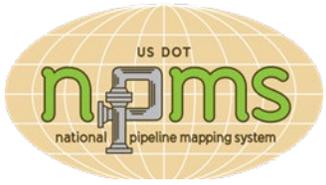


Unusually Sensitive Area Definitions Public Meeting

PHMSA.PipelineSafety@dot.gov

Leigha Gooding
PHMSA
GIS Coordinator

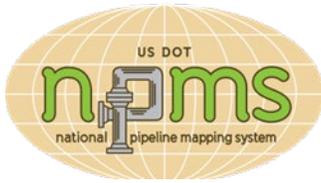




Drinking Water and Ecological USA Update

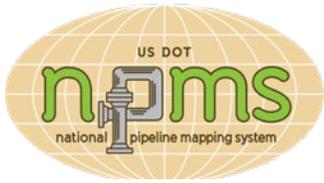
Leigha Gooding
PHMSA





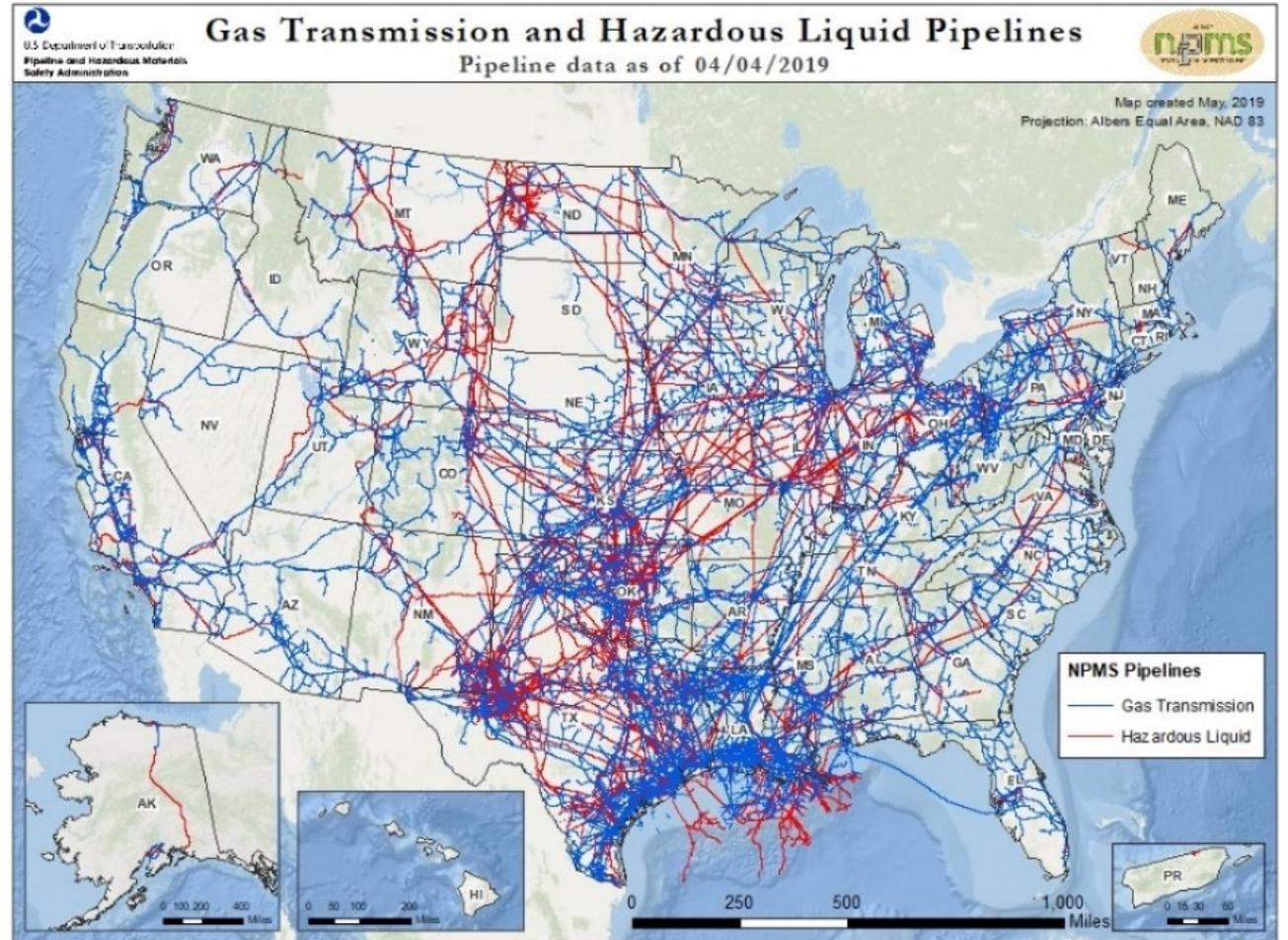
- Overview of the NPMS and existing HCA/USA data
- Drinking Water USA data update
- Ecological USA data update
- Existing coastal area coverage in 2018 Ecological USA data

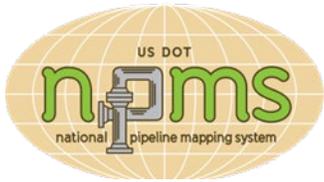




NPMS Overview

- National Pipeline Mapping System (NPMS)
- Geographic Information System (GIS) Database
- PHMSA's Outreach and Engagement Division





NPMS Overview

The NPMS maps locations and attributes of:

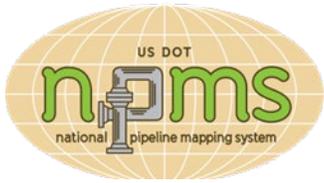
Yearly operator data submissions:

- Gas Transmission Pipelines [§191.29](#)
- Hazardous Liquid Pipelines [§195.61](#)
- Liquefied Natural Gas Plants [§195.61](#)
- Breakout Tanks (BOTs) <Voluntary>
- Accident and Incident Locations
[§195.50](#) and [§191.15](#)

Produced by PHMSA:

- High Consequence Areas
- Unusually Sensitive Areas
- Pipeline History
- Inspection Boundaries





Access to NPMS Pipeline data

- Public Map Viewer
- Public Map Viewer iPhone App
- Search Operator directory by state, county or ZIP where they operate pipelines
- Download national pipeline map or lists of pipeline mileage by county and offshore area



GOVERNMENT OFFICIAL



PIPELINE OPERATOR



GENERAL PUBLIC

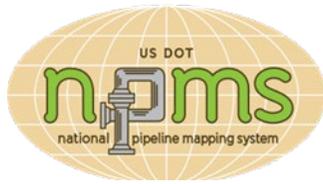


FIRST-TIME VISITOR

- Pipeline Information Management Mapping Application (PIMMA)
- PIMMA iPhone App
- GIS Data Request

www.npms.phmsa.dot.gov





Current HCA/USA data sources

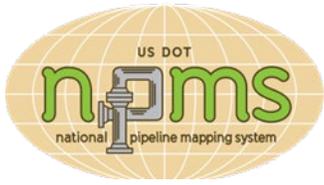
Defined in [49 CFR 195.450](#)

1. Highly Populated Areas (HPA)
Source: Census Bureau, Urbanized Areas
2. Other Populated Areas (OPA)
Source: Census Bureau, Places
3. Commercially Navigable Waterways (CNW)
Source: US Army Corps of Engineers, National Waterway Network

Defined in [49 CFR 195.6](#)

4. Ecological Unusually Sensitive Areas (Eco USA)
Source: NatureServe (proprietary)
5. Drinking Water Unusually Sensitive Areas (DW USA)
Source: State and EPA sensitive drinking water

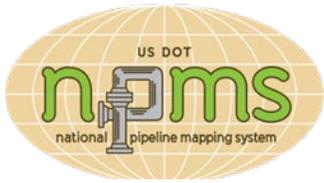




Drinking Water USA data update

- Delivered to PHMSA June 2019
- Available to qualified hazardous liquid operators this summer
- Email notification will go to all qualified NPMS Primary Contacts
- Consultants cannot initiate data request
- Qualified operators receive data in state where they operate hazardous liquid pipelines

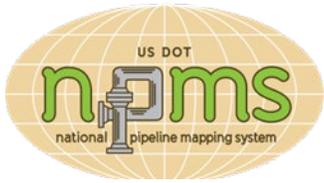




Drinking Water USA data update

- Detailed instructions for requesting data will be posted to the NPMS website at <https://www.npms.phmsa.dot.gov/USADWData.aspx>
- Request process overview:
 - Step 1) Operator sends email request to PHMSA
 - Step 2) PHMSA verifies requestor's employment and applicability for data
 - Step 3) Operator signs and returns data use agreement to PHMSA
 - Step 4) PHMSA delivers data to requestor by secure FTP download

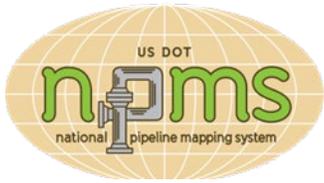




Drinking Water USA data update

- GIS data available for all 50 states, plus DC and Puerto Rico
- Metadata available for public download from NPMS website
- Will not be displayed on PIMMA or Public Viewer

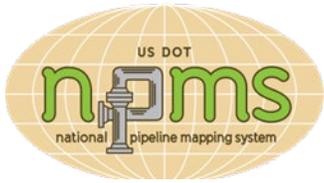




Drinking Water USA data update

- Miles of active hazardous liquid pipe that intersect DW USA data:
 - 2001 data: **18,810 miles**
 - 2019 data: **11,663 miles**
- Does not include mileage that could affect
- States provided the 2019 source data
 - EPA no longer maintains the data source used in 2001
 - PHMSA only used EPA data for the 2019 when the state did not have a viable data source.

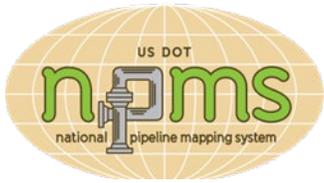




Ecological USA data update

- Delivered to PHMSA 2018
- Early distribution pilot started in 2018
- Available to all qualified hazardous liquid operators this summer
- Email notification will go to all qualified NPMS Primary Contacts
- Consultants cannot initiate data request
- Qualified operators receive data in state where they operate hazardous liquid pipelines

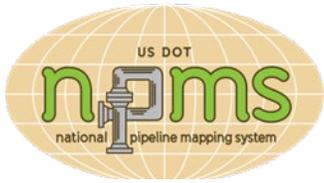




Ecological USA data update

- Detailed instructions for requesting data will be posted to the NPMS website at <https://www.npms.phmsa.dot.gov/USAEcoData.aspx>
- Request process overview:
 - Step 1) Operator sends email request to PHMSA, including a list of every operator employee or consultant that will use the GIS data
 - Step 2) PHMSA verifies requestor's employment and applicability for data
 - Step 3) Operator and all users complete NatureServe's online training and agree to data policy
 - Video based training, approximately 75 minutes with quiz
 - no data released until every user completes this step
 - Step 4) PHMSA delivers data to requestor by secure FTP download

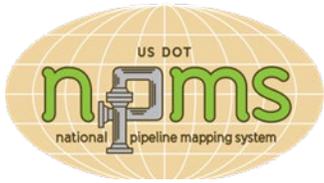




Ecological USA data update

- No update for DC, Delaware, Hawaii, Ohio or Puerto Rico
 - 2001 data available for all but Puerto Rico
 - Qualified operators will receive 2001 data with 2018 data that overlaps from adjacent states (where applicable)
- Metadata available for public download from NPMS website
- Will not be displayed on PIMMA or Public Viewer
- Data overlap removed for usability, delivery includes a list of Eco Unique IDs

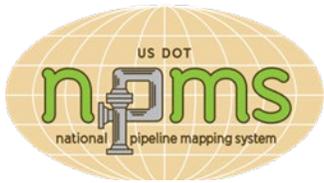




Ecological USA data update

- Miles of active hazardous liquid pipe that intersect Eco USA data:
 - 2001 data: **14,566 miles**
 - 2018 data: **9,271 miles**
- Does not include mileage that could affect a Eco USA area
- 2018 data covers larger portions of the coast, and improved data resulted in more precise (smaller) Eco USA areas inland

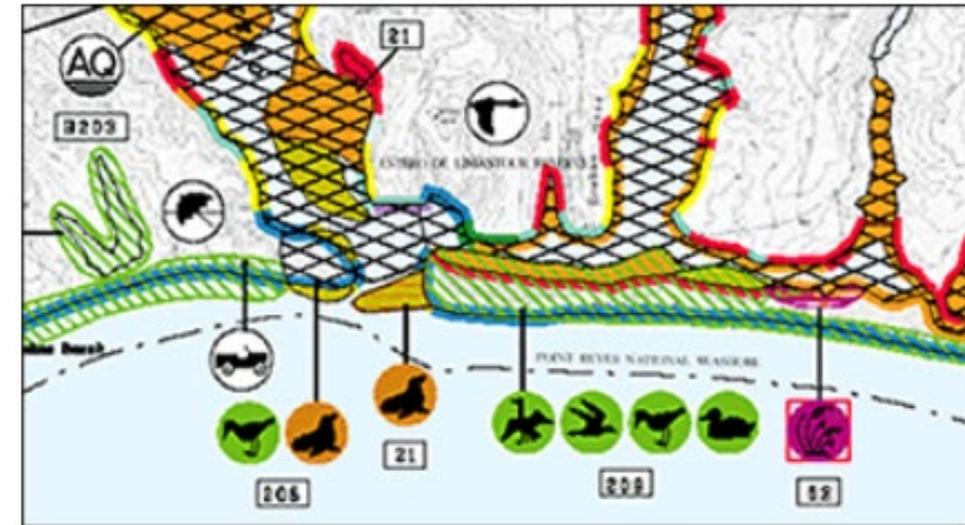




Current coastal area coverage with 2018 Ecological USA data

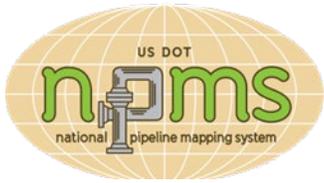
Shoreline data: NOAA's Environmental Sensitivity Index (ESI)

- Categorizes coastal area sensitivity to oil
- Primary GIS data source recommended during 2017 public meeting by both government and industry attendees



Shorelines on ESI maps are color-coded by sensitivity to oil. Symbols mark localized areas for biological and human-use resources.





Current coastal area coverage with 2018 Ecological USA data

Atlantic and Gulf: 59% shoreline coverage

59% of the ESI shoreline along the Atlantic and Gulf coasts are covered by the 2018 refresh of the Eco USA data.

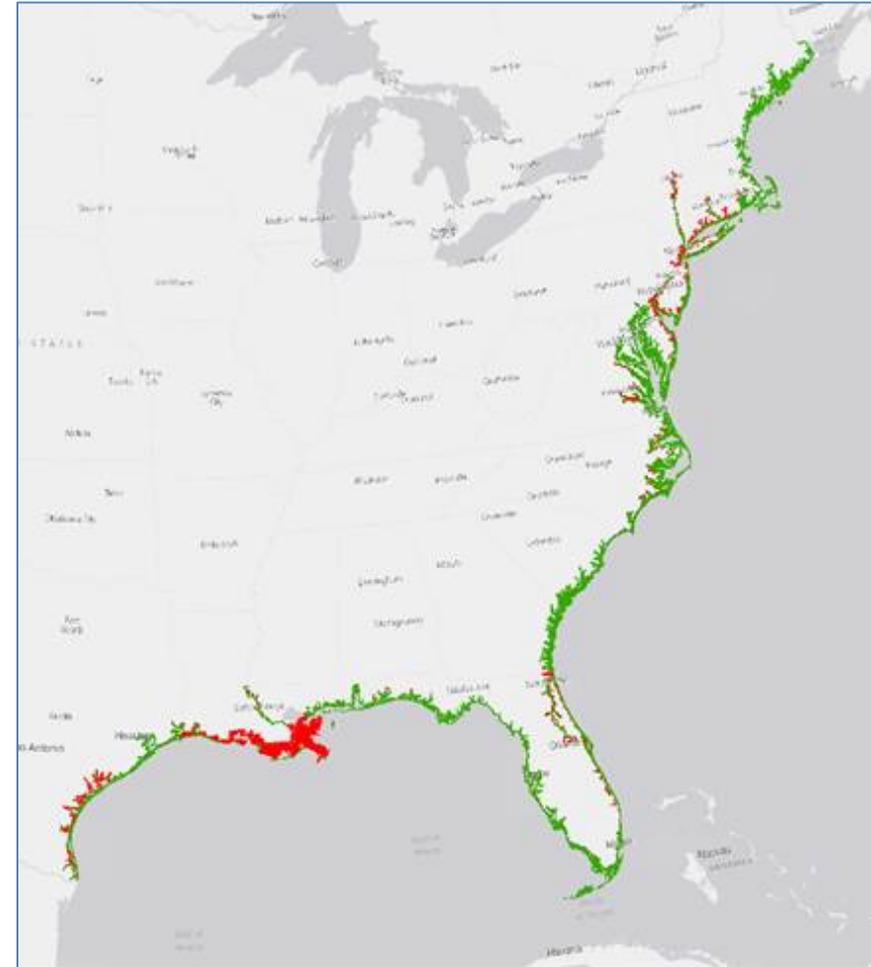
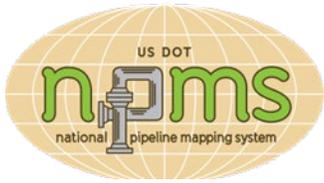


Image 1: Green is ESI shoreline included in 2018 Eco USA data, red is not included.



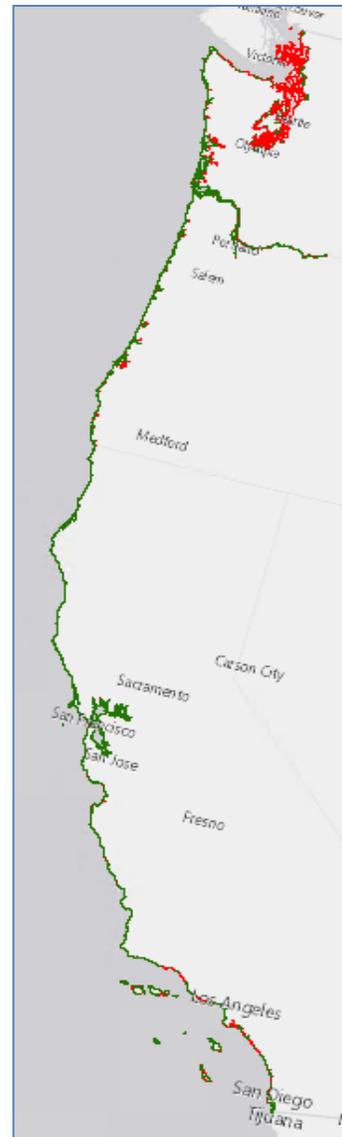


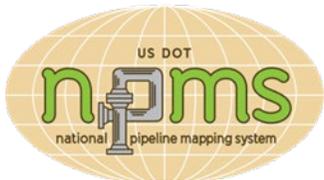
Current coastal area coverage with 2018 Ecological USA data

Pacific coast of continental US: 65% shoreline coverage

65% of the ESI shoreline along the Pacific West Coast (excluding Alaska and Hawaii) are covered by the 2018 refresh of the Eco USA data.

Image 2: Green is ESI shoreline included in 2018 Eco USA data, red is not included.





Current coastal area coverage with 2018 Ecological USA data

Alaska: 30% shoreline coverage

30% of the ESI coastline in Alaska (including Pacific and Arctic coasts) are covered by the 2018 refresh of the Eco USA data.

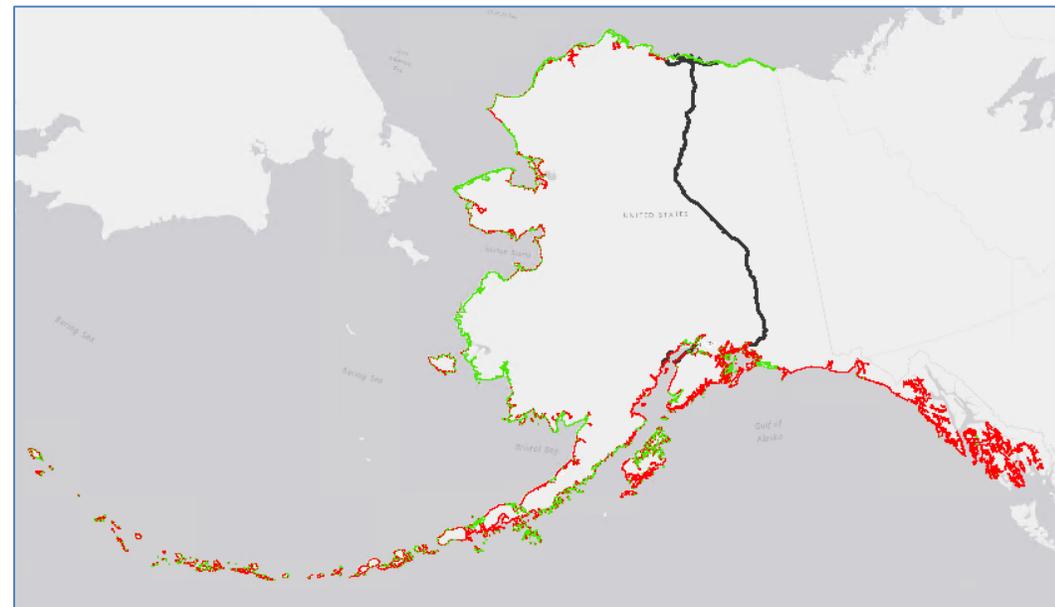
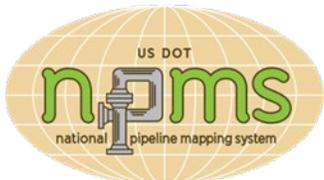


Image 3: Green is ESI shoreline included in 2018 Eco USA data, red is not included. Black lines represent liquid pipelines.





THINK SPATIALLY 



GEOGRAPHIC INFORMATION SYSTEMS (GIS)
DEPARTMENT OF TRANSPORTATION

Questions?

Webcast Viewers
PHMSA.PipelineSafety@dot.gov

View Session #2 After the Break



U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

"To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives." ²⁰

