

Newtown Creek Aeration Meeting

NYS DEC / NYC DEP

Newtown Creek Alliance

Riverkeeper

SWIM Coalition

CUNY - LaGuardia College

North Brooklyn Community Boathouse

March 19th, 2019

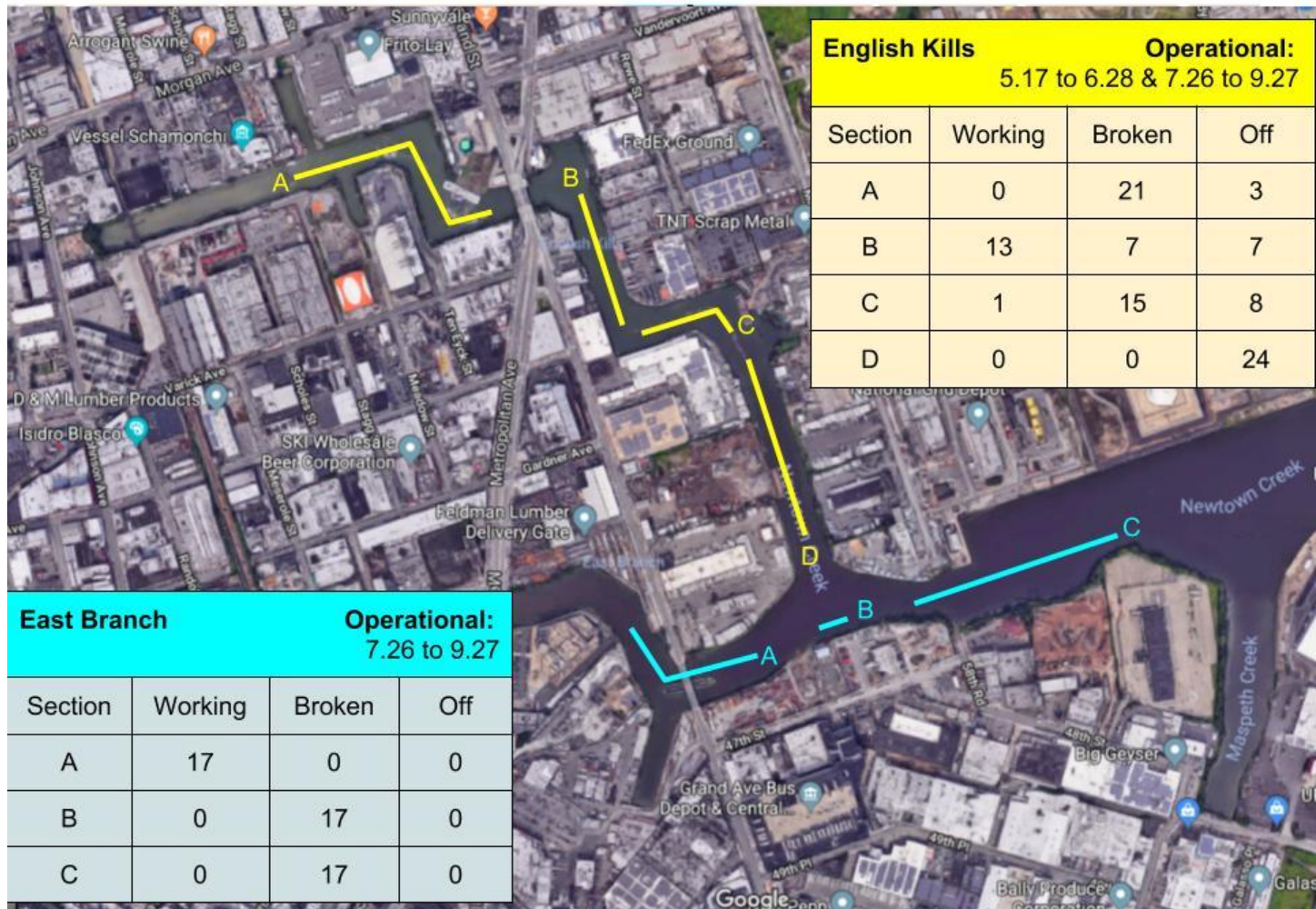


Primary Questions to Address:

1. Where is Aeration actually needed?
2. How can we operate a better system that does not:
 - Break
 - Significantly alter the calm water conditions
 - Create a contamination transport mechanism and pose potential health impacts

2018 Observations of Aeration Functionality in Newtown Creek

As with 2017, we were told that the system would be properly functioning during the 2018 season. Instead, large areas went unfixed, including sections of the newly installed East Branch lines which were broken 100% of the time.





Examples of broken valves (English Kills near Bayside Fuel + Mouth of English Kills)



Aeration foam acting as transport mechanism for contamination, namely coal tar ebullition.

Worse Case Operation

vs

Best Case Operation



Broken pipe (English Kills near TNT scrap)



Low disturbance aeration (English Kills near Marjam)



City's Pumping Air Into Polluted Newtown Creek has Critics Worried

August 8th, 2018

CityLimits.org

"It's a little counterintuitive for the city to be making Newtown Creek look creepy as part of its responsibility to make Newtown Creek fishable and swimmable," he said. "Those words can't just mean a certain bacteria count. That has to mean making Newtown Creek a place where you might want to fish or might want to swim or walk over the Creek without saying, 'Something's wrong here.'"

"And that's what they're doing – **making the Creek repellant to people who live near it and might want to use it.**"

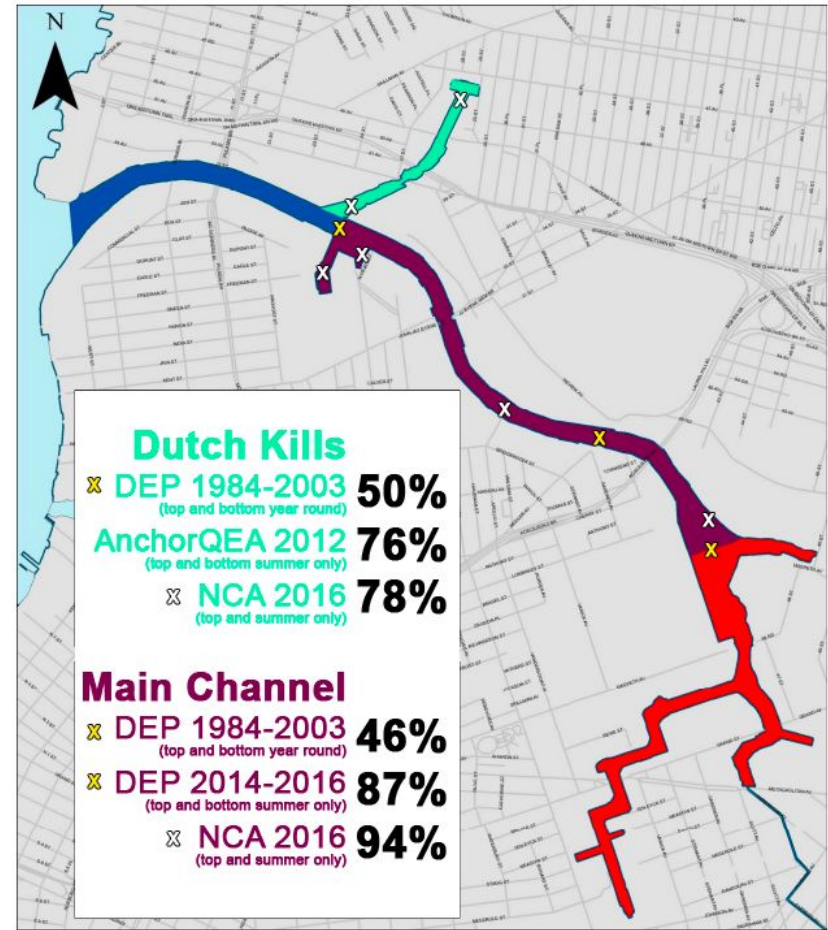
- Brad Kerr, Greenpoint resident and Boat Club volunteer

Where is Aeration actually needed?

Aeration stems from 2004 consent order, based on data collected from 1984 to 2003. Water Quality in Newtown Creek has improved significantly since then and will likely continue to because of the following investments in sewage reduction:

- Upgrade of Newtown Creek WWTP (2009)
- Green Infrastructure projects (ongoing)
- Increased crackdown of illegal discharges
- Bending weir construction (completed Fall 2017)

As with Dutch Kills, the consent order should be re-evaluated and updated to reflect current conditions and trends of improvement.



Newtown Creek Dissolved Oxygen
Percent of Samples Over 3.0 mg/L



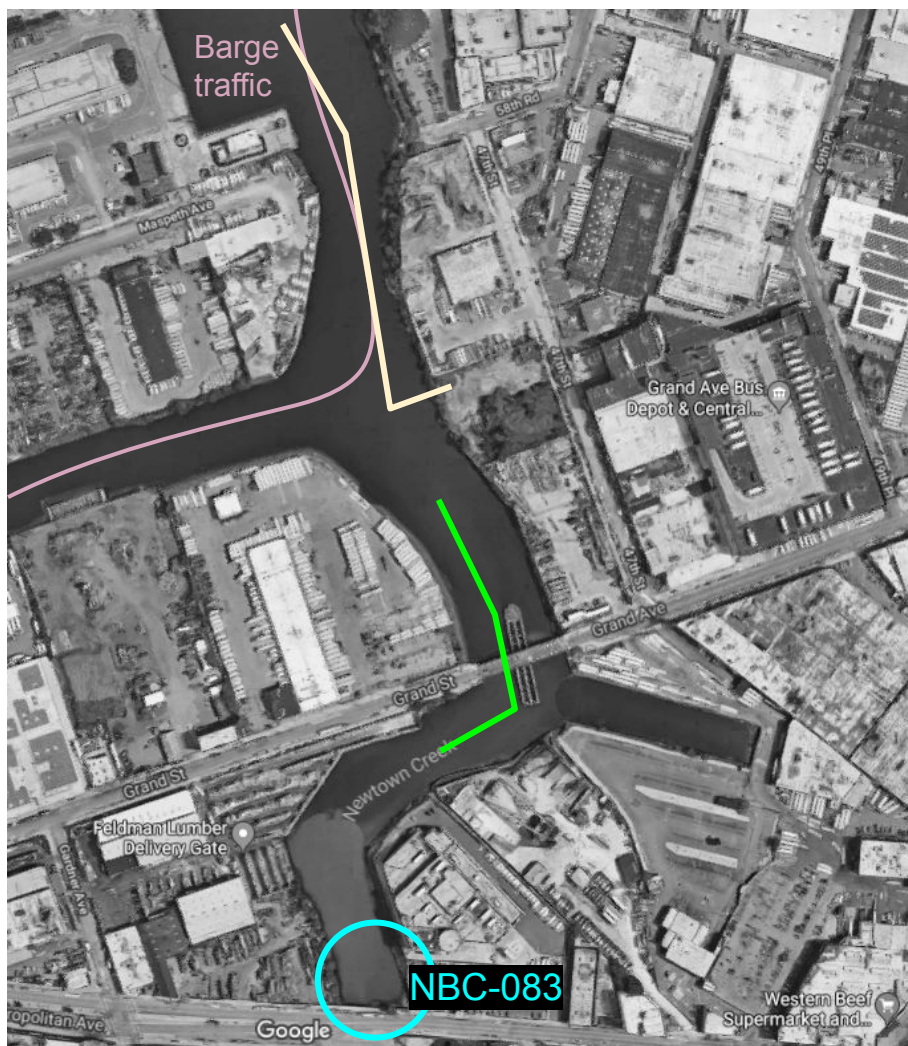
2017 NCA Surface Sampling Dissolved Oxygen Levels (mg/L)

Date	03A Plank Road	04 East Branch
6.1.17	5.26	4.75
6.8.17	16.84	12.03
6.15.17	9.57	6.88
6.22.17	7.04	3.25
6.29.17	0.75	1.05
7.6.17	6.9	3.35
7.13.17	8.73	8.44
7.18.17	6.03	5.28
7.24.17	5.68	5.17
7.27.17	3.05	0.54
8.3.17	10.49	7.27
8.10.17	4.82	0.58
8.17.17	6.19	5.04
8.24.17	11.87	13.41
8.31.17	4.66	2.56
9.7.17	2.82	1.82
9.14.17	6.97	2.63
9.21.17	4.26	4.13
9.28.17	9.24	11.11

Compliance

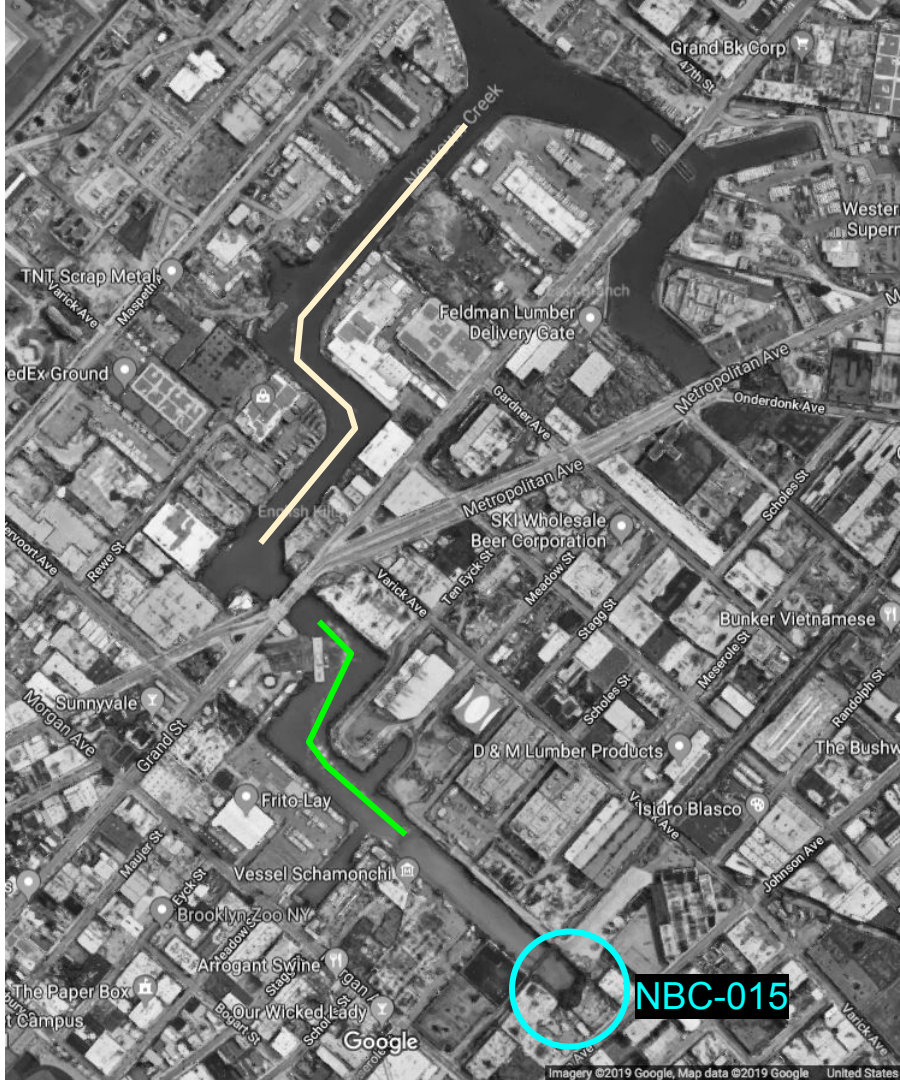
89%

68%



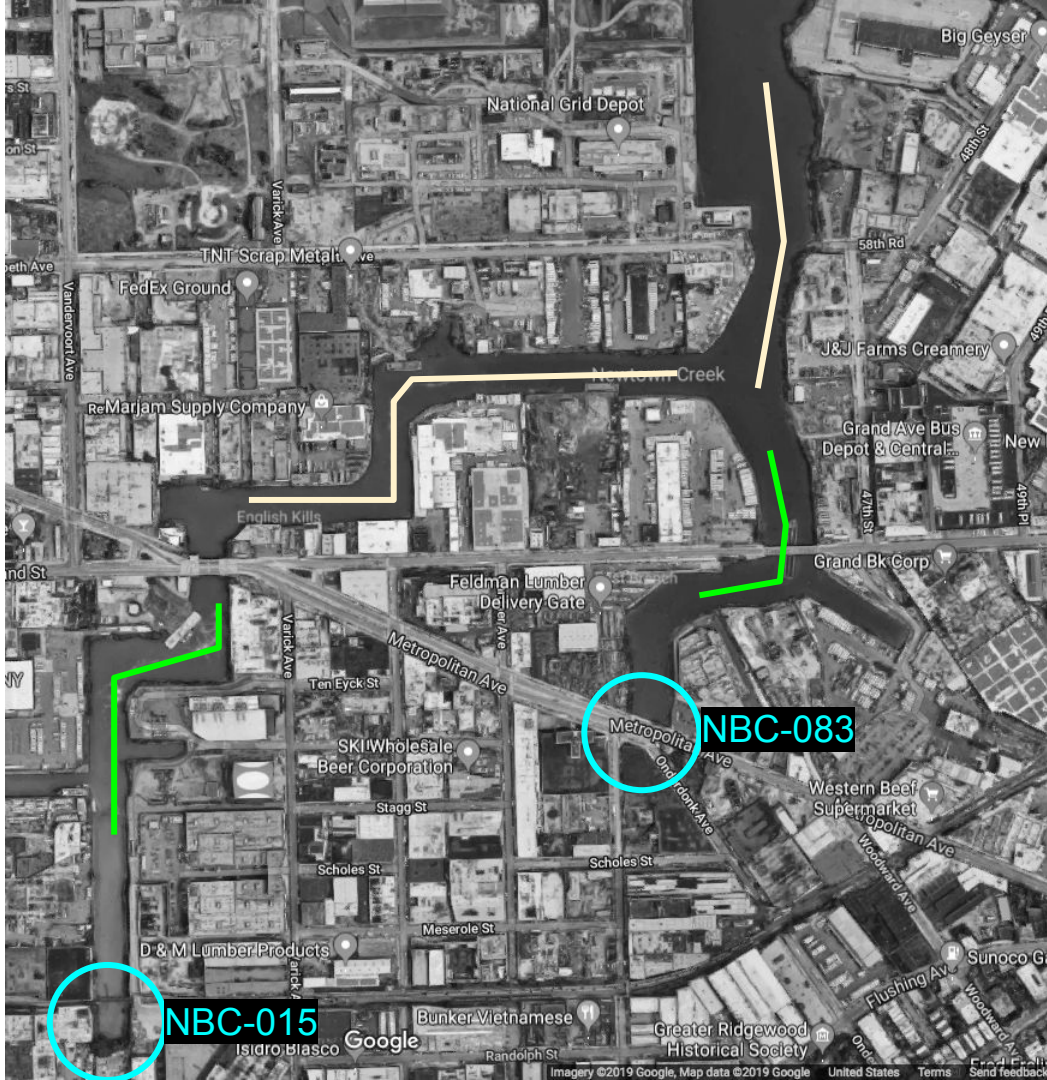
Reasons for not operating **Northern portion of East Branch Aeration**

- 89% compliance with 3 mg/L levels during 2017 summer months (better than many other NYC waterways).
- Provides opportunity to study impacts of only running southern section, which is closer to NCB-083 outfall and has lower DO levels.
- Less prone to failure (current barge traffic only passes over Northern section).
- Less risk of migration of coal tar contamination from areas near National Grid.
- Less energy used; lower carbon footprint.



Reasons for not operating Northern portion of English Kills Aeration

- Opportunity to study impacts of only running southern section, which is closer to NCB-015 outfall and has lower DO levels.
- Less risk of migration of coal tar contamination from areas near 364 Maspeth.
- Easier to implement a new system less prone to damage from barge traffic.
- Less energy used; lower carbon footprint.



Recommendations:

- Discontinue northern sections of English Kills and East Branch lines.
- Improve DO monitoring with the current aeration zones.
- Reevaluate design for the southern sections that is less prone to failure and can more easily be turned on and off to respond to actual needs (low DO levels).