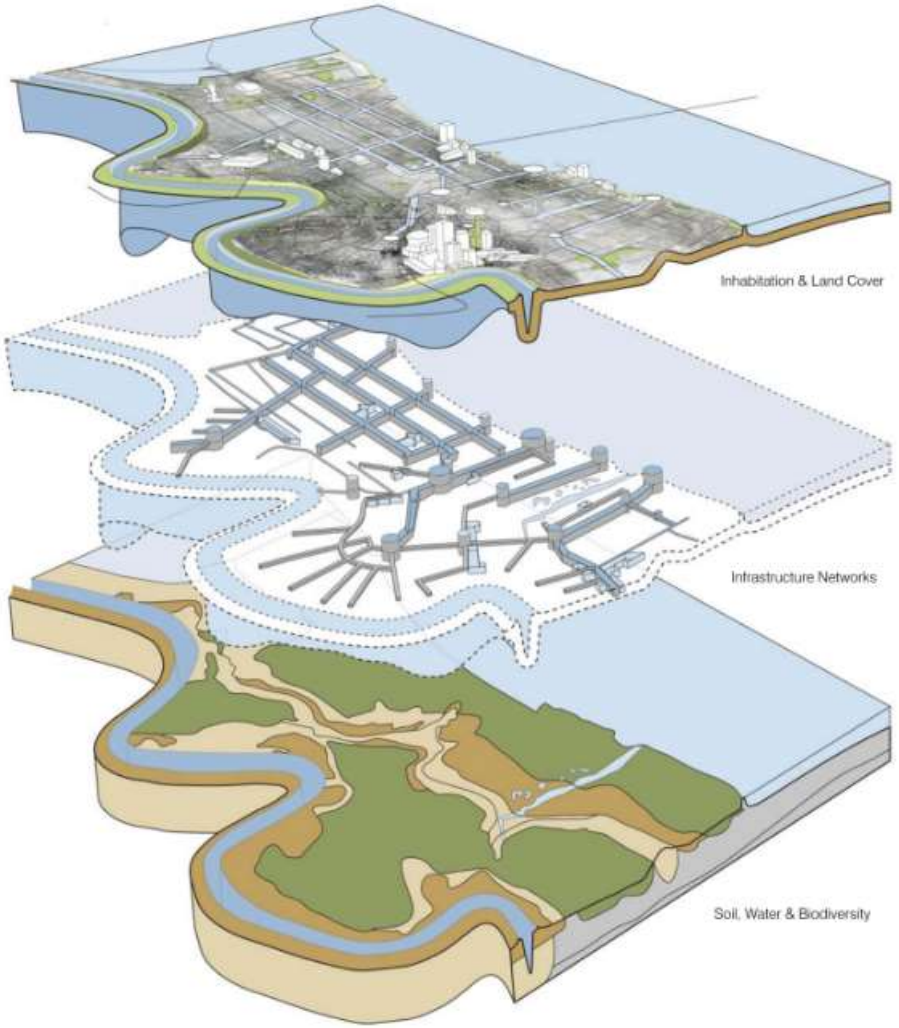

Resilient
New Orleans

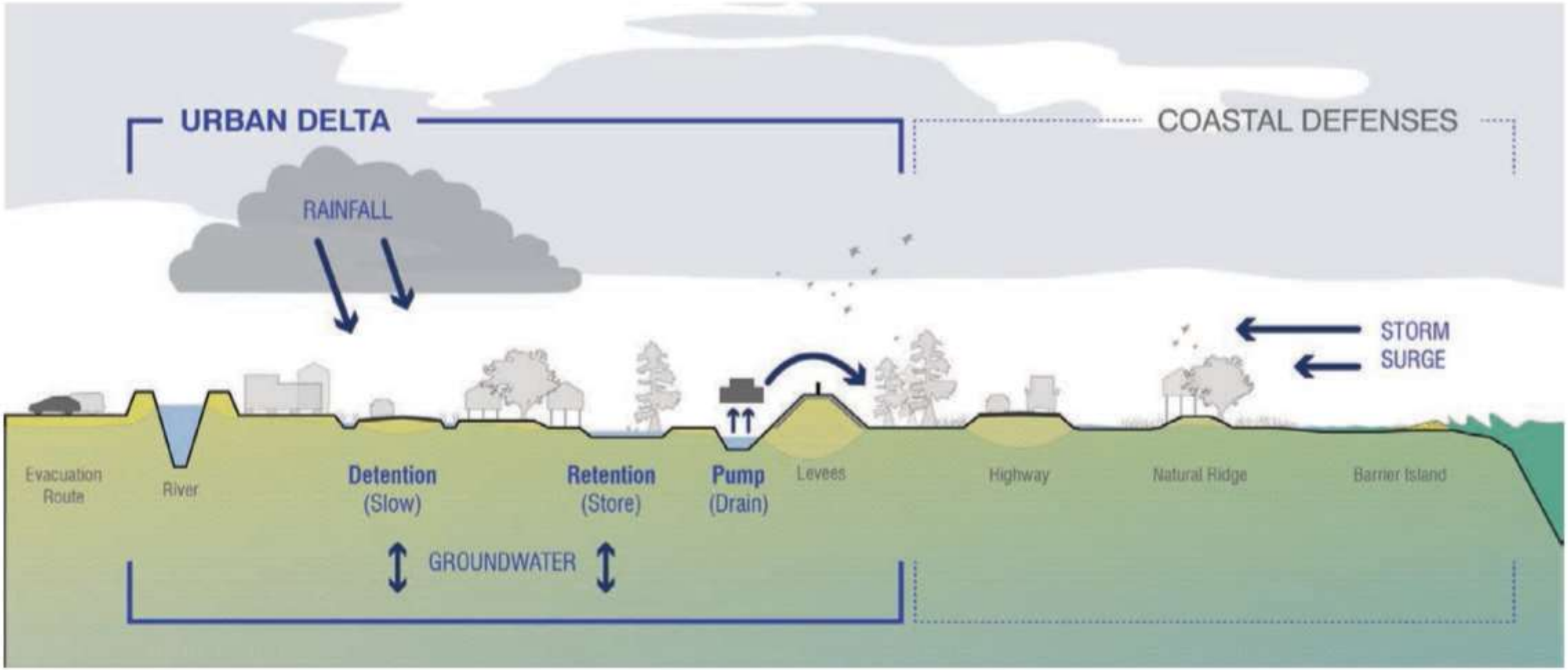

ARTICLE 23. LANDSCAPE, STORMWATER MANAGEMENT, & SCREENING

URBAN WATER PLAN

- Funded by State Office of Community Development
- Developed by Waggonner & Ball in association with hundreds of local and international water management experts
- Address ground water and stormwater as critical factors shaping a safer, more livable, and economically vibrant region

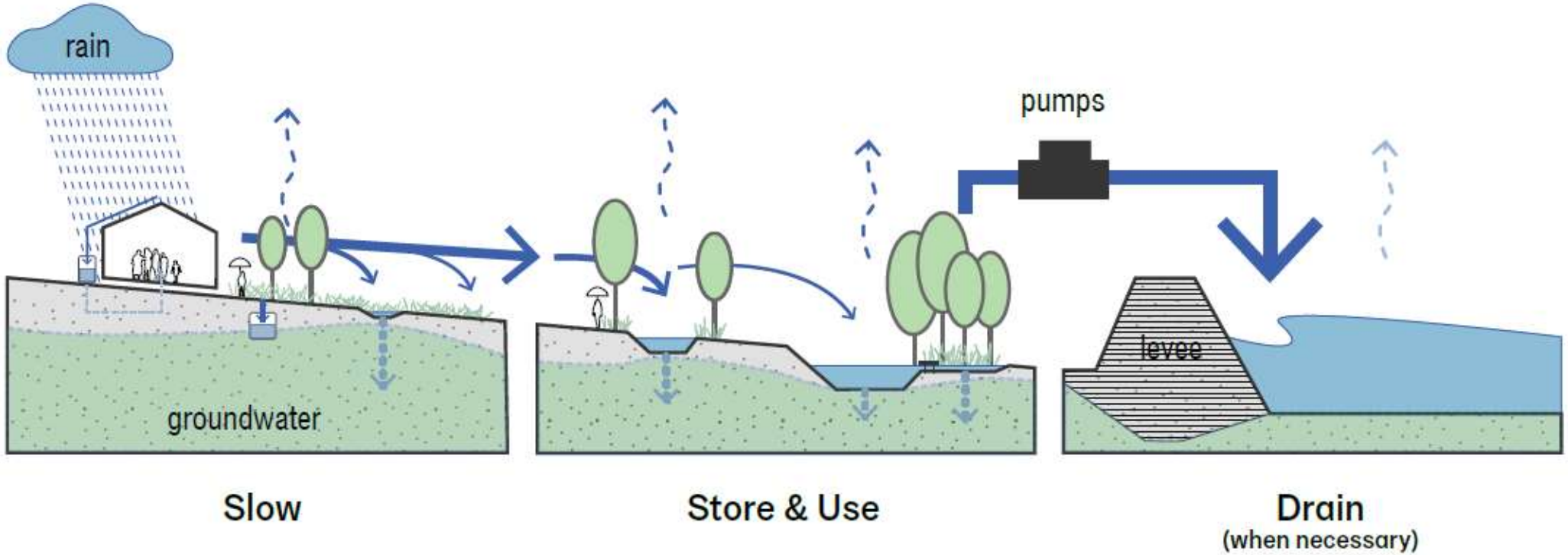
www.livingwithwater.com

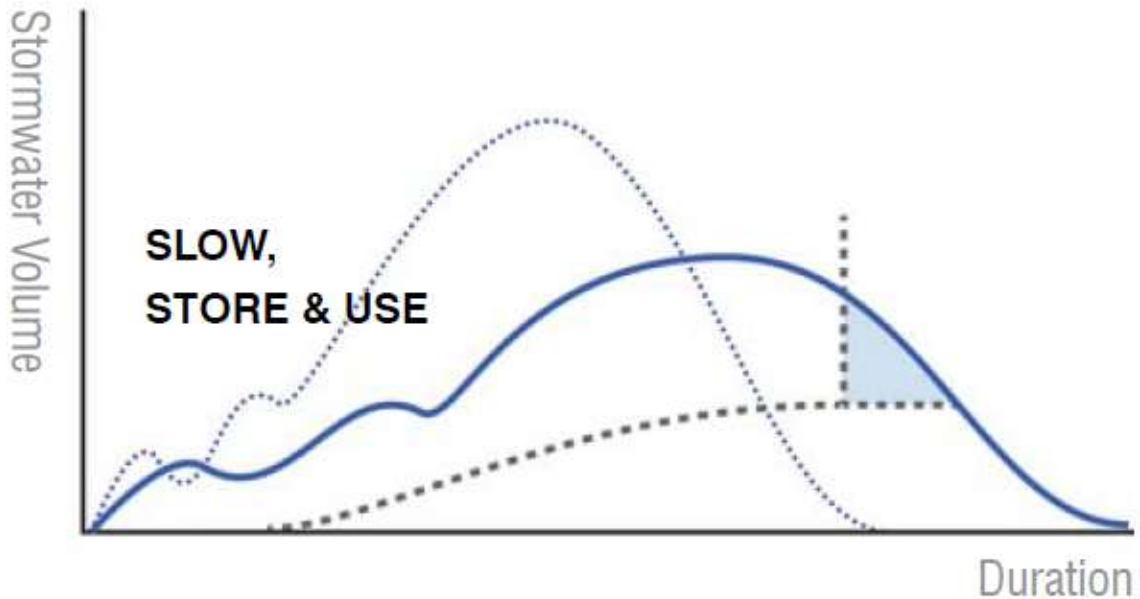




Urban water management and coastal defenses, both critical to a resilient urban delta

Source:
Waggonner & Ball Consulting Team


rain
pumps
groundwater
levee
Slow
Store & Use
Drain
(when necessary)


Stormwater Volume
SLOW,
STORE & USE
Duration


GREEN ROOFS


NORA


NORA

GREEN INFRASTRUCTURE

NEXT STEPS

- Next Meeting will be January 29 at Noon
- Meeting Topic?
  - Water System Overview
  - Sewer System Overview
    - Incl consent decree
  - SWB Organizational Structure
  - Review of recent planning efforts and outcomes
  - Boil Water Advisories
  - Flooding, how residents can mitigate?
  - Deeper dive on billing issues


SEWERAGE & WATER BOARD
CRESCENT BOX
WATER METER
FORD METER BOX CO. WABASH, IND.
NEW ORLEANS, LA.

THANK YOU