

# The Industrial Canal Lock Expansion Project- the Lower 9<sup>th</sup> Ward Environmental

## Concerns, the Justice – the Neighborhoods

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# Abstract

The lock facility was constructed by the Port of New Orleans and opened in 1923. The lock is presently is 640 feet long by 75 feet wide by 31.5 feet deep. In 1944 the federal government leased the lock and a 2.1-mile reach of the Inner Harbor Navigation Canal and assumes operation and maintenance. In 1956 Congress authorized replacement of the existing lock when economically justified. In 1986 the federal government purchased the lock and 2.1 mile reach in fee. Then in 1986 Congress modified the 1956 authority identifying the potential location of replacement lock in the area of the existing site or at Violet, LA (St. Bernard Parish). Back in 1998 the Corps of Engineers decided to replace the lock, widen, and deepen the canal, despite the fact that the dredged material would be laden with harmful chemicals that have accumulated over the years.

The purpose of this study is to assess the environmental concerns and feasibility of the replacement of the Industrial Canal Lock. Due to a legal challenge, the courts stopped the Corps for continuing with the project until they adequately showed that they prepared an adequate Environmental Impact Statement. In 2007 The Corps came out with a Supplemental Environmental Impact Statement. Once again, it was challenged in the courts, as they did not take a hard look at the impacts of the project. The courts agreed, stating that the Corps did not adequately look at impacts of the project, as well as alternatives to the proposed plan. This is backed up by a report issued by Taxpayers for Common Sense. Now, the Corps has come out with a second Supplemental Environmental Impact Statement. Community impacts must be assessed. Where will the contaminated dredged sediment be disposed of? How will this impact the flood risk of the surrounding communities, including evacuation routes? Is the project necessary? The Future considerations-Follow-up on the Community and the Corps of Engineers Meetings. The Next Research Project – Environmental Testing and monitoring during the Construction if the Project is approved.

# Introduction

## A view of the area of Concern





# The History on the Industrial Canal (Inner Harbor Navigation Canal) Lock Expansion Project

- Facility constructed by the Port of New Orleans (opened in 1923)
- 640 feet long by 75 feet wide by 31.5 feet deep\* navigation lock
- 1944 -the federal government leases the lock and a 2.1-mile reach of the Inner Harbor Navigation Canal and assumes operation and maintenance
- 1986 –federal government purchases the lock and 2.1 mile reach in fee
- 1956 –Congress authorized replacement of the existing lock when economically justified
- 1986 –Modified 1956 authority identifying potential location of replacement lock in the area of the existing site or at Violet, LA (St. Bernard Parish)

# The Lock the way it looks now



# Con't History on the Industrial Canal Lock

## Expansion Project

- A little history: back in 1998 the Corps of Engineers decided to replace the lock, and widen and deepen the canal, despite the fact that the dredged material would be laden with harmful chemicals that have accumulated over the years. Due to a legal challenge, the courts stopped the Corps for continuing with the project until they adequately showed that they prepared an adequate Environmental Impact Statement.
- Fast-forward to 2007. The Corps came out with a Supplemental Environmental Impact Statement. Once again, it was challenged in the courts, as they did not take a hard look at the impacts of the project. The courts agreed, stating that the Corps did not adequately look at impacts of the project, as well as alternatives to the proposed plan. This is backed up by a report issued by Taxpayers for Common Sense. You can get a PDF copy of the report.
- So now, the Corps has come out with a second Supplemental Environmental Impact Statement, and they are just beginning public meetings. Here is the meeting information:

The purpose of this study is to  
assess

the environmental concerns and  
feasibility of the replacement of  
the

Industrial Canal Lock.



# Method – Informational Access

**Public Scoping Meeting**

**Wednesday, Feb 4, 2015**

**6:00 pm**

**Location: Dr Martin Luther King Jr. Charter School, [1617 Caffin Ave., New Orleans, LA 70117](#)**

This scoping meeting was a chance for the public to raise potential impacts of the project, as well as alternatives that should be explored.

Potential issues seen include:

- They are relying on an Impact Statement that is 12 years old. They should not just be supplementing that outdated report. They should complete a new Environmental Impact Statement
- There is a need for an updated cost-benefit analysis to determine the necessity of the project. Is the project necessary?
- Community impacts must be assessed.
- Where will the contaminated dredged sediment be disposed of?
- How will this impact the flood risk of the surrounding communities, including evacuation routes?
- Alternatives should include a no-build alternative, as well as an alternative that would not widen or deepen the lock.

Since this is just in the scoping phase, it is not known what exactly they will be proposing. Hopefully this time they will listen to the community and adequately justify any impacts this project might have.

Lower 9<sup>th</sup> Ward to the right near the proposed site  
of the construction-Industrial Canal Lock



# **Inner Harbor Navigation Canal Lock (IHNC)**

## **Replacement Final Array-Corps of Engineers Report**

- It will take 13 years to complete the Project
- Plan 1: No-action alternative -maintain existing lock
- Plan 2: 900 feet long by 75 feet wide by -22 feet deep
- Plan 3: 900 feet long by 110 feet wide by -22 feet deep
- Plan 4: 1,200 feet long by 75 feet wide by -22 feet deep
- Plan 5: 1,200 feet long by 110 feet wide by -22 feet deep



# Four Neighborhoods in Vicinity of IHNC Lock



# The New Lock Project for the Industrial Canal, New Orleans

From The report commissioned by Citizens Against Widening the Industrial Canal (CAWIC)-  
Dec. 2007





# **INDUSTRIAL CANAL, NEW LOCK PROJECT**

**Existing conditions. (CAWIC)-Dec.**

0007



# INDUSTRIAL CANAL, NEW LOCK

## PROJECT

Completion of the project including the relocated lock and replacement of the existing St. Claude Avenue bridge. (CAWIC)-Dec. 2007 Tentatively Selected Plan: Plan 3: 900 feet long by 110 feet wide by -22 feet NAVD88-Plan 3 generates the





# New lock completed and in operation



**US Army Corps of Engineers**  
Team New Orleans



**BUILDING STRONG**

## IHNC Lock Barge Capacity



New 900 feet long by 110 feet wide IHNC Lock, with a sill elevation of -22.0 feet NAVD88.

GIS Development/ Production Team  
EGIS ID No. 17-022 Date: 2/22/2017

# Project Proposed Benefits

- Plan 3: 900' x 110'
- First Cost \$951,300,000 - 100% paid for by Federal Funds
- \$172,400,000-Net Annual Excess Benefits
- Operation and Maintenance is 100% federal
- Plan 3 generates the greatest net excess benefits
- Replacement of the aging St. Claude Bridge

# Results

# Sediment Quality

- Contaminants of concern found in sediment and soil sampling:
  - Metals
  - Organotins-Any tin-based organic compound in wide use for marine anti-fouling paints, wood catalysts, plasticisers-
  - Semi-volatiles
  - Volatiles
  - Petroleum Hydrocarbons
  - Pesticides
  - Herbicides

# Construction Exposure Hazards

- Task-generated
  - Could be from in place materials
  - Could be from materials used
- Could be present at the facility or site where work is underway
- Exposure could be created by another trade/contractor working adjacent to exposed worker

## Routes of Exposure & Special Problems in Construction

- Inhalation
- Ingestion
- Dermal (Through the skin)
- Lack of water & soap on jobs makes potential for “take-home” hazards an issue





# Discussion

# Recognizing Health Hazards –major categories

- Physical hazards (noise, vibrations)-potentially affecting the foundation of existing surrounding structures
- Chemical hazards
  - Particulates (fumes & dusts)
  - Vapors (solvents)
  - Gases (methane, welding gases)
- Biological hazards e.g. legionnaires disease (bacterial infection of the respiratory tract), laboratory hoods & bird droppings

# Noise

- Hearing loss is a pervasive problem for all construction trades
- Over 3500 powered hand tools in use in construction
- Generators, compressors and industrial settings create large background sound levels.

**Noise can damage hair cells, membranes, nerves, or other parts of your ear, causing temporary or permanent hearing loss.**

Loud noise is particularly harmful to the inner ear (cochlea). A one-time exposure to extreme loud sound or listening to loud sounds for a long time can cause hearing loss

What will it do to the nearby community residents?

# Common Particulate (Dusts & Fumes) Hazards

- Silica from abrasive blasting, masonry work, road work, grinding & chipping concrete
- Fumes from Welding, torch-cutting
- Grinding dust
- Metals associated with abrasive blasting
- Insulation material (asbestos and man-made mineral fiber)
- Asphalt fume
- Diesel fumes

These Particulates can be disseminated through the air of near by communities

# Metals

## Have OSHA Standards

- Lead
- Cadmium
- Arsenic
- Chromium (hexavalent)

## No Standard-just exposure limits

- Manganese
- Nickel
- Beryllium

# Other health hazards of abrasives - metals

- Manganese –neurological effects (parkinsonism)
- Chromium VI & Nickel –lung cancer and occupational asthma and skin sensitizer
- Beryllium –berylliosis & lung cancer
- Arsenic –lung cancer

## Silica continues to be a problem

NJ,OH,MI identified 576 cases of silicosis between 1993-1997

–45 from construction

–12 from heavy construction (including highway , bridge and tunnel construction)





# Silica continues to be a problem

- Crystalline silica, a form that includes quartz, can be toxic if inhaled. Crystalline silica is found in rock, brick, and concrete. Grinding, sawing, crushing, or drilling these materials produces a fine powder that causes serious respiratory problems. It is possible for homes to retain this sort of dust after a construction or remodeling project .
- Individuals who inhale these very small crystalline silica particles are at increased risk of developing serious silica-related diseases, including:
  - Silicosis, an incurable lung disease that can lead to disability and death;
  - Lung cancer;
  - Chronic obstructive pulmonary disease (COPD); and
  - Kidney disease.

# Silica continues to be a problem

- Autoimmune disorders
  - Rheumatoid arthritis
  - Scleroderma, the tissue gets hard or thick. It can cause swelling or pain in your muscles and joints.
- May increase susceptibility to TB (tuberculosis)

# Conclusions

The Communities still have great Concerns and Continue to Resist the movement on this Project

Along with the other aforementioned issues-

## Lead Contamination of Soil-disturbances

- Principle health effects at low doses—cardiovascular (heart and strokes); kidney (renal), cognitive (brain), reproductive
- possible subclinical neurocognitive effects (e.g poorer performance on tests of memory, verbal ability and mental processing)
- Hypertension and kidney dysfunction
- Reproductive effects include spontaneous abortion, developmental delays, reduced birth weights
- Sperm abnormalities, anemia, colic, possible gout
- Gout(joint disease), encephalopathy (any dysfunction of the brain), anemia

## Other concerns

- The potential to increase erosion, turbidity, sediment deposition and accumulation levels around and downstream of the project site.
- Chemical accumulated in the soil throughout the years being released into the water, for example, arsenic, lead, mercury, benzene, used oil, petroleum fuel, and other pollutants from industrial activity, contaminating the waterways including the Mississippi (source of the area drinking water)

# Other Concerns

- Inner Harbor Navigation Canal Lock Replacement Site- ground water, bottom sediments, surface water and soil at the site reported to have large volumes of lead, PAH's (Polycyclic aromatic hydrocarbons are hydrocarbons-a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat), pesticides, herbicides, and the chemicals benzene, toluene, ethylbenzene and xylene (**BTEX**)-These compounds occur naturally in crude oil and can be found in sea water in the vicinity of natural gas and petroleum deposits.
- The surface soils and bottom sediments can be considered as industrial waste-elevated metal concentrations above criteria for drinking water
- Petroleum product rich liquids have accumulated below oil-saturated soil.
- Flood wall protection and Hurricane evaluation routes during the 13 year construction
- Feasibility – is it worth it, is it profitable to the communities Vs. The risk Hazards to the surrounding Communities
- How are these concerns addressed by the Corps of Engineers?

# Future Considerations

- Follow-up on the Community and the Corps of Engineers Meetings.
- The Next Research Project – Environmental Testing during the Construction if the Project is approved.



# References

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**the Industrial Canal (CAWIC)-Dec. 2007**

- Inner Harbor Navigation Canal Lock Replacement**  
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**Impact Statement-Corps of Engineers**

# Acknowledgements

- Dr. Beverly Wright Founder and Executive Director Deep South Center for Environmental Justice
- Dr. Bernard Singleton-Mentor, DU-LAMP, Assist. Director
- Dr. Abdalla Darwish-1<sup>st</sup> Presidential Professor, DU-LAMP Director
- Ms. Stephanie Jones, DU-LAMP Administrative Assistant

# Questions Please

