

Second Supplemental Addendum to the Revised Joint Permit Application Coastal Virginia Offshore Wind Commercial Project

Attachment 4-1 Offshore Impact Maps

Prepared for:



707 East Main Street
Richmond, Virginia 23219

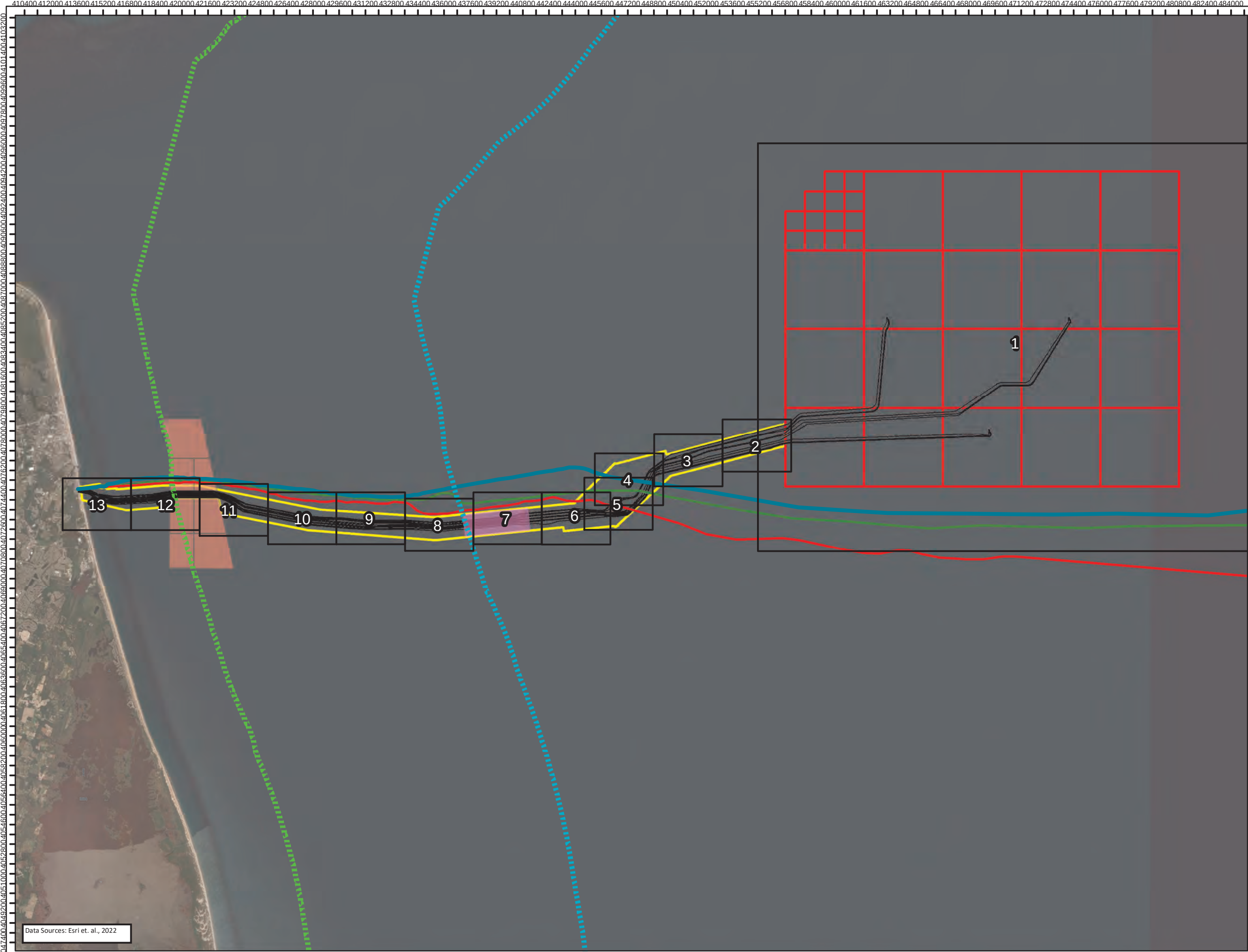
Prepared by:



Tetra Tech, Inc.
4101 Cox Road, Suite 120
Glen Allen, VA 23060

www.tetrattech.com

**Submitted May 2022
Revised July 2022
Revised August 2022
Revised December 2022**



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COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION

Lease Area

Dam Neck Ocean Disposal Site (DNODS)

Omega Joint Installation

Offshore Export Cable Corridor

3 Nautical Mile State Boundary

12 Nautical Mile Territorial Boundary

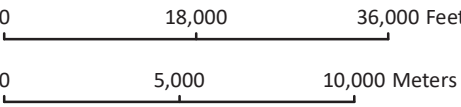
Offshore Export Cable

DUNANT Cable

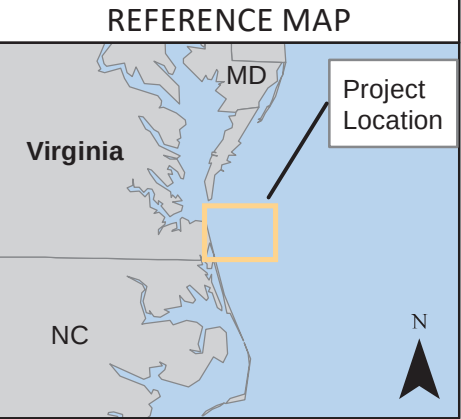
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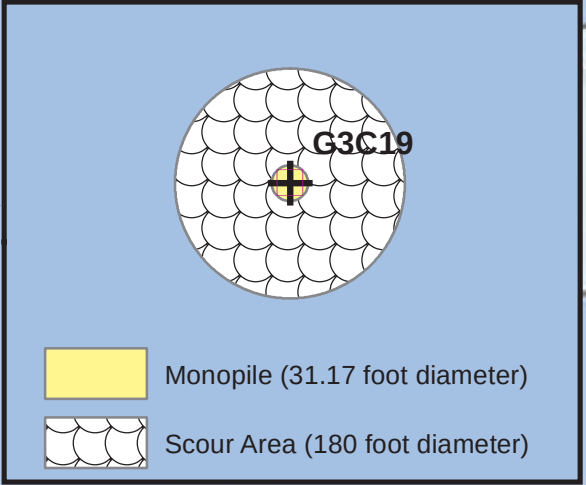
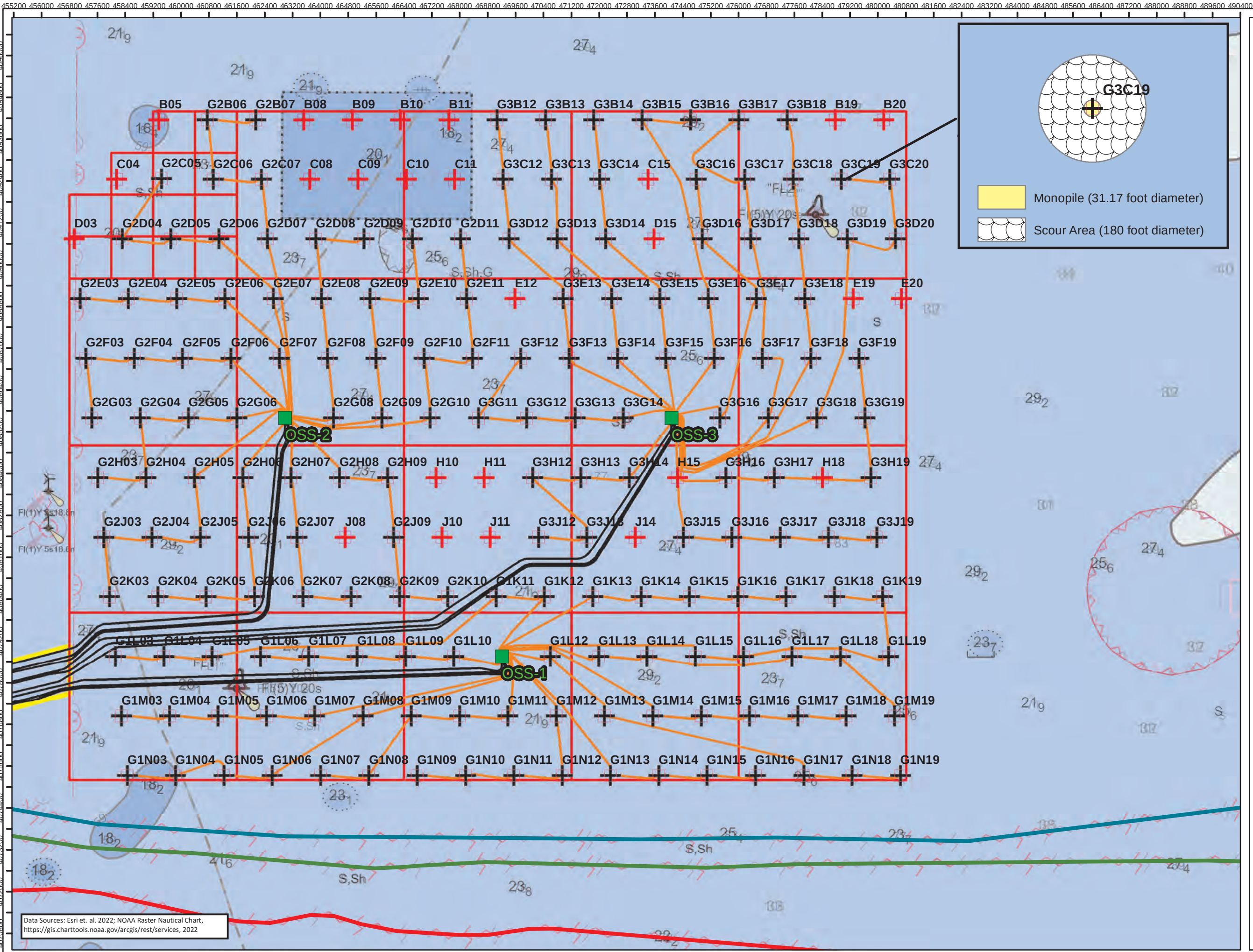
BRUSA Cable

Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 18,000 feet
when printed at 11"x17"





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COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION



 Lease Area

 Offshore Export Cable Corridor

 Preferred Wind Turbine Generator Location

 Alternate Wind Turbine Generator Location

 Offshore Substation

 Offshore Export Cable

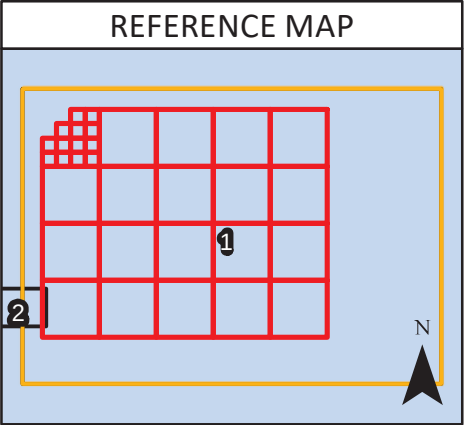
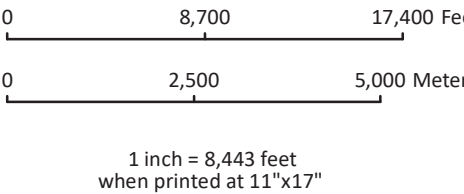
 Interarray Cable Route

 DUNANT Cable

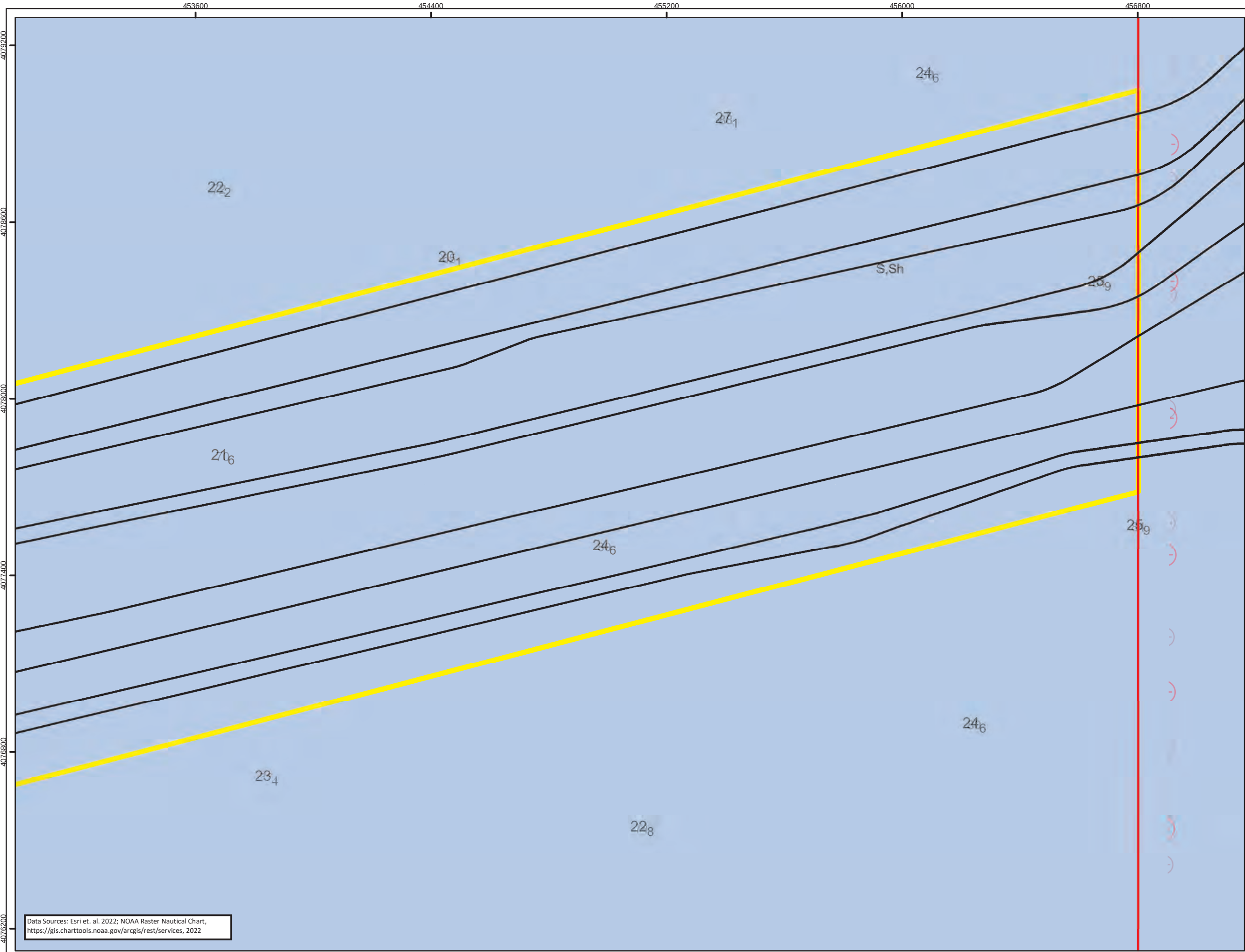
 MAREA Cable

 BRUSA Cable

Date	8/24/2022
Projection	NAD 1983 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



Data Sources: Esri et. al. 2022; NOAA Raster Nautical Chart, <https://gis.charttools.noaa.gov/arcgis/rest/services>, 2022



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COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION



 Lease Area

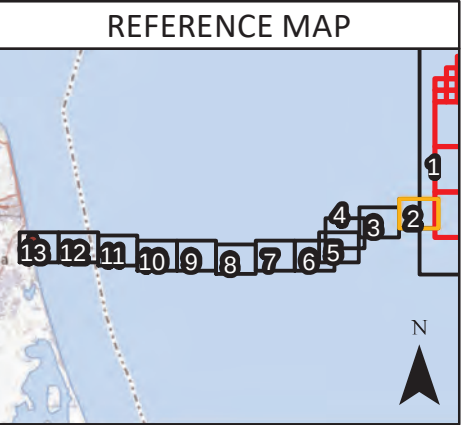
 Offshore Export Cable Corridor

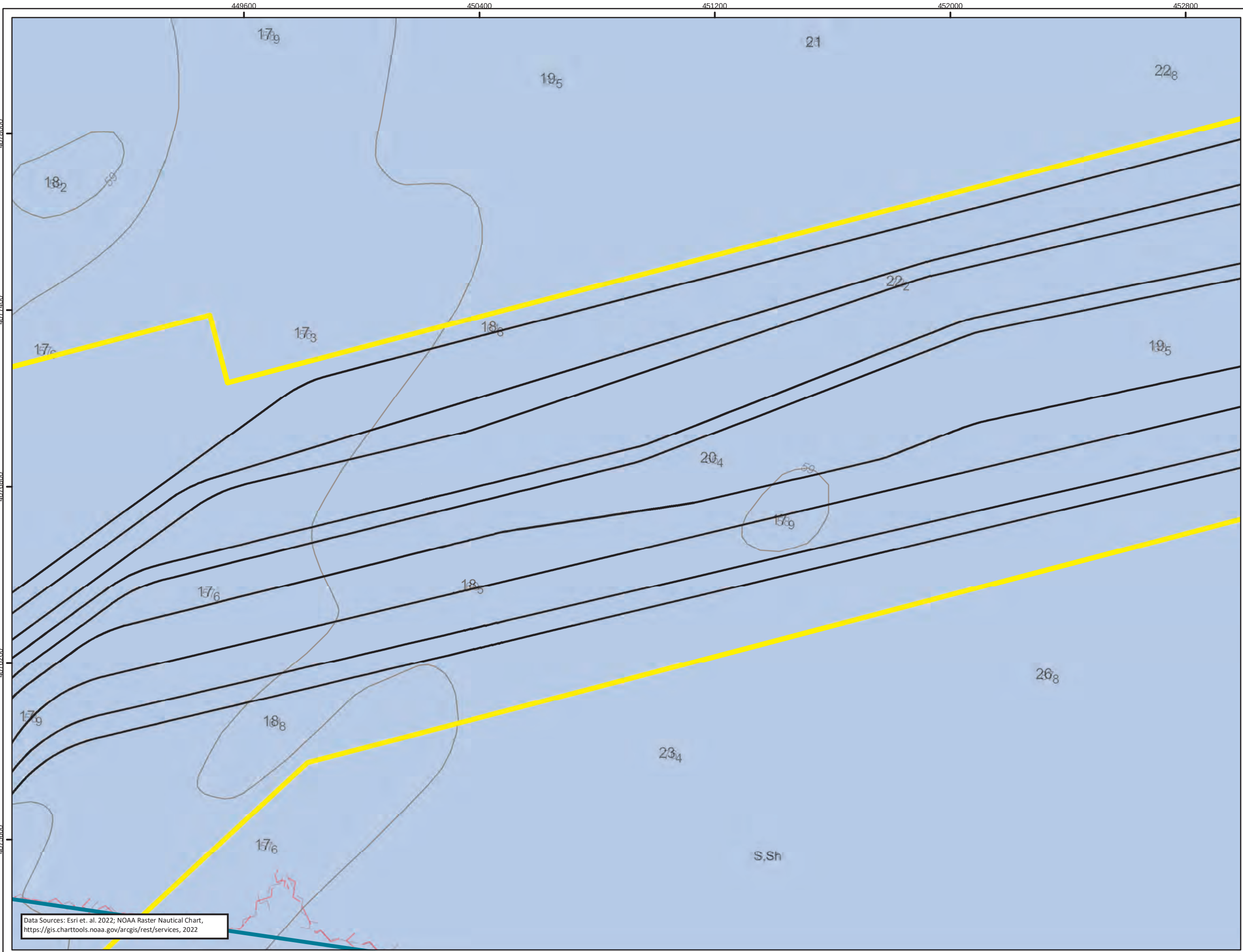
 Offshore Export Cable

Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 1,000 feet
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**COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION**



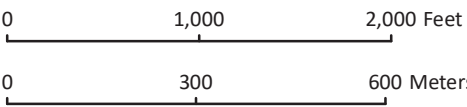

 Lease Area

 Offshore Export Cable Corridor

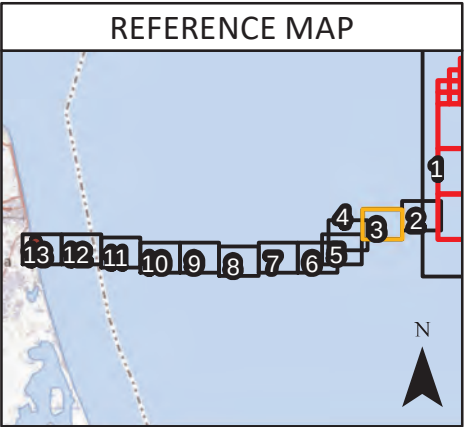
 Offshore Export Cable

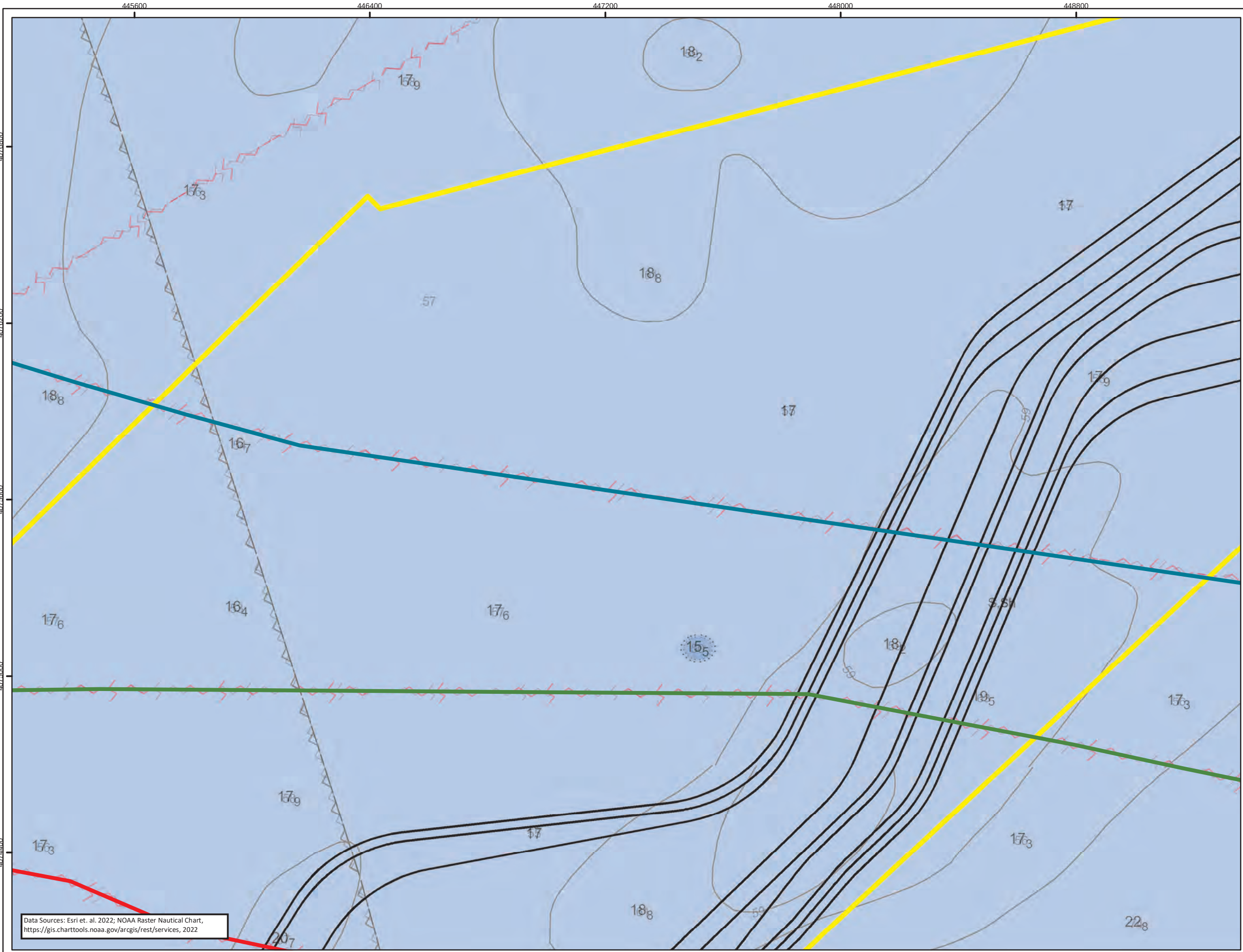
 DUNANT Cable

Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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when printed at 11"x17"





Data Sources: Esri et. al. 2022; NOAA Raster Nautical Chart, <https://gis.charttools.noaa.gov/arcgis/rest/services>, 2022

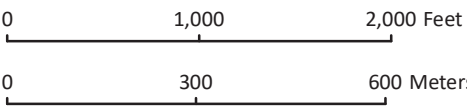
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COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION

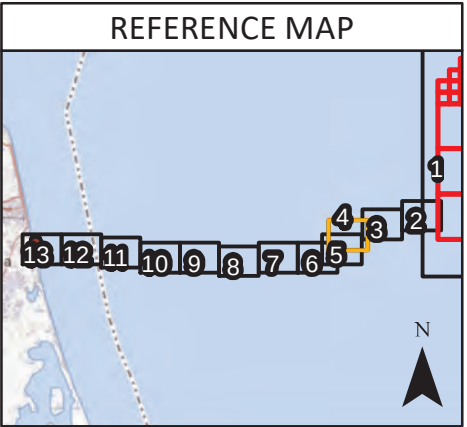


-  Lease Area
-  Offshore Export Cable Corridor
-  Offshore Export Cable
-  DUNANT Cable
-  MAREA Cable
-  BRUSA Cable

Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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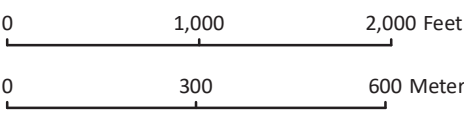
USACE-NLW
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**COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION**

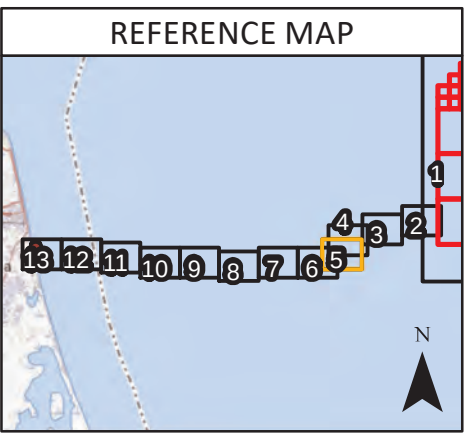


- Lease Area
- Offshore Export Cable Corridor
- Offshore Export Cable
- DUNANT Cable
- MAREA Cable
- BRUSA Cable

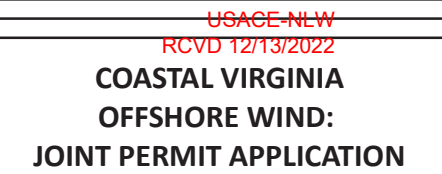
Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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when printed at 11"x17"



Data Sources: Esri et. al. 2022; NOAA Raster Nautical Chart,
<https://gis.charttools.noaa.gov/arcgis/rest/services>, 2022

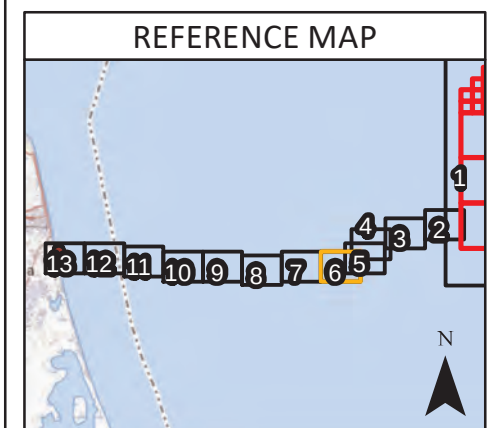


-  Lease Area
-  Offshore Export Cable Corridor
-  Offshore Export Cable
-  MAREA Cable
-  BRUSA Cable

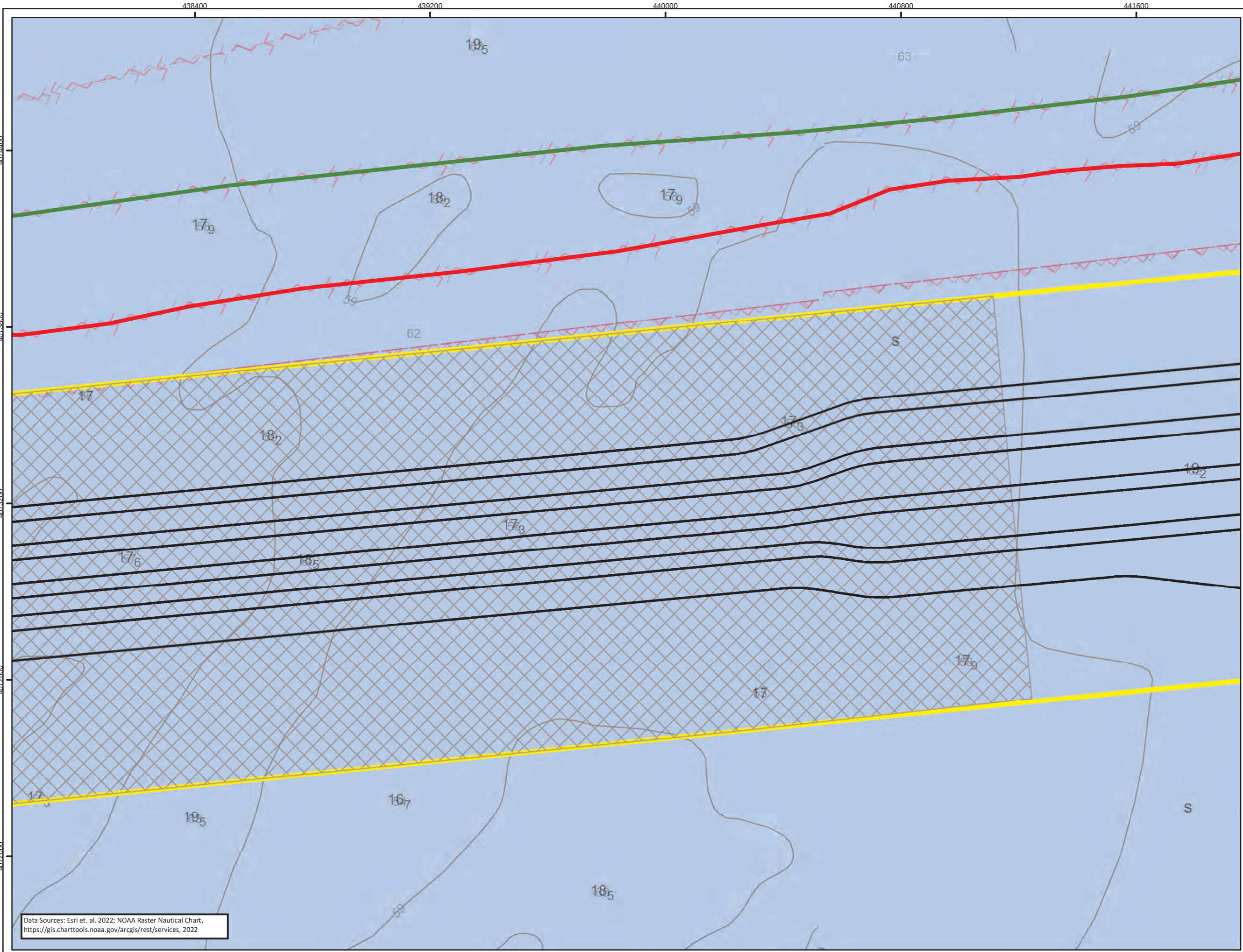
Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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Data Sources: Esri et. al. 2022; NOAA Raster Nautical Chart, <https://gis.charttools.noaa.gov/arccgis/rest/services>, 2022



Data Sources: Esri et. al. 2022; NOAA Raster Nautical Chart, <https://gis.charttools.noaa.gov/arcgis/rest/services>, 2022

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**COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION**



- Lease Area
- Omega Joint Installation Area*
- Offshore Export Cable Corridor
- Offshore Export Cable
- MAREA Cable
- BRUSA Cable

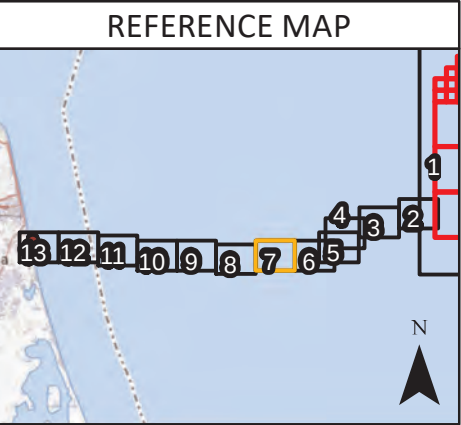
*The location of the Omega Joint will be located anywhere between KP 23 and KP 27, subject to final engineering. The Omega Joint will be buried a minimum of 2m beneath the seafloor.

Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group

0 1,000 2,000 Feet

0 300 600 Meters

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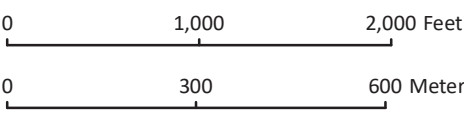
**COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION**



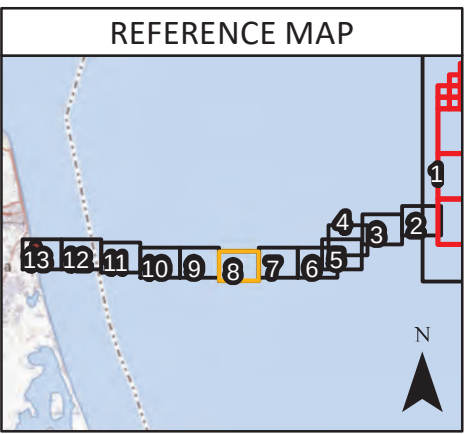
- Lease Area
- Omega Joint Installation Area*
- Offshore Export Cable Corridor
- 12 Nautical Mile Territorial Boundary
- Offshore Export Cable
- MAREA Cable
- BRUSA Cable

*The location of the Omega Joint will be located anywhere between KP 23 and KP 27, subject to final engineering. The Omega Joint will be buried a minimum of 2m beneath the seafloor.

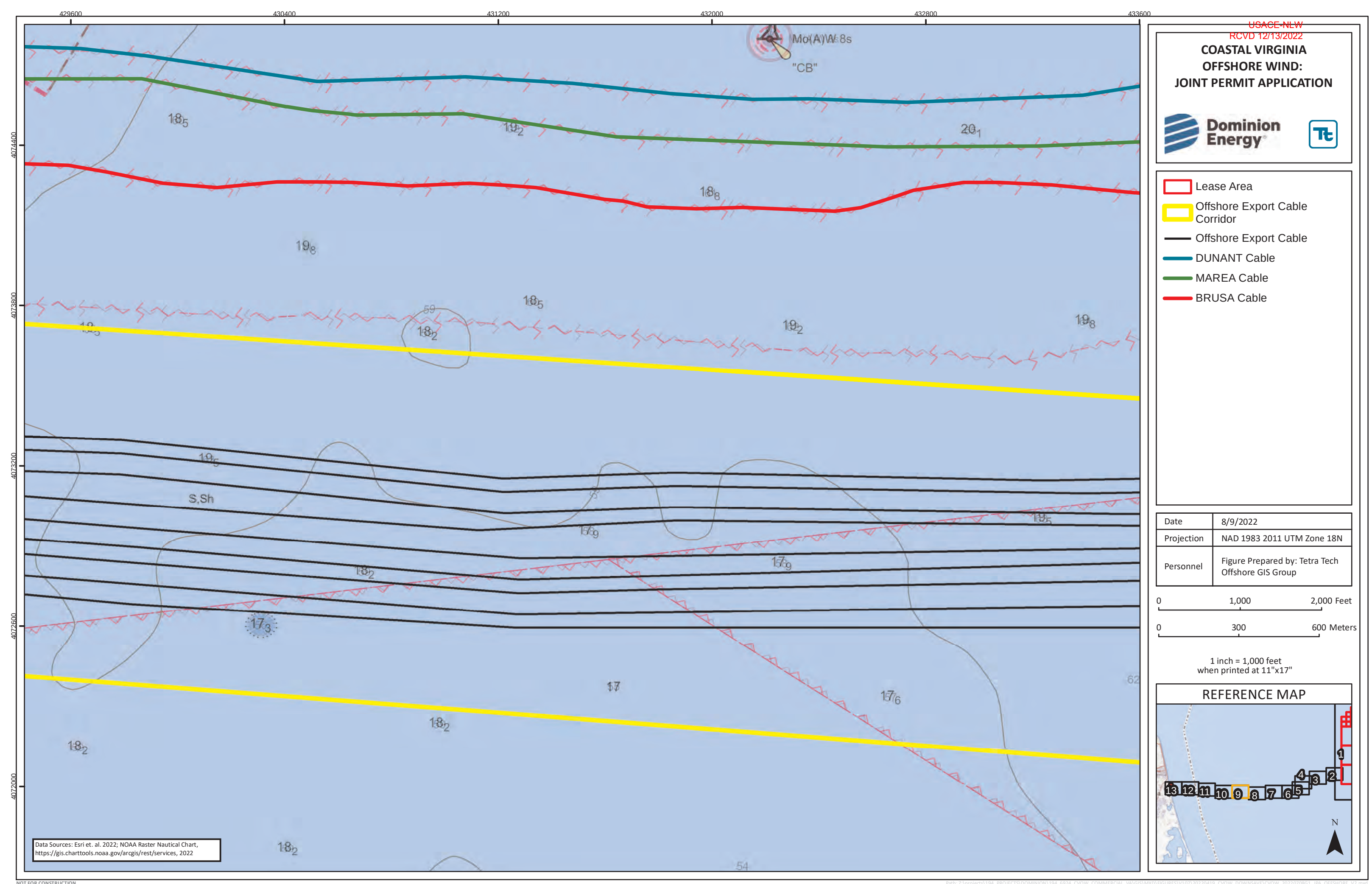
Date	8/9/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group

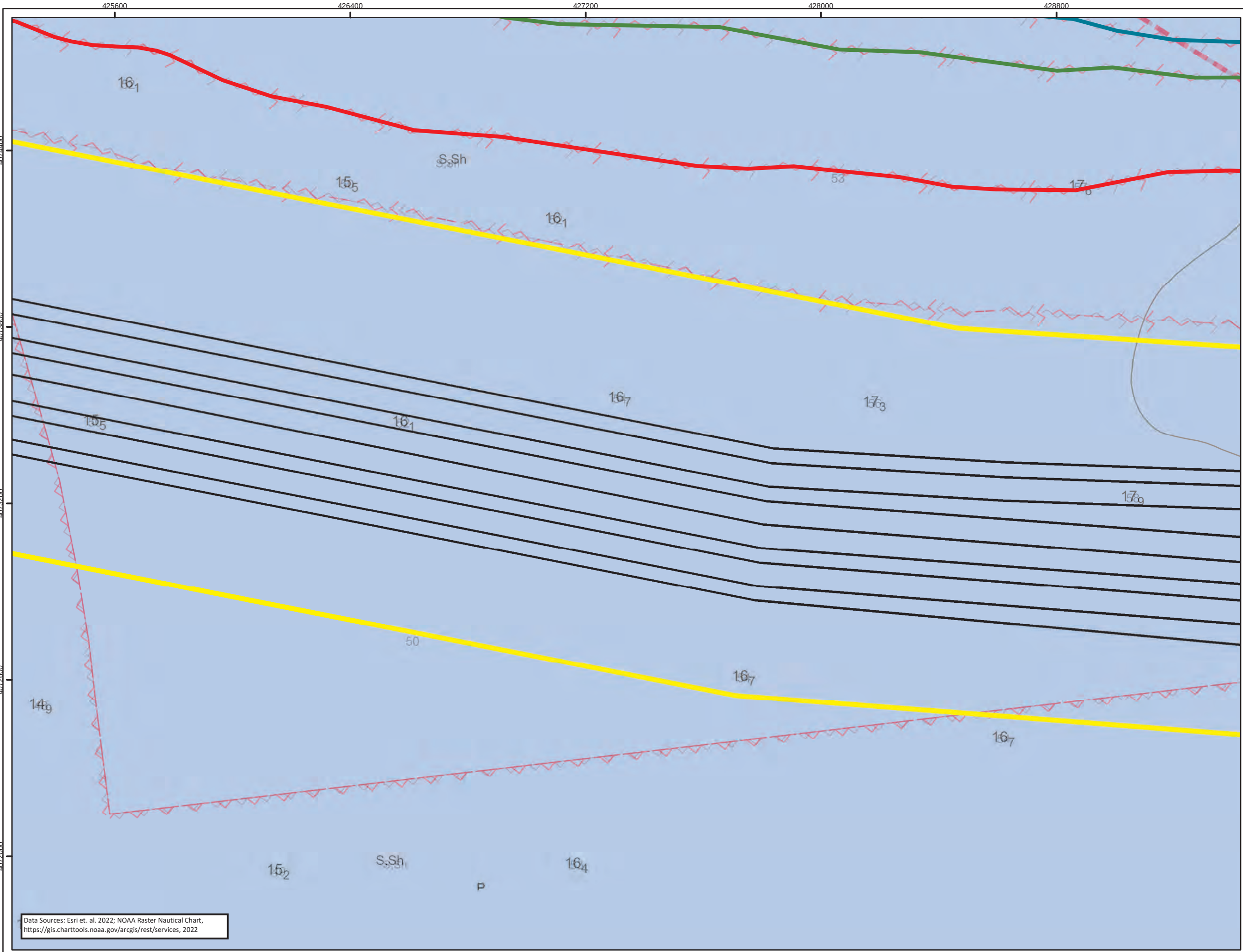


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Data Sources: Esri et. al. 2022; NOAA Raster Nautical Chart,
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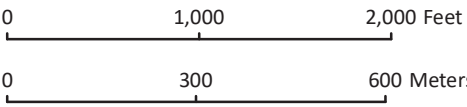
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OFFSHORE WIND:
JOINT PERMIT APPLICATION**

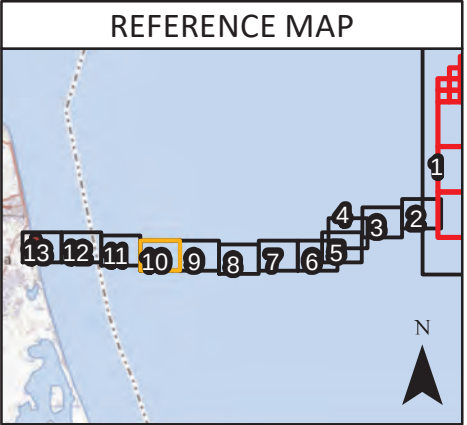


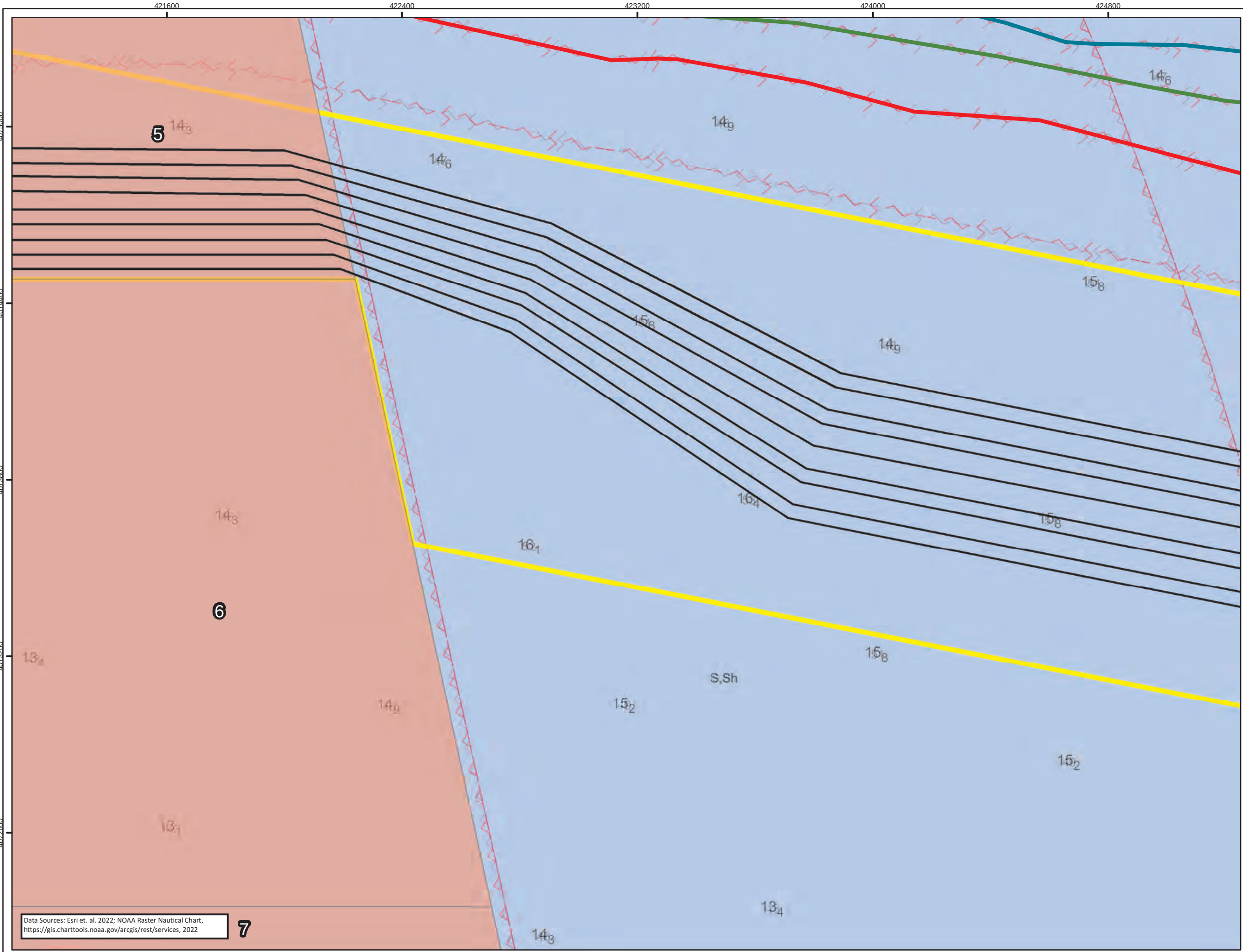

-  Lease Area
-  Offshore Export Cable Corridor
-  Offshore Export Cable
-  DUNANT Cable
-  MAREA Cable
-  BRUSA Cable

Date	8/9/2022
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Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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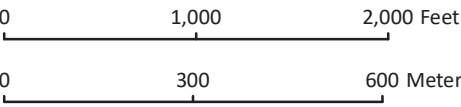
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**COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION**

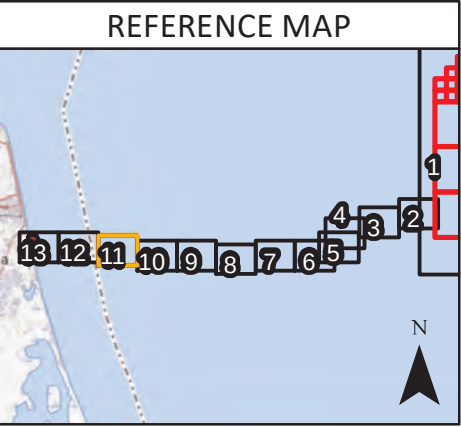


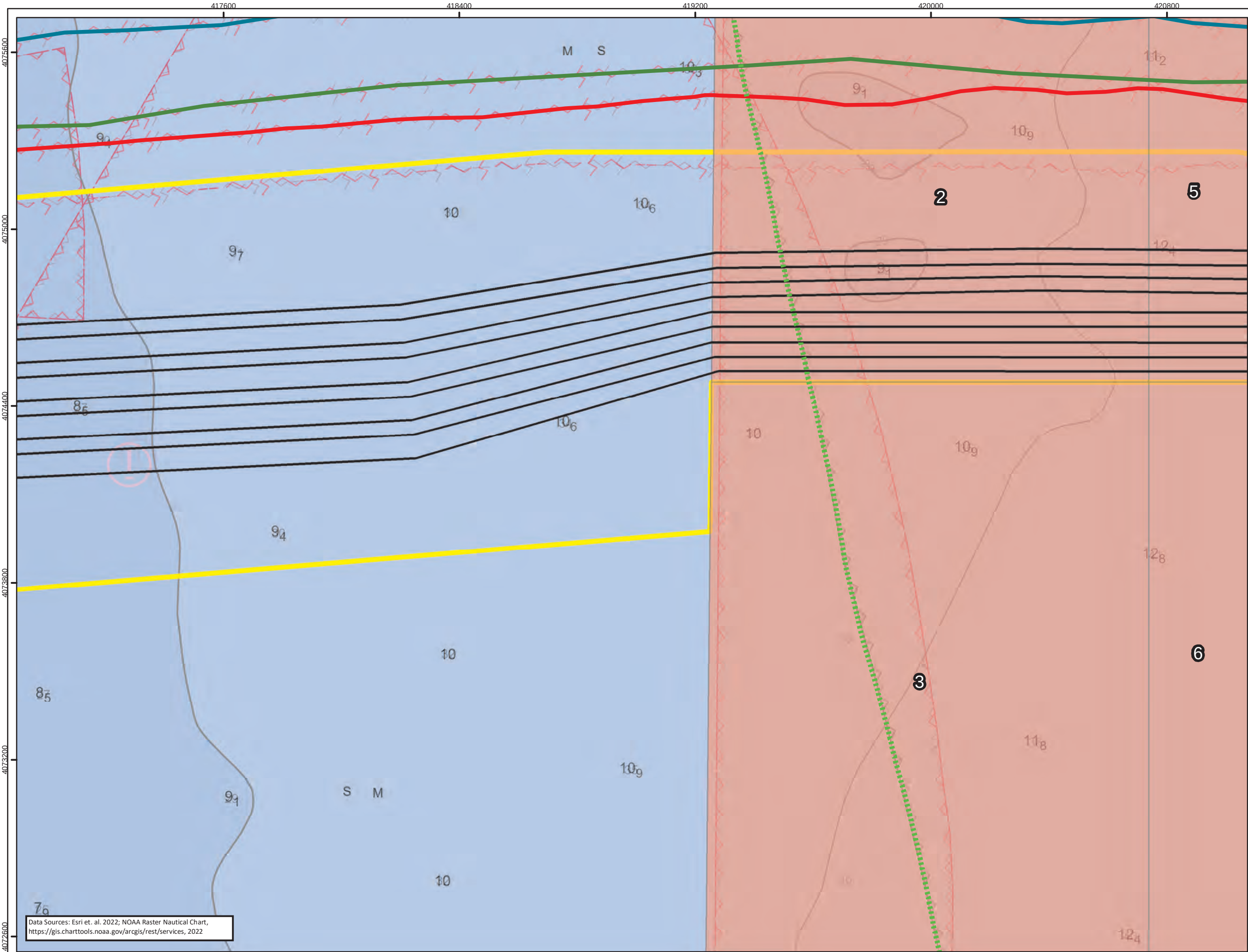

- Lease Area
- Dam Neck Ocean Disposal Site (DNODS)
- Offshore Export Cable Corridor
- Offshore Export Cable
- DUNANT Cable
- MAREA Cable
- BRUSA Cable
- DNODS Cell Number

Date	8/25/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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COASTAL VIRGINIA
OFFSHORE WIND:
JOINT PERMIT APPLICATION



 Lease Area

 Dam Neck Ocean Disposal Site (DNODS)

 Offshore Export Cable Corridor

 3 Nautical Mile State Boundary

 Offshore Export Cable

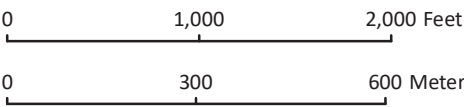
 DUNANT Cable

 MAREA Cable

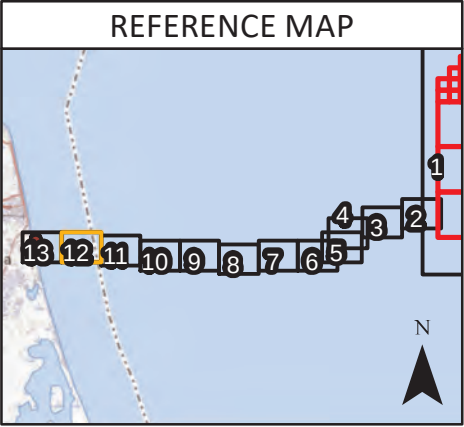
 BRUSA Cable

 DNODS Cell Number

Date	8/25/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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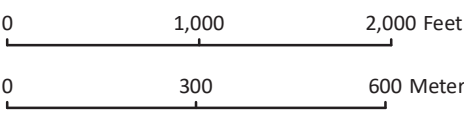
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OFFSHORE WIND:
JOINT PERMIT APPLICATION**

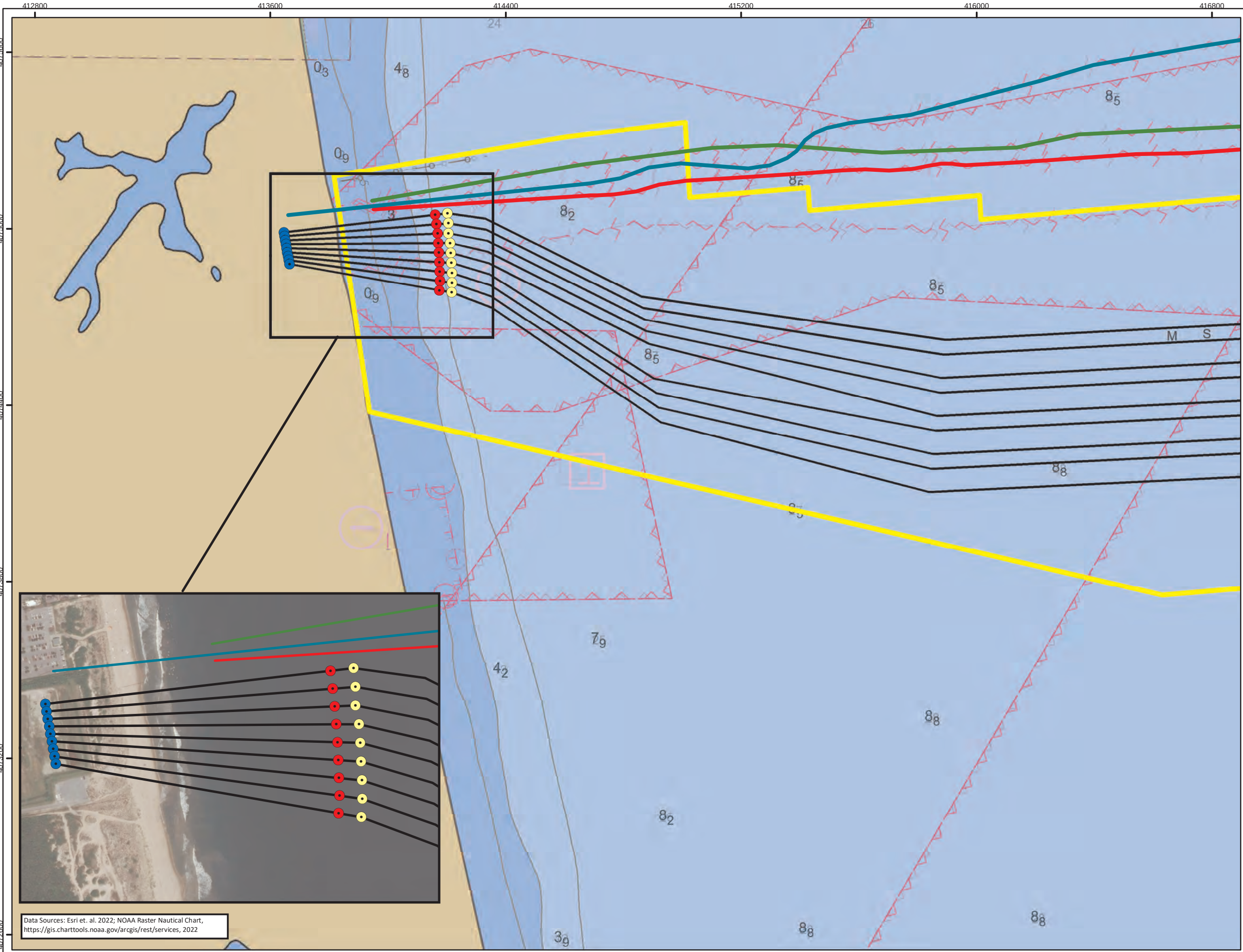
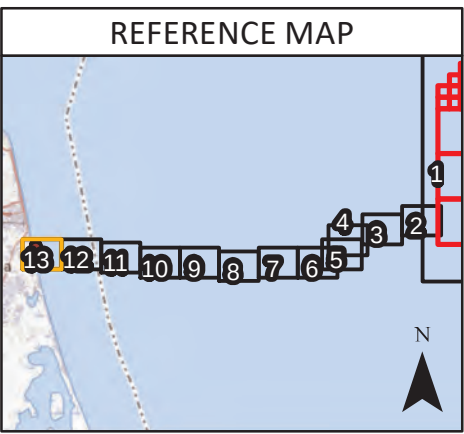


- Lease Area
- Offshore Export Cable Corridor
- Offshore Export Cable
- Cofferdam - Offshore Temporary Impact
- Entry Point
- Transition Point
- DUNANT Cable
- MAREA Cable
- BRUSA Cable

Date	8/9/2022
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