Unusually Sensitive Areas

Liquid Pipeline Advisory Committee Pre-Brief

August 10, 2022.

Agenda

1. Briefing
2. Committee Discussion of Rulemaking Procedures
3. Committee Vote on Applicability, Definitions, and Data Sources
4. Committee Vote on Meeting Report

Timeline

- June 22, 2016: PIPES Act of 2016 signed: Section 19 mandate
- November 17, 2017: First public meeting
- June 12, 2019: Second public meeting
- December 27, 2020: PIPES Act of 2020 Section 120 mandate
- December 27, 2021: Interim Final Rule (IFR) published
- February 25, 2022: Effective date and end of the comment period

Timeline

- March 1, 2022: GPA Midstream Association and American Petroleum Institute (API) petitioned for a motion to stay the IFR pending judicial review.
- April 14, 2022: PHMSA released a statement issuing a stay of enforcement in connection with hazardous liquid pipeline facilities that are or will become subject to regulation as "regulated rural gathering lines" or as categories 1 or 2 "rural low stress lines" as a result of the amendments codified by the IFR.

SUMMARY

PIPES Act Mandates

- **PIPES Act of 2016:** Revise § 195.6 to explicitly state that "The Great Lakes," "coastal beaches," and "marine coastal waters" are unusually sensitive areas (USAs).
- **PIPES Act of 2020**
  - Defines the terms "coastal beaches," and "certain coastal waters" (marine coastal waters in the 2016 Act).
  - Requires final regulations within 90 days.

PIPES Act Definitions

- **Certain Coastal Waters**
  - The territorial sea of the U.S.
  - Marine and estuarine waters of the U.S. up to the head of tidal influence.
  - The Great Lakes and their connecting waters.
- **Coastal Beaches:** Any land between the high- and low-water mark of certain coastal waters.

Summary

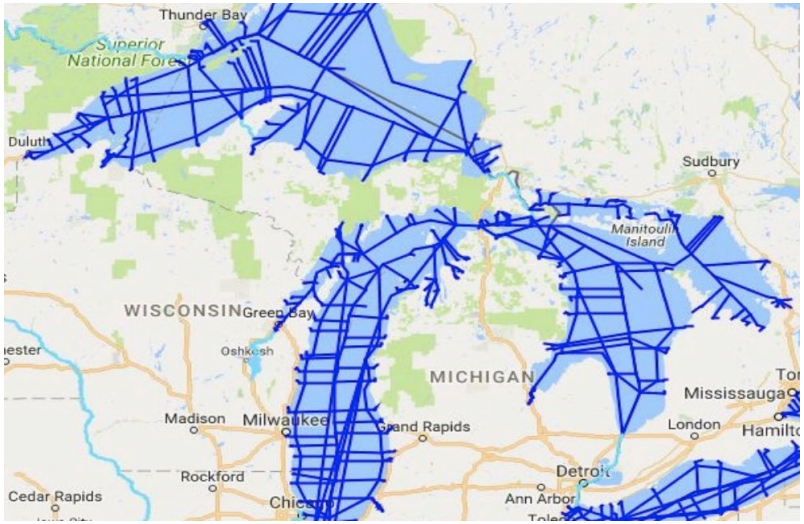
- IFR – December 27, 2021
  - Adopts the PIPES Act of 2020 definitions into § 195.6.
  - Identifies Federal geographic information system (GIS) data for each definition.
- A USA is a High Consequence Area (HCA) and subject to integrity management (IM) regulations.
- Proximity to a USA also affects requirements for regulated rural gathering line and rural low-stress pipeline.
- PHMSA estimates 2,905 new HCA miles and 58.5 new regulated rural gathering line miles.

BACKGROUND: INTEGRITY MANAGEMENT

High-Consequence Areas

HCA definition (§ 195.450)

- Commercially navigable waterways
- High-population area
  - Census Bureau urbanized areas
- Other populated area
  - Census Bureau places
- Unusually sensitive areas (USA)



Existing Unusually Sensitive Areas

USAs definition (§ 195.6)

- USA drinking water resource—sole source:
  - Surface drinking water intake
  - Source water protection area or wellhead protection area
  - Karst aquifer recharge area
- USA ecological resources include:
  - Area containing a critically imperiled species or ecological community
  - Multi-species assemblage area
  - Migratory waterbird concentration area.

Integrity Management (§§ 195.450 and 195.452)

- A hazardous liquid pipeline located in or that could affect an HCA must be included in an IM program.
- Risk-based approach to preventing and mitigating liquid pipeline accidents in HCAs.
- Elements of an IM plan: § 195.452(f):
  - Identification of covered segments
  - Baseline and continuing assessment plans
  - Risk analysis integrating pipeline data
  - Remediation criteria
  - Identification of preventative and mitigative measures
  - Program performance metrics
  - Process for analyzing integrity assessments and qualifying analyses

BACKGROUND: REGULATED GATHERING AND RURAL - LOW STRESS

Regulated Rural Gathering § 195.11

- A liquid gathering line within ¼ mile of a new USA could become regulated if:
  - Nominal diameter from $6\,^{5}/_{8}$ inches to $8\,^{5}/_{8}$ inches, and
  - Maximum operating pressure (MOP) greater than 20% of the specified minimum yield strength (SMYS) or, for non-steel pipe or if the stress level is unknown, greater than 125 psig.
- Rural gathering lines less than $6\,^{5}/_{8}$ inches are not regulated.
- Liquid pipelines larger than $8\,^{5}/_{8}$ are not classified as gathering lines.

Regulated Rural Gathering § 195.11

- **Existing § 195.11(b) Requirements**
  - Design, installation, construction, initial inspection, and initial testing (non-retroactive)
  - Reporting and non-steel notifications
  - Establish MOP
  - Install and maintain line markers
  - Continuing education program
  - Damage prevention
  - Corrosion control, including internal corrosion
  - Operator qualification
- Compliance deadline: 6-months from the date the USA is identified.

Rural Low-Stress § 195.12

- Rural low-stress criteria: MOP 20% or less of SMYS or 125 psig or less if the stress level is unknown.
- 3 categories based on proximity to a USA and diameter.
  - Category 1: diameter $8\,^{5}/_{8}$ inches or greater and within ½ mile of a USA.
  - Category 2: diameter less than $8\,^{5}/_{8}$ inches and within ½ mile of a USA.
  - Category 3: diameter of any size and not within ½ mile of a USA.
- Category 3 pipelines are not required to comply with IM.
- A category 3 pipeline that becomes a category 1 or category 2 pipeline must comply with IM within 12 months.

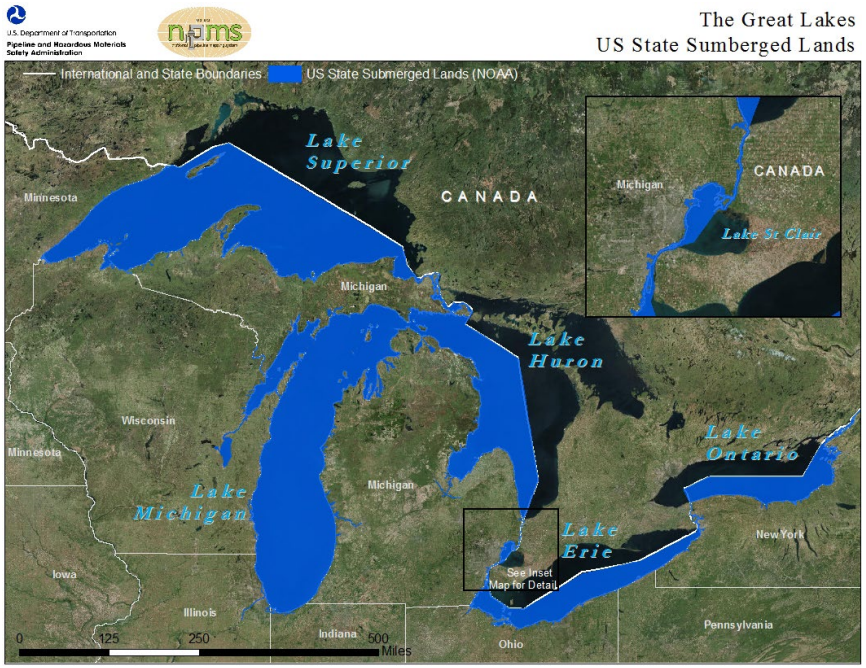
NATIONAL PIPELINE MAPPING SYSTEM (NPMS)

National Pipeline Mapping System

- The National Pipeline Mapping System (NPMS) includes a repository of pipeline geospatial data.
  - Pipeline location and attributes
  - Operator contact information
  - Hazardous liquid pipeline HCAs
- Operators must update data annually
- Except for proprietary or security sensitive information, PHMSA is directed by the Pipeline Safety Act to provide maps of hazardous liquid HCAs in the NPMS.

NPMS: Coastal USAs Data

- Public meetings in 2017 and 2019 on selection of data and definitions to meet the PIPES Act mandate.
  - November 17, 2017: link
  - June 12, 2019: link
- PHMSA updated the NPMS to include the Great Lakes USA in October of 2019.
  - Relies on the statutory definition in 33 U.S.C. 1268.
  - National Oceanic and Atmospheric Administration (NOAA) U.S. State Submerged Lands Dataset.



SUMMARY
IFR REQUIREMENTS AND IMPLEMENTATION

IFR Amendments

- IFR identifies new USAs in § 195.6 and adopts their statutory definitions from the PIPES Act of 2020.
- Any pipeline that is located in or could-affect the new USAs must be included in an IM plan.
- Deadlines (existing IM requirements):
  - Add segments that could-affect the new HCAs to a baseline assessment plan within 1 year the HCA is identified.
  - First baseline assessment completed within 5 years of the date the HCA is identified.
  - Periodic assessments at least every 5 years thereafter.

Liquid Gathering and Rural Low stress

- Liquid gathering (§ 195.11)
  - A liquid gathering line within ¼ mile of a new USA could become regulated if:
    - Nominal diameter from $6\,^{5}/_{8}$ inches to $8\,^{5}/_{8}$ inches, and
    - Maximum operating pressure (MOP) greater than 20% of SMYS or >125 psig.
  - Must comply with requirements listed in § 195.11(b).
- Rural low-stress (§ 195.12)
  - A category 3 rural low-stress pipeline could become a category 1 or category 2 rural low stress pipeline subject to IM.
  - Must comply with IM program requirements within 12 months of the date the USA was identified.

Implementation in the NPMS

- The IFR identifies geospatial data to map the new USA categories.
- PHMSA mapped the Great Lakes and their connecting waters using NOAA data in October 2019.
- The new USAs are mapped using a combination of the following data:
  - NOAA Clean Water Act Data
  - NOAA Sea Level Rise Viewer (0 Sea Level Rise layer, representing Mean Higher High Water)
  - Environmental Protection Agency's (EPA) Estuary Data Mapper

PIPES Act Definitions

PIPES Act Definitions:

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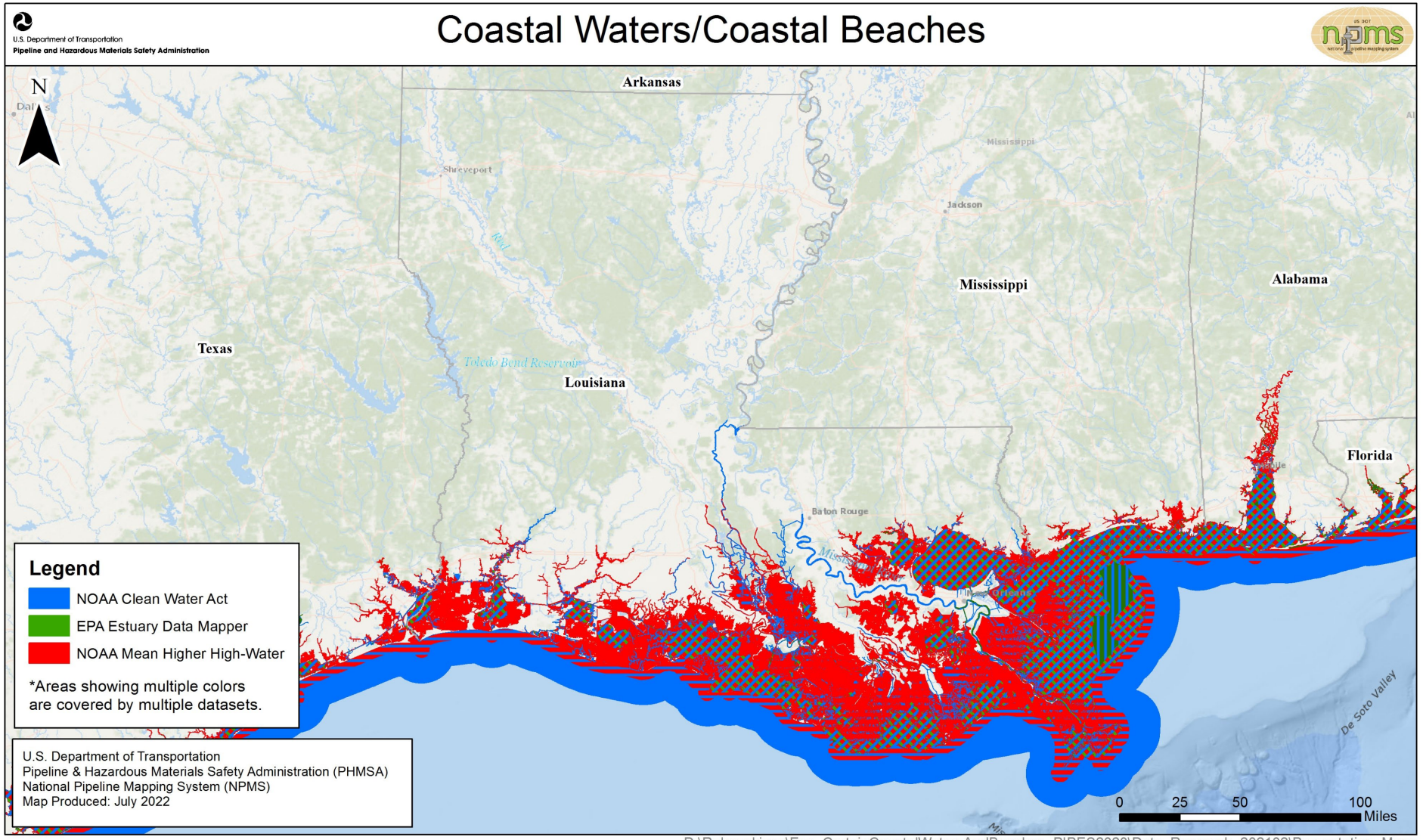
Implementation in the NPMS

- NOAA Clean Water Act Data
  - Used to map the territorial sea from the high-water line to the 12 nautical mile limit in accordance with Presidential Proclamation No. 5928.
  - Based on NOAA Medium Resolution Shoreline and NOAA nautical charts: definitive map of U.S. maritime boundaries.
- NOAA Sea Level Rise Viewer
  - 0 ft Sea Level Rise layer, representing Mean Higher High Water (MHHW).
  - MHHW used to represent the "high water line" in the definition of a coastal beach.
- Environmental Protection Agency's (EPA) Estuary Data Mapper:
  - Most complete national inventory of estuarine waters.
  - Per EPA definition of an estuary, represents waterways "influenced by tides," i.e., up to the head of tidal influence.

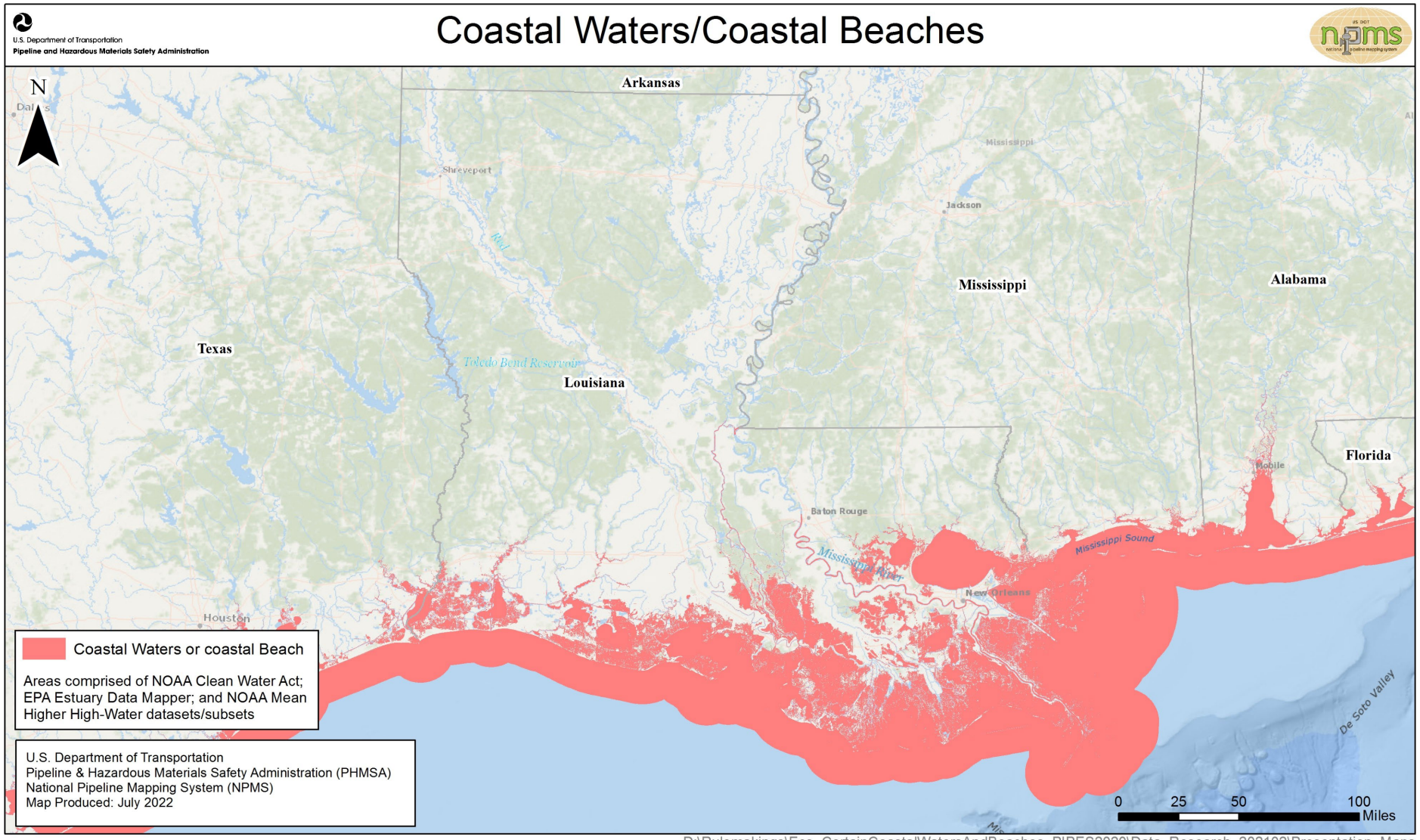
Data Sets – Coastal Waters/Coastal Beaches

- PHMSA strongly believes that aggregating these datasets from expert scientific Federal agencies represents the best-available national data on the location of "certain coastal waters" and "coastal beaches."
- The combination of these three datasets is the best available solution, given:
  - Each of these parent datasets are prepared and published by the expert agencies within the Federal government
  - The data sets are available to the public for download and review.

NPMS Implementation



NPMS Implementation



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IMPACTED MILEAGE

Data of Mileage Impacts

- Based on analysis of PHMSA NPMS data.
- Does not include the Great Lakes as this was a self-executing mandate of the PIPES Act of 2016

STATE	MILES
Louisiana	2,423.83
Texas	408.17
OCS GOM	22.59
Alaska	18.71
California	12.25
Washington	6.33
North Carolina	5.46
Delaware	2.66
Mississippi	2.59
Virginia	1.76
Oregon	0.39
New Jersey	0.18
Alabama	0.03
Total Miles	2,904.95

Data of Mileage Impacted

- 2,905 newly impacted could-affect HCA miles.
  - 95% of affected operators already had HCA miles.
  - 99% of affected miles operated by an operator with other HCA miles.
- Gathering
  - Estimated 58.5 new regulated rural gathering lines.
  - Based on percent increase in USA miles.

Costs and Benefits

- Unquantified safety and environmental benefits from preventing and mitigating releases from liquid pipelines in coastal areas.
- $4.0 million in annualized costs (7% discount rate)
  - Largest cost category is integrity assessments (baseline and reassessment).
  - Other costs include preparing or updating IM plans, integrating pipeline data, and compliance costs for regulated rural gathering lines.

IFR Comment Summary

- PHMSA received 4 comment submissions for the IFR from the following stakeholders:
  - **Government**: The State of Alaska – Department of Natural Resources (ADNR).
  - **Industry Joint Comment:** American Petroleum Institute (API), GPA Midstream Association (GPA), and the Association of Oil Pipe Lines (AOPL).
  - **Other Commenters:** Citizen comments.

Topic for Discussion

Rulemaking Procedures

PHMSA Procedural Steps

- **IFR Comments:**
  - API, GPA, and AOPL commented that PHMSA did not meet the requirements to use the "good-cause exception" in the Administrative Procedure Act to publish the IFR without noticing the proposed rule, providing time for public comment, or meeting with the LPAC.
  - Alaska DNR also expressed concern about the truncated IFR process under the "good cause" exception.
  - API, GPA, and AOPL commented that the RIA did not take into consideration the rural gathering and rural low-stress pipelines that would be impacted by these updates.

Topic for Discussion

Applicability, Definitions, and Data Sources

Applicability – Regulatory Rural Gathering and Low Stress

- **IFR Comments:**
  - The API, GPA, and AOPL commented that the mandate to update the USA definition intended only to determine applicability of IM regulations.
  - API, GPA, and AOPL noted that the location of a USA is used to determine if a rural gathering line is regulated and the category of a rural low-stress pipeline but that this was not the intent of the Congressional mandate.
  - API, GPA, and AOPL argue that the impacts to gathering lines have unintended consequences and should not be completed without the appropriate rulemaking procedures.

Definition – Territorial Sea of the United States

- **IFR Comments:**
  - API, GPA Midstream, and AOPL expressed that PHMSA's "choice" to use of the definition of the "territorial sea" as 12 nautical miles from the baseline of the United States is not appropriate. "Other reasonable" definitions including a 3-mile territorial sea limit would be appropriate and should be considered.
  - API, GPA, and AOPL continued that how is it that PHMSA was able to apply certain definitions such as the EPA's definition of "estuarine waters" but not the EPA definition of "territorial sea."

Definitions

- **IFR Comments Definitions:**
  - API, GPA, and AOPL commented that PHMSA's use of other agency's definitions for the "territorial sea of the United States", "marine waters", and "estuarine waters" is unsupported by Section 120 of the 2020 Act.
  - API, GPA, and AOPL commented that if the NOAA database is used that PHMSA should consider limiting use to the 80 percent mapping confidence layer (e.g., limiting the data to areas with higher confidence).

Regulatory Impact Analysis

- **IFR Comments:**
  - API, GPA, and AOPL expressed that PHMSA uses outdated cost information when conducting the Regulatory Impact Analysis and the costs, benefits, and other impacts sited in the IFR are not accurate.
  - API, GPA, and AOPL commented that PHMSA should consider mileage growth in the RIA.
  - API, GPA, and AOPL commented that while the 2019 Safety of Hazardous Liquid Pipelines Rule requires leak detection, the RIA does not account for costs from the accelerated compliance deadline required by IM requirements.
  - Alaska DNR expressed concern on the consumer impact.