LNG Pipelines
Northeast United States
December 15, 2015

Prepared for:
Northeast Region Ocean Council (NROC)
Northeast Ocean Data
www.northeastoceandata.org

Prepared by:
Rachel Shmookler
RPS Applied Science Associates (RPS ASA)
55 Village Sq. Dr.
South Kingstown, RI 02879

1. INTRODUCTION

This layer shows the locations of three natural gas pipelines in Massachusetts Bay, the Algonquin Hubline, the Northeast Gateway Deepwater Port and Lateral, and the Neptune LNG Pipeline Lateral and Deepwater Port. The Algonquin Hubline is an approximately 30 mile natural gas pipeline constructed primarily in the ocean along the coast of Massachusetts between Beverly and Weymouth. The Northeast Gateway pipeline is an approximately 16-mile long, 24-inch diameter natural gas pipeline lateral that interconnects with Algonquin's existing offshore Hubline natural gas pipeline system in Massachusetts Bay. The Neptune LNG pipeline lateral and deepwater port is located in federal waters in Massachusetts Bay and interconnects with Algonquin's existing offshore Hubline natural gas pipeline system. Original survey for the bottom position of the pipeline was established by a combination of surface position of the installation vessel using DGPS, diver's surveys, multibeam surveys, and sidescan surveys.

This product was created from three separate pipeline datasets acquired from the Massachusetts Ocean Resource Information System (MORIS), an online tool created by the Massachusetts Office of Coastal Zone Management (MACZM). While this document incorporates pertinent information from the metadata for these products, it is recommended to view the original documentation from MORIS.

2. PURPOSE

To support coastal and ocean planning.

3. SOURCES AND AUTHORITIES

- Massachusetts Office of Coastal Zone Management (MACZM)
- MORIS_ALGONQUIN_HUBLINE_LNG_ARC.shp
  http://maps.massgis.state.ma.us/czm/moris/metadata/moris_algonquin_hubline_lng_arc.htm
- MORIS_NEPTUNE_LNG_ARC.shp
  http://maps.massgis.state.ma.us/czm/moris/metadata/moris_neptune_lng_arc.htm
- MORIS_NE_GATEWAY_LNG_ARC.shp
  http://maps.massgis.state.ma.us/czm/moris/metadata/moris_ne_gateway_lng_arc.htm

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – simple feature class

Feature Types:
Submarine pipeline

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Uniquely identifies a feature	OBJECTID	*
2	Shape	Geometric representation of the feature	geometry	*
3	LENGTH_FT	Length of pipeline in feet	double	50
4	ID	Name of pipeline system	text	254
5	Shape_Length	Length in native units	double	*

Feature Class Name: LNGPipelines

Total Number of Unique Features: 4

Dataset Status: Complete

5. SPATIAL REPRESENTATION

Geometry Type: vector polyline
Reference System: GCS North American 1983
Horizontal Datum: North American Datum 1983
Ellipsoid: Geodetic Reference System 1980

XY Resolution: XY Scale is 1000000000.0000001
Tolerance: 0.00000000898315284119521 17

Geographic extent: -70.964938 to -70.593767, 42.245037 to 42.542515

IS0 19115 Topic Category: environment, oceans, structure, utilitiesCommunication

Place Names:

Boston Harbor, Massachusetts, Massachusetts Bay

Recommended Cartographic Properties:

(Using ArcGIS ArcMap nomenclature)

Simple Line Symbol: color: 40-100-90, color mode: HSV, width: 1.0

Scale range for optimal visualization: 200,000 to 500,000

6. DATA PROCESSING

Processing environment: ArcGIS 10.1 SP1, Windows 7 Professional, Intel Core i5 CPU

	Process Steps Description
1	Downloaded source datasets from MORIS in the coordinate system WGS 1984
2	MERGE datasets into one product
3	In an Edit session, entered in name information to the ID field where necessary
4	PROJECTED dataset from WGS 1984 to GCS NAD 1983

7. QUALITY PROCESS

Attribute Accuracy: These is no assignment of attributes to these data.

Logical Consistency: No new testing was performed on source material.

Completeness: A georeferenced line CAD file was submitted as source data. Subsequent testing of the data was not performed.

Positional Accuracy: The original survey for the bottom position of the pipeline was established by a combination of surface position of the installation vessel using DGPS, diver's surveys, multibeam surveys, and sidescan surveys. The project was surveyed in accordance with the USACOE's minimum standards and techniques as defined in the engineering manual EM 1110-2-1003.

Timeliness: Reflects ongoing conditions through 2015.

Use restrictions: NOT FOR NAVIGATION.

Distribution Liability: The information should not be used for legally binding purposes. NROC and RPS ASA are not responsible for any interpretations, assumptions, or conclusions based on these data. Any redistribution of these data shall reference NROC and RPS ASA as the creator, and MACZM as the original source, and any derived products must have documented process steps. Users must assume responsibility to determine the appropriate use of these data.