Addendum 3 to this Traffic Summary for the NJ PARS – Tug/Tow Coastwise Traffic Analysis

Contents

Introduction and Background

This addendum to the "Vessel Traffic Analysis for Port Access Route Study: Seacoast of New Jersey including the offshore approaches to the Delaware Bay" contains additional graphics detailing the coastal tug/tow vessel traffic in the NJ PARS study area (as defined in the Federal Register, Agency Docket Number USCG-2020-0172) as well as the Chesapeake Bay PARS study area (as defined in the federal Register, Agency Docket Number USCG-2019-0862). This area is shown in green in Figure 1.
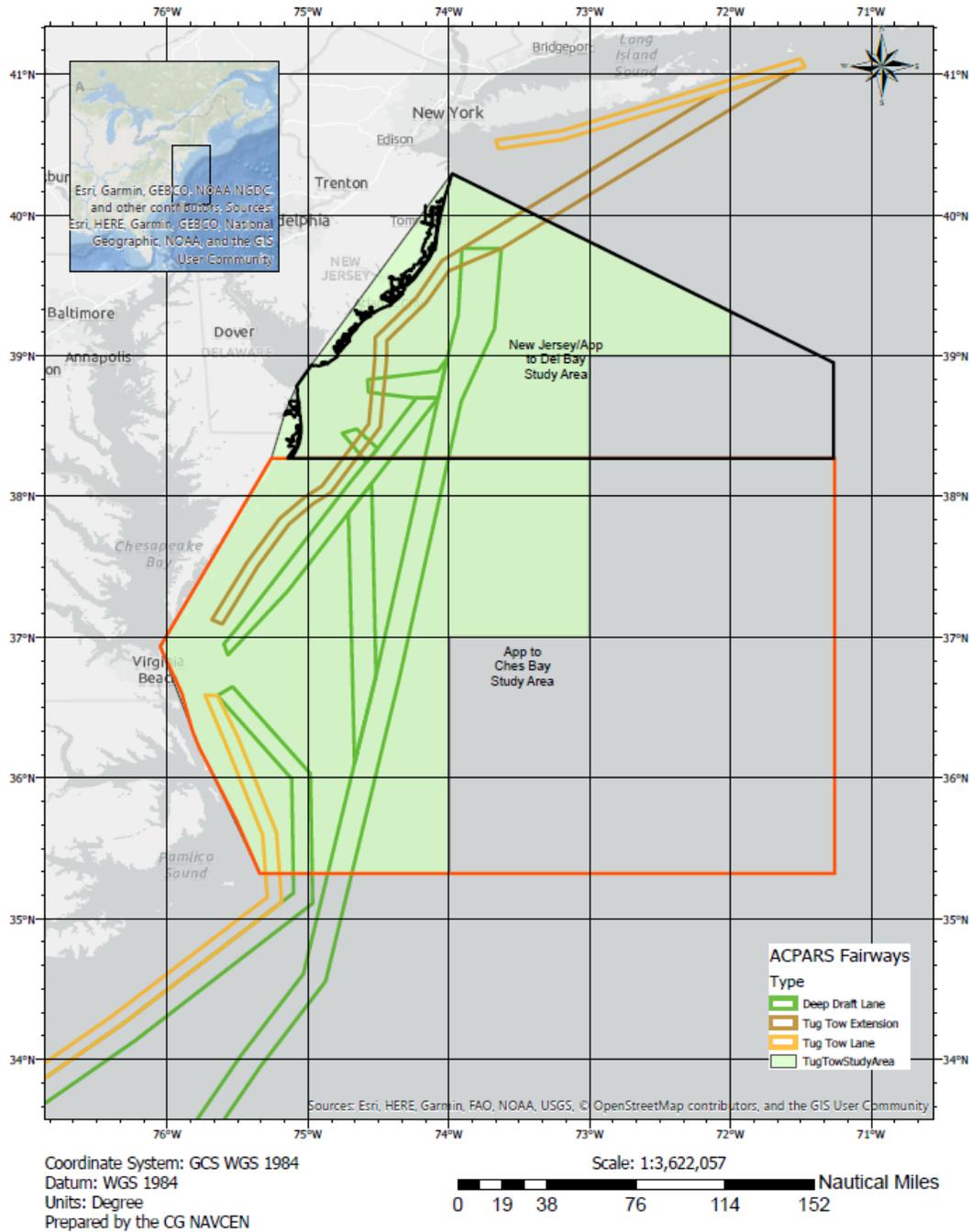

Figure 1: Tug/Tow Study Area

Data, Software, and Methodology

Vessel track lines were obtained from and constructed by Marine Cadastre using NAIS data 2017-2019 and were clipped to the appropriate area for the study.

Vessel Track Counts

Vessel tracks are enumerated in one nautical mile square bins and displayed on a color scale from blue to purple to yellow in ArcGIS. Separate graphics are included for each year of data. Between the years, the same scale and colors are used to display the vessel track counts. Thus, the graphics for each year can be directly compared to one another.
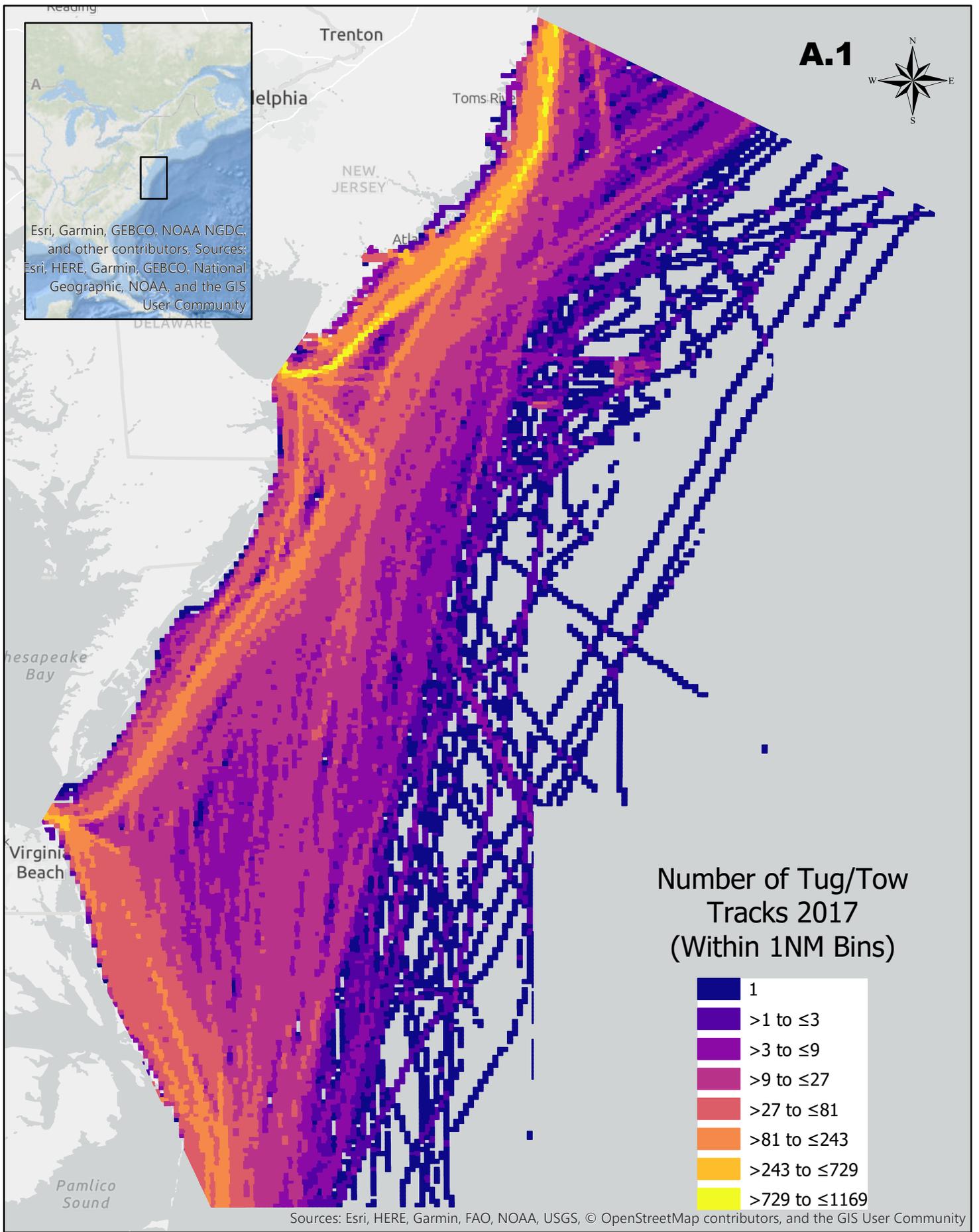
Vessel Traffic Densities

Densities were made in ArcGIS and are calculated by enumerating the length of transits per square mile $Miles\ Transited\ (year)/_{mile^2}$. Each density is represented on a blue, purple, to yellow scale where low density is shown in blue and high density is shown in yellow. These calculations are carried out independently for each traffic density, thus each density is shown on a different scale that best represents the data in each case and cannot be directly compared.

Graphics

Two sets of graphics are provided. The first set details only the vessel track counts or traffic densities in the study area, while the second set also includes the following layers: wind lease and planning areas and the ACPARS proposed fairways. Graphics are organized by year and type, as listed in Table 1.

Type	Year		
	2017	2018	2019
Track Counts	A.1	A.2	A.3
Traffic Densities	B.2	B.3	B.4

Table 1: Graphic Labels

A.1

Number of Tug/Tow
Tracks 2017
(Within 1NM Bins)

	1
	>1 to ≤3
	>3 to ≤9
	>9 to ≤27
	>27 to ≤81
	>81 to ≤243
	>243 to ≤729
	>729 to ≤1169

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Data Source: NAIS
Prepared by the CG NAVCEN

Scale: 1:2,318,117

Nautical Miles

0   12   24   48   72   96

A.2

Number of Tug/Tow
Tracks 2018
(Within 1NM Bins)

■	1
■	>1 to ≤3
■	>3 to ≤9
■	>9 to ≤27
■	>27 to ≤81
■	>81 to ≤243
■	>243 to ≤729
■	>729 to ≤1169

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Nautical Miles

0   12   24   48   72   96

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Tracks 2019
(Within 1NM Bins)

■	1
■	>1 to ≤3
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Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
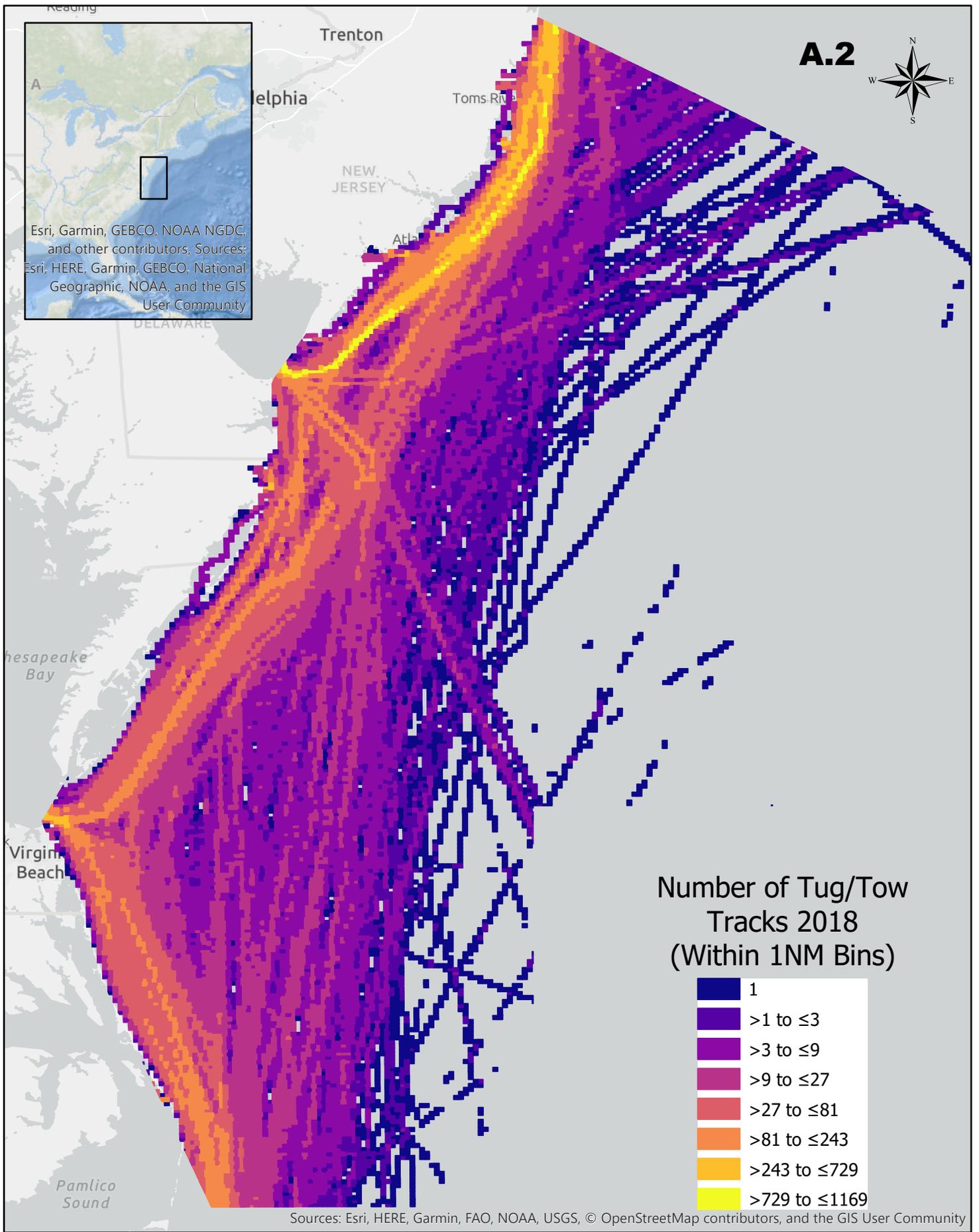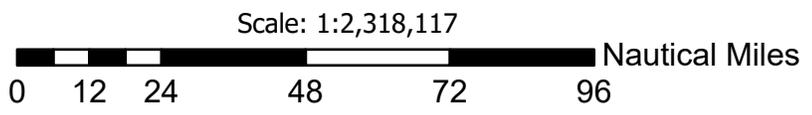
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Units: Degree
Data Source: NAIS
Prepared by the CG NAVCEN

Scale: 1:2,318,117

Nautical Miles

0   12   24   48   72   96

B.1

Tug/Tow 2017 Traffic Density

Value

High Traffic Density

Low Traffic Density

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Prepared by the CG NAVCEN

Scale: 1:2,318,117

Nautical Miles

0   12   24   48   72   96

Esri, Garmin, GEBCO, NOAA NGDC, and other contributors, Sources: Esri, HERE, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community

B.2

Tug/Tow 2018 Traffic Density
Value

High Traffic Density

Low Traffic Density

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
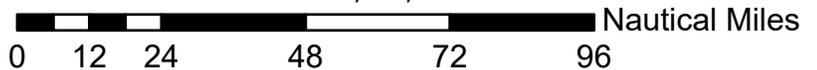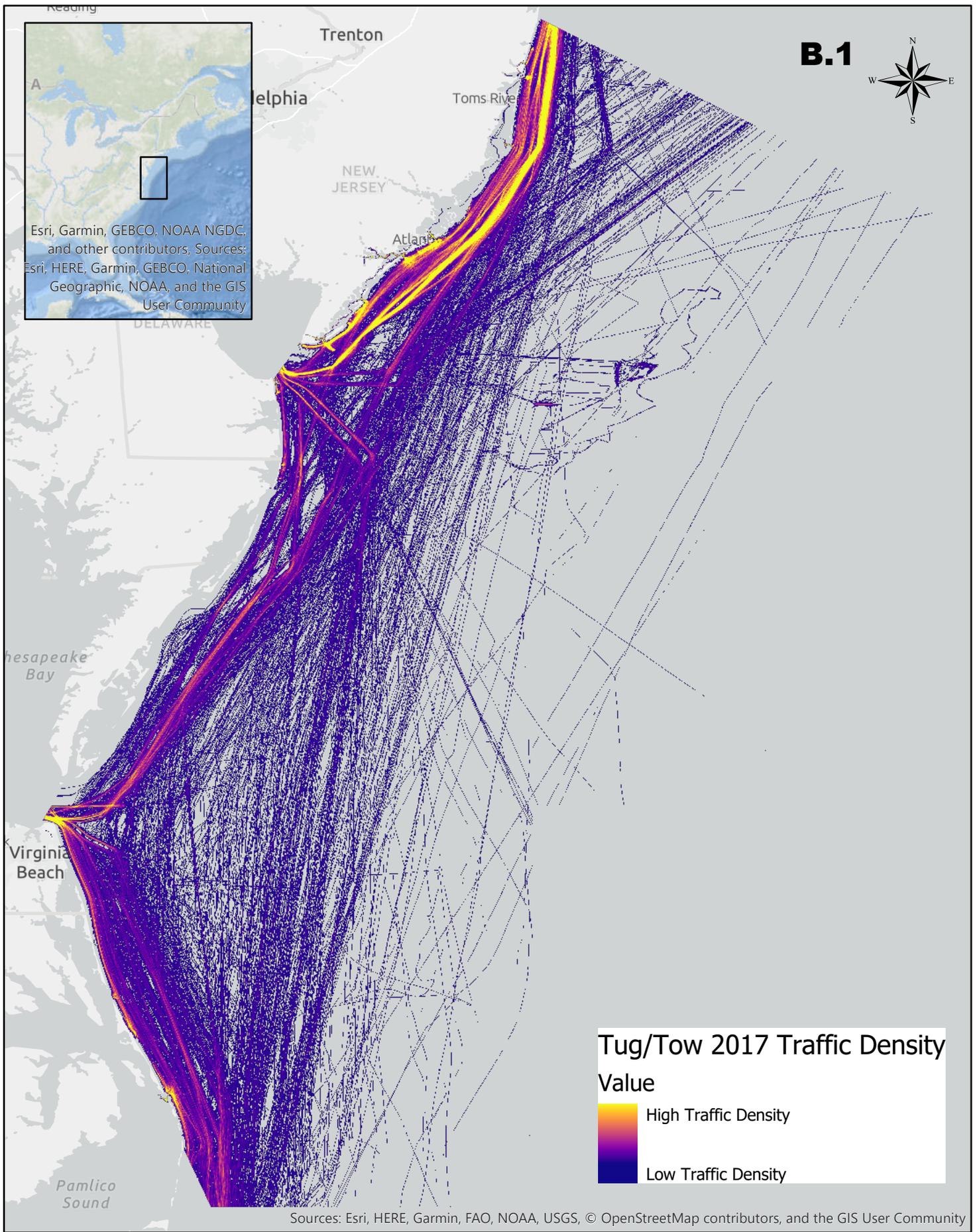Data Source: NAIS
Prepared by the CG NAVCEN

Scale: 1:2,318,117

Nautical Miles

0   12   24   48   72   96

B.3

Tug/Tow 2019 Traffic Density

Value

High Traffic Density

Low Traffic Density

Esri, Garmin, GEBCO, NOAA NGDC, and other contributors, Sources: Esri, HERE, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community

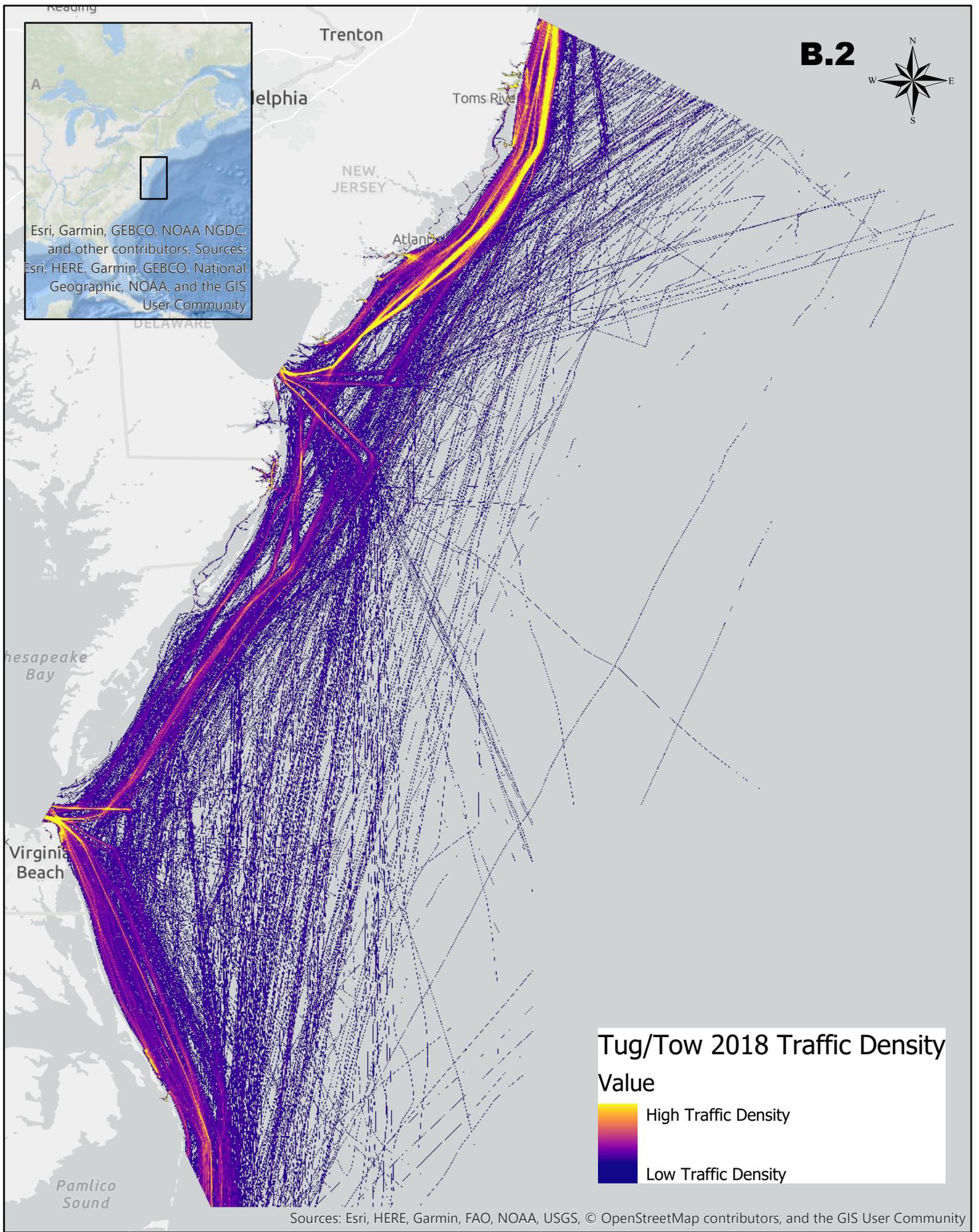Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Datum: WGS 1984
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Scale: 1:2,318,117

Nautical Miles

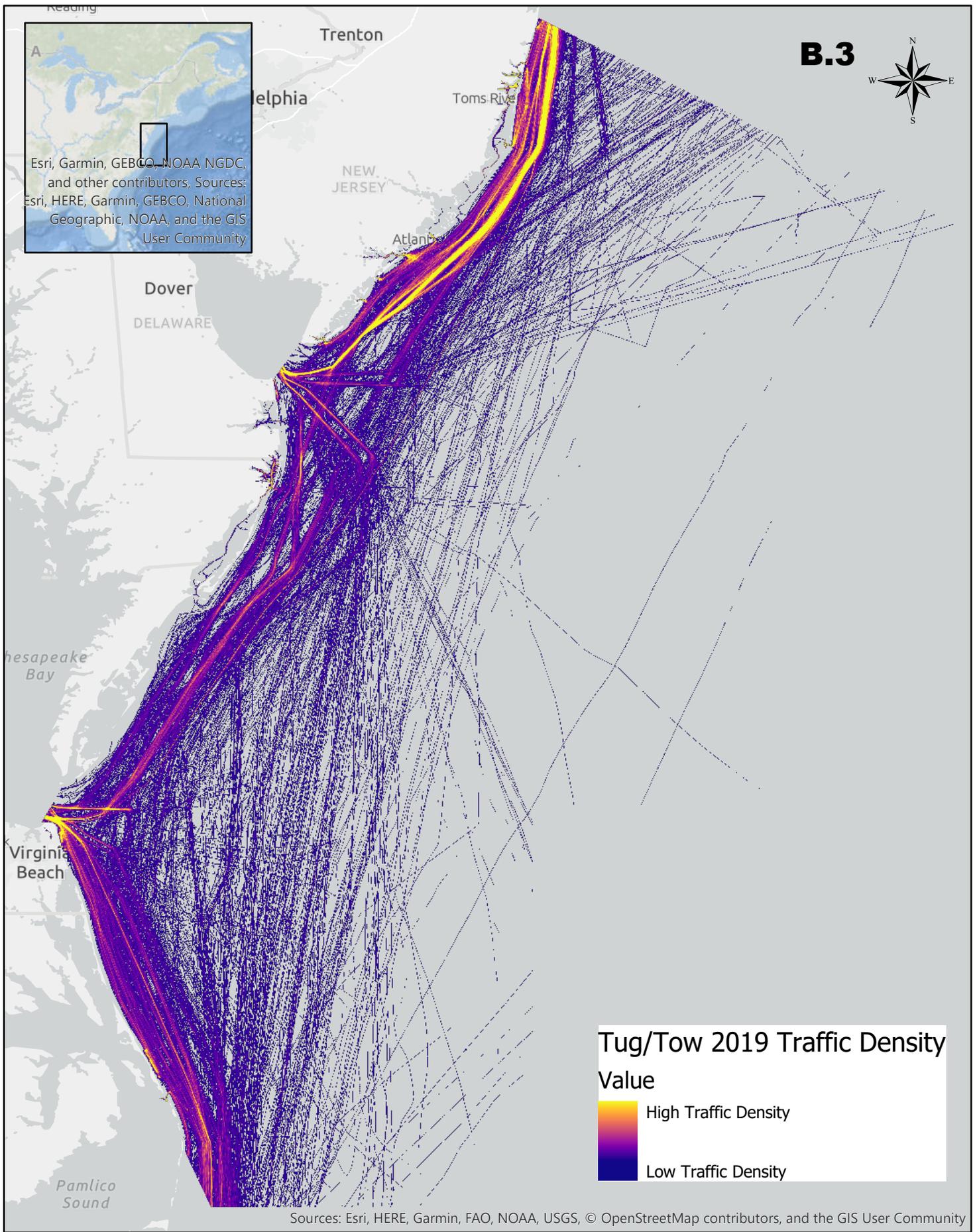0   12   24   48   72   96

A.1
With additional overlays

Esri, Garmin, GEBCO, NOAA NGDC, and other contributors, Sources: Esri, HERE, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community

Legend

Wind Planning Areas

Wind Lease Areas

ACPARS Fairways

Deep Draft Lane

Tug Tow Extension

Tug Tow Lane

Number of Tug/Tow Tracks 2017 (Within 1NM Bins)

1

>1 to ≤3

>3 to ≤9

>9 to ≤27

>27 to ≤81

>81 to ≤243

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Data Source: NAIS
Prepared by the CG NAVCEN

Scale: 1:2,318,117

Nautical Miles

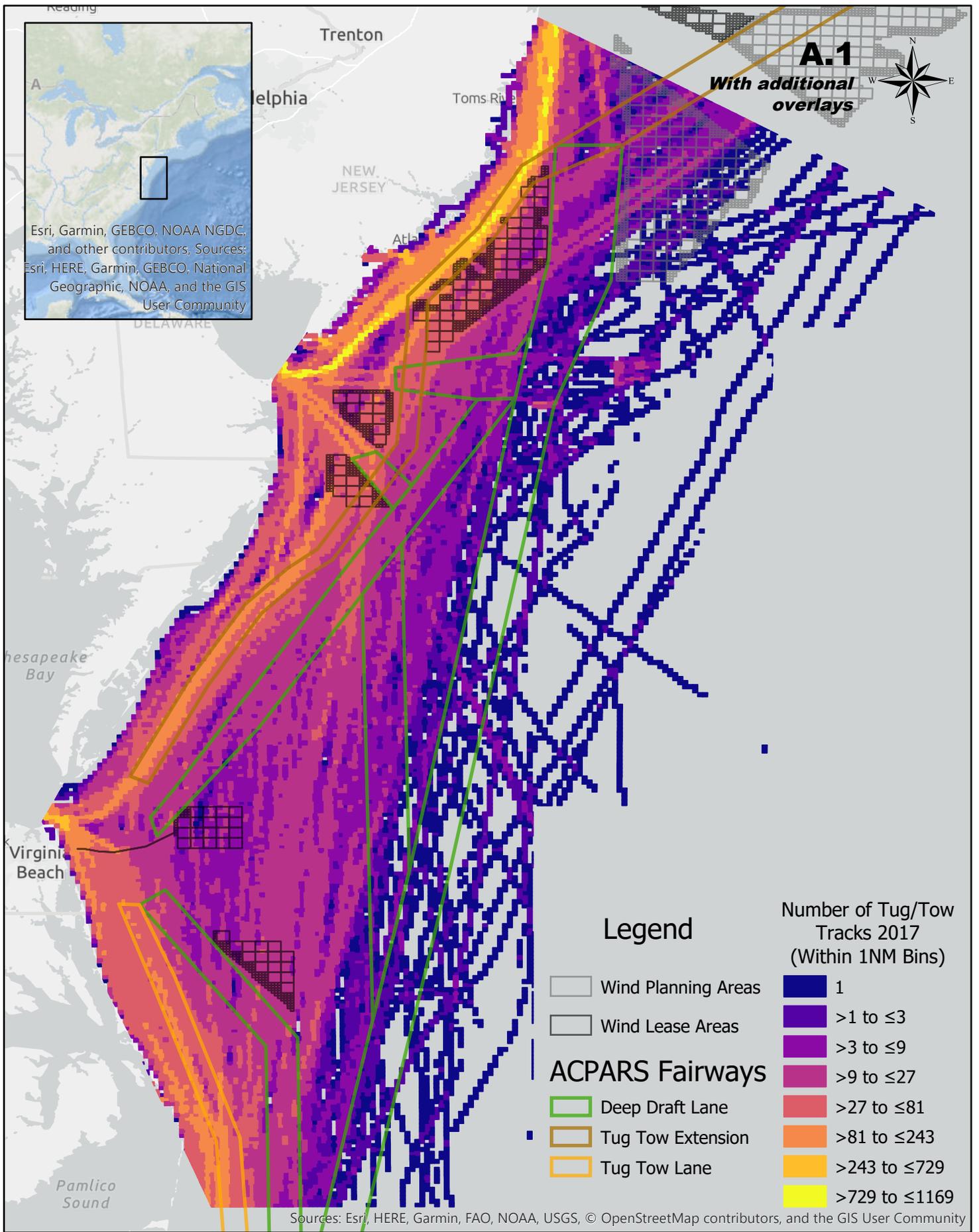0   12   24   48   72   96

A.2
With additional overlays

Reading
Trenton
...elphia
Toms Riv...
NEW JERSEY
Atl...
DELAWARE

Esri, Garmin, GEBCO, NOAA NGDC, and other contributors, Sources: Esri, HERE, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community

...hesapeake Bay

Virgini... Beach

Pamlico Sound

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Legend

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Scale: 1:2,318,117

Nautical Miles

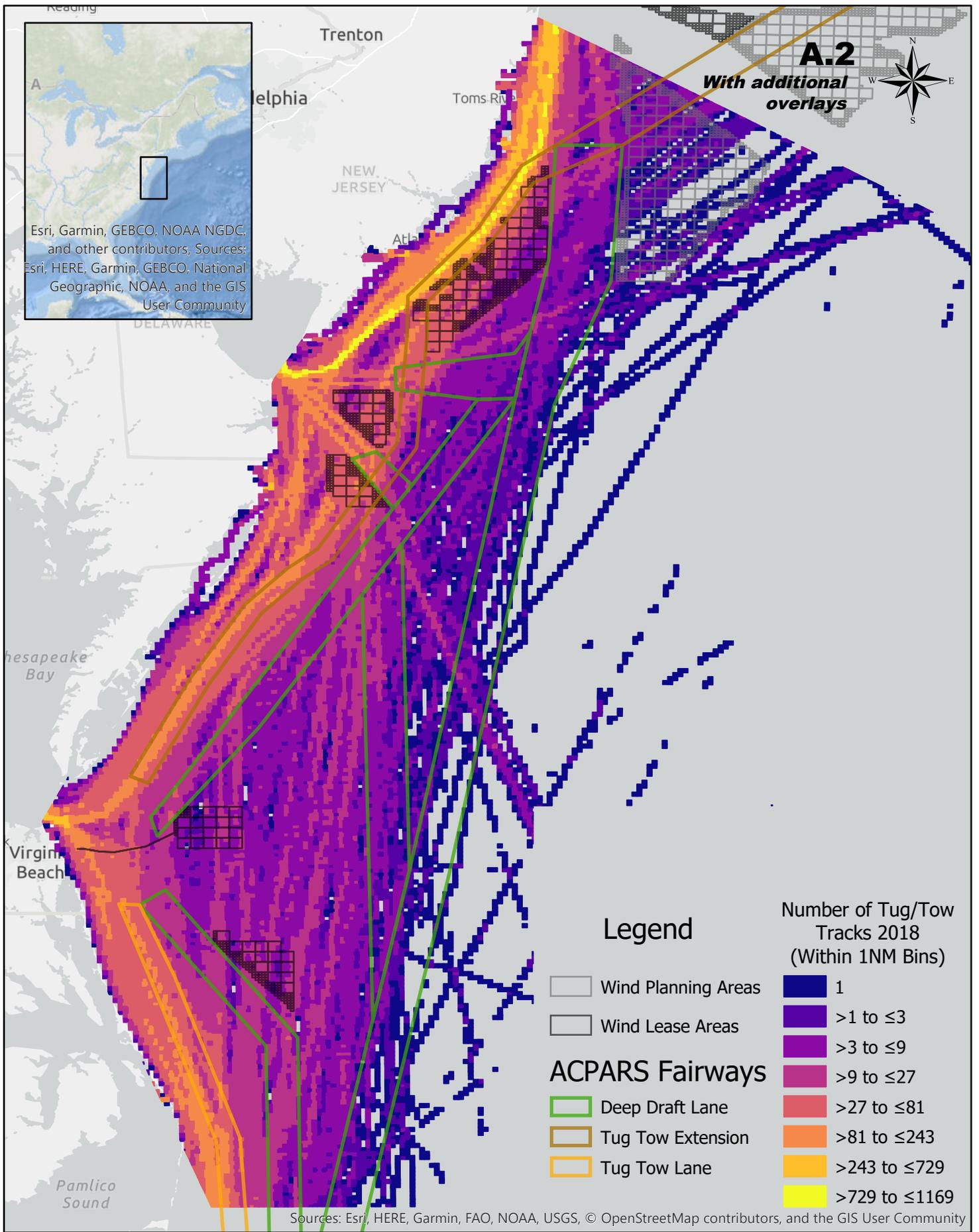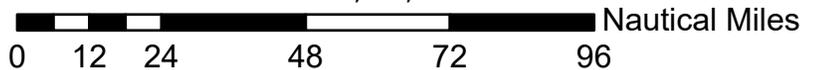0   12   24   48   72   96

A.3
With additional overlays

Legend

Wind Planning Areas

Wind Lease Areas

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Deep Draft Lane

Tug Tow Extension

Tug Tow Lane

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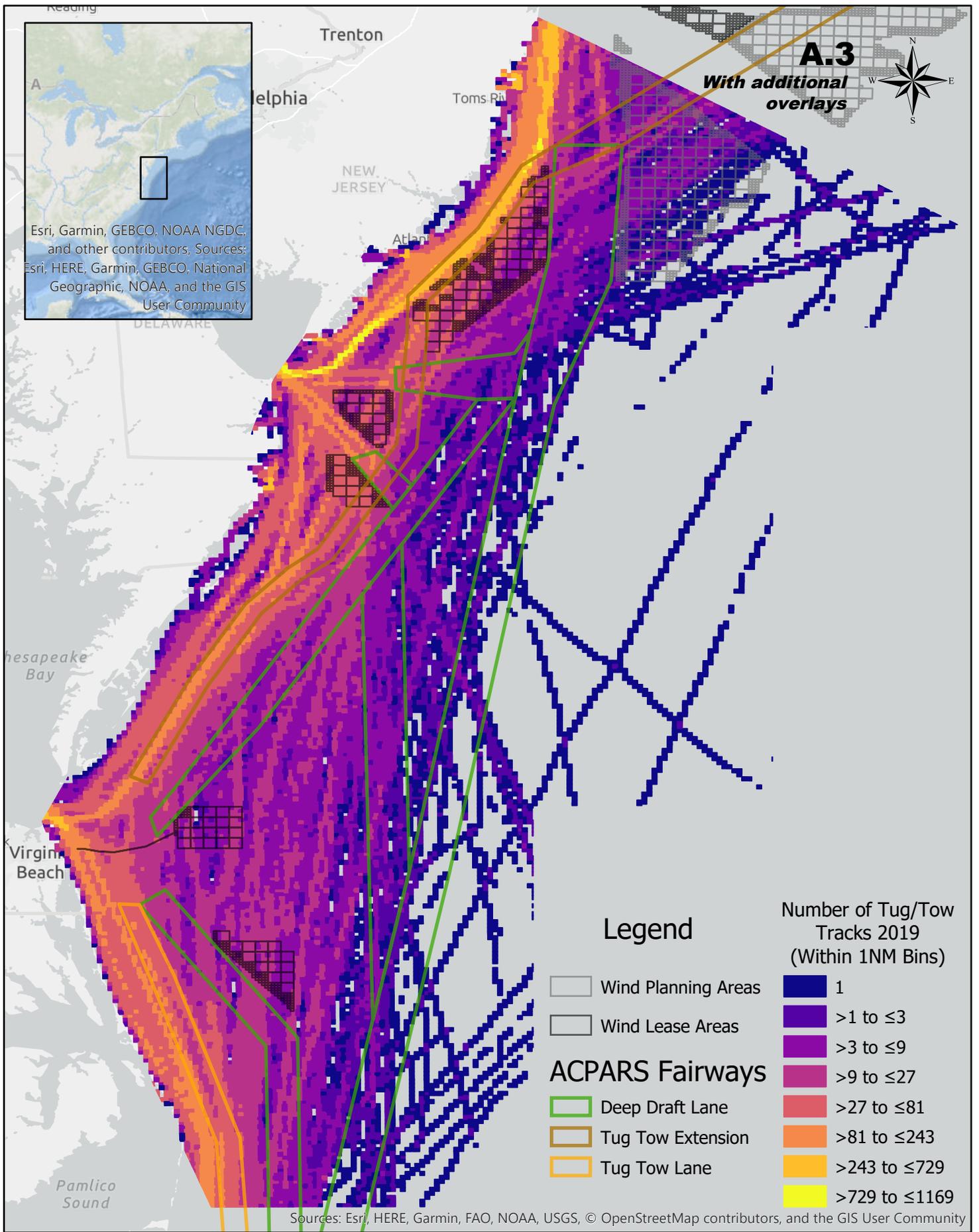Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
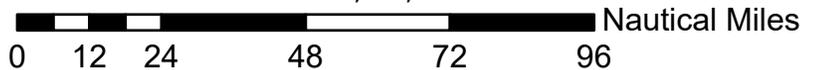
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Scale: 1:2,318,117

Nautical Miles

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B.1
With additional overlays

Legend

| | Wind Planning Areas |
| | Wind Lease Areas |

ACPARS Fairways

	Deep Draft Lane
	Tug Tow Extension
	Tug Tow Lane

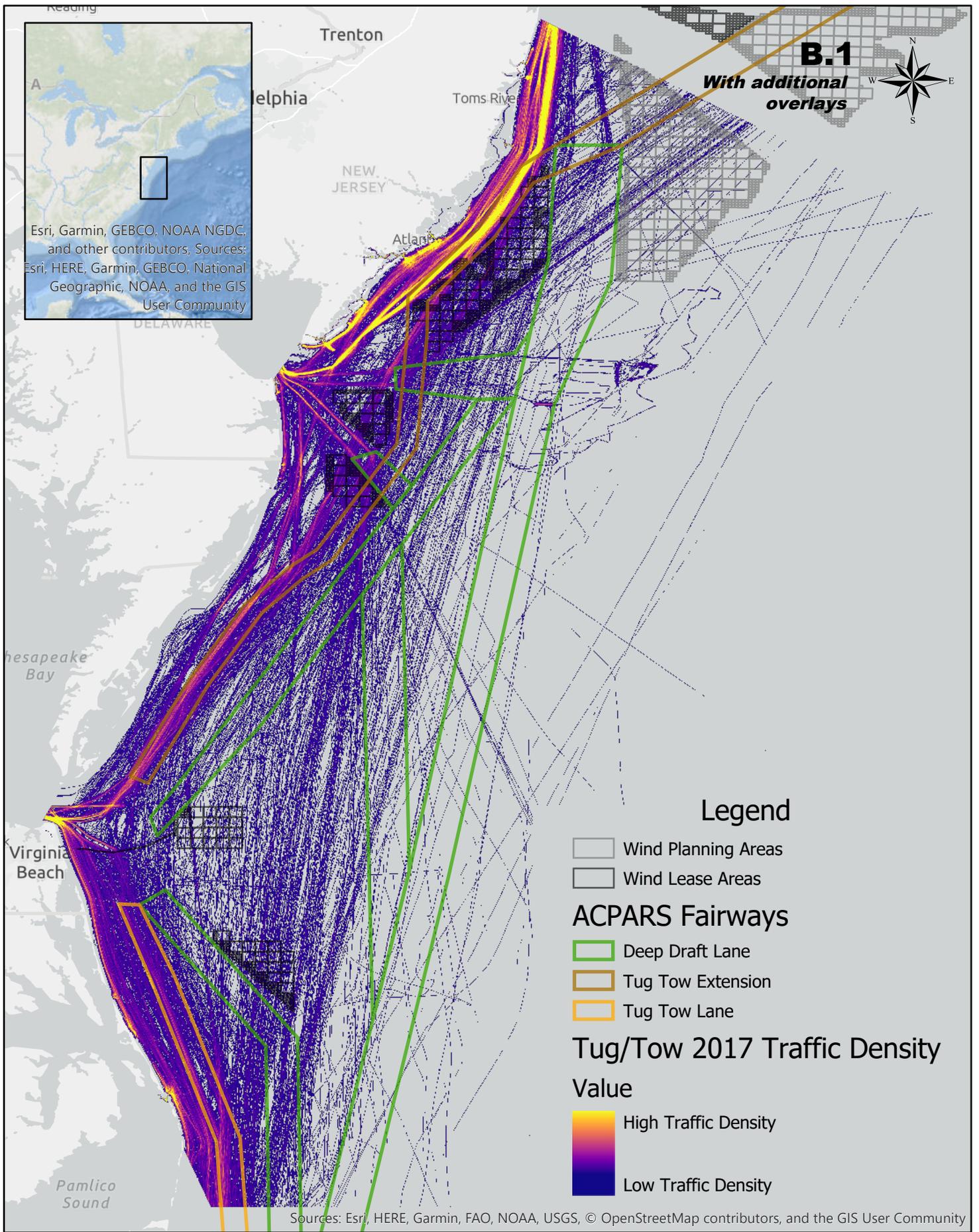### Tug/Tow 2017 Traffic Density

Value

High Traffic Density

Low Traffic Density
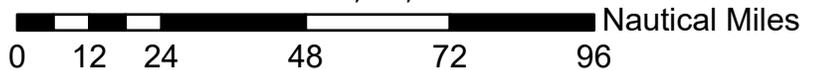
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B.2

With additional overlays

Legend

Wind Planning Areas
Wind Lease Areas

ACPARS Fairways

Deep Draft Lane
Tug Tow Extension
Tug Tow Lane

Tug/Tow 2018 Traffic Density

Value

High Traffic Density

Low Traffic Density

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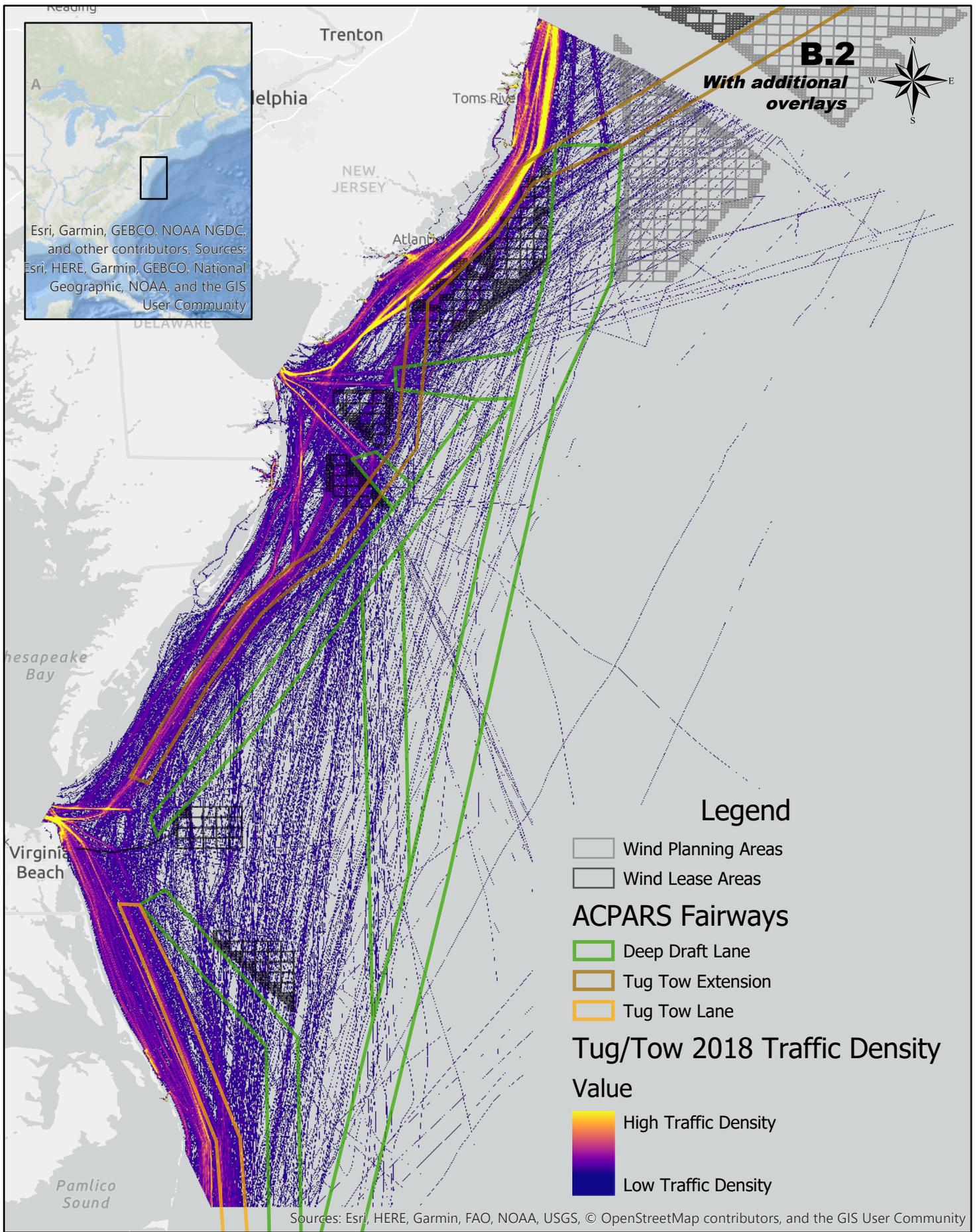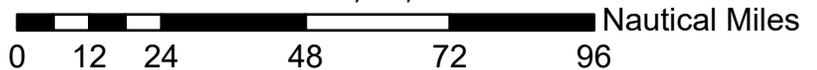Coordinate System: GCS WGS 1984
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B.3
With additional overlays

Legend

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Wind Lease Areas

ACPARS Fairways

Deep Draft Lane
Tug Tow Extension
Tug Tow Lane

Tug/Tow 2019 Traffic Density

Value

High Traffic Density

Low Traffic Density

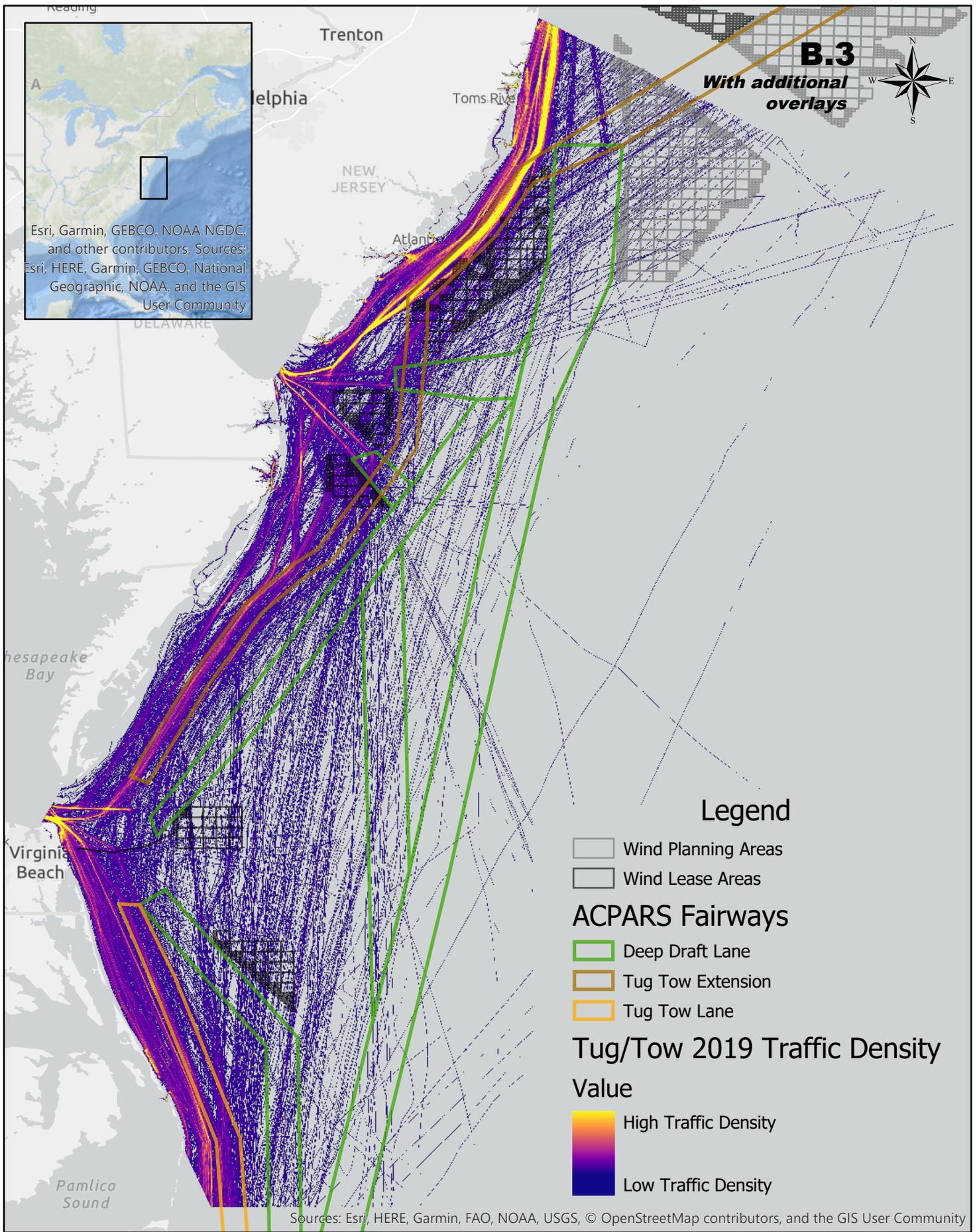Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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