



PREVENTION, PREPAREDNESS & RESPONSE IN SMALL COMMUNITIES

Presentation to U.S. - Canada Northern Oil and Gas
Research Forum 2017 – Anchorage, Alaska

Mark Everett, U.S. Coast Guard 17th District



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PROJECT OUTCOMES



- Greater awareness of risk and preparedness at a local level, and access to best practices
- The ability for national governments to address misperception or lack of awareness
- The identification of gaps in preparedness relative to risk

PROJECT SCOPE



I – Assess current state & Determine gaps

II – Build tools & Evaluate results

~ Design self-assessment tool

~ Develop database & mapping

~ Post results to website

III – Develop/Deploy educational materials

Project Communication & Management

SURVEY DEMOGRAPHICS



- **350 communities** under **15,000 people** and/or significantly distant (**120 miles**) from response centers
- **Local government** and/or emergency response officials
- Across all eight Arctic States, within the **geographic boundaries as defined by each**
- **Facilitated by Permanent Participants** as appropriate or possible, as well as all States
- 88 question survey to assess **planning, training, impact, risk, equipment**

SURVEY ATTRIBUTES



- Questions should relate to **prevention, preparedness and response**
- **Independent of national response systems and assets**, though capturing their intersection with communities – access, training, awareness
- **Independent of private or nongovernmental response systems and assets**, though capturing their intersection with communities – access, training awareness
- **Focus on community-owned or operated assets**, as well as planning, training and systems of response

SURVEY ATTRIBUTES



- Include **community-based industry assets**, as features of the community (local fuel distribution or marine service companies)
- Capture **community perspectives and understandings of risk** (scale and potential of large, medium and small scale incidents) and impact (distance to and prioritization of culturally or environmentally sensitive areas)
- The survey should ask questions that are directly relevant to communities and **within a community's area of responsibility or jurisdiction**.
- The results will capture the **community's sense of preparedness**, which can be measured against the same assessment by national response organizations and agencies

FRAMEWORK: RISK AWARENESS



- **Potential for and scale of significant spill** (destinational or trans-Arctic shipping; offshore or onshore development)
- **Potential for and scale of medium size spill** (local fuel distribution, including barge operations and bulk tank farms)
- **Potential for and scale of small spill** (local private sector, government or independent fuel tanks)

FRAMEWORK: PREPAREDNESS

- Community planning efforts
- Awareness of and participation in regional or national plan
- Access to National or sub-national Government Resources and assets
- Funding mechanism
- Community-driven training
- Local emergency responders and systems



FRAMEWORK: IMPACT

- **Prioritization of impact-** people, environment, assets, reputation
- Distance to and importance of **culturally sensitive areas**
- Distance to and importance of **environmentally sensitive areas**
- Distance to and importance of **economic assets**



CURRENT STATUS

4/15 from Norway

4/60 from Canada

34/100 from Alaska/US

3/94 from Greenland

3/18 from Finland

No response from Sweden

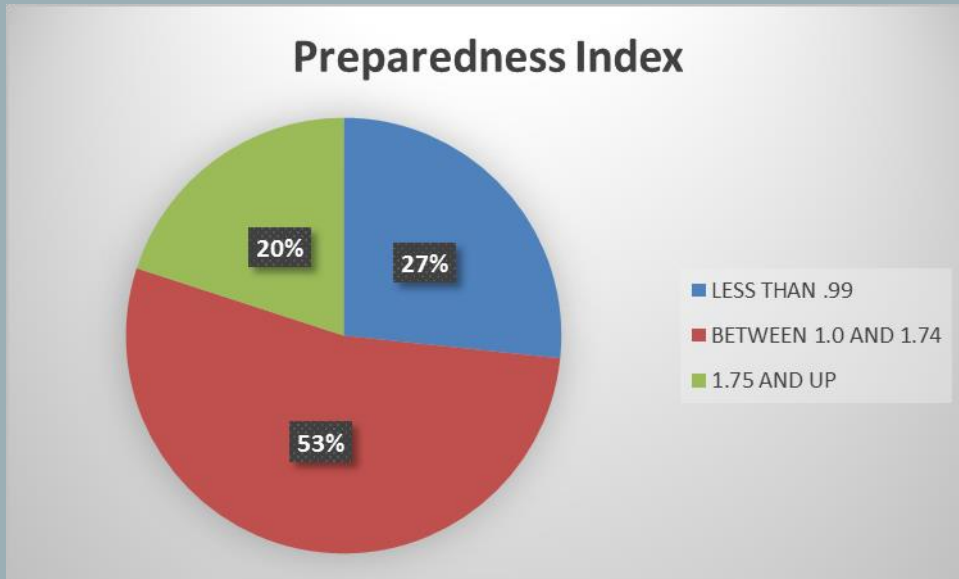
No response from Russia

No response from Iceland



DATA RESULTS

Evaluation of Preparedness



Preparedness/Risk = 53% of communities have **modest degree of preparedness** relative to the risk they face



2.78	Akutan
0.95	Kotzebue
0.05	Hooper Bay
1.02	Bethel
0.63	Kivalina
0.62	Holy Cross
1.41	Huslia
2.29	White Mountain
1.77	Longyearbyen, Svalbard
0.53	Russian Mission
1.22	Fort Yukon
1.54	Bronnoy
1.50	Sarkjosen
0.75	Newhalen
1.63	Nome
1.34	Kake
1.41	False Pass
0.40	Atka
1.29	Yakutat
1.37	Seward
1.43	Huslia
1.90	Skagway
1.79	White Mountain
1.72	Petersburg
1.33	Denali Borough
0.29	Aniak
2.15	Tenakee Springs
1.34	Homer
1.10	Seldovia
1.51	Lenvik brannvesen
0.62	Sitka
1.53	Homer
1.76	Fairbanks
1.16	Wasilla
2.95	Tununak
1.94	Noatak
1.40	Rampart
1.26	Thorne Bay
1.15	Nenana
0.69	Whiti
0.19	Hooper Bay

<https://ppr.arcticinfrastructure.org>

WEBSITE

The screenshot shows a web browser window displaying the website <https://ppr.arcticinfrastructure.org>. The browser's address bar and tabs are visible at the top. The website's main content area features a blue header with the text "Arctic Small Communities Preparedness Database and Map" and three small images of Arctic scenes. Below the header is a navigation bar with a logo and a dropdown menu. The main content area is divided into three sections: "INTERACTIVE MAP", "DATABASE", and "RESOURCES", each with a map of the Arctic region in the background. The footer contains the text "Institute of the North - 1675 C Street, Suite 106" and logos for "INSTITUTE OF THE NORTH" and "Norwegian Ministry of Economic Affairs". The Windows taskbar is visible at the bottom of the screen, showing the search bar and various application icons.

Arctic Small Communities Preparedness Database and Map

INTERACTIVE MAP

DATABASE

RESOURCES

Institute of the North - 1675 C Street, Suite 106

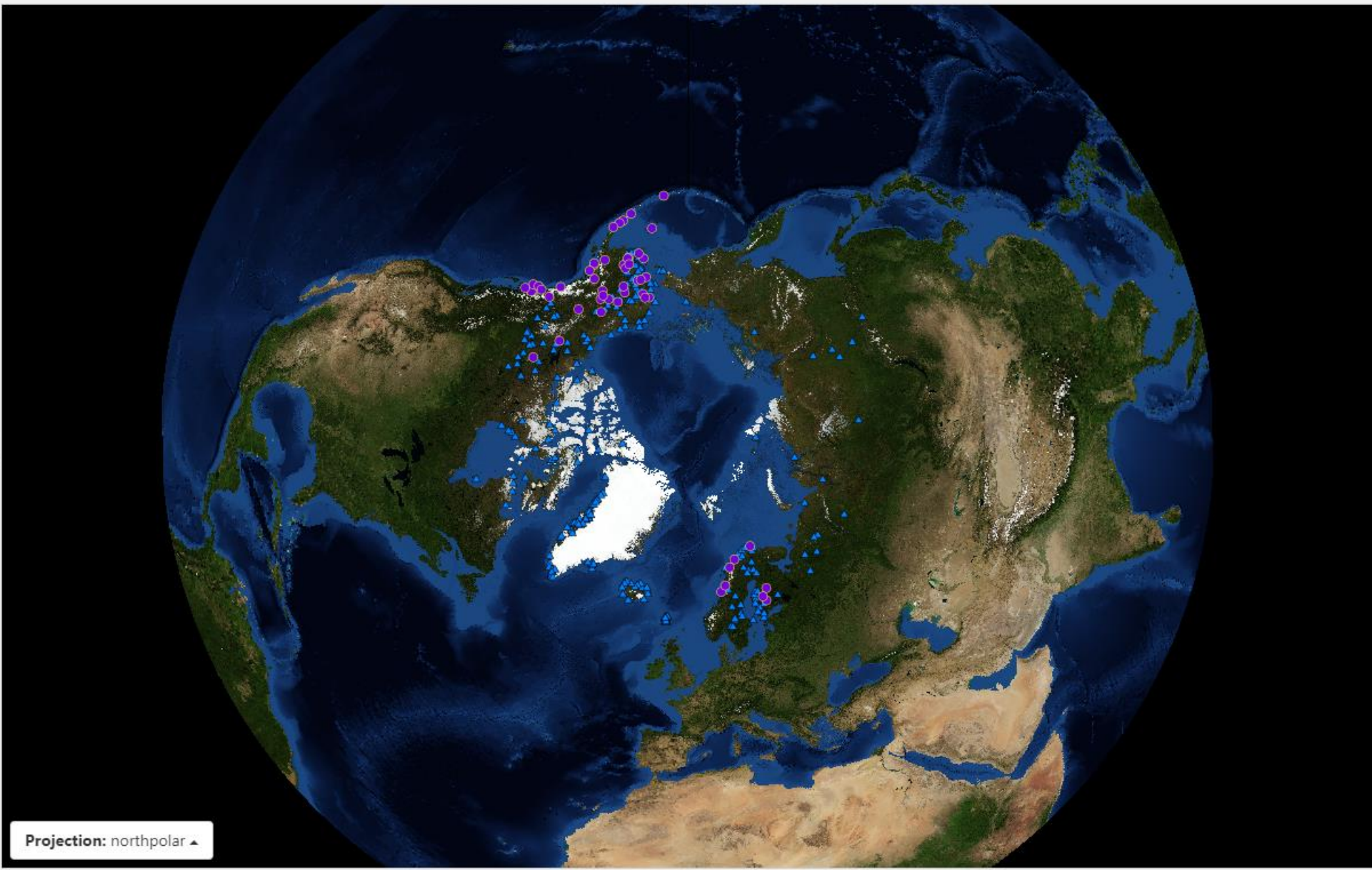
INSTITUTE OF THE NORTH

Norwegian Ministry of Economic Affairs

PPR Interactive Map

- Arctic Portal WMS Layers
 - admin
 - amatii
 - arctic_coastal_dynamic
 - arctic_soil_carbon_content
 - area
 - basemap
 - climate_models
 - geology
 - iceland
 - infrastructure
 - interact
 - Kortakerfi
 - page21
 - permafrost
 - ppr
 - vegaqerdin

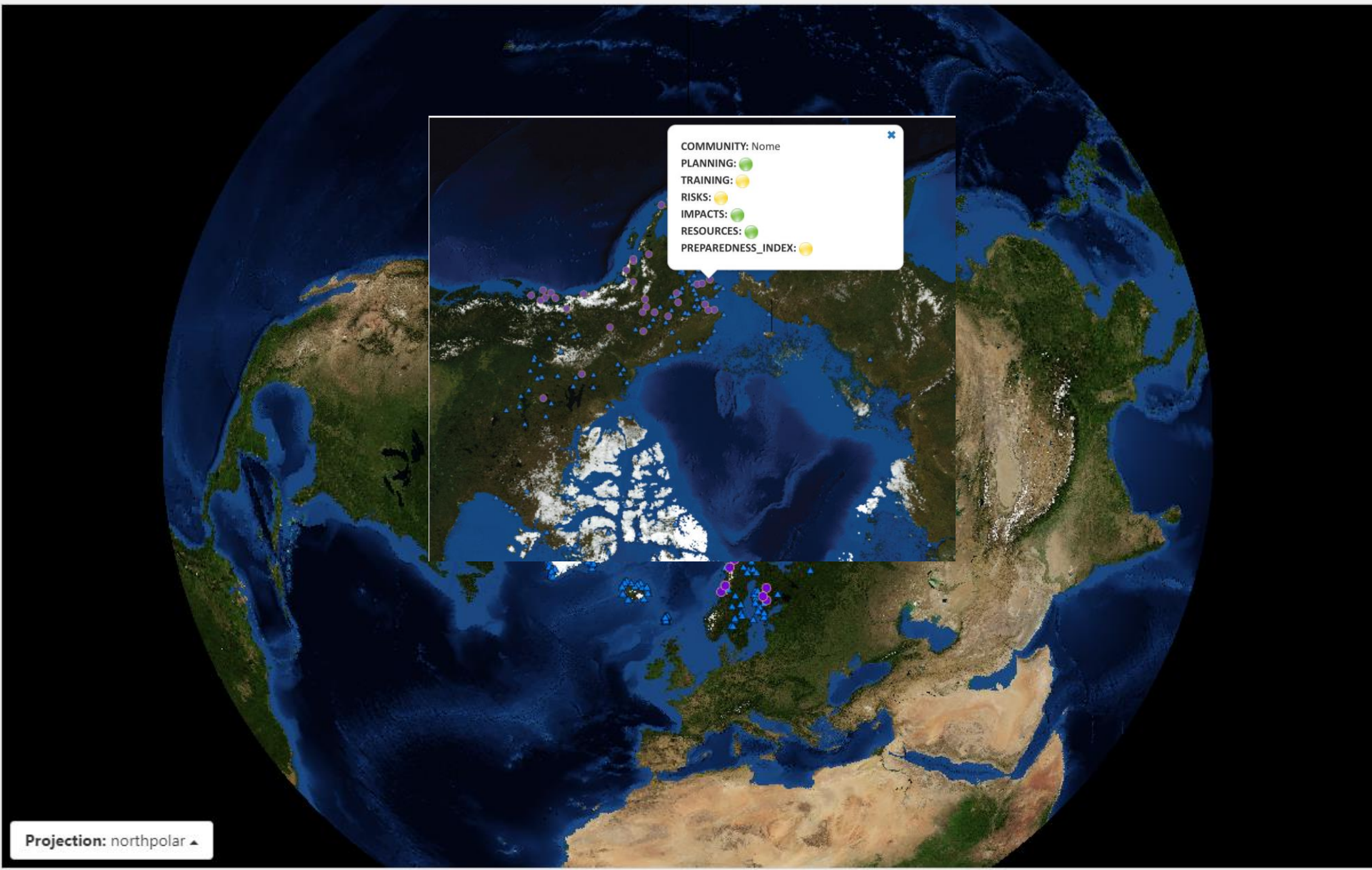
- world_200408_nasa
- ppr_communities
- ppr_preparedness



PPR Interactive Map

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- world_200408_nasa
- ppr_communities
- ppr_preparedness



Projection: northpolar

The Database



Narrow by Text

Population Range

Latitude Range

Longitude Range

id	name ▼	country_code	population	latitude	longitude
0	Aasiaat	GL	3400	68.706977	-52.859122
1	Akutan	US	112	54.135556	-165.773056
2	Aniak	US	600	61.582811	-159.540714
3	Atka	US	70	52.162147	-174.34464
4	Bethel	US	7000	60.792222	-161.755833
5	Bronnoy	NO	7719	65.505015	12.245402
6	Dawson City	CA	2000	64.06007	-139.432035
7	Denali Borough	US	1800	63.825717	-149.731783
8	Fairbanks	US	35000	64.837778	-147.716389
9	False Pass	US	72	54.850833	-163.415
10	Fort Yukon	US	589	66.56735	-145.25134
11	Galena	US	485	64.733333	-156.9275
12	Holy Cross	US	170	62.199444	-159.771389

Arctic Small Communities Preparedness Database and Map








Arctic Oil Spill Response and Recovery Library

Multilateral:

- EPPR Completed Work documents. Available online at: <https://arctic-council.org/eppr/completed-work/>
- *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic*. Arctic Council. 2013. Available online at: <https://oaarchive.arctic-council.org/handle/11374/529>
- *EPPR RP3 Report – Recommended Practices for Arctic Oil Spill Prevention*. Arctic Council EPPR. 2012. Available online at: <http://www.arctic-council.org/eppr/wp-content/uploads/2012/08/EPPR-RP3-Best-Practices-report-v3.1-31aug12.pdf>
- *Guidelines and Strategies for Oily Waste Management in the Arctic Regions*. By Polaris Applied Sciences, Inc. for Joint Secretariat Inuvialuit Renewable Resources Committees. Arctic Council EPPR. 2009. Available online at: <http://arctic-council.org/eppr/completed-work/oil-and-gas-products/eppr-waste-management-report/>
- NOAA: ERMA (Environmental Response Management Application). Available online at: <https://erma.noaa.gov/arctic/erma.html#x=-161.91096&y=64.76126&z=4&layers=3+12864+12888+676+8480>
- NOAA: ADIOS (Automated Data Inquiry for Oil Spills). Available online at: <http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/response-tools/adios.html>
- International Maritime Organization (IMO) "Oil in Ice" documents. Available online at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Inventory%20of%20information/Pages/Oil%20in%20ice.aspx>
- *CANDEN Agreement* (1983) aims at developing bilateral cooperation for protecting the marine environment of the waters lying between Canada and Greenland, particularly with respect to preparedness measures as a contingency against pollution incidents resulting from offshore hydrocarbon exploration or shipping activities.
- *The 1971 Copenhagen Agreement* (revised in 1993) between Denmark (including Greenland), Finland, Iceland, Norway and Sweden also addresses marine pollution. "Nordic Agreement Concerning Co-Operation in Measures to Deal with Pollution of Sea by Oil." www.copenhagenagreement.org

USA: United States Coast Guard

- *Spill Notification Point and Country Contacts, USA*. The International Tankers Owners Pollution Federation Limited (ITOPF). <http://www.itopf.com/knowledge-resources/countries-regions/countries/united-states-of-america/>
- *Responding to Oil Spills in the US Arctic Marine Environment*. National Academies Press. 2014. Available online at: https://www.nap.edu/catalog/18625/responding-to-oil-spills-in-the-us-arctic-marine-environment?utm_expid=4418042-5.krRTDpXJQISoXLpdc-1Ynw.0&utm_referrer=http%3A%2F%2Fwww8.nationalacademies.org%2Fcp%2Fprojectview.aspx%3Fkey%3D49479
- *Advancing Oil Spill Response in Ice-Covered Waters*. March 2004. Prepared for Prince William Sound Oil Spill Recovery Institute Cordova, Alaska and United States Arctic Research Commission Arlington, Virginia and Anchorage, Alaska. DF Dickins Associates Ltd (2004). Available online at: http://www.pws-osri.org/publications/OilIce_final.pdf

NEXT STEPS



Continue to **solicit more responses**, with at least representational participation by each State:

~ Iceland, Sweden and Russia

<http://uaa.co1.qualtrics.com>

Produce/Add **educational content videos** to website:

~ Risk & Impact

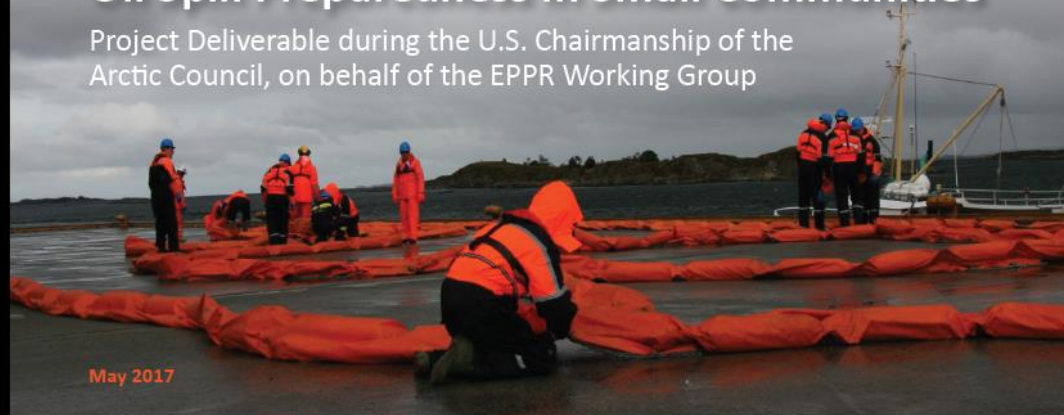
~ Planning & Training

~ Response Principles

Final deliverables to Arctic Council Ministerial meeting May 2018.

Oil Spill Preparedness in Small Communities

Project Deliverable during the U.S. Chairmanship of the Arctic Council, on behalf of the EPPR Working Group



May 2017

THANK YOU

The project “Oil Spill Preparedness in Small Communities” was approved by the Emergency Prevention, Preparedness and Response (EPPR) Working Group of the Arctic Council in June 2015. The project co-leads Norway, U.S., Canada and Aleut International Association developed a community self-assessment tool that will help EPPR better understand community preparedness and risk exposure.

Community leaders and local emergency response officials were asked to complete the questionnaire. Based on the self-assessment, community preparedness dashboards are displayed via a web-based, interactive map. Also available on the publicly-accessible website is a resource guide with state-specific tools and support. The outcomes from the project are:

- Greater awareness of risk and preparedness at a local level, and access to best practices
- The ability for national governments to address misperception or lack of awareness
- The identification of gaps in preparedness relative to risk

The survey is distributed:

- 350 communities ranging from 150 to 15,000 people and/or significantly distant (120 miles) from response centers
- Local government and/or emergency response officials
- Across all eight Arctic States, within the geographic boundaries as defined by each
- Facilitated by Permanent Participants as appropriate or possible, as well as all States
- 88 question survey to assess planning, training, impact, risk, equipment

Survey attributes

- Questions relate to prevention, preparedness and response
- Independent of national response systems and assets, though capturing their intersection with communities – access, training, awareness
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