



BOEM

Technical Analyses:

Results from Cables, Radar, and Wind Resource Analyses

Arianna Baker

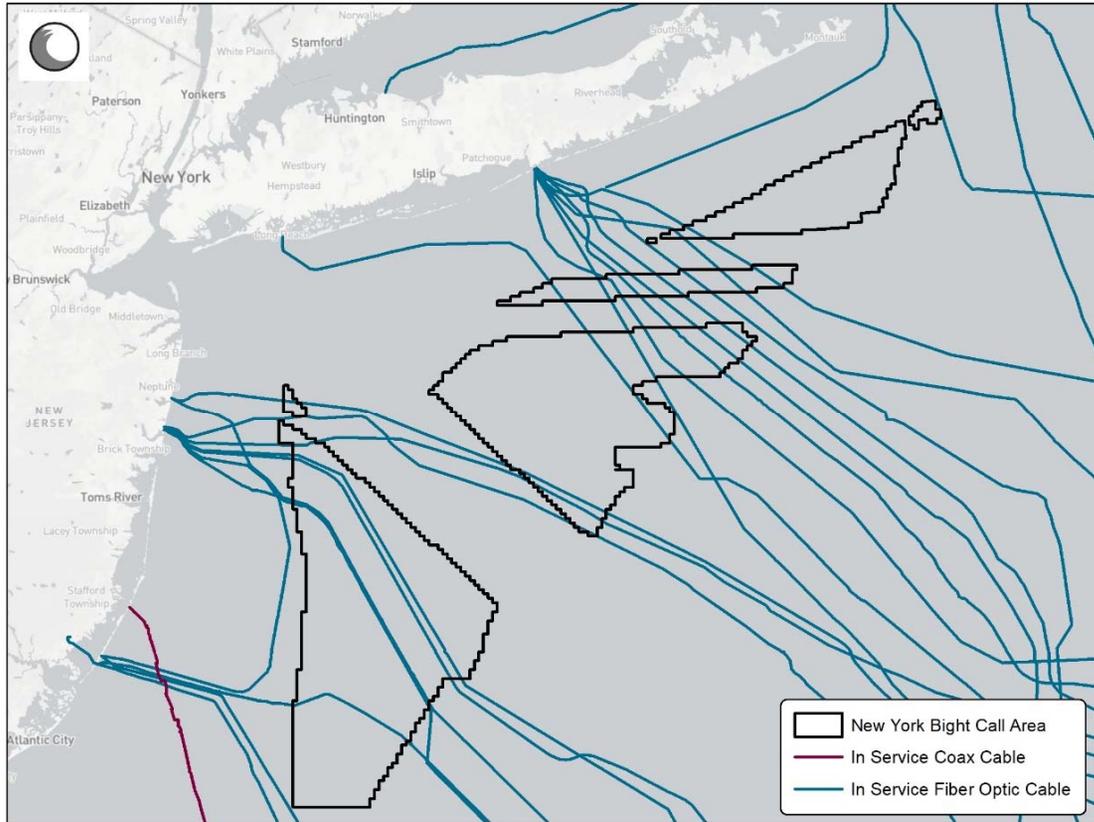
Technical Coordinator, Office of Renewable Energy Programs

RENEWABLE ENERGY LEASING PROCESS IN THE NY BIGHT | September 17-20

Cables

Comments:

- Burying power cables at a sufficient depth to avoid interactions with fishing gear
- Separation from existing cables of 750 m
- Coordination with existing cable owners



Cables

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Cables

Recommendations:

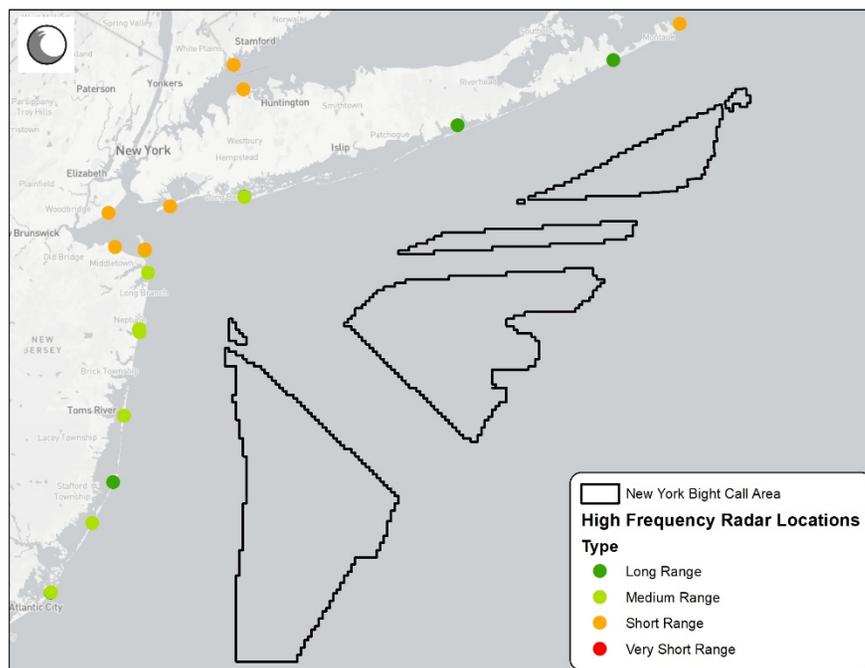
- No areas suggested for removal on the basis of cables, though less contested areas should be prioritized
- Maintain a separation between existing cable infrastructure and new renewable energy infrastructure
- Bury cables at an adequate target depth (1.5-2 m) to avoid interaction with fishing gear

Radar

Comments:

- Potential for marine radar scattering for vessels within wind turbine arrays
- Potential for impact on high frequency land-based ocean observing radars

Radar



Radar

Recommendations:

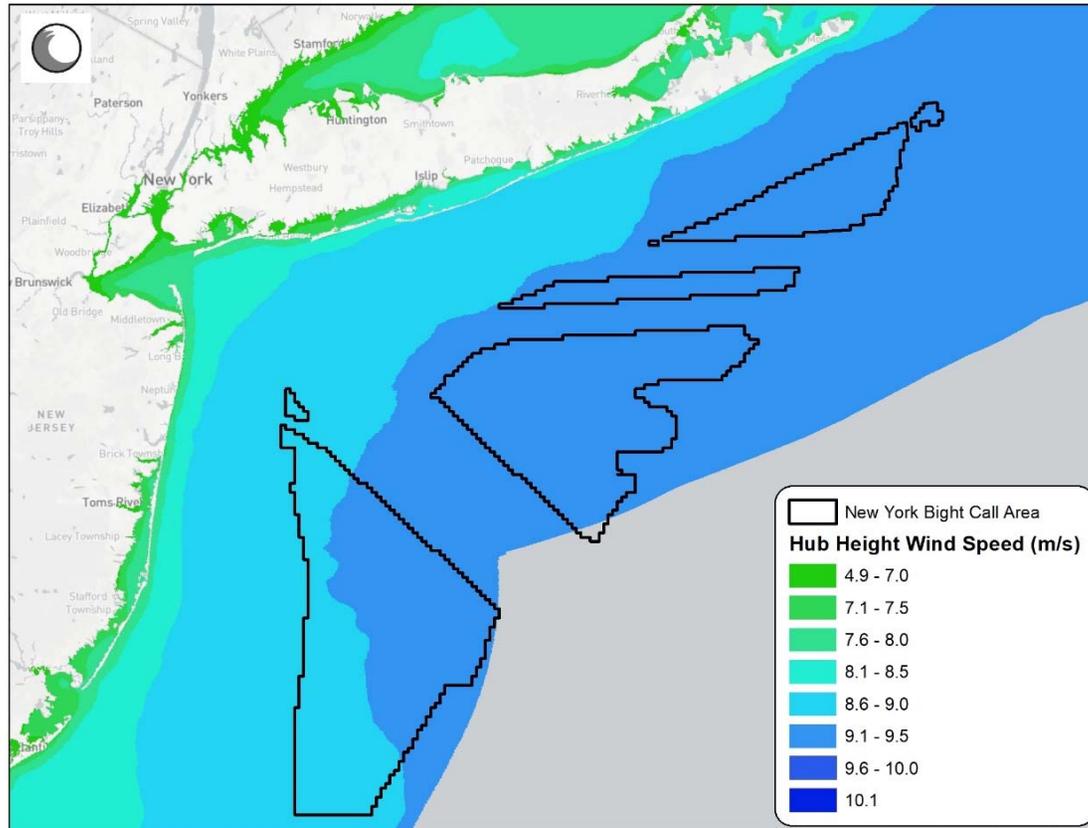
- After coordination with federal partners, no areas are recommended for removal on the basis of radars
- Work in the later stages to implement mitigation techniques such as infill radars or mitigation algorithms

Wind Resource and Wake Effect

Findings:

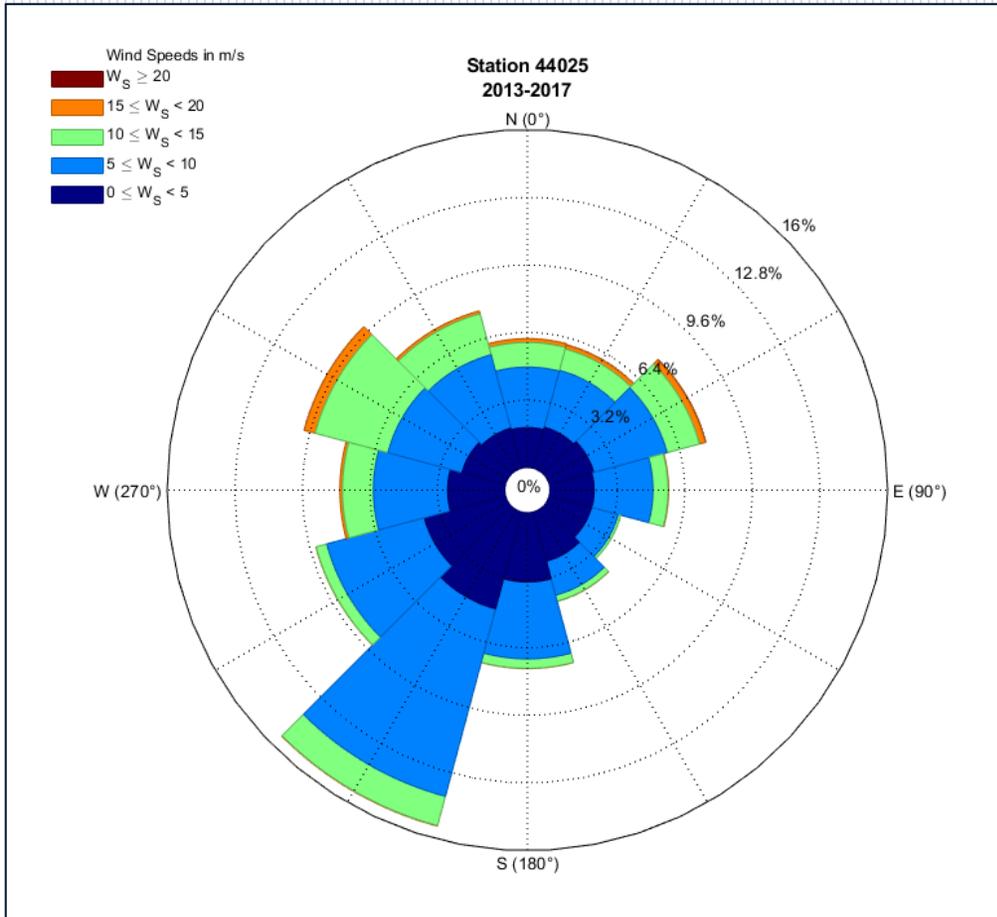
- The wind resource in the Bight is sufficient to support projects on a commercial scale
- Distance between turbines needs to be approximately 10x the diameter of a turbine to ensure upwind turbines don't rob downwind turbines of power
- Most frequent wind flow is from the SW, followed by a less frequent though stronger wind flow from the WNW

Wind Resource



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Wind Direction



Wind Resource and Wake Effect

Recommendations:

- Adjacent facilities should not be leased in a direct N-S or E-W orientation
- Wind facilities of 800 MW will require an area of 80,000 acres



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Vessel Navigation

in the New York Bight

Arianna Baker

Navigation Analyst

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Comments Received

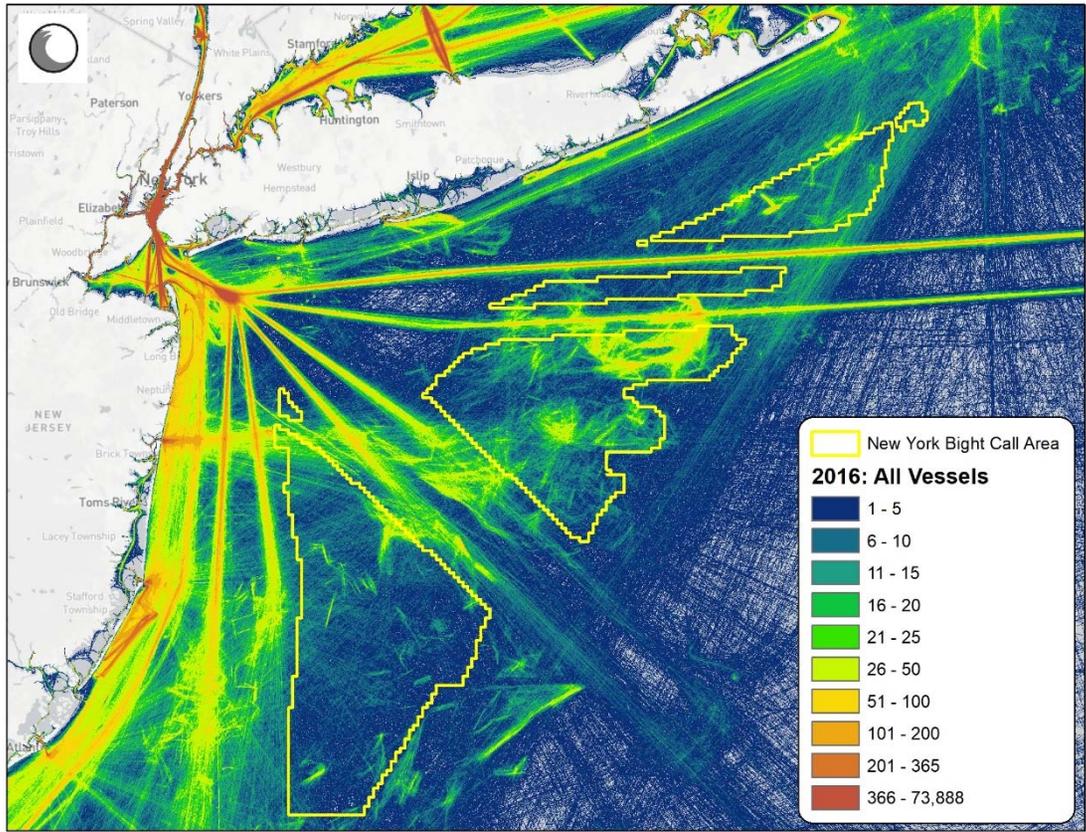
Groups Captured:

- American Waterways Operators
- World Shipping Council
- Maritime Association for the Port of NY and NJ
- USCG
- Area Pilot and Towboat Associations

Comments Received

Main Points:

- Implementation of Atlantic Coast Port Access Route Study Marine Planning Guideline Buffers
- Including a navigation corridor from Delaware Bay to Montauk for Tug and Tow Vessels
- Maritime concerns are safety concerns

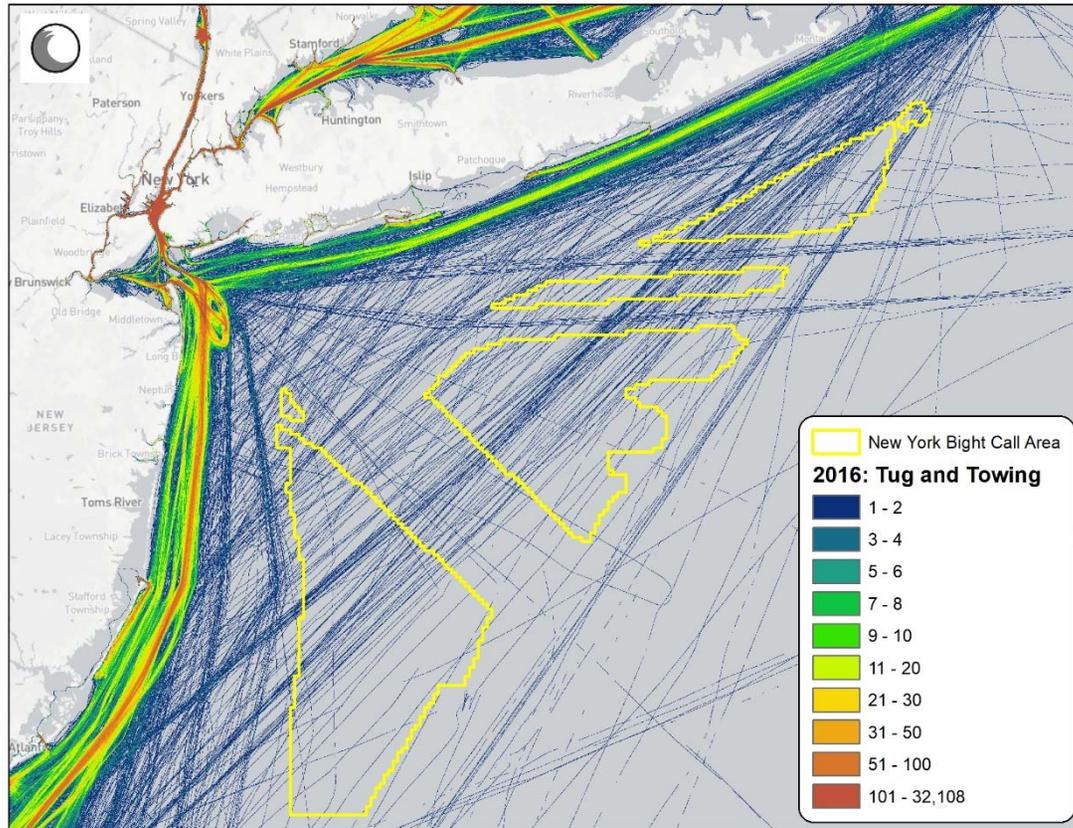


All Vessels

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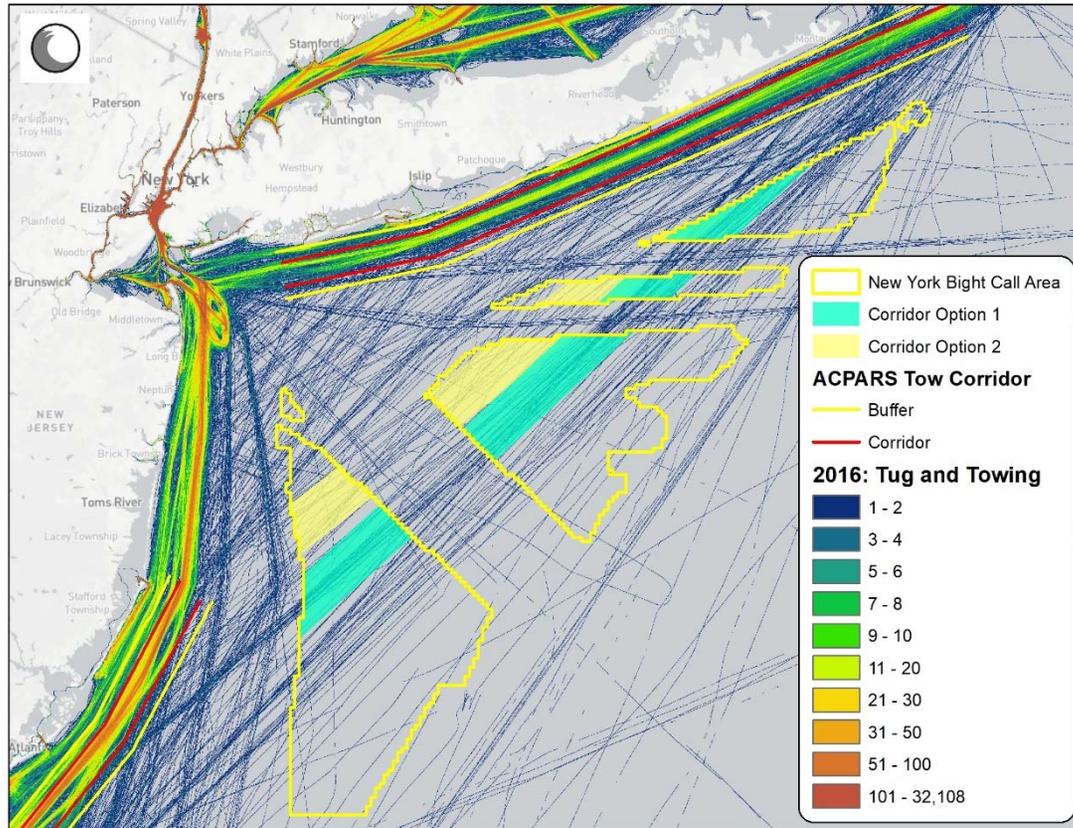
Tug & Tow Traffic



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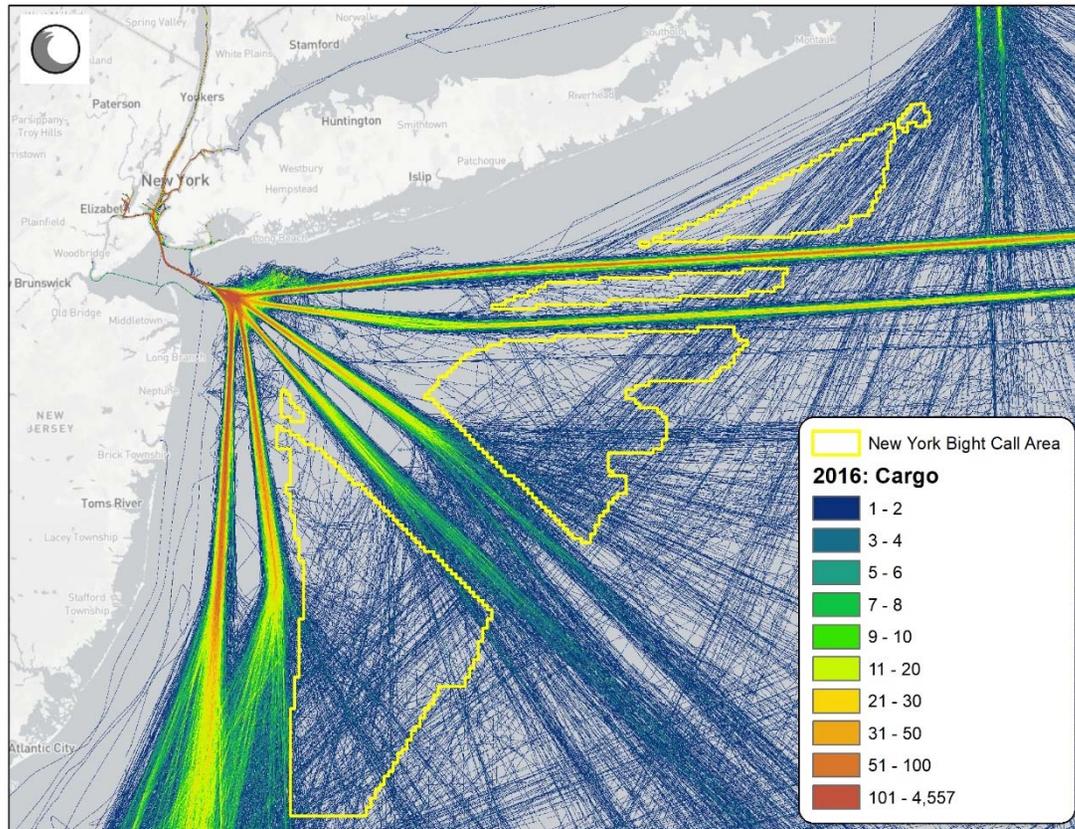
Tug & Tow Traffic



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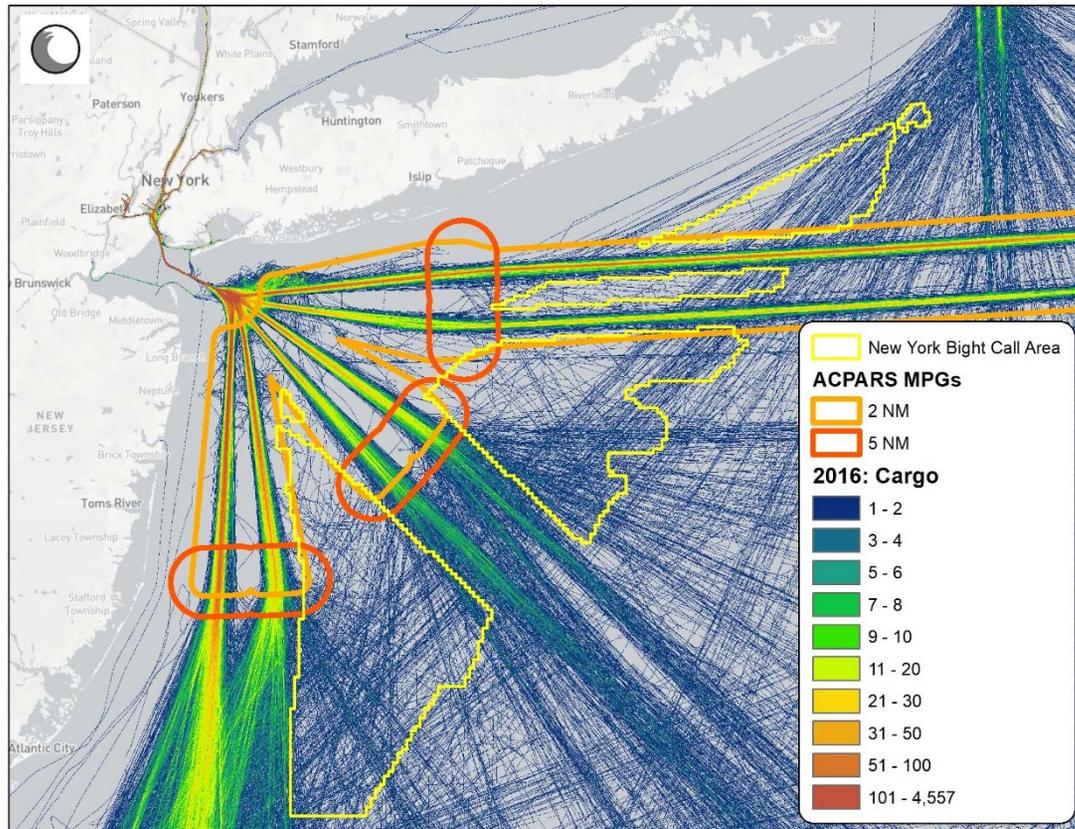
Deep Draft-Cargo Traffic



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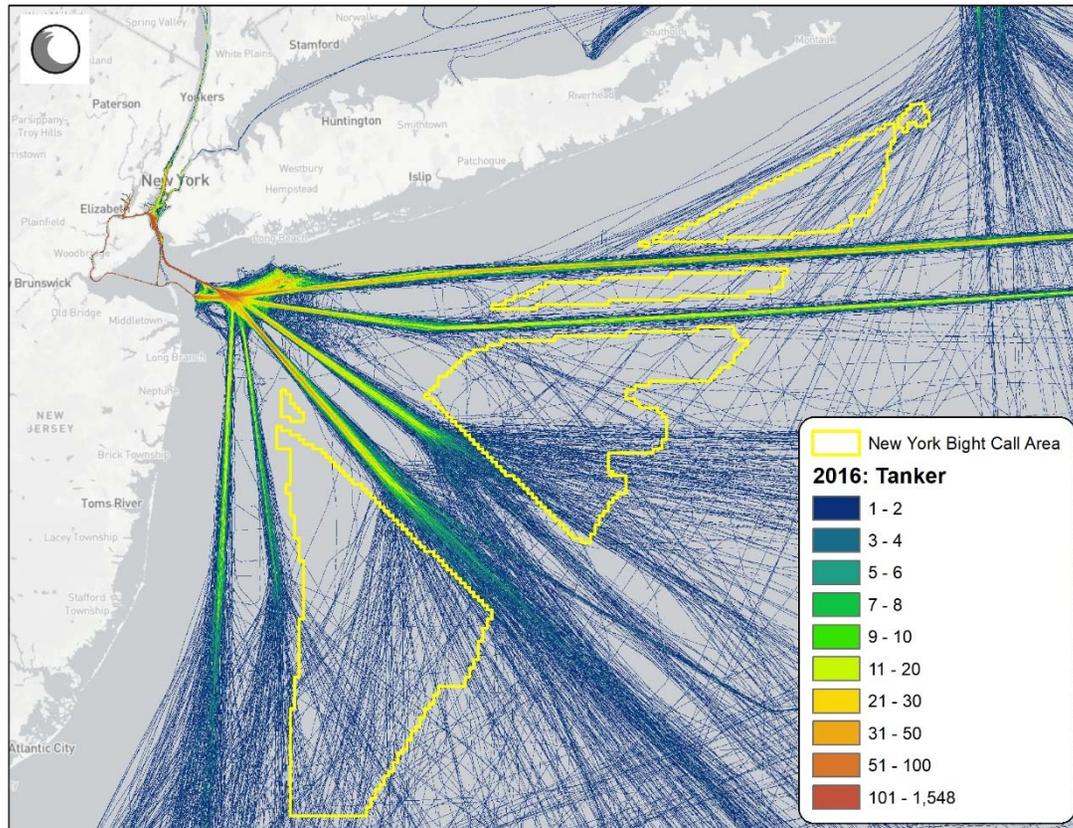
Deep Draft-Cargo Traffic



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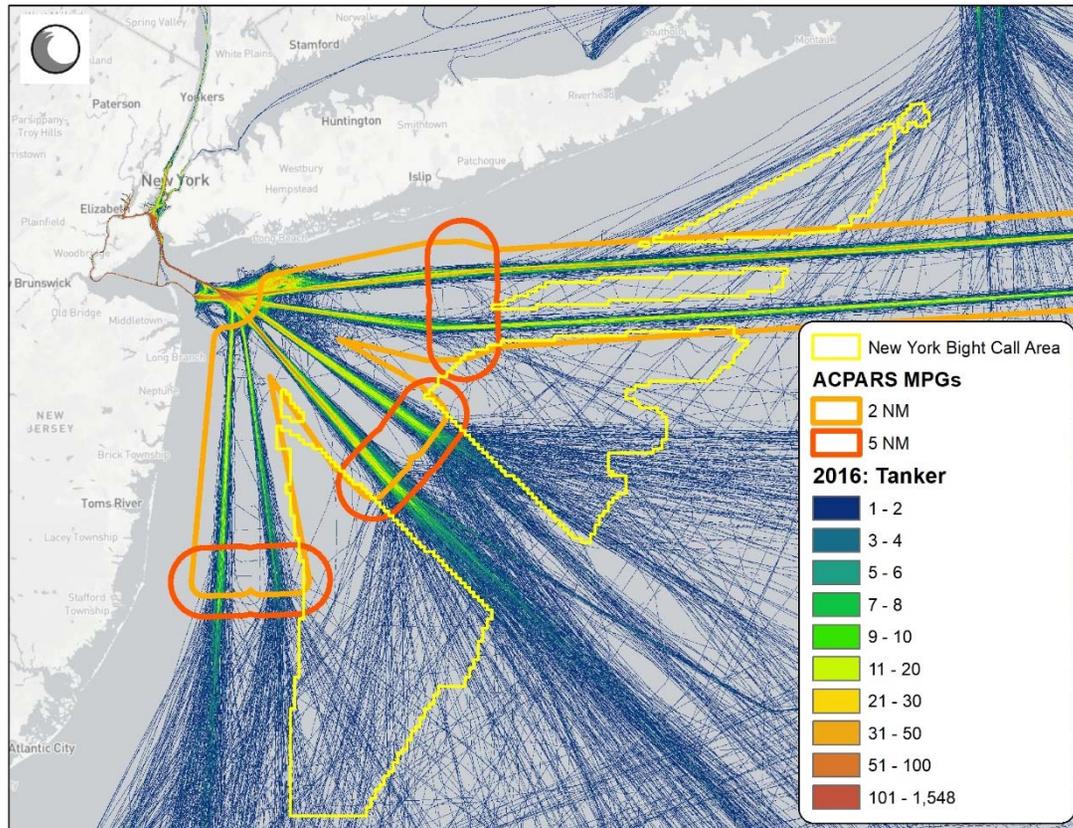
Deep Draft-Tanker Traffic



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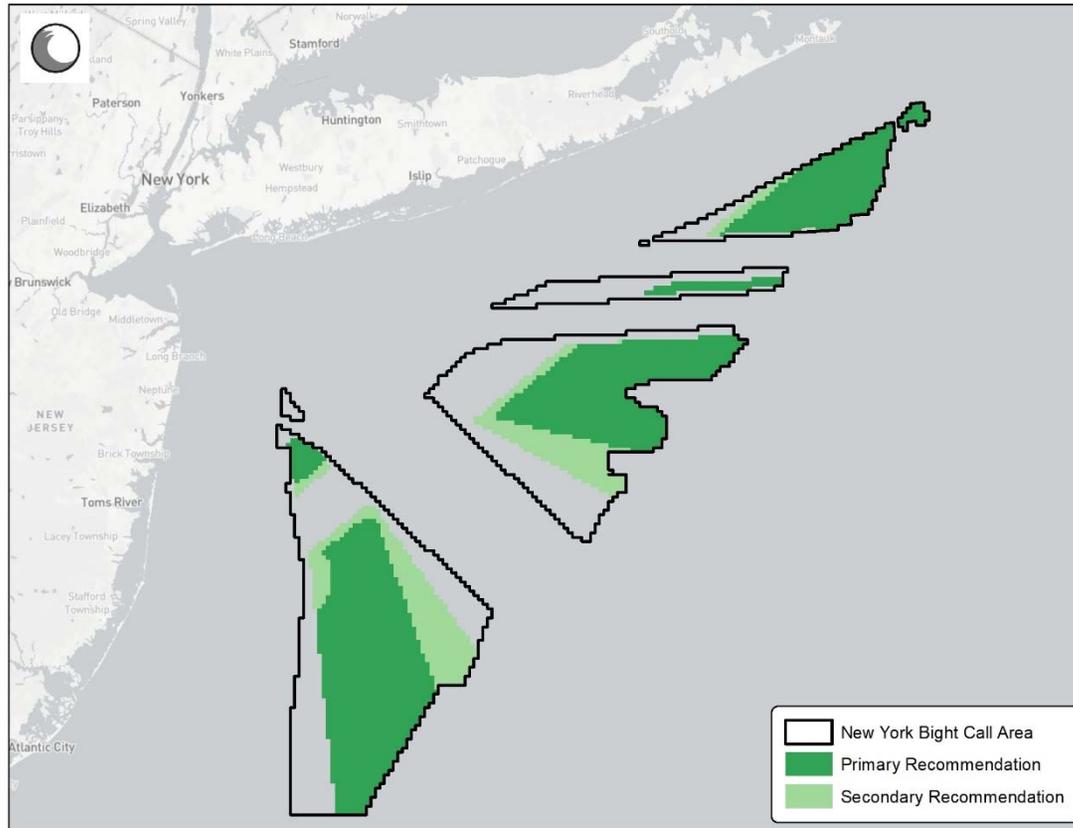
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Recommended Areas



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