



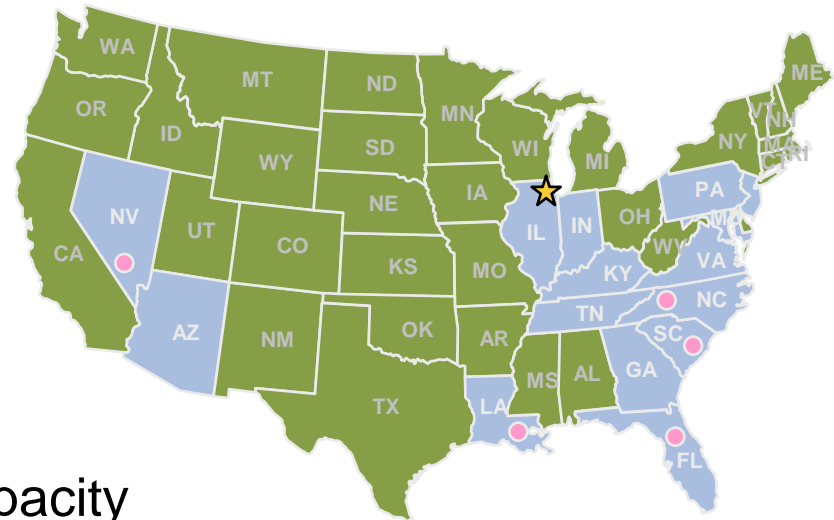
# Resiliency and Response

February 15, 2009

Lisa Sparrow  
Chief Operating Officer

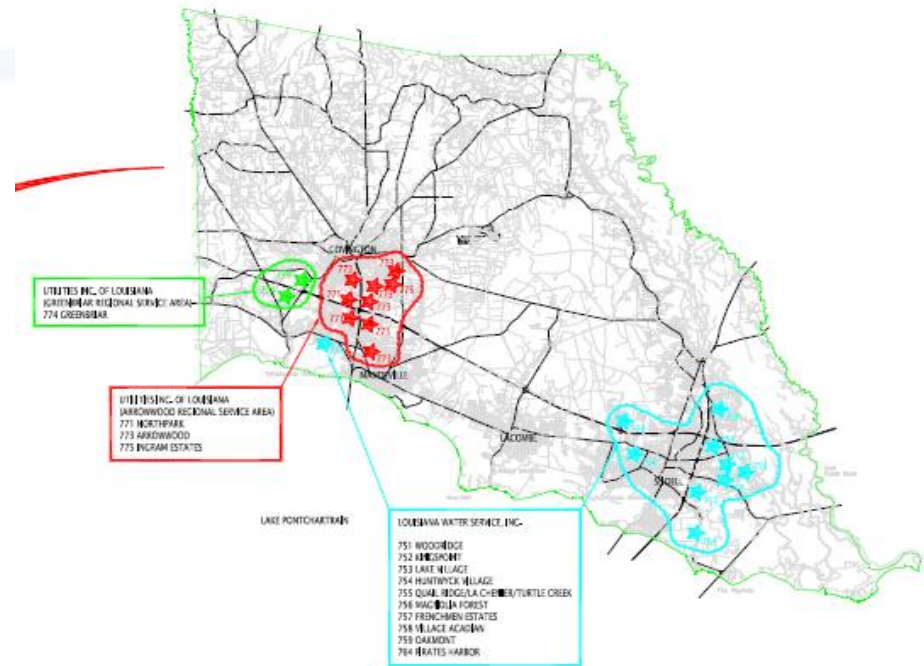
# About Us

- 43 years old
- Operations in 15 states, serving just over 1,000,000 people
- 200 mgd water production capacity
- 40 mgd wastewater treatment capacity
- Leader in reuse



# Louisiana Operations

- Serving 18,000 connections for over 25 years
- Operating 25 wells and 10 wastewater treatment plants
- Over 200 miles of main and lift stations
- Centralized on north and east side of Lake Pontchartrain



**ST. TAMMANY PARISH, LOUISIANA SYSTEMS**



# Hurricane Katrina

- Arrived on Monday, August 29, 2005 as a Category 5 storm
- By Tuesday morning New Orleans was completely under water due to levee breaks
- New Orleans and the surrounding Parish's were also without electric power and other utility services
- **Nothing we had experienced in our 43 year history**



# “Normal” Hurricane Planning

## ■ Planning & Preparation (Key for Effective Response)

- Setting up command center(s) and facility inventory data
- Distribute current phone lists
- Establishing priority cellular service with service provider
- Identifying internal resources and external resources
- Determining location of staff and response assignments
- Identifying and strategically locating generators/fuel
- Identifying equipment rental availability and locations
- Identifying and coordinating with vendor of supply parts
- Secure facilities
- When do you leave and when do you come back?
- Prepare for the unexpected (Plan B)



# “Normal” Hurricane Planning



- Damage Assessments
  - Key to prioritizing response efforts and repairs
- Response and Recovery
  - Restoration of services safely and efficiently
- Reporting
  - Communication and coordination that occurs before, during, and after the event
  - Lessons-learned improves response for next event



# Some Planning is Well Ahead of the Event

## ■ Long Term Planning

- Construction standards (e.g. keys, quick connects)
- Routine Inspections
- Determining priorities
- Establishing relationships with emergency responders in community

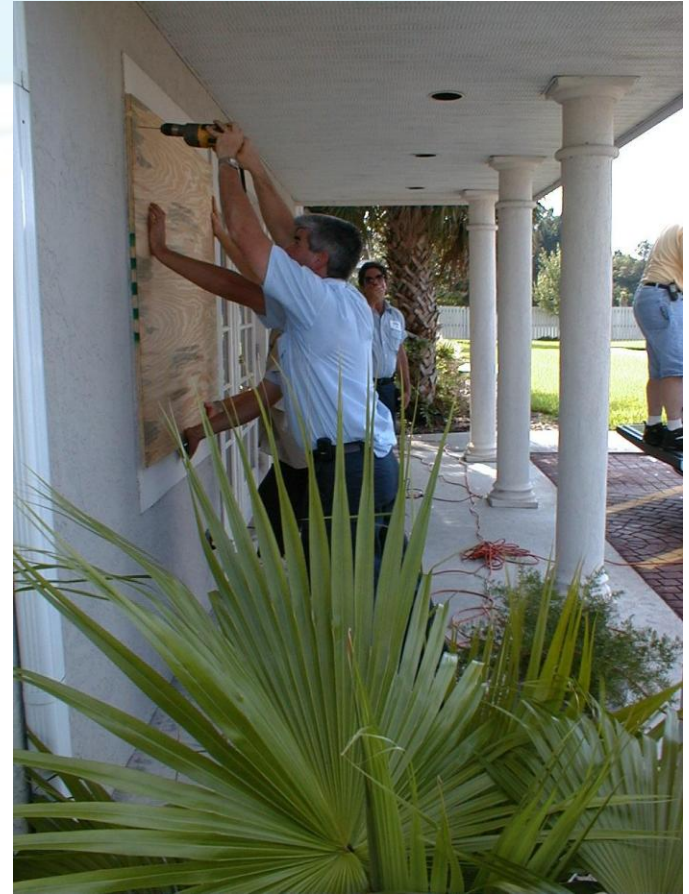
## ■ Prepare for the unexpected (Plan B)

**“The most successful people are those who are good at plan B.”** - JAMES YORKE



**“Experience is a hard teacher because she gives the test first, the lesson afterwards.”**

*- Vernon Sanders Law*



# What was different in Katrina?

- Blackout of communications
- Prolonged lack of basic needs
  - Fuel
  - Food (Water)
  - Lodging
  - Supplies
- Impact to employees
- Massive scale



# Utilities, Inc. Response

- Located local personnel by August 30, 2005 (Day 1 Post Katrina)
- Local personnel who didn't evacuate
  - began site assessments that day
  - distributed portable generators to water systems
- Outside of LA, preparation for “new world” response Days 2-3
- Regional personnel began to arrive at staging area by September 3 (Day 5)
- Majority of first responders were dispatched to Slidell, LA, the hardest hit service area
- Other responders deployed in order of damage and/or severity



# “Plan B” – Calling the Audible

- Assume nothing with communication
  - Cell signals down for days
  - Satellite radios overnighted to regions before traveling into Louisiana
  - Handheld FM radios for internal communication
  
- Coordination
  - Central
  - Remote
  - Communication critical
  
- Plan ahead
  - Meeting spots
  - How you will get there (fuel piggy backs)



# Audible after Audible

## ■ Currency

- Prolonged power outage means no credit cards, fuel cards or ATMs
- Cash is King!
- But it has to be nearby!

## ■ Fuel is King!

- Widespread outages
- Need gasoline and distillate

## ■ Personnel needs

- Sleeping quarters
- Food



## ■ Policy Schmolicy?

- New world and must adapt (can't plan for everything)
- Requires to know why you have your policies and what circumstances would warrant an exception (rules made for status quo)
- Tougher when larger and unionized

## ■ Teamwork

- 34 employees from 5 different regions
- 2 retired employees assisted
- Across utilities and sharing of resources (e.g. “first hot meal”)
- But everyone wants to help, so need to effectively manage
- People must carry more weight back home (and for long period of time)



# Critical Considerations

## ■ Safety

- Your employees are carrying gold
  - Fuel
  - Money
  - Food
- Security guards hired and traveled with regional teams
- Stayed at base camp

## ■ Employees dealing with their own personal tragedies

- Loans, cash advances and other support
- Donations from colleagues
- Housing
- Health
- Family



# Utilities, Inc. Result

- Service restoration of UI's 124 facilities
  - 16 facilities never lost service initially due to generators
  - All but one water system in operation by Day 3
  - Last facility took two weeks
  - Permanent restoration took months

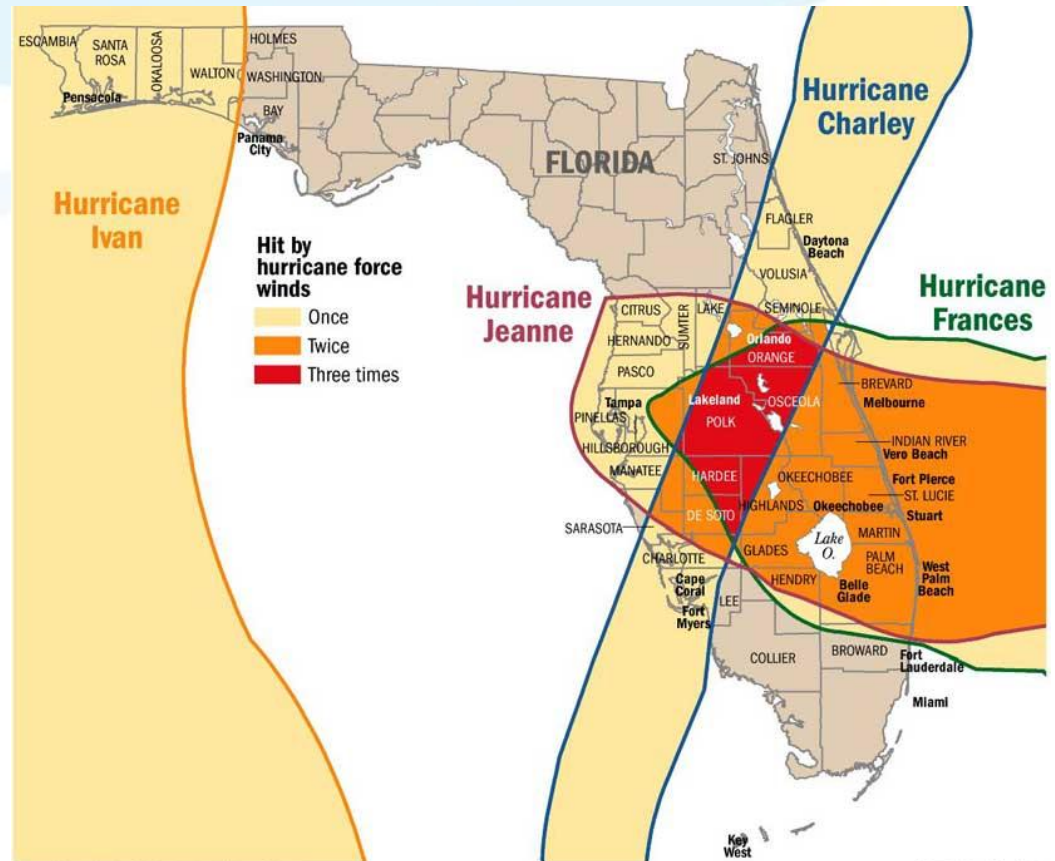


# Just when you think it's over.....

## ■ Florida 2004

■ 4 major storms in a 6 week time span

■ Introduces issue of repetition



*The SOUTH FLORIDA cardio exercise program ...*



DAVID MORIN  
The Miami Herald



# New Considerations . . . . .

- You don't know you are in for repetition
- Exhausted workforce and supplies (so must plan for replacement crews and new supplies)

**BOTTOM LINE IS PLANNING IS A CYCLE**





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