

COASTAL PROTECTION AND RESTORATION AUTHORITY BOARD

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT UPDATE

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13 DEC 2023



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BOTTOM LINE UP FRONT



- All 17 pumps across the three PCCP structures were inspected, underwent interim corrective actions if necessary, and determined reliable for the 2023 Atlantic Hurricane Season by 1 June 2023.**
- USACE and its construction partner, PCCP Joint Venture, have initiated a multi-year effort to deliver our commitment of reliable and sustainable hurricane and storm damage risk reduction structures at the three outfall canals.**
- USACE will continue to collaborate with our state partners and ensure our stakeholder and the public remain informed throughout the process.**



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PHASE I: INTERIM CORRECTIVE ACTIONS AND INSPECTIONS



① 17th St. PCCP



② Orleans Ave. PCCP



③ London Ave. PCCP



- Corrosion identified as primary cause of London Avenue Pump #1 overheating.
- Pump #1 was removed, corrected and restored to service by 1 June 2023
- Each of the remaining 16 pumps were inspected, corrected if necessary and determined reliable for the 2023 Atlantic Hurricane Season.



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PHASE II: DELIVER THE PROJECT AS DESIGNED



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Mission: Multi-year effort to ensure all 17 pumps are sustainable, reliable and fulfill the 35-year design requirements.

1. ONGOING Finalizing the path forward.

2. MOVING OUT Basement crack corrective action; structure and canal inspections and surveys.



To prevent increased risk during hurricane season, onsite work that impacts interior drainage will be limited to outside of hurricane season (Dec 1 to May 31).



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PHASE II: NEXT STEPS

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Assessments, design and schedule

- Complete scientific evaluations for the cause of advanced corrosion.
- Complete design and construction approach to deliver structures meet 35-year design requirements.
- Develop multi-year construction schedule that minimizes risk during upcoming hurricane seasons.

On-site corrective actions

- Correcting basement cracks identified at the London Avenue Outfall Canal PCCP.
- Conducting surveys of the PCCP structures and canals.
- Long-term pump corrective actions are ongoing until settlement agreement is reached.
- Assess Pump Stations to ensure reliability for the upcoming hurricane season.





Cooperation, Collaboration and Communication



PCCP DESIGN PUMPING CAPACITY

The PCCPs were designed to match the existing or potential discharge capacity of the local interior drainage pump stations on the outfall canals. The drainage capacity of the PCCPs at 17th Street and London Avenue exceed the discharge capacity to support adaptability to future conditions.

- 1. PCCP at 17th Street Canal
 - Design capacity: 12,600 cfs
 - Max. local discharge: 10,330 cfs
 - 10-year rain event: 9,334 cfs
- 2. PCCP at Orleans Ave. Canal
 - Design capacity: 2,700 cfs
 - Max. local discharge: 2,700 cfs
 - 10-year rain event: 2,450 cfs
- 3. PCCP at London Ave. Canal
 - Design capacity: 9,000 cfs
 - Max. local discharge: 7,980 cfs
 - 10-year rain event: 5,211 cfs

PERMANENT CANAL CLOSURES AND PUMPS (PCCP) PHASE II

Delivering reliable and sustainable pump stations that meet design specifications

In March 2023, the U.S. Army Corps of Engineers initiated a two-phased approach to deliver reliable and sustainable pumps that meet the 35-year design requirements. Phase I was an interim approach to ensure the pump stations would perform as needed during the 2023 Hurricane Season by rehabilitating and restoring London Avenue Pump #1, inspecting each of the 16 remaining pumps across the three locations, undertake interim or immediate repairs if necessary and to conduct scientific and engineering assessments to understand the underlying cause for advanced corrosion of the pumps. Concurrently, USACE initiated Phase II for long-term repairs so the stations will meet the full 35-year design specifications.

The U.S. Army Corps of Engineers New Orleans District, in collaboration with the construction contractor, PCCP Joint Venture, completed Phase I on June 1, 2023. USACE continues to work closely with PCCP JV, Coastal Protection and Restoration Authority and the Flood Protection Authority-East to understand the underlying cause for advanced corrosion and to identify the most appropriate course of action for ensuring all 17 pumps will meet their 35-year design life. Physical construction during the multi-year Phase II will occur outside of hurricane season to reduce the risk of pumps being offline during a tropical weather event. USACE will provide regular and recurring updates throughout the process to ensure our partners, stakeholders and public can make their own risk-informed decisions using the most accurate and up-to-date information available.

INDIVIDUAL PUMP STATUS

<p>17th Street Outfall Canal (six 1,800 cfs and two 900 cfs pumps): 100% of 12,600 cfs design capacity available.</p>	<p>London Ave. Outfall Canal (four 1,800 cfs and two 900 cfs pumps): 100% of 9,000 cfs design capacity available.</p>	<p>Orleans Ave. Outfall Canal (three 900 cfs pumps): 100% of 2,700 cfs design capacity available.</p>
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■ Pump online
■ Repairs underway, in place
■ Repairs underway, pump removed

PUMP WORK UNDERWAY

- All 17 pumps are ready for hurricane season.
- USACE Centers of Expertise and PCCP JV are evaluating several factors to determine the underlying cause of advanced pump corrosion.
- USACE is collaborating with PCCP JV to review conceptual plans for the long-term corrective action.

ADDITIONAL WORK

Removal of the temporary pumps along the London Ave. Canal and green-space restoration initiated 10 JUL 23. Pumps, pipes and associated equipment have been removed and site cleaned the week of 31 JUL.

Green-space restoration consists of seeding and fertilizing impacted area, treating 18 trees, and planting two additional trees. Two trees have been planted, existing trees were nourished, and rye grass seed planted. Bermuda grass will be seeded and fertilized in spring of 2024.

Our Commitment

- Ensure open and transparent communication throughout the process
- Provide regular and recurring updates to partners, stakeholders and the public