A large industrial dredging vessel, possibly a cutter suction dredger, is shown on a body of water. The vessel has a complex structure with a tall vertical mast on the left and a large crane-like structure on the right. The water is dark and calm. In the background, there is a dense line of green trees and some industrial buildings or structures. The sky is overcast with grey clouds. The text "Mobilization Costs..... What Gives?" is overlaid in large, bold, red font in the center of the image.

# **Mobilization Costs..... What Gives?**

**Bill Hanson  
Great Lakes Dredge & Dock**

A large red and white dredger ship named "LIBERTY ISLAND" is shown sailing on the ocean. The ship has a complex structure with various pipes, cranes, and equipment. The name "LIBERTY ISLAND" is visible on the side of the hull. The ship is moving from left to right, leaving a white wake behind it. The background shows a hazy coastline with buildings.

**Dredge Projects**

**or**

**Mobilization Exercises?**

# Mob Cost Drivers

- **Mob Schedule**
  - Tight Schedule?
  - Time for Plan B?
- **Project Complexity**
  - Equipment Spread
  - Location
  - Weather
- **Contract Mob Risk**
  - Original Concept (assumed)
  - Options
  - Funding
  - Permits/3<sup>rd</sup> Party



# Mob Schedule

## Potential Complications

- Quick Start Dredging
- Enviro windows
- Current project obligations
- SAFETY
- Large Spread
- New equipment
- New methods
- New techniques
- SI
- Plan B?



# Equipment Spread

- Simple or Extreme
- Location
- Weather
- Disposal Areas



# Contract Risk

- Original Concept (assumed)

What can change?

- Options
- Funding
- Permits/Third Party



# Sample Project

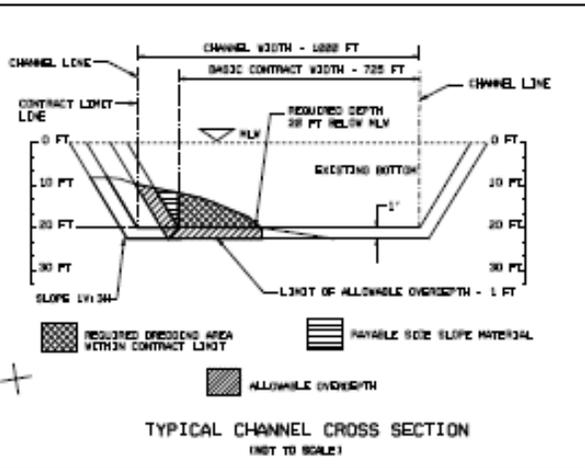
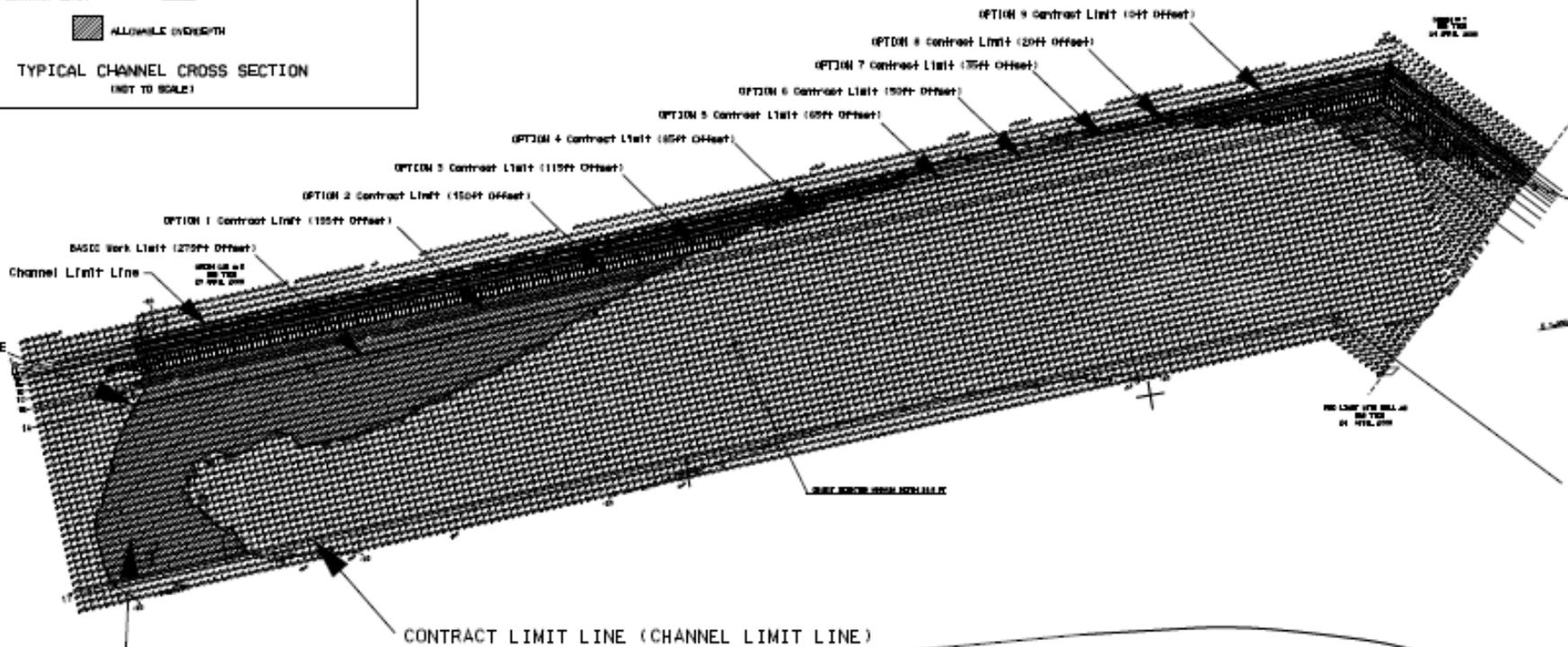


TABLE OF CHANNEL COORDINATES

	PT	earing	arming	PT	earing	arming	PT	earing	arming
B4530	1A	999549.7754	135214.7625	2A	999057.6225	141131.9991	3A	1001571.7664	143552.2209
WFE	17	1000073.8719	135310.4765	18	999796.1990	140876.4480	19	1002081.7860	143086.8540
<b>Op+1000</b>									
	1	999269.6768	135270.3773	28	999970.3081	141164.2802	39	1001516.5870	143400.6545
	2	999324.9289	135266.1357	29	999929.3437	141162.4945	30	1001485.0743	143442.2754
	3	999189.9721	135246.7922	30	999894.1936	141156.6612	31	1001460.6005	143467.4662
	4	999161.0095	135244.8978	31	999867.5936	141236.8041	32	1001479.9944	143489.1008
	5	999140.0943	135235.4018	32	999847.1230	141216.9994	33	1001432.1287	143509.9099
	6	999136.0536	135231.1925	33	999827.8008	141233.9708	34	1001416.7008	143514.9198
	7	999110.0714	135226.4071	34	999812.4791	141226.0433	35	1001408.3178	143526.1319
	8	999080.0900	135221.6999	35	999797.1276	141229.1127	36	1001394.9149	143535.9288
	9	999075.6130	135220.6760	36	999779.7741	141243.2205	37	1001386.2460	143537.2720

COORDINATES OF POINT AND POINT TO  
 U.S. STATE PLANE (NAD 83)  
 NEW YORK LGA 25LJND



# Sample Project

## Complications

- Quick Start Dredging
- Enviro windows
- Current project obligation
- SAFETY
- Large Spread
- New equipment
- New methods
- New technique
- SI
- Plan B?



# Sample Project Equipment Spread

<u>TYPE</u>	<u>Location</u>
Large class CSD	Louisiana
Booster	Louisiana
Launches	East Coast Florida
Derrick	East Coast Florida
Fuel Barge	East Coast Florida
Anchor Barge	East Coast Florida
Plunder Barge	East Coast Florida
Rental Tug	Local??
2 Dozers	East Coast Florida
1 FEL	East Coast Florida
1 land based crane	Local
25,000 feet subline	East Coast Florida
2,000 feet floathose	East Coast Florida
5,000 feet shoreline	East Coast Florida



# Sample Project

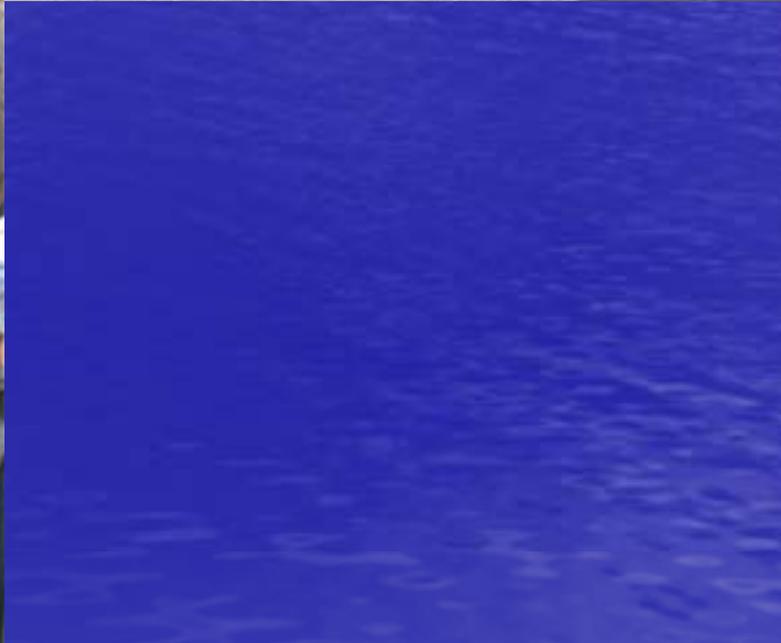
# Equipment Spread

HOW DOES IT ALL GET THERE? CARE TO DANCE????

- Prep Dredge for Ocean Going Tow
- Tow Dredge to site with Rental Tug RT slow bell
- Tow Subline Rafts 5,000' each (5 tows with 2 tugs each tow)
- Tow Derrick Barge with launch
- Tow Anchor Barge with launch
- Tow Fuel Barge with launch
- Tow Float Hose with launch
- Tow Plunder barge with launch
  
- Prep Booster
- Tow Booster with rental tug RT
  
- Tugs at \$10,000 per day each
- Equipment may or not be charged during tows
- Long Distance tows can easily reach \$200k to \$350k each







# Sample Project Equipment Spread

**NOW IT IS THERE, HOW DO WE GET IT TO WORK??**

- Rental Tugs during prep
- Derrick during prep
- Set up Office
- Transportation and Travel
  
- Survey Boat to Site
- Truck Land Equipment to site
- Prep Dredge for Work

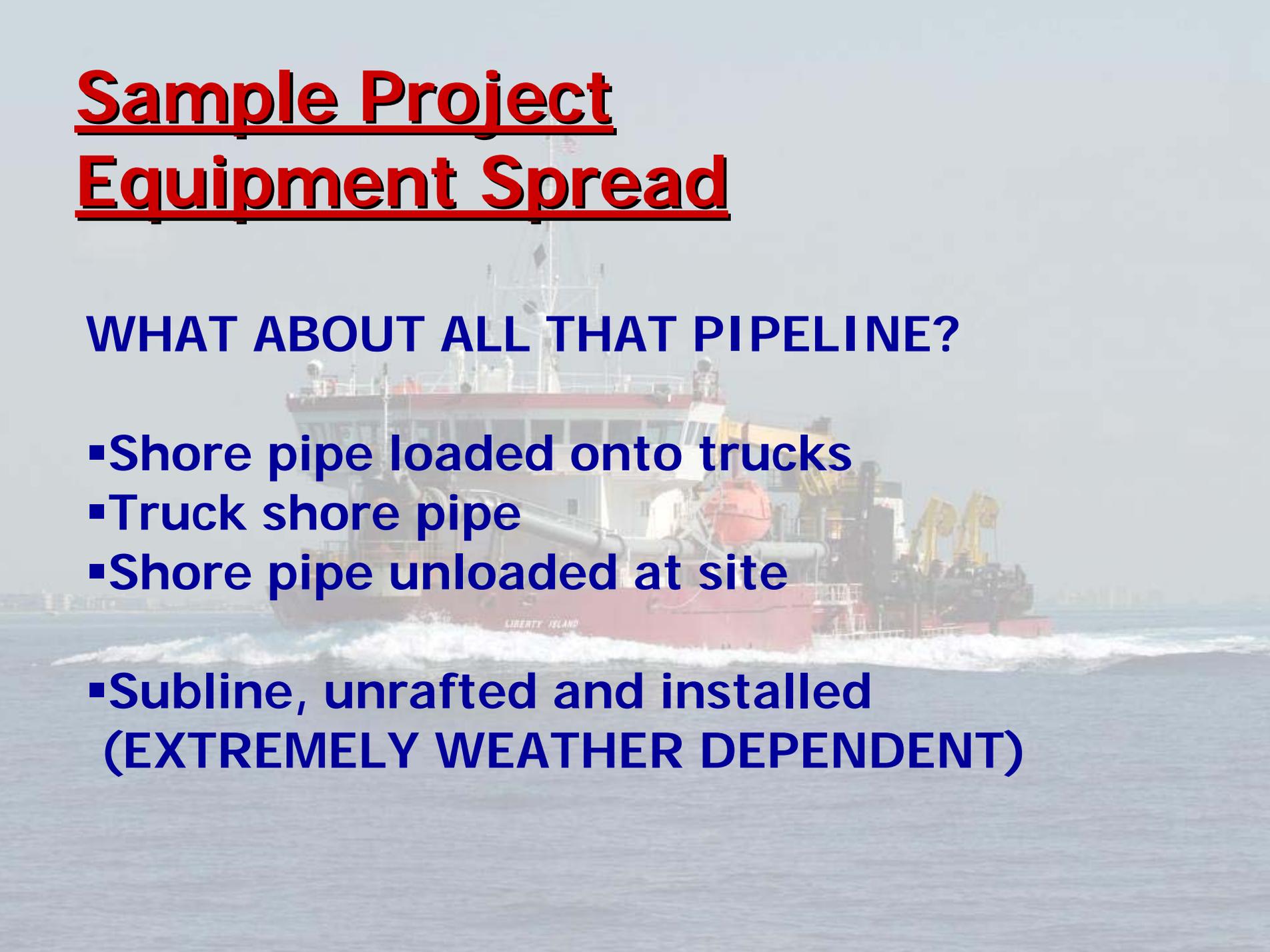


**REMEMBER, EXPENSIVE SPREAD OF EQUIPMENT AND LABOR  
ALREADY ON SITE BEFORE DREDGE EVER ARRIVES!!**

# Sample Project Equipment Spread

## WHAT ABOUT ALL THAT PIPELINE?

- Shore pipe loaded onto trucks
- Truck shore pipe
- Shore pipe unloaded at site
- Subline, unrafted and installed  
(EXTREMELY WEATHER DEPENDENT)



# Sample Project Equipment Spread

**AND OF COURSE THE WEATHER IS ALWAYS PERFECT!!!**

- **In poor weather, EVERYTHING SHUTS DOWN.**
- **Never for a day always more.**
- **The intricate dance becomes a nightmare.**



# Contract Risk

## Original Concept (assumed)

- Assumption - entire project gets awarded **QUICKLY!**
  - 1 to 2 month mobe
  - 3 weeks work MAX
  - 2 to 4 week demobe
- How do you cost?
- How do you price?
- What would you do?



# Contract Risk

The background of the slide is a photograph of a large bridge spanning a wide river. In the foreground, several large construction barges are visible, some with cranes and other equipment. A smaller boat is moving away from the barges, leaving a white wake in the water. The sky is overcast and the overall scene is somewhat hazy.

## What can change?

- Options don't get awarded **QUICKLY**
  - Miss opportunity to bid other work
  - Move still the same depending on timing
- Options Awarded Randomly
  - Possible Redredge Areas
- Surveys show different project
- Weather creates different project
- Permits/Third Party

# Mobe Costs Conclusion

- Cost Estimating for dredging is difficult.
- Cost Estimating for dredge mobilization is REALLY difficult!
- Don't be surprised at a wide spread of opinions.....
- **AND ...WHAT ABOUT THE DEMOBE??**

# **Realize America's Maritime Promise** **Harbor Maintenance Fairness Coalition**

**[www.RAMPHMTF.org](http://www.RAMPHMTF.org)**

## **3 Layered approach**

- **Coalition Building**
- **Legislative Action**
- **Assure money to be spent as intended.**



[www.RAMPHMTF.org](http://www.RAMPHMTF.org)

