



Your Clean Water & Green Economy Bond funds at work!

Please join the Coastal Resources Management Council (CRMC), The Nature Conservancy, the City of Providence, The Providence Foundation, the I-195 Redevelopment District, and WaterFire for an **informational session about plans to dredge the Providence River & Waterplace Park Basin this winter**

Topics will include:

- **Overview** of the current hazards to navigation & the scope of work
- **Project benefits** to local businesses & the environment
- **Strategies** to minimize impacts on downtown businesses, visitors & residents

October 2, 2019
5:30 - 7:00 PM

Hosted by Brown University at
South Street Landing, 4th floor
350 Eddy Street, Providence

Waterplace Park Dredging Partners

- 195 Redevelopment District
- City of Providence
- Coastal Resources Management Council
- The Nature Conservancy
- The Providence Foundation
- WaterFire

green^{and} clean



VOTE



YES on 3

Clean Water and Green Economy Bond

Approve: 79%

Disapprove: 21%

Providence River Dredging

- \$7 million to dredge sections of the Providence River and the Woonasquatucket River in the vicinity of downtown Providence and Waterplace Park.
- Support economic development, enhance tourism opportunities, and improve water depths for boating, recreation, and climate resilience.

Project Overview

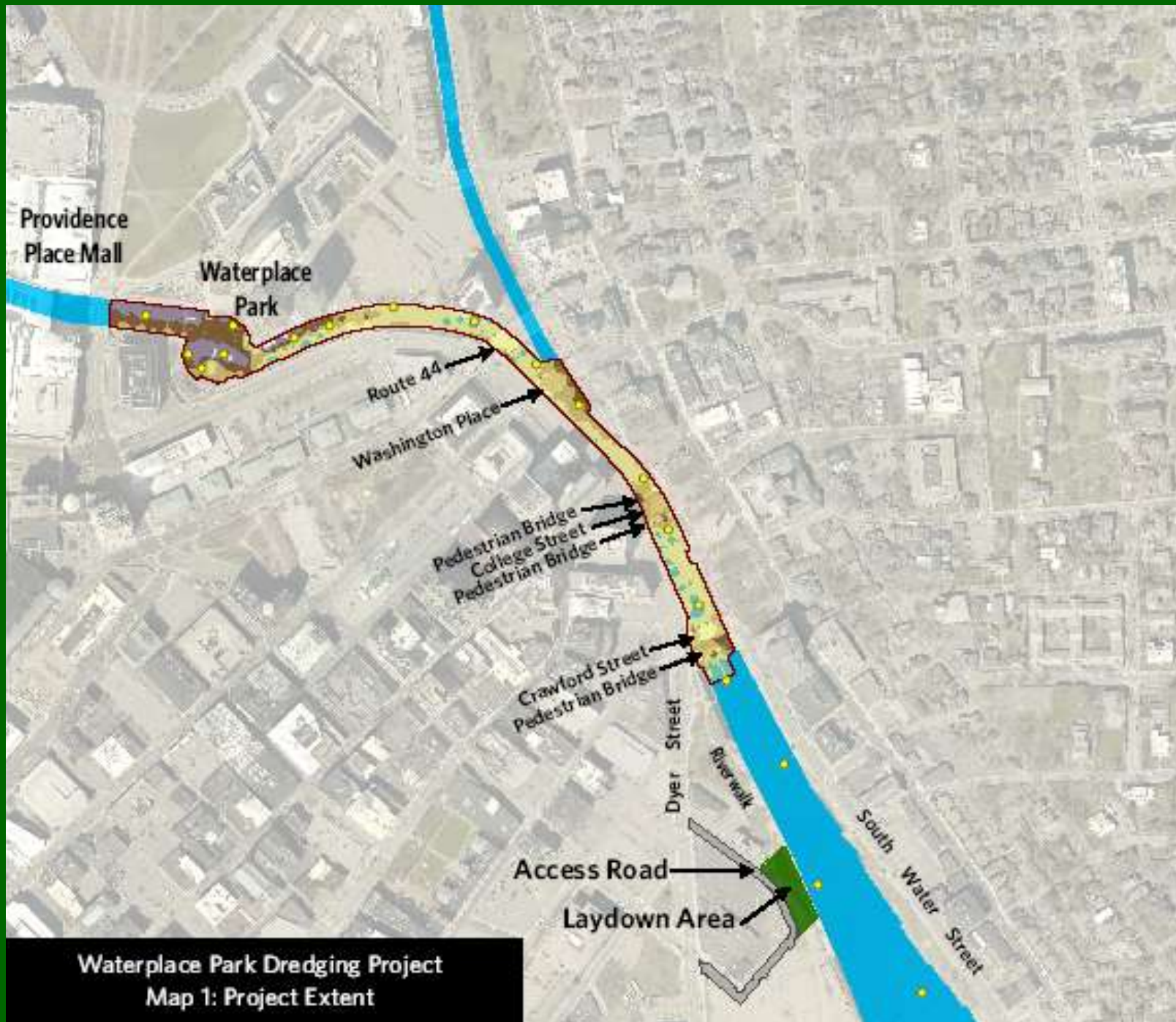
- Need for the project
- When will we start?
- How long will it take?
- What will the equipment look like?
- What will it sound like?
- Our contractor's experience











**Waterplace Park Dredging Project
Map 1: Project Extent**

Project Timeline

Early-November

- Equipment starts to arrive in Rhode Island
- Most will be brought to the Quay
- Several containers at the laydown area
- Dredge assembled, pipeline fused, dewatering equipment assembled etc.

Mid-November

- Dredging starts in Waterplace Park
- Project will run 24 hours a day, 7 days a week
- Project completed after 25-28 days of dredging (fingers crossed) – remember like all construction projects there is always a chance for some delay.
- The goal is to be completed by the end of the year and then demobilize in early January

Dredge Material

- Pumped to the South Quay in East Providence.
- Material will be de-watered mechanically and stockpiled.
- Ideally the material will be beneficially reused at the Quay at a later time, after a permitting process.
- If not, it will be beneficially reused by the Providence Redevelopment Authority at 70 Houghton Street in Providence.





How loud is the dredge?

The contractor has dosimetry information from similar equipment that was measured 70+ decibels onboard the equipment and approximately 60-65 dB as you move away from the equipment.

Thunderclap, chain saw. Oxygen torch (121 dB).	120	Painful. 32 times as loud as 70 dB.
Steel mill, auto horn at 1 meter. Turbo-fan aircraft at takeoff power at 200 ft (118 dB). Riveting machine (110 dB); live rock music (108 - 114 dB).	110	Average human pain threshold. 16 times as loud as 70 dB.
Jet take-off (at 305 meters), use of outboard motor, power lawn mower, motorcycle, farm tractor, jackhammer, garbage truck . Boeing 707 or DC-8 aircraft at one nautical mile (6080 ft) before landing (106 dB); jet flyover at 1000 feet (103 dB); Bell J-2A helicopter at 100 ft (100 dB).	100	8 times as loud as 70 dB. Serious damage possible in 8 hr exposure.
Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing (97 dB); power mower (96 dB); motorcycle at 25 ft (90 dB). Newspaper press (97 dB).	90	4 times as loud as 70 dB. Likely damage in 8 hour exposure.
Garbage disposal, dishwasher, average factory, freight train (at 15 meters). Car wash at 20 ft (89 dB); propeller plane flyover at 1000 ft (88 dB); diesel truck 40 mph at 50 ft (84 dB); diesel train at 45 mph at 100 ft (83 dB). Food blender (88 dB); milling machine (85 dB); garbage disposal (80 dB).	80	2 times as loud as 70 dB. Possible damage in 8 hour exposure.
Passenger car at 65 mph at 25 ft (77 dB); freeway at 50 ft from pavement edge 10 a.m. (76 dB). Living room music (76 dB); radio or TV-audio, vacuum cleaner (70 dB).	70	Arbitrary base of comparison. Upper 70s are annoyingly loud to some people.
Conversation in restaurant, office, background music, air conditioning unit at 100 feet.	60	Half as loud as 70 dB. Fairly quiet.
Quiet suburb, conversation at home. Large electrical transformers at 100 feet.	50	One-fourth as loud as 70 dB.

Source: IAC Acoustics, www.industrialnoisecontrol.com

Meet the Contractor:

- JF Brennan, HQ in Wisconsin
- Completed 3 similar hydraulic dredge projects in RI in the last 5 years (managed by CRMC).
- All took less time than expected and came in on budget.
- They have urban dredge experience, which was a major component in the bid.





FAQ

Will the park be open during the dredging?

Will it smell?

Why are you doing the project in the winter?

What about the fish?

How much is this going to cost?

Where did all this sand come from?

When will we need to dredge this again?

Discussion

