Unusually Sensitive Areas (USA) Definitions
Public Meeting
Background Brief and Questions

Background

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is evaluating multiple strategies to determine how best to address mandates contained in the Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2016. Congress directed PHMSA to define that the Great Lakes, coastal beaches, and marine coastal waters as Unusually Sensitive Areas ecological resources, for purposes of determining whether a hazardous liquid pipeline is in a high consequence area. PHMSA is specifically seeking public comment on:

a) concerns on the proposed treatment of the Great Lakes, to include Lake Superior, Lake Huron, Lake Ontario, Lake Michigan, Lake Erie, and other connecting channels or waters as identified in question nine below, and
b) how to identify and define coastal beaches and marine coastal waters and obtain national geospatial data that represents those areas.

PHMSA has explored alternatives for complying with Section 19 of the PIPES Act and has developed a plan to update the National Pipeline Mapping System (NPMS) to identify the Great Lakes as an unusually sensitive area (USA) ecological resource. PHMSA plans to update the NPMS by using geographic information system (GIS) data sourced from an expert agency. These GIS data will identify the areas of the Great Lakes, within the boundaries of the United States, as polygons, shading their entire area.

All GIS datasets referenced in this document are available to the public. You can view, download and read about many of them from https://marinecadastre.gov/viewers/.

Questions for Consideration

PHMSA is considering the following questions in its' evaluation of how best to meet the Congressional mandate. PHMSA is in the process of developing sample maps that relate to these questions, and intends to present the maps for discussion during the public meeting.

1. Should PHMSA define and map coastal beaches based on the Environmental Sensitivity Index (ESI) shoreline features that include "beach" as part of the shore type description?
    a. Should PHMSA apply a 1/4-mile buffer to these shoreline segments to represent the body of a coastal beach? Do you suggest another size buffer, and why?
    b. Should PHMSA consider all shoreline features, regardless of the shore type description, as the basis for defining coastal beaches?
    c. Is there a different GIS dataset available at a national level that PHMSA should consider as the basis for defining and mapping coastal beaches?

2. Should PHMSA include estuaries, swamps and marshes from the USGS' National Hydrography Dataset as part of the definition of marine coastal waters?
    a. Should PHMSA reference the extent of US state submerged lands to define the extent of marine coastal waters?

b. Should PHMSA mimic the EPA's definition of coastal waters as defined in "Nutrient Criteria Technical Guidance Manual, Estuarine and Coastal Marine Waters"[1], by defining the offshore extent of marine coastal waters as 20 nautical miles from the shore? Should PHMSA measure 20 nautical miles from island shorelines for this definition? What national shoreline or coastal GIS data product should be used for this calculation?
c. Should PHMSA include all coastal waters out to the federal/state water boundary (beginning of the outer continental shelf) as part of the definition of marine coastal waters?

3. If PHMSA references the beach categorization from the ESI shoreline product, how should the Agency define this definition in text, or handle potential extensions of the ESI shoreline product further upriver?

4. Are coastal beaches limited to those along the Gulf of Mexico and the Pacific and Atlantic Oceans, or do the Great Lakes, commercially navigable waters, or other inland water bodies include coastal beaches?

5. Should PHMSA seek to combine coastal beaches and marine coastal waters into existing USA ecological resources, given these coastal areas are not defined by ecological factors related to species, or should the Agency seek to define and map a new type of coastal USA?

6. Does PHMSA need to differentiate between the coastal beaches and marine coastal waters, or produce a single coastal areas USA definition and data layer?

7. Is shoreline sensitivity the same for all hazardous liquid products subject to part 195? The same for all types of shorelines?

8. Do operators currently consider the entire body of the Great Lakes as an HCA, or only the representative shipping channels in the US Army Corps of Engineers' (USACE) National Waterway Network (NWN)?

9. Should PHMSA define and map the Great Lakes as all waterbodies within the Great Lakes watershed, based on the boundaries in the USGS National Hydrography Dataset?
    a. Should PHMSA reference the extent of US state submerged lands around the Great Lakes to define the extent of the Great Lakes and their connecting channels?
    b. Should PHMSA consider the Great Lakes definition as found in 33 U.S.C 1268, which defines the Great Lakes to mean Lake Ontario, Lake Erie, Lake Huron (including Lake St. Clair), Lake Michigan, and Lake Superior, and the connecting channels (Saint Mary's River, Saint Clair River, Detroit River, Niagara River, and Saint Lawrence River to the Canadian Border), and what GIS data source would you recommend for representing the boundaries, not the centerline, of these water bodies?

[1] http://www.aoml.noaa.gov/themes/CoastalRegional/projects/FACE/EPA_NNC-Est-Coastal-waters_2001.pdf

c. Should PHMSA define and map the Great Lakes as only the bodies of Lake Ontario, Lake Erie, Lake Huron, Lake Michigan, and Lake Superior, without connecting channels, based on the boundaries in the USGS National Hydrography Dataset?
d. Is there a different GIS dataset available at a national level that PHMSA should consider as the basis for defining and mapping the Great Lakes and connecting channels?