

Implementation Plan for Alaska's Arctic Policy

January 30, 2015



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Alaska's Arctic Policy

Arctic Policy

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LEGISLATIVE FINDINGS AND INTENT

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List of Strategic Recommendations

Strategic Line of Effort #1 – The state of Alaska will promote economic and resource development

- 1A - [Redacted]
- 1B - [Redacted]
- 1C - [Redacted]
- 1D - [Redacted]
- 1E - [Redacted]
- 1F - [Redacted]
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- 1H - [Redacted]
- 1I - [Redacted]

Strategic Line of Effort #2 – The state of Alaska will address the response capacity gap in Alaska’s Arctic

- 2A - [Redacted]
- 2B - [Redacted]
- 2C - [Redacted]
- 2D - [Redacted]
- 2E - [Redacted]
- 2F - [Redacted]
- 2G - [Redacted]
- 2H - [Redacted]



Facilitate the development of Arctic port systems in the Bering Strait region to support export and regional development.

Lead: Department of Transportation & Public Facilities

Justification

Arctic port(s) development has been identified as one of the most critical pieces needed to support and respond to economic opportunity in the quickly developing Arctic. The improvement of existing onshore facilities and development of new facilities to serve the growing traffic in the Arctic is critical not only for resource development activities and community development but for environmental protection and the safety of mariners. The primary landowners in the region are Alaska Native village or regional corporations and access to most lands for improvement or construction of facilities requires their involvement and active participation. An organized effort to bring these landowners and interested parties together for project-specific prioritization and planning would enhance infrastructure development related to other efforts including spill response planning and staging, vessel routing, search and rescue, regional shipping support and commercial activities. The private sector also plays a large role here in the development of leases and new lease sales that will support new Arctic ports, which requires additional private and public sector buy in. The Coast Guard has no full-time assets beyond Dutch Harbor, a considerable distance from the Bering Strait, let alone Barrow. The construction of one or more deep draft ports along Alaska's coastline would assist in ensuring maritime safety, increasing economic development, and maintaining Arctic domain awareness. Port development in the region is a priority for the state as it relates to economic and resource development, as well as protection of the environment and safety at sea, but port development will not occur without public and private sector investment, including commitments by user groups to utilize these assets.

Resources Needed

Fiscal – Continued funding will be needed for planning and permitting; anticipate a multi-year investment in construction costs, and possible maintenance and operations depending on ownership.

Leveraged – This will depend on land ownership and the form of public-private partnership that develops, but it can be assumed that all parties will have an interest in pooling resources.

Partners – **State** – AIDEA, DCCED, DNR; **Federal** – USACE, USCG, NOAA, DOT, DOD, USNORTHCOM, DOI; **Other** – Alaska Native Regional and Village Corporations, private sector companies, local government.

Execution

DOT&PF will convene a Bering Strait Port Immediate Action Working Group that can follow up on the Deep Draft Port Study and work closely with landowners, state and federal agencies and other user groups. Local port authorities will be an additional asset in this work. One of the primary areas of consideration will be the ability to leverage investment, which should include options such as a regional port authority, a state-led port authority and/or AIDEA.

Legislative Actions

1.

Strengthen or develop a mechanism for resource production-related revenue sharing to impacted communities.

Lead: Department of Commerce, Community and Economic Development - Office of the Commissioner

Justification

As the state of Alaska advocates for both Arctic development opportunities on and offshore and more advanced capabilities for emergency preparedness and response, it is imperative to consider the benefits to impacted communities. With declining North Slope oil production, explorative industry access to federal land and Outer Continental Shelf (OCS) waters is critical to Alaska's economic stability. Alaskans residing in proximity to these efforts have an opportunity to directly support development by providing services, labor and equity investment in projects. Organized boroughs and municipalities have taxing authority; the North Slope and the Northwest Arctic Boroughs are two successful examples of communities that have instated development taxes that resulted in the provision of essential services. However, state revenue sharing does not have the flexibility to designate specific revenue recipients; the state cannot allocate specific project revenue to a nearby community though the revenue would increase funding for schools, roads and utilities, with tangible socio-economic benefits. The state of Alaska should continue to be a vocal proponent of federal revenue sharing from offshore development.

Resources Needed

Fiscal – No additional resources are necessary at this time, or in implementation, depending on the scenario.

Leveraged – Current state practices, AIDEA's ability for public private partnerships, local government, industry stakeholder engagement and federal efforts can all be utilized to offset review and analysis, and possibly implementation.

Partners – **State** – DNR-OPMP, AIDEA; **Federal** – EDA, DOI, Congress; **Other** – Alaska Native corporations and organizations, local governments, AML, ARDORS.

Execution

After considering the current state revenue sharing mechanism as well as other options, DCCED-DCRA will make a recommendation to the Governor's office and/or the state Legislature. It is envisioned that scenarios include: 1) creation of a mechanism within current statute to directly benefit impacted communities; 2) encourage the state of Alaska to act as facilitator between industry and communities; 3) create the ability to negotiate revenue sharing within AIDEA, possibly in the form of infrastructure investment; and 4) promote federal revenue sharing directed at local government, state government or Alaska Native organizations.

Legislative Actions

1.

Lead: Department of Natural Resources – OPMP

Justification

The economic well-being of Arctic residents depends on the ability to prudently develop natural resources. Oil, gas and mineral development has provided the means to dramatically improve living conditions and opportunities for Arctic residents. State revenues from resource development will continue to be essential to support public services, infrastructure development and response capacity in the region. However, regulatory uncertainty and inefficiency threatens to discourage private sector investment. Alaska has some of the most sophisticated interagency coordination and permitting processes in the country, with the expertise, experience and commitment to safely develop the Alaskan Arctic's vast resources. The state can take a leadership role by engaging with federal partners to improve coordination between state and federal agencies.

Resources Needed

Fiscal – DNR staff would receive funding to lead interagency coordination.

Leveraged – There is an existing federal interagency group charged with addressing permitting. With integrated Arctic management priorities there may be additional federal funds to facilitate greater coordination between pertinent entities.

Partners – **State** – DEC; Department of Law; **Federal** – DOI, DOD, DEDEREDERLE.1(.nation)1ead:dE1eral dd.7(v)-20.9.7(4.5bTJ/TtC grw [dE1eer)-40.nter)-24.7(a)-

Promote entrepreneurship and enterprise development.

Lead: Department of Commerce, Community and Economic Development – Division of Economic Development

Justification

Business development and entrepreneurship in Arctic communities is challenging. The bulk of economic activity in this region is conducted by government and outside vendors. Locally-owned and operated companies provide one mechanism for taking advantage of increased economic Arctic activity, even as it supports a community-managed transition towards a market-led, outward-looking economy. Communities' natural entrepreneurs are often fully employed and do not have the capacity to start a business on their own. Yet many rural entrepreneurs have not had exposure to many (or any) business startup plans or trained professionals. Thus they justly maintain misperceptions regarding this process. There is also a fear of failure. Successful entrepreneurs have been exposed to mentorship, which provides them with encouragement, guidance and training on the technical, business and fundraising aspects of bringing a product to market. Compounding these challenges is weak financial literacy and understanding of business financial management and fiscally feasible and sustainable start-up enterprise planning. Additionally, there exists a lack of access to outside financial literacy training and resources.

Support and advocate for multiple-use of Arctic public and ANILCA lands and promote prudent oil and gas exploration and development in the Arctic.

Lead: Governor's office

Justification

Continued withdrawal of productive land from multiple-use designation would leave striking implications for Alaska's economy and communities. Access to and development of Arctic resources within the 1002 Area of the Coastal Plain of ANWR, NPR-A, North Slope and OCS are a top priority of Alaska. The 1002 Area was intentionally excluded from the Wilderness designation in 1980 and should remain so given that this area is considered the nation's most promising onshore oil and gas prospect. The NPR-A was designated by Congress in 1976 as a petroleum reserve yet each year more land is extracted from leasing plans that prohibit development. Oil production in the Arctic OCS could generate billions in federal revenue dollars and support Alaska's economy while benefitting local government. Oil production holds immense potential for supporting Arctic economies, creating jobs, refilling the Trans-Alaska Pipeline and generating billions of dollars in government revenues to help sustain local communities and deliver essential public services.

Resources Needed

Fiscal – Continued funding on a large scale to support the Department of Natural Resources (DNR) as it manages the 1002 Area of the Coastal Plain of ANWR, NPR-A, North Slope and OCS. The DNR is currently receiving approximately \$27.4 million annually from the federal government to manage the 1002 Area. The DNR is also receiving approximately \$9.1 million annually from the state of Alaska to manage the 1002 Area. The DNR is also receiving approximately \$19.5 million annually from the state of Alaska to manage the 1002 Area. The DNR is also receiving approximately \$19.5 million annually from the state of Alaska to manage the 1002 Area.

Increase economic returns to Alaska and Alaskan communities and individuals from maritime and fisheries activities.

Lead: Alaska Industrial Development and Export Authority

Justification

Alaska's maritime Arctic is comprised of some of the richest fishing grounds in the world. The sustainable fishing practices in the region have benefited Alaskans, communities and the economy for decades if not millennia. Fishing is the core economy for much of coastal Alaska where fish harvesting and processing often provide the only significant opportunities for private sector employment and where property and sales tax on maritime businesses is the largest source of local government revenue. Seafood harvesting and processing jobs provide more than 50 percent of the private sector employment in coastal Alaska. Some estimates put the fleet's docking in Seattle as a \$5 billion boost to the Pacific Northwest's economy each year. It is essential

Support the continued exploration and development of the Ambler Mining District, Mid Yukon-Kuskokwim River and the Northern Alaskan Coal Province.

Lead: Department of Natural Resources

Justification

Historically, mining has been a cornerstone of Alaska's economy. Many roads, docks and other infrastructure throughout Alaska were originally constructed to serve the mining industry. Major communities like Fairbanks, Juneau and Nome were founded on mining activity. Today, a rejuvenated mining industry brings a broad range of benefits to Alaska, offering some of the highest paying jobs in both urban and rural Alaska, as well as generating significant local government tax payments and royalties to Native corporations for activity on their land. Recognizing that the Alaskan Arctic has vast reserves of mineral resources – from traditional base and precious metals to rare earth elements and coal. Beyond supply, however, the state has essential elements of strong governance, including effective policy, clear regulatory and permitting standards and a stable fiscal regime. To responsibly advance the exploration and development of Northern Region minerals, policy makers, community leaders and the private sector must work collaboratively to explore and develop resources safely and responsibly - developing policies that balance risk mitigation, cultural integrity and economic opportunity. The most significant challenge in the Arctic region is the elevated level of investment needed. The result of high energy and transportation costs, complicated access, a commitment to a healthy environment and stakeholder engagement is projects with high sticker prices. The potential benefits to the region from mineral development are impressive and – apart from oil and gas development occurring on the North Slope – are the most significant opportunity for residents of the region.

Resources Needed

Fiscal – High levels of capital investment.

Leveraged – The state has a number of partners that can bring assets to the table, including private companies, investment firms, state agencies and Alaska Native corporations.

Partners – **State** – AIDEA, DEC, DF&G, DOT&PF; **Federal** – DOI, EPA, USACE; **Other** – ANCs, village corporations, local governments, private sector industry and investment companies.

Execution

The state must identify clear priorities as it relates to mineral development, and these three action items would create the most opportunity in the Arctic: 1) DNR will assign a task force within OPMP to streamline regulatory and permitting efforts and increase avenues for local community involvement; 2)

Build on and promote Alaska’s position as a global leader in microgrid deployment and operation to advance a knowledge-based export economy, creating new jobs and revenue for the state.

Lead: Alaska Energy Authority and Alaska Center for Energy and Power

Justification

Alaska has built a small industry around developing and supporting the 150+ microgrids – isolated systems individual to a community – across its geographically diverse regions. Since the 1960's, electricity generation in the remote regions of Alaska has been heavily reliant on diesel generators, which serve numerous islanded microgrids. Over the past decade, investment in renewable generation has increased dramatically to meet both a desire for greater energy independence and to reduce the cost of delivered power. The integration of variable resources (wind and PV), as well as limitations of local hydro and geothermal power has led to significant design, development and operation of these microgrids. The Alaska Energy Authority (AEA) has been instrumental in this effort, providing technical assistance and funding to local communities. The AEA has also been instrumental in the development of the Alaska Microgrid Consortium (AMC), which is a coalition of local governments and utilities that are working together to advance the microgrid industry in Alaska. The AMC has been instrumental in the development of the Alaska Microgrid Consortium (AMC), which is a coalition of local governments and utilities that are working together to advance the microgrid industry in Alaska. The AMC has been instrumental in the development of the Alaska Microgrid Consortium (AMC), which is a coalition of local governments and utilities that are working together to advance the microgrid industry in Alaska.

RECOMMENDATION 11

Encourage foreign and domestic private sector capital investment in Alaska's resource industries through stable, predictable and competitive tax policies.

Lead: Department of Revenue

Justification

Potential investors need a reliable and predictable set of rules before making investment decisions. Alaska must continue to promote a strong development climate with stable and competitive tax policies to maintain positive momentum in oil, gas and mineral investment and to attract new capital investment in other resource industries. Changing tax structures creates uncertainty about whether Alaska is a favorable place to conduct business. More than 90 percent of the state's general fund comes from the oil and gas industry, and a full third of jobs in the state have ties to oil and gas development. Thus, the entire state economy relies on a healthy and vibrant oil industry. Like the oil and gas industry, mining provides high-paying jobs. The most efficient way to increase these jobs is to develop more mines in Alaska. Alaska has six large producing, hard rock mines with only one in the Arctic despite the Arctic region's position as a global leader in mineral potential. The state of Alaska must encourage and support both foreign and domestic private sector capital investment in the Arctic's resource sector.

Resources Needed

Fiscal – Further investment in DOR's technical expertise and capacity should be considered, deepening knowledge held by the civil service.

Leveraged – Federal lease sales, land management and fiscal policy should also be considered for review.

Partners – **State** – DNR, APFC; **Federal** – IRS; **Other** – Local government, ANCs.

Execution

The current oil and gas production tax law should be maintained and more work is needed to inform citizens about the benefits a healthy oil and gas industry provides to all Alaskans. Should a new tax law be proposed for any industry, state and local officials, as well as corporations and communities, should insist upon durability and longevity that keep Alaska a competitive place to conduct business. Any tax law proposals should include objective evaluation of the impacts of the proposals on the global competitiveness of Alaska to attract investment capital.

Legislative Actions

1. Support current legislative efforts to track capital investments and evaluate return.
2. Calculate the immediate and long-term economic impact prior to changes in the current tax law, or proposing a new tax law using outside economic analysts.
3. Review of combined effective tax from local, state and national government take.
4. Regularly review the effect of current tax policy or capital investments.

Evaluation

Success will be evaluated by: 1) an increase in capital investment within the state; 2) new entrants to the state; and 3) maximization of state funding.

RECOMMENDATION 2B

Support efforts to improve and complete communications and mapping, nautical charting, navigational infrastructure, hydrography and bathymetry in the Arctic region.

Lead: Alaska Geospatial Council

Justification

Nautical charting and terrestrial mapping of the American Arctic, to the extent that it's been done, began in the 1800s with what today is considered outdated technology. Alaska's western and northern coasts have not been mapped since 1960. Insufficient mapping results in a lack of confidence by communities and industry alike. Even today, Alaska's coastline mapping is occurring at 1% annually versus 5% in the rest of the United States. NOAA currently estimates that it will take 25 years just to survey their high priority areas in Alaska that affect marine transportation. For the state of Alaska – with a commitment to enhancing safety, environmental protection and economic development – this is unacceptable. NOAA charting requires the gold standard of bathymetric data – it is expensive and slow to acquire. Other data is already being acquired by private sector ships and tugs and barges, and could be shared by employing proper legal guidance. Terrestrial mapping is an increasing focus of the state as well, which is conducted by the Alaska Geospatial Council. While the state does not have sole jurisdictional authority over the Arctic, especially over northern waters, and neither does it have a desire to take on federal responsibilities without due compensation, the international need for accurate Arctic mapping is a good opportunity to partner with federal agencies for mutual benefit.

Resources Needed

Fiscal – The state of Alaska should anticipate increased leadership as a facilitator of multi-agency cooperation; there is also the possibility of co-investment in this area.

Leveraged – UAF's Geographic Information Network (GINA) of Alaska and the Sikuliaq research vessel; federal land management agencies; the private sector also makes incredible investments in data collection and mapping.

Partners – **State** – DOT&PF, DEC and DNR; **Federal** — USCG, MARAD, NOAA, DOI; **Other** – MXAK, AOS, Alaska Marine Pilots.

Execution

DNR has been the lead agency on mapping efforts in the state, and has done much of its work in collaboration with state and federal agencies. The Alaska Geospatial Council, (AGC), was recently created and one of its top priorities is to research how to manage, make available and find an appropriate home for data. Hydrography research is well underway through the Hydrography Technical Working Group, under the auspices of the Alaska Climate Change Executive Roundtable and the AGC. The AGC can take a proactive role in articulating their top priorities and establishing objectives within the Arctic region, assisting NOAA where necessary to establish a geospatial foundation and ensure marine domain awareness. For instance, the state of Alaska could provide or assist in funding an increase of aerial and satellite imagery. DOT&PF should also be working closely with the Office of Coast Survey (Coast Pilot) to update hydrographic priorities, including navigation of the Bering Sea and Arctic approach waters, encourage consideration of improvements to the Coast Pilot in the Arctic region and working with the USGS for terrestrial priorities.

Legislative Actions

1. Broaden the scope of the Alaska Geospatial Council to include oceanographic charting and continue to support efforts to link state and federal mapping and charting work.
2. Encourage federal agencies to work with and incorporate state, local and traditional knowledge holders.
3. Consider state co-investment in mapping, charting, hydrography and bathymetry, including new technologies, maximizing use of satellites, unmanned underwater and aerial vehicles and submarine systems.
4. Continue statewide mapping efforts initiated by Alaskan agencies to update hydrographic priorities, including navigation of the Bering Sea and Arctic approach waters.
5. Continue to support the State's airborne geophysical program.
6. Work with federal and state agencies and the private sector to consider ways to "crowd-source" bathymetric and water level data acquired by the private sector and share appropriately.

Evaluation

Success will be measured by: 1) increasing the percentage of completed mapping and charting; and 2) enhanced user confidence.

Expand development of appropriately integrated systems to monitor and communicate Arctic maritime information.

Lead: Marine Exchange of Alaska and Alaska Ocean Observing System

Justification

Integrated systems are paramount to ensure effective communication, situational awareness and safety in the Alaskan Arctic. There are multiple domains – land, water and space – that span both state and federal jurisdiction. There are two complementary types of marine information important to the future of the Alaskan Arctic. The first addresses the maintenance of operational awareness of maritime activity, especially vessel tracking, but also transmission of information on ice and water, ship speed and closed or sensitive areas for navigation. The primary asset for increased maritime domain awareness is Automatic Identification Systems, (AIS), supplemented by Long Range Tracking Systems. AIS is a piece of navigational equipment aboard many vessels, installed voluntarily or due to regulation, and which regularly transmits vessel data. However, AIS receivers have a limited spectrum and cannot provide comprehensive coverage so there will always be portions of Alaska and U.S. waters without AIS coverage. In those cases of remote operations, it is necessary to use several different forms of satellite tracking. An expanded AIS capacity will strengthen emergency response and ensure safe maritime transportation as well as provide a future ability to transmit localized weather reports and local information including but not limited to sea ice conditions, waves and currents and marine mammal and endangered species observations. There is an increased need for environmental awareness that provides decision-makers with a better understanding of coastal hazard mitigation, ecosystem and climate trends and monitoring water quality.

Resources Needed

Fiscal – Investment needs are currently unclear, and will depend on 1) increase in basic infrastructure and 2) need for increased data management.

Leveraged – Both MXAK and AOOS have structures that allow outside investment, whether through members or user groups. The cruise ship excise tax funds could be leveraged to support integrated systems for safe navigation.

Partners – **State** – DEC, DF&G, Alaska State Troopers, Alaska National Guard, DCCED, DMVA; **Federal** – USCG, USARC, NOAA, DHS; **Other** – local government, subsistence users, Alaska Native organizations, industry.

Execution

The Marine Exchange of Alaska, (MXAK), has a sustainable organizational and methodological framework that aligns well with state of Alaska priorities. Continued state investment and attention to growth opportunities will deliver results. The Alaska Ocean Observing System, (AOOS), is a major partner of MXAK and is similarly providing a valuable service in cooperation with a broad and diverse group of participating agencies and organizations. In each case the state has an opportunity to increase engagement, provide additional input and work more closely with international, federal partners and the private sector to manage communication information more effectively. A review should be conducted of the Great Circle Route and Bering Strait traffic.

Legislative Actions

1. Compile and review state agency maritime traffic and environmental data and collection processes, as well as data sharing and open data policies to better understand cost-benefit relative to Arctic priorities.
2. Consider future legislation that responds to any identified gaps in current capacity, such as common repositories and quality control, or prioritization of expansion
3. Identify information needed for future state decision making and develop plan for acquiring information.
4. Convene a mariner information working group to ensure benefits meet mariner needs
5. Strengthen support for the Marine Exchange of Alaska and Alaska Ocean Observing System.
6. Track and intervene if necessary on the possible closure of the NOAA weather station in the Aleutians.
7. Support and evaluate implications of the recommendations from the Aleutian Islands Risk Assessment.

Assure the state of Alaska Spill Prevention and Response Programs have sufficient resources to meet ongoing spill prevention and response needs in the Arctic.

Lead: Department of Environmental Conservation - Spill Prevention and Response

Justification

The state of Alaska Spill Prevention and Response Division, (SPAR), in the DEC has broad statutory authority to require spill prevention measure and response capacity for oil exploration, production, storage and transportation on state land or in state waters. SPAR also oversees the cleanup of contaminated sites by responsible parties. SPAR's operating budget for this and related work is largely funded by legislative appropriations from the Oil and Hazardous Substance Release Fund. With declining production, and no overall increase in the amount of the surcharge, this surcharge cannot support SPAR's work at its current level, much less cover new demands that will arise in the Arctic from anticipated energy exploration and production, marine transportation and tourism. Although many of these new activities will take place in federal waters, potential spills would likely impact state waters and lands. Further, these new activities in federal waters will spur other activity on state lands and waters, such as development of ports, camps, pipelines, fuel storage and other infrastructure, which could also be a source of spills. SPAR routinely collaborates with interested communities to lower the risk of spills, including local input on spill prevention and contingency plans, building local capacity to respond to spills and local participation when a spill occurs.

Resources Needed

Fiscal – Current funding is adequate for current needs but increased funding will be needed for increased operations, planning, and response purposes.

Leveraged – EPA and USCG are partners in subarea planning. Garnering more industry involvement may provide financial support for sub-area planning work.

Partners – **State** – DMVA; **National** — USCG, EPA, DOD, RRT, NOAA; **Other** – OSROs, Alaska Native organizations and companies

Execution

The Governor should make this a priority. The state of Alaska has a functioning and effective spill response planning and response program that needs to be maintained at current levels to support increased resource development. SPAR should be adequately funded so that it can have a robust public education and awareness campaign that encourages stakeholder engagement, involves communities and stakeholders through subarea planning and provides 2art fvso that iiiD[p 10 0mc4c8{T17(iensused)-0.7 timcol)0.7(y)9086)0.ti ve spill8rolderafdustrD{pi)-9.7(0.9(subncr)-19.TJ0.6(he)0.7(state5(has)0.(So

Ensure that a variety of response tools are readily available and can be deployed during an oil or hazardous substance discharge or release.

Lead: Department of Environmental Conservation - Spill Prevention and Response

Justification

When faced with an oil spill incident it is imperative to have a variety of resources readily available. The best tool is determined by a variety of factors including type of oil, location of spill, and weather conditions. While mechanical recovery is always considered ideal, in some cases it may not be possible. Dispersants and in-situ burning are important secondary response tools in the Oil Spill Toolbox. State statutes require companies to contain or control and clean up oil discharge. New technologies and products are in development such as herding agents that consolidate dispersed oil, increasing the mechanical recovery. There is significant research showing that dispersants are effective in cold waters and that the oil produced in Alaska responds favorably to dispersants. One particular hindrance is that Alaska is the only coastal U.S. state without statewide preauthorization of dispersant use for oil spills. Dispersant pre-approval in Alaska should be based on sound science, including research on fates and effects of chemically dispersed oil in the Arctic environment, experiments using oils that are representative of those in the Arctic, toxicity tests of chemically dispersed oil at realistic concentrations and exposures and additional measures. All response tools should be available and considered during a spill. The State should work with its federal partners and industry to test and develop response tools such as dispersants and in-situ burning for an Arctic response scenario before an event occurs so that their effectiveness and safety are well documented before they are needed.

Resources Needed

Fiscal – Current funding is adequate for planning and policy development purposes but increased funding will be needed for implementation

Leveraged – USCG and EPA are already collaborating on efforts to establish preauthorization guidelines along Alaska's coast; these partnerships should continue.

Partners – **State** – DMVA, local governments; **National** – USCG, EPA, DOD, RRT, NOAA; **Other** – OSRO, Alaska Native organizations or companies, Alaska Maritime Prevention and Response Network.

Execution

Through sub-area planning, the state, EPA and USCG should discuss various response options and the risk/benefit analysis that is utilized when deciding response options. The DEC, USCG and the EPA are currently working on amending the preauthorization areas for dispersant use along the Aleutian chain and the Gulf of Alaska, which will replace the current patchwork of preauthorization zones. The Arctic is not being considered for preauthorization at this time. Subarea plans in the preauthorized zones will be taking the additional step of identifying environmentally important areas, including critical spawning and other wildlife habitat where dispersants should be prohibited. Decision trees for dispersant use are employed after coordination with members of the Alaska Regional Response Team, federally recognized tribes and other stakeholders. Current processes and policies should be employed to examine the feasibility of preauthorization for dispersant use along Alaska's entire coastline.

Legislative Actions

1. Invite testimony on the feasibility and need for dispersants and other non-mechanical response tools along the Alaskan Arctic coastline and the process for approving, testing, evaluating, monitoring and reporting use.
2. The Legislature should review oil spill response planning statutes and ensure they allow and encourage the development of effective response tools.
- 3.

Foster and strengthen international partnerships with other Arctic nations, establishing bilateral partnerships with, in particular, Canada and Russia, to address emerging opportunities and challenges in the Arctic.

Lead: Office of International Trade

Justification

Alaska has been an active participant in international Arctic relations throughout its history. This has occurred through business activities, (CH2M Hill's Sakhalin project, or Teck's investment in Red Dog), environmental issues, (DEC's active communication with Canadian territories and provinces), policy, (through the Northern Forum, for a time), and as part of the US delegation to the Arctic Council, where Alaska contributes its knowledge and expertise to projects of the Working Groups or Task Forces. While international relations are the domain of the U.S. government and DOS, Alaska's strategic location as part of the Arctic necessitates a good working relationship with its neighbors. Especially important will be how Arctic shipping through the Bering Strait, and offshore development in Russia and Canadian waters, have an impact on Alaska's environment and communities. The ability to ensure safe operations and to mitigate risk will be the thrust of the two bilateral relationships, which may be expanded to account for a sharing of best practices and joint infrastructure development.

Resources Needed

Fiscal – Potentially some additional travel funding, but basic communications are fairly cost-neutral.

Leveraged – There are a number of international forums for dialogue whereby state of Alaska participation could guarantee additional relationship-building. Further, through federal programs, the state could develop partnerships in these areas.

Partners – **State** – DCCED, DEC, DF&G, DNR, DMVA; **National** – DOS, USCG, DOD, NO commue(cwsGn)0.6(, US)0.5US; rl –Nporhnrll Forul ver asiof orl6 T4de Ctenher,IC(C)-13.5(Ai)0.51A,CAI

Strategic Line of Effort #3 – Support Healthy Communities

1. Support community-based organizations and coalitions that are working to address the social determinants of health, including housing, food security, and transportation.

2. Support community-based organizations and coalitions that are working to address the social determinants of health, including housing, food security, and transportation.

3. Support community-based organizations and coalitions that are working to address the social determinants of health, including housing, food security, and transportation.

4. Support community-based organizations and coalitions that are working to address the social determinants of health, including housing, food security, and transportation.

5. Support community-based organizations and coalitions that are working to address the social determinants of health, including housing, food security, and transportation.

Foster the delivery of reliable and affordable in-home water, sewer, and sanitation services in all rural Arctic communities.

Lead: Department of Environmental Conservation

Justification

Reduce power and heating costs in rural Alaskan Arctic communities.

Lead: Alaska Energy Authority

Justification

Economic stability and economic opportunities have a profound effect on the social stability and characteristics of a community. In the Arctic, energy prices have an outsized and interconnected effect on these two issue areas. The communities that derive their power from stand-alone grids have, to a large degree, similar negative economic outlooks. Arctic communities simultaneously suffer from joblessness and decreasing amounts of public support. High energy costs discourage private investment, which in turn creates high unemployment and social dependence. While not solely an Arctic issue, addressing the energy needs of Arctic communities is a critical and fundamental first step to supporting their economic and social well-being. Applied

Support long-term strategic planning efforts that leverage existing methods, synthesize past work and strengthen local planning that assesses and directs economic, community and infrastructure development, as well as environmental protection and human safety.

Lead: Department of Commerce, Community, and Economic Development - Division of Community and Regional Affairs

Justification

To address complex issues of change and activity in the Arctic, long-term planning processes must be strengthened or developed. This could be achieved by encouraging local communities to contribute knowledge, prioritize challenges and opportunities and assist in the development of approaches or solutions. Long-term strategic planning should be conducted in collaboration with state and federal officials who, in concert with local subject matter experts – who bring comprehensive planning and Comprehensive Economic Development Strategies (CEDs), as well as other valuable planning efforts – explore and evaluate long-term scenarios and objectives. In order to better integrate these individual plans and to contribute to broader regional strategies in the Alaskan Arctic, the state should encourage more robust strategic planning that assesses and supports new infrastructure and resource development opportunities. An effective coordinated planning strategy will effectively leverage limited resources, avoid duplication of efforts and deliver socio-economic benefits to Alaskans. Additionally, this can lead to more effective environmental protection and human safety, providing a baseline assessment of current conditions, monitoring cumulative impacts of human activity and assisting land and resource managers.

Resources Needed

Fiscal – Competitive grant to DCCED for agency staff to review and compile a region or sub-regional plan; anticipate and plan for future needs related to planning efforts.

Leveraged – Fortunately there are existing studies, reports, CEDs and transportation plans that can be used to assist in this effort. Additionally, with federal attention on integrated Arctic management, there may be an opportunity for increased federal funding.

Partners – **State** – DED, DEC, DOT&PF, DNR, AHFC, AEA, local governments; **Federal** – EDA, DOI, DOE, Denali Commission, USACE, NSSI; **Other** – Alaska Native tribes, corporations, and organizations; private sector companies; co-management organizations; ARDORs.

Execution

DCCED has a well-established history of economic development planning. As the lead agency, it will be responsible for identifying current efforts and organizing a structure for producing region-wide plans. Examples of plans worth considering in this effort include: AEA's regional energy planning, DEC's sub-area planning, NSSI Scenario Planning, local Planning Commissions and DNR's North Slope Plan for state lands and resources. DCCED will also coordinate with other state agencies and the federal government to leverage interest and evaluate collaboration, as well as the impact of state-federal or state-local interaction and produce a recommendation for best practice. DCCED Division of Economic Development's ARDOR program currently addresses some regional economic development planning in the state, which can be more closely tied to community comprehensive planning. There is a huge need for a regional assistance program, to develop a regional economic development plan.

Anticipate, evaluate and respond to risks from climate change related to land erosion and deterioration of community infrastructure and services and support community efforts to adapt and relocate when necessary.

Lead: Department of Commerce, Community, and Economic Development and Department of Environmental Conservation

Justification

Alaska has been on the front lines of climate change for nearly a decade, as work conducted by the Climate Change Sub-Cabinet demonstrates. With the Arctic experiencing change at twice the global average, Alaska's communities and peoples are faced with new and significant challenges and have a need to immediately react. It is critical to make swift decisions and apply innovative solutions when villages are faced with relocation and survival while they are also considering the economic opportunities of resource or port development. The state and nation have an obligation to focus on local adaptation measures that help communities better understand risk and prevent erosion. Erosion revetment ensures that pro-active preventive steps are taken while preparing for longer term adaptation to climate changes. Two elements are central to this effort: the building of human and organizational capacity to adequately move forward and built infrastructure investments that relocate or stabilize existing structures. Ensuring a direct response to the state's most vulnerable resources – its people – during a period of climatic uncertainty and variability, will be of paramount importance.

Resources Needed

Fiscal – This will require increased capital spending, either for village relocation, erosion mitigation or structure stabilization.

Leveraged – Federal agencies will have a primary role, often, in funding and facilitating the response to climate-associated risk.

Partners – **State** – AIDEA, AHFC, local governments, DNR-DGGS, DOT&PF; **Federal** – Denali Commission, USACE, DOI, FEMA, NOAA; **Other** – AOOS, RurAL CAP, Alaska Native regional nonprofits, CCHRC.

Execution

DCCED's Risk MAP program is a good start to identifying and prioritizing risk, though as a FEMA-funded project it is very specific in the communities it can include. DNR-DGGS has a Climate and Cryosphere Hazards Program, (CCHP), that was developed to assess geologic hazards associated with climate variability and change and to publish information that can be used for forecasting and proactive planning, hazard mitigation, and emergency response in high-risk communities and developing areas. DEC can provide a lot of expertise on the topic, and both entities can work with federal agencies to

Develop and support public education and outreach efforts that (a) enhance the understanding of Arctic conservation including biodiversity and the sustainable use of biological resources and management of natural resources and (b) promote public participation in development of fish and wildlife management plans within existing management systems and policies.

Lead: Department of Fish & Game

Justification

Alaskans depend on healthy ecosystems with access to and the ability to harvest natural living resources like fisheries or wildlife. For some, this may be recreational; to others it is an economic necessity. For Alaska Natives this is a cultural priority. Alaska has a constitutional obligation, too, to ensure these resources for use by future generations. However, the ecosystems upon which Alaskans depend are often not completely understood, especially as they relate to fish and wildlife productivity and abundance or management processes. A baseline assessment

Identify and support industry, community and state practices that promote sustainability of subsistence resources, while protecting against undue ESA listings and broad-brush critical habitat designations.

Lead: Department of Law

Justification

Over the past decade, federal agencies have strived to make Alaska “ground zero” for climate change legislation and regulation. Primarily, those efforts

Create workforce development program to prepare Arctic residents to participate in all aspects and phases of Arctic development.

Lead: Department of Labor and Workforce Development

Justification

Emerging resource development opportunities and the opening of maritime routes will create increased demand for workers in trades such as construction of industrial infrastructure, equipment operations, carpentry and architecture for new structures and housing, food and tourism services, scientific research, as well as other entrepreneurial pursuits stemming from new activities. Many of these activities demand skilled labor and/or post-secondary education including, for example, education for entrepreneurship that capitalizes on an individual's ability to turn ideas into action. Ongoing public investment in construction, infrastructure, and resource development projects in Alaska will require active attention to providing training and educational resources. The largest job growth is forecasted to be healthcare and social assistance, mining, construction and the leisure and hospitality sector. Consideration should be given to all aspects of development projects, including research, monitoring, regulatory oversight, project development, construction, operation, remediation and reclamation, as well as ice navigation, marine mammal observation, spill response, SAR, pilotage, engineering, management and high-level leadership positions.

Resources Needed

Fiscal – Fund DOLWD and/or Alaska Workforce Investment Board (AWIB) agency staff to develop targeted workforce development plan for the northern region.

Leveraged

Ensure state funding to, and partnership with, the University of Alaska for Arctic research that aligns with state priorities and leverages the University's exceptional facilities and academic capacity.

Lead: Statewide Committee for Research

Justification

Of primary importance is the ability of the state of Alaska to articulate clear research goals that are consistent with the state's interests. A stronger partnership between user groups and the science and research community will yield greater understanding and translatable results for users and more

RECOMMENDATION 4B

Increase collaboration and strengthen capacity for coordination within the Arctic science and research community.

Lead: Department of Natural Resources

Justification

Coordination and prioritization of research activities must be improved. Federal interagency efforts in this sphere are already substantial and a number of them include state agency participation. The federal government has called for a review of interagency activities in the Arctic in order to identify and address overlapping missions and reduce duplication of effort, which should include evaluation of state and local engagement. The state of Alaska has an increasingly important role to play in the review and in the crafting of recommendations and in considering the current limited capacity to address Arctic science and research demands. Alaska should pursue strategies to broaden and strengthen the influence of its agencies, its academic experts and its local governments and associations. Of significant concern to Alaska is the quality of Alaskan participation in scientific research and federal decision-making, as well as the geographic scope of that coordination through NSSI. The mission of the NSSI is to improve scientific and regulatory understanding of terrestrial, aquatic and marine ecosystems on the North Slope of Alaska. This intergovernmental organization has provided an open forum for discussing resource development activities, climate change, monitoring needs, best practices and other research and inventory issues but is limited to the North Slope and could be expanded for a more comprehensive understanding of the Alaskan Arctic.

Resources Needed

Fiscal – This will depend on scale of support or expansion of the program, but at the minimum require an increase in staff time and travel budgets.

Leveraged – Federal agencies committed to a more integrated management of the Arctic and who have identified the state of Alaska and Alaska Natives as partners in stewardship of that region, and for whom federal resources should be expended.

Partners – **State** – DF&G, DEC; **Federal** – NSSI, DOI, NOAA; **Other** – Alaska Native organizations and co-management groups; University of Alaska and its branch campuses; local governments

Execution

The state of Alaska should not only continue active participation in the NSSI but also: a) explore expanding the scope of participation and work for the group; b) consider creating a similarly-structured entity for the Northwest Arctic and Bering Straits region, as well as one for the Aleutians and Western Alaska; or c) consider the creation of a similarly-structured organization whose scope would include the whole of Alaska's Arctic region. Ideally, there would be three geographic groups represented, (North Slope including Chukchi and Beaufort Seas, Bering Sea/Aleutians, and Gulf of Alaska), that also have an overarching coordinating committee.

Legislative Actions

1. Identify common research goals and outcomes by Alaska sub regions that can inform the development of a state research agenda.
2. Increase efforts to incorporate local and municipal level perspectives in state-federal planning bodies.
3. Urge the amendment of Section 348 of the Energy Policy Act of 2005 to require that at least two members on the NSSI's Science Technical Advisory Panel (STAP) be Alaskans from state agencies, at least three members be Alaskans from the state university system and at least two members be Alaskans from local government entities.
4. Consider convening a pan-Arctic organizing council to look across regional priorities, identify the narrow subset of topics that the state and federal agencies can jointly address, and determine topics that would benefit from international cooperation.

Evaluation

Success will be measured by evaluating: 1) an increase in engagement opportunities for local, state and federal agency land and resource managers, leading to 2) the development of greater cooperation and partnership that 3) results in streamlining of regulatory processes for more efficiency.

Strengthen efforts to incorporate local and traditional knowledge into science and research and use this community-based knowledge to inform management, health, safety, response and environmental decisions.

Lead: Department of Environmental Conservation

Justification

In 2012 the ANWTF noted that “the local and traditional knowledge gathered by Alaska’s indigenous peoples over thousands of years is critically important to a fuller understanding of our northern ecosystems and the multitude of marine and land-based resources within them.” The ANWTF went on to recommend that “the local and traditional knowledge of the state’s indigenous inhabitants be incorporated into all relevant areas of study” in the Arctic. Alaska laws do require public notice and comment periods related to agency decisions on permits, authorizations and area management plans, but many representatives from local governments and Alaska Native organizations have voiced discontent with the lack of specific reference to traditional knowledge and tribal consultation in that body of law. While the goal of using traditional knowledge in conjunction with conventional research is of considerable importance, there also exists a pressing need for increased investigation into precisely how to effectively and meaningfully do so. In *Traditional Knowledge and the Arctic Environment*, published by the Pew Charitable Trusts U.S. Arctic Program in August 2013, the authors assert that it is time to assess the use of traditional knowledge to date and ask, “What can be done to make better use of what traditional knowledge has to offer while

Update hydrocarbon and mineral resource estimates and mapping in the Alaskan Arctic.

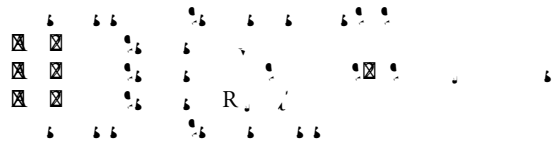
Lead: Department of Natural Resources - Division of Geological and Geophysical Surveys

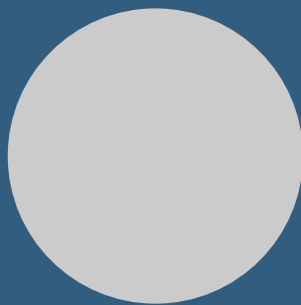
Justification

DNR's Division of Geological and Geophysical Surveys, (DGGS), has the statutory authority to "conduct geological and geophysical surveys to determine the potential of Alaskan land for production of metals, minerals, fuels, and geothermal resources. . ." (Alaska Statutes Sec. 41.08.020). The USGS estimates that the circumpolar Arctic region could hold about 13% of the world's undiscovered oil reserves. While this certainly can make the Alaska attractive for investment, other formidable challenges such as distance and geography could be alleviated, in part, through greater certainty from mapping.

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T&P





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