

Alaska Wilderness League, Alaska’s Big Village Network, Center for Biological Diversity, Center for Water Advocacy, Defenders of Wildlife, Eyak Preservation Council, Natural Resources Defense Council, Northern Alaska Environmental Center, Pacific Environment, Republicans for Environmental Protection, Sierra Club, The Wilderness Society, World Wildlife Fund

January 9, 2012

Attention: Mr. James F. Bennett
Chief, Division of Environmental Assessment
BOEM Headquarters
381 Eldon Street
Herndon, VA 20170

Mr. Bennett,

Thank you for the opportunity to comment on the draft programmatic environmental impact statement (draft PEIS) for the 2012-2017 proposed Outer Continental Shelf oil and gas leasing program.

As an initial matter, we appreciate that the proposed program does not include any scheduled leasing of the North Aleutian Basin. Bristol Bay’s natural values have supported local communities and economies for generations and, as Secretary Salazar has stated, it is a “national treasure.” The administration should implement long-term protection of this treasure from future leasing programs.

The administration has also made a public commitment to science-based decision making with meaningful public input, including in America’s Arctic Ocean. Unfortunately, the Department of the Interior’s 2012-2017 proposed OCS oil and gas leasing program does not honor that commitment.

Leasing in the Arctic was premature under the Bush administration. In the Obama administration, government and industry are still disregarding the scientific and technological information needed for informed decisions about both protecting and exploiting the pristine Arctic waters. Government and industry also have done little to advance Arctic spill response technologies, and the United States Coast Guard does not have an icebreaker fleet that could assist in the event that trouble arises. Additionally, the vast majority of the recommendations

from the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling¹ and the National Academy of Engineering/National Research Council² and other post-BP spill reports have not been implemented. Given these facts, it is irresponsible to move aggressively to drill these sensitive and important waters that are not only home to remarkable at-risk species such as polar bears, walrus, seals, whales and seabirds, but also have provided a sustained source of sustenance for Arctic people for thousands of years.

Ironically, in announcing the 2012-2017 proposed leasing program, Interior Secretary Ken Salazar stated that the Atlantic OCS was left out of the leasing schedule in part because of a lack of Eastern seaboard infrastructure to support offshore drilling.³ While we applaud the decision to consider infrastructure needs before allowing leasing in the Atlantic, the decision to allow leasing to move forward in the Arctic doesn't make sense. Infrastructure in the Arctic is practically nonexistent - the Arctic does not even have a single safe port for the vessels needed for Arctic offshore drilling operations. Until basic science, technology and infrastructure needs are meaningfully addressed, Arctic drilling cannot be justified.

The United States government is tasked with making big picture decisions about what offshore areas are appropriate to commit to oil and gas activities during the leasing program stage. Upon announcing the proposed 2012-2017 program, Secretary Salazar emphasized the need to "proceed cautiously, safely and based on the best science available." Yet with this proposed 2012-2017 program the Obama administration is poised to follow the same failed and risky policies of the past. By deferring critical decisions to later stages of the Outer Continental Shelf Lands Act (OCSLA) decision-making process, the Obama administration is setting the United States to experience another disaster like the BP Deepwater Horizon tragedy.

The administration itself has recognized the need to obtain additional information about the basic science of the Arctic Ocean and oil spill response and preparedness. In 2010, Secretary Salazar said for example that exploratory drilling in the Arctic should move forward because it

¹ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, (January 2011), available at <http://www.oilspillcommission.gov/final-report>.

² National Academy of Engineering and National Research Council, *Macondo Well – Deepwater Horizon Blowout: Lessons for Improving Offshore Drilling Safety*, (December 14, 2011), available at <http://www.scribd.com/doc/75669013/NAE-report-on-the-Deepwater-Horizon-disaster>

³ Interior Press Release (November 8, 2011); see also http://online.wsj.com/article/SB10001424052970203733504577026373943247002.html?mod=ooglenews_wsj.

would allow the U.S. “to gather the information necessary to develop resources in the right places and in the right ways.”⁴ While this logic is deeply flawed given the risks involved as well as the inability of exploratory drilling to gather the full scope of missing information, it is an acknowledgement of serious information gaps. In 2010, the Secretary commissioned the United States Geological Survey to prepare an Arctic Ocean science data gap analysis,⁵ and Secretary Salazar repeated this flawed but telling logic in a later statement when he announced the results of that USGS analysis.⁶ Notably, USGS determined that it is “difficult, if not impossible” to make informed decisions about oil and gas activity in America’s Arctic waters.⁷

Flawed as this reasoning is, in the context of the leasing program decision it would be premature per Secretary Salazar’s own words to approve a proposed 2012-2017 program with Arctic leases before the requisite scientific and technological information has been obtained. The time is now for Interior to demonstrate its integrity and its commitment to walking its own talk. Science and common sense must precede any decisions about opening the Arctic to further oil and gas leasing.

The comments below primarily address the draft PEIS for the proposed program, though they also should be considered as comments on the proposed program. These comments begin with contextual information about Interior’s Arctic decision making as well as industry’s claims that it can safely drill in the extreme environment of the Arctic. These comments also point out areas where promised reforms have not been made. The comments conclude with a request for Interior to include a “no Arctic leasing” alternative in the EIS, while pointing out flaws in Interior’s analysis.

⁴ Secretary Salazar statement on national strategy for OCS oil and gas development (March 31, 2010). (the U.S. should “expand oil and gas exploration in frontier areas, such as the Arctic Ocean ... to gather the information necessary to develop resources in the right places and in the right ways.”)

⁵ U.S. Department of the Interior, Press Release, USGS Arctic Study Evaluates Science and Knowledge Gaps for OCS Energy Development; Offers recommendations to better inform responsible oil and gas decisions for Beaufort and Chukchi Seas (June 23, 2011), available at <http://www.doi.gov/news/pressreleases/USGS-Arctic-Study-Evaluates-Science-and-Knowledge-Gaps-for-OCS-Energy-Development.cfm> (visited August 13, 2011).

⁶ U.S. Department of the Interior, Press Release, USGS Arctic Study Evaluates Science and Knowledge Gaps for OCS Energy Development; Offers recommendations to better inform responsible oil and gas decisions for Beaufort and Chukchi Seas (June 23, 2011), available at <http://www.doi.gov/news/pressreleases/USGS-Arctic-Study-Evaluates-Science-and-Knowledge-Gaps-for-OCS-Energy-Development.cfm> (visited August 13, 2011).

⁷ USGS, Circular 1370 at 291 (2011).

A. NEPA mandates that flaws in current Arctic decision making be explained and addressed

The National Environmental Policy Act of 1969 (NEPA) is the cornerstone of our nation's environmental laws. NEPA was enacted to ensure that information about the environmental impacts of any federal action is available to public officials and citizens before decisions are made and actions are taken. A review of recent Arctic OCS oil and gas decision-making and related facts demonstrates the flaws in the current leasing program, and highlights the risks inherent in future Arctic leasing. This review provides important context and guidance for the proposed leasing program and should be included in the draft PEIS to further NEPA's goal of informed decision-making.

Oil and gas activities are a relatively new phenomenon in America's Arctic Ocean. The first federal lease sale was held in this region more than 30 years ago. Once the first sales were held, activities proceeded very slowly. While OCSLA calls for a research and monitoring effort for areas included in leasing programs,⁸ no such consistent and comprehensive (i.e., not piecemeal) effort has occurred in America's Arctic. However, over the past decade the pace of oil and gas activities in the Arctic Ocean has increased dramatically – even as the impacts of climate change have grown rapidly in the Arctic.

The current expansion of oil and gas activities in the Arctic began in the 2002-2007 OCS oil and gas leasing program during the George W. Bush administration, which scheduled three sales in the Beaufort Sea and put more than 943,000 acres under lease to oil companies. The 2007-2012 OCS oil and gas leasing program dramatically expanded the areas open to oil and gas leasing in the Arctic, including North Aleutian Basin, the Chukchi Sea and the Beaufort Sea planning areas and expanding available acreage from approximately 9.4 million acres to more than 78 million acres. In 2008, the federal government held Lease Sale 193 in the Chukchi Sea and leased more than 2.7 million acres to oil and gas companies. It was the first such sale in the Chukchi Sea since 1991 - prior to the 2008 sale there were no active leases or wells in the sea.

Oil and gas activities in the Arctic are large-scale industrial undertakings that involve drill ships, icebreakers, supply vessels, helicopters, airplanes and seismic surveying vessels that shoot very loud air guns into the water to map subsurface geology. The sound made by these air guns is literally deafening; a single seismic air-gun blast is many times louder than a rocket launching and is comparable to a volcano erupting beneath the ocean. However, unlike a rocket launch or a volcanic eruption, these guns do not blast just once; they sound repeatedly over vast expanses of the Arctic Ocean for days, weeks, and even months at a time, and can be heard underwater from hundreds of miles away. The noise from seismic surveys can disrupt important behaviors such as feeding, breathing, communication and social bonding of marine mammals within several miles of an active survey.

⁸ 43 U.S.C. § 1346(a)(1), (b).

In addition to the direct threats from oil spills, above- and underwater noise, ship traffic and air pollution, oil and gas activities bring industrialization to a place where all facets of life traditionally have focused on a sustainable relationship between the land and sea. This industrialization dramatically affects Arctic people. The large industrial ships needed to conduct oil and gas activities in the Arctic introduce pollution into the air and the ocean. Although there is currently no drilling in the Arctic Ocean, the prospect of aggressive drilling in the near-future introduces the risk of oil spills into the Arctic Ocean where sea ice, storms, darkness and the Arctic's remoteness would make significant spill cleanup impossible. Ironically, the increased interest in drilling for oil in the Arctic Ocean, with its accompanying risks, is partly related to easier access enabled by the rapid melting of sea ice due to climate change.

A major oil spill in Arctic waters could have crippling effects on the ecosystem, wildlife and people in the Arctic. Spilled oil could kill or severely injure marine mammals - including whales, seals, polar bears, walrus, seabirds and fish; and could destroy now pristine waters and shorelines. It could render subsistence resources unusable for multiple years. All of these impacts likely would have a dramatic, negative effect on the people who depend on these animals and places. Further, there is no proven technology to clean up a spill in the remote, icy conditions of the Arctic Ocean, and a spill at the wrong time could gush for months under the winter sea ice before attempts could be made to stop it.

The recent oil and gas expansion in the Chukchi and Beaufort Seas has been rushed and uncoordinated. Many federal agencies have management responsibilities in the Arctic, including the Environmental Protection Agency (EPA), the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service (FWS), the U.S. Coast Guard, the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) (BOEM and BSEE together were formerly known as the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), which replaced the Minerals Management Service (MMS)). Yet these agencies have not coordinated their analysis and permitting of oil and gas projects in recent years, complicating assessment and mitigation of the impacts of these activities.⁹ As a result of the agencies' failure to coordinate, use adequate science, or seek community input when reaching decisions about offshore drilling in the Arctic Ocean, local communities and others in many instances have been forced to seek redress in the courts to ensure their voices are heard and to enforce compliance with the law.

For example, in 2007 and 2008, the Ninth Circuit Court of Appeals enjoined drilling in the Beaufort Sea pursuant to lawsuits filed by local government, Alaska Native and conservation

⁹ In fact, BOEM does not even coordinate its own processes to facilitate meaningful public involvement, with the most recent example being the nonsensical bifurcation of NEPA and OCSLA comment periods for the current action.

entities that identified flaws in MMS's analysis and disclosure under NEPA.¹⁰ The United States Circuit Court of Appeals for the D.C. Circuit later vacated the 2007-2012 OCS leasing program, finding that the program's environmental sensitivity rankings were "irrational" and violated OCSLA.¹¹ In 2010, the Federal District Court for the District of Alaska remanded the environmental impact statement and enjoined drilling on leases issued pursuant to Chukchi Sea Lease Sale 193. The court determined that MMS violated NEPA by failing to adequately address literally hundreds of instances of missing data about the sea and to analyze the effects of natural gas development.¹² Secretary Salazar later allowed this lease sale to stand, rationalizing his approach to Arctic drilling as noted above with the flawed logic that only through exploration could we learn how best to safely explore.¹³

Royal Dutch Shell's recent attempts to drill exploration wells in the Arctic Ocean illustrate how shortcuts lead to bad agency decisions. Beginning in 2006, Shell sought to obtain approval to drill in the Beaufort Sea, with proposed drill sites directly in the fall migration path of the endangered bowhead whale. Shell proposed to use two drill ships operating simultaneously, each accompanied by icebreakers and numerous other support vessels, to drill up to 12 exploration wells over three years. Despite the huge scale of the industrial undertaking, Shell sought to avoid preparation of an environmental impact statement and a public comment process for the project. MMS then approved Shell's exploration plan on the basis of an abbreviated environmental assessment, and, as described above, the Ninth Circuit stayed the drilling.

In 2007, Shell also insisted on disaggregating emissions from its multiple drill sites to avoid having to apply technology controls to its ships under the Clean Air Act's Prevention of Significant Deterioration (PSD) program. When the Region 10 office of EPA issued minor source permits for Shell's proposed drilling, the Environmental Appeals Board (EAB), an administrative body within the EPA set up to review the agency's decisions, remanded the

¹⁰ See *Alaska Wilderness League v. Kempthorne*, Nos. 07-71457, 07-71989, 07-72183 (9th Cir. July 19, 2007) (suspending exploration drilling program); *Alaska Wilderness League v. Kempthorne*, Nos. 07-71457, 07-71989, 07-72183 (9th Cir. Aug. 15, 2007) (order granting a stay of drilling pending adjudication of the case); *Alaska Wilderness League v. Kempthorne*, 548 F.3d 815 (9th Cir. 2008) (determining MMS failed to examine fully the potential impacts from drilling noise and disturbance on endangered bowhead whales and subsistence activities in violation of NEPA), *vacated and withdrawn*, 559 F.3d 916 (9th Cir. 2009), *dismissed as moot*, 571 F.3d 859 (9th Cir. 2009).

¹¹ *Ctr. for Biological Diversity v. U.S. Dept. of Interior*, 563 F.3d 466, 472 (D.C. Cir. 2009).

¹² *Native Vill. of Point Hope v. Salazar*, 730 F. Supp. 2d 1009 (D. Alaska 2010).

¹³ See footnotes 4 and 5 and accompanying text.

permits for failing to meet the requirements of the Clean Air Act.¹⁴ In 2008, Shell again tried to obtain minor source permits, but eventually withdrew the permits before the EAB could review them.

For Shell's plans to drill in 2010, with proposed operations in both the Chukchi and Beaufort seas that were larger in scale than the 2007 plan, Shell again sought approval from MMS without preparation of an environmental impact statement. And, although it applied to EPA for major source permits under the Clean Air Act, it still sought shortcuts, trying, for example, to postpone when its drill ship would become subject to regulation. EPA Region 10 issued two PSD permits to Shell in the spring of 2010, but the EAB determined that these permits violated the Clean Air Act and remanded them. The EAB found EPA's analysis of whether Inupiat communities along the Arctic coast would experience disproportionately adverse health effects from drilling emissions "clearly erroneous" and determined that EPA did not provide a "cogent, reasoned explanation" of its adoption of Shell's method of determining when the drill ship became subject to regulation.¹⁵

With proposed plans to drill in the Chukchi and Beaufort seas in 2012, Shell continues to take shortcuts that skirt the law. In January 2011, after EPA Region 10 had been ordered to reconsider the air permits it issued to Shell, Shell pressed the EPA in filings with the EAB to exempt its revised permits from newly applicable health standards, such as the new nitrogen oxide (NO₂) ambient air quality standards. While Shell's EPA permit applications were deficient, that did not stop the oil giant and its allies in Congress from blaming EPA and this administration for delaying its ability to drill in Arctic waters.¹⁶ Shell's obfuscations led to a rider on a must-pass federal spending bill, transferring authority over future Clean Air Act permits in the Arctic OCS from the experts at EPA to Interior, which has no expertise in protecting Arctic air quality and no discernable standards for offshore air permits.

In March 2011, Shell announced plans to use two drill ships to simultaneously drill up to 10 wells over multiple years in the Chukchi and Beaufort Seas starting in 2012. In May 2011,

¹⁴ *In re Shell Offshore Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, OCS Appeal Nos. 07-01 and 07-02 (EAB, Sept. 14, 2007).

¹⁵ *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*, OCS Appeal Nos. 10-01 through 10-04 at 3, 8 (EAB, Dec. 30, 2010).

¹⁶ See e.g., Laurence, David "Statement before the Energy and Power Subcommittee of the House Energy and Commerce Committee" (April 14, 2011) *available at* <http://republicans.energycommerce.house.gov/Media/file/Hearings/Energy/041311/Lawrence.pdf>

the company submitted exploration plans to BOEMRE for the drilling.¹⁷ Shell's proposed operations would be the biggest single exploration drilling campaign America's Arctic Ocean has ever seen. Shell has applied to EPA for only a minor source permit for the drill ship it proposes to use in the Beaufort Sea, thereby trying to avoid the requirements of pollution control technology to the aging ship.¹⁸ Shell also has applied for permission to discharge pollution, such as toxic drilling muds, directly into the ocean. This permission would be granted under an EPA general permit for the Arctic Ocean that on its face was set to expire last summer, over a year before Shell plans to even start drilling, rather than applying for an individual discharge permit.¹⁹

In its oil spill response plans for the Chukchi and Beaufort seas, Shell provides unsupported and unrealistic expectations regarding the company's ability to clean up an oil spill more than 1,000 miles from the nearest Coast Guard station, with the constant threat of sea ice, subzero temperatures, and darkness up to 20 hours a day. The following examples illustrate how little Shell has dedicated to meaningful spill response capability in the Arctic. At the height of the BP *Deepwater Horizon* spill response, more than 6,500 response vessels worked on the cleanup efforts.²⁰ In the Beaufort Sea, Shell wants to have only one oil storage tanker, a critical part of any response fleet, which could be 240 nautical miles away, and which constitutes 90 percent of Shell's storage capacity.²¹ Shell has no back-up storage plan if this tanker breaks down, if its oil-water separator system fails, or if it is damaged.

To demonstrate it can clean up a "worst-case" oil spill in bad weather, Shell uses the example of a blowout on August 1, i.e., when conditions in the Arctic are at their most favorable

¹⁷ The exploration plans are available at BOEMRE's website:
<http://www.alaska.boemre.gov/>.

¹⁸ The application is available at EPA's website:
<http://yosemite.epa.gov/r10/airpage.nsf/Permits/kullukap/>.

¹⁹ The applications, called Notices of Intent, are available at EPA's website:
<http://yosemite.epa.gov/r10/water.nsf/npdes+permits/arctic-gp>.

²⁰ Pew Environment Group, *Oil Spill Prevention and Response in the U.S. Arctic Ocean: Unexamined Risks, Unacceptable Consequences* 64 (2010) (Pew Report), available at http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting_ocean_life/PEW-1010_ARTIC_Report.pdf.

²¹ Revised Beaufort Spill Plan at A-12 – A-13. Shell has offered another one in the Chukchi Sea, but it would take almost three weeks to arrive on-site.

for drilling.²² Despite this, Shell asked for approval to drill through the end of October. Shell acknowledges a relief well might not be completed until December.²³ In another example, Shell assumes the company will recover roughly 95 percent of the oil spilled in the open water.²⁴ Yet, according to BOEMRE: “On average, spill-response efforts result in recovery of approximately 10-20% of the oil released to the ocean environment.”²⁵ In the *Exxon Valdez* disaster, for example, the recovery rate was closer to 8 percent.²⁶ Even in the Gulf of Mexico, mechanical recovery efforts during the *Deepwater Horizon* response only cleaned up 3 percent of the total amount of oil released.²⁷ These are only a few examples of the empty assurances and shortcuts Shell has included in its Arctic spill response plans. Despite public criticism, Shell’s revised spill plans simply repeat the same flaws and inadequacies for spill response in the Arctic.

A spill in Norway in February 2011 demonstrated the unique challenges of cleaning up an oil spill in icy conditions, and pulls the curtain back on Shell’s claims that it has “perfected”

²² In its conditional approval of Shell’s Chukchi Sea exploration plan, BOEM included the following condition which recognizes the well control problems associated with a late-season blowout, “No exploratory drilling will be allowed below the last casing point set prior to penetrating a *zone capable of flowing liquid hydrocarbons in measureable quantities into the well* within 38 days of a “trigger date” established each year by BOEM, based upon the date of first ice encroachment over the drill site within any of the last 5 years.” This condition requires, in effect, Shell to stop drilling its exploratory well after September 24, 2012. Letter from the United States Department of the Interior, Bureau of Ocean Energy Management to Ms. Susan Childs, Shell Gulf of Mexico, Inc., December 16, 2011, condition 4.

²³ See, e.g., Beaufort Revised Exploration Plan at 2-5 – 2-6; Revised Beaufort Spill Plan at 1-68.

²⁴ Revised Beaufort Spill Plan at 1-33.

²⁵ Minerals Management Service, Alaska Outer Continental Shelf, Beaufort Sea Planning Area, Oil and Gas Lease Sales 186, 195, and 202, Final Environmental Impact Statement IV-17 (Feb. 2003) (Multi-Sale EIS), *available at* http://alaska.boemre.gov/ref/EIS%20EA/2003_001.pdf.

²⁶ D.A., Wolfe, , M.J. Hameedi, J.A. Galt, G. Watabayashi, J. Short, C. O’Clair, S. Rice, J. Michel, J.R. Payne, J. Braddock, S. Hanna, and D. Sale, The Fate of the Oil Spilled from the Exxon Valdez, 28 *Env. Sci. & Tech.* 13, 561A, 563A, 567A (even total recovery or disposal constituted only 14%) (1994).

²⁷ Jane Lubchenco, et al., *Deepwater Horizon Oil Budget: What Happened to the Oil?* (Aug. 4, 2010) Figure 1, *available at* http://www.noaanews.noaa.gov/stories2010/PDFs/OilBudget_description_%2083final.pdf.

oil spill response in Arctic waters.²⁸ The ‘Godafoss,’ a container ship, ran aground in the Hvaler archipelago near the Ytre Hvaler National Park, Norway’s only marine preservation area.²⁹ Despite calm seas, the Norwegian Coastal Administration cited ice, fog and sub-zero temperatures as complicating the oil cleanup: “Very much of the oil we now see is a thin, thin layer that settles in the ice edge. It is oil that is not possible to take action,” said a representative of NCA (Norwegian Coastal Administration).³⁰ Norwegian Coast Guard Captain Pal Bustgaard said: “This is an oil catastrophe. The oil slick continues to widen out. And it is frightening that this happens in the middle of a national park.”³¹ The Norwegian Coast Guard also stated that “[t]here is relatively little experience in oil spill response operations in ice in Norwegian waters.”³² As is clear from the PEIS, a major spill in the Beaufort could affect the coast of the Arctic National Wildlife Refuge, a federally-protected area. Similarly, a major spill in the Chukchi could reach the National Petroleum Reserve – Alaska, a 23 million acre region with enormous ecological value, widely-recognized for its coastal wetlands.

Further undercutting Shell’s credibility is the fact that Norway’s Petroleum Safety Authority (PSA) recently cited Shell for inadequacies in multiple areas of its offshore operations in Norwegian waters. According to Ole-Johan Faret, a PSA spokesman, Shell was under investigation following an oil well maintenance error in December 2010 at the Draugen field, about 60 miles offshore and 100 miles northwest of Trondheim, the country’s third largest city. The incident had “major accident potential” because a Shell error during maintenance caused a rig to have only one barrier against an oil spill from the well.³³ According to the PSA’s report, Shell’s failures include “management, risk assessment, well barriers, well barrier sketches, well control, and daily reporting of drilling and well activities.”³⁴ “The barrier situation was not

²⁸ Shell has stated: “Industry has studied and perfected techniques for recovering oil in Arctic conditions. Field trials in Norway bear this out” Curtis Smith - Shell Alaska - Anchorage Daily News LTE - September 9, 2009.

²⁹ <http://www.euronews.net/2011/02/18/norway-s-only-marine-reserve-hit-by-oil-spill/>

³⁰ <http://www.tu.no/miljo/article280133.ece> (Google translator)

³¹ <http://www.newsinenglish.no/2011/02/19/ship-grounding-sets-off-oil-spill/>

³² <http://www.kystverket.no/default.aspx?did=10194892> (Google translator). Norway is still dealing with the consequences of this spill. *See* <http://www.kystverket.no/?did=10210977> (original, without translation).

³³ <http://www.ptil.no/news/notification-of-order-to-shell-following-well-incident-on-draugen-article7776-79.html>

³⁴ <http://www.ptil.no/news/notification-of-order-to-shell-following-well-incident-on-draugen-article7776-79.html>

taken seriously,” Faret said, “This is not an acceptable approach.” Faret further noted that Shell seemed to be following a “quick-fix philosophy.”³⁵ PSA ordered Shell to respond to its report.³⁶ Shell’s reaction was to say that “[w]e will comply with the order from the Petroleum Safety Authority Norway,” and that it will use the review’s results “to avoid similar incidents in future.”³⁷

Shell then had a large oil spill in the North Sea – the largest in a decade in that region. And just last month, Shell had an oil spill offshore of Nigeria – also the largest there in a decade or more. Both of these spills resulted from low-tech problems, the first a pipeline release and the second a release from a transfer hose. In neither case was there any meaningful collection of the oil released – the oil either evaporated or was dispersed into the water column.

Shell repeatedly touts its record as a safe and environmentally responsible operator, and its ability to operate to high standards in the Arctic.³⁸ Yet these recent spills were caused by “low-tech” problems that could have been easily avoided. Shell’s track record demonstrates that its “safety culture” is, in reality, far from its promises and its perceived reputation.

And, as if more facts were needed to underscore the folly of any statement that we can operate safely in the Arctic with current knowledge and technology, a recent tragedy off the coast of Russia in cold, stormy northern waters resulted in a sunken rig and the loss of dozens of lives.

³⁵ Conversation between Emilie Surrusco, Communications Director at Alaska Wilderness League and Ole-Johan Faret, Norway Petroleum Safety Authority spokesperson on Tuesday, May 31, 2011.

³⁶ <http://www.ptil.no/news/order-to-shell-following-well-incident-on-draugen-article7873-79.html>

³⁷ http://www.washingtonpost.com/business/norway-criticizes-shell-for-safety-lapses-on-rig-says-2010-incident-could-have-caused-spill/2011/05/23/AF6mPm9G_story.html

³⁸ *See e.g.*, http://www.shell.us/home/content/usa/aboutshell/projects_locations/alaska/. Shell even went so far as to produce and air in Alaska a 30 minute “infomercial” urging the public to trust that Shell can effectively respond to an oil spill in Arctic waters. The general public response in Alaska to Shell’s unsupported spill response assertions and intense public relations efforts has been, to say the least, skeptical. *See e.g.*, The Concerned: Does oil-spill response live up to Shell’s reputation (December 19, 2011), <http://www.alaskadispatch.com/article/concerned-does-oil-spill-response-video-live-shells-reputation?page=full>

The fact is that offshore oil exploration poses significant threats to the health of the Arctic Ocean. The most obvious and dramatic of these threats, as the world recently witnessed in the BP *Deepwater Horizon* tragedy, is a large oil spill in Arctic waters.

Yet even within this dramatic context, Interior continues to take and sanction remarkable risks. BOEM approved Shell's plans for exploration in the Beaufort and Chukchi Seas, using the novel and dangerous approach of approving exploration plans before approved regional spill plans were in place. This violates Interior's own regulations,³⁹ which are based on the common sense requirement that critical elements of an exploration effort should be in place before a decision is made on exploration plan approval. With this decision, Interior allows Shell to put off proving containment and response capacity until some later date, if at all. Even without taking into account Interior's problematic history of oil industry regulation and oversight and industry's demonstrated ability to unduly exert political pressure on the regulatory process, it is naïve for Interior to think it will prove consistently capable of standing tough when meaningful spill containment and response don't somehow materialize from industry lessees. Indeed, Shell still has not designed, built or tested its containment system. To protect the Arctic Ocean and its coastline, Interior should require Shell to design, build and test, in Arctic conditions, its containment system before exploration plans are approved.

Interior thus has made a series of terrible decisions for the Arctic, while setting a dangerous precedent for all offshore drilling in the United States. As currently structured, the agency's process has been to put off critical decisions and information gathering to the eve of drilling. Thus, BOEM promises—but never undertakes—basic science work and environmental protections.

Interior has not even taken the time to learn the NEPA lessons various experts have said it must address. The Council on Environmental Quality (CEQ) recommended changes to Interior's NEPA procedures for oil and gas activities in an August 2010 report.⁴⁰ In addition, in January 2011, the National Commission recommended that BOEMRE clarify and reform its NEPA compliance procedures, citing the General Accountability Office's March 2010 review of the Alaska Regional Office.⁴¹ Yet Interior has not acted on these reports. BOEM should adopt

³⁹ 30 C.F.R. § 550.219.

⁴⁰ U.S. Council on Environmental Quality, Report Regarding the Minerals Management Service's National Environmental Policy Act Policies, Practices, and Procedures as They Relate to Outer Continental Shelf Oil and Gas Exploration and Development (August 16, 2010) available at <http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100816-ceq-mms-ocs-nepa.pdf>

⁴¹ See National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and The Future of Offshore Drilling* (Jan. 2011), at 261; Government Accountability Office, GAO-10-276 Offshore Oil and Gas Development:

the recommendations of both CEQ and the National Commission and implement these changes as it prepares the environmental impact statement (EIS) for the 2012-2017 program and any future environmental analyses required by NEPA.

NEPA also requires that BOEM include public input into its decision-making including “scoping,” or information gathering, meetings in potentially affected coastal areas. In early 2011, BOEM held meetings in several Arctic communities including Barrow, Nuiqsut, Kaktovik, and elsewhere. It is unclear how public comments from those meetings have been incorporated into the draft PEIS, and to our knowledge BOEM’s responses to comments have not been made publicly available. For example, at the Barrow public meeting on February 21, 2010, attendees heard from BOEM staff that in Wainwright and Kotzebue, the public was concerned about the lack of infrastructure and the inability of industry to cleanup a major oil spill. In the Barrow and Nuiqsut scoping meetings, the public asked why the deferral area near Cross Island was removed, why there was not a coastal exclusion zone in the Beaufort as in the Chukchi, and requested that BOEM staff talk to the Nuiqsut hunters on the size of the deferral area needed. These important scoping meeting comments should be addressed in the PEIS, and should have been in the draft so that the public can gain insight from earlier input into the leasing program, and so that the public can best understand the evolution of BOEM’s work on the leasing program.

B. Alternatives Analysis Must Include No Arctic Leasing

The purpose of an EIS is to “rigorously explore and objectively evaluate all reasonable alternatives” to the proposed action. 40 C.F.R. § 1502.14(a). That discussion of alternatives “is the heart of the [EIS],” *id.* § 1502.14, and it “guarantee[s] that agency decision makers have before them and take into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit balance.” *Alaska Wilderness Recreation & Tourism Ass’n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995) (quoting *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988)); *see also Angoon v. Hodel*, 803 F.2d 1016, 1020 (9th Cir. 1986) (“[T]he touchstone for our inquiry is whether an EIS’s selection and discussion of alternatives fosters informed decision-making and informed public participation.”) (quoting *California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982)).

The draft PEIS for the proposed 2012-2017 OCS leasing program currently does not include an alternative that excludes both the Chukchi and Beaufort sea planning areas from the leasing program. Interior should add to the EIS such an alternative. In both the Chukchi and

Additional Guidance Would Help Strengthen the Minerals Management Service’s Assessment of Environmental Impacts in the North Aleutian Basin (March 2010) at 21.

Beaufort seas, there is a similar lack of baseline science,⁴² challenges inherent in oil spill response are similar, and spill response plans are similarly inadequate. Further, the huge controversy over Arctic drilling applies equally in both seas.

An alternative that excludes both the Chukchi and Beaufort seas will allow for a more precise and thorough consideration of the relative merits and demerits of including Arctic drilling in the 2012-2017 leasing program, and should make even more obvious to Secretary Salazar the folly of allowing Arctic leasing in this program. It is not reasonable for BOEM to exclude a “no Arctic leasing” alternative from the EIS.

B. Interior should address missing information in the Arctic prior to more Arctic leasing

The Council on Environmental Quality regulations implementing NEPA are “mandatory regulations” and binding on all federal agencies. *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979); 40 C.F.R. § 1500.3. These regulations require a description of “the environment of the area(s) to be affected or created by the alternatives under consideration.” 40 C.F.R. § 1502.15. The establishment of the baseline biological condition of an affected area is a practical requirement of the NEPA process because “without establishing ... baseline conditions ... there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” *Half Moon Bay Fisherman's Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988); see also *Or. Natural Desert Ass'n v. Shuford*, 2007 WL 1695162, *4 (D. Or. 2007) (BLM must utilize adequate environmental baseline under NEPA because “[t]he environmental baseline is an integral part of an EIS.... [I]t is against this information that environmental impacts are measured and evaluated; therefore, it is critical that the baseline be accurate and complete.”).

When considering potential impacts from its actions in a context such as the Arctic where there are information gaps, Interior must clearly assess what missing information is relevant and essential to the decision. It must then obtain that information unless it makes a finding that doing so would be exorbitantly costly.⁴³ In the context of the proposed 2012-2017 leasing program and this draft EIS, Interior has not done this necessary work. In addition, Interior has separately emphasized the importance of such scientific integrity to its OCS decision making.⁴⁴

⁴² That this is true is supported by, among other things, the U.S. Geological Survey evaluation noted above. In that report USGS couples the Chukchi and Beaufort Seas, and documents this lack of information. USGS Circular 1370 (2011)

⁴³ 40 C.F.R. 15022.22; see also OCSLA planning requirements, 43 U.S.C. 1346(a)(1), (b).

⁴⁴ U.S. Department of the Interior, Press Release, USGS Arctic Study Evaluates Science and Knowledge Gaps for OCS Energy Development; Offers recommendations to better inform responsible oil and gas decisions for Beaufort and Chukchi Seas (June 23, 2011), available at <http://www.doi.gov/news/pressreleases/USGS-Arctic-Study-Evaluates-Science-and-Knowledge-Gaps-for-OCS-Energy-Development.cfm> (visited August 13, 2011).

Previous Interior Department OCS decision documents identify massive amounts of missing information about baseline environmental conditions in the Arctic, and repeatedly promise to fill the holes with future science work. For example, in the 2007-2012 leasing program, Interior admitted to missing information about basic wildlife in the Arctic including polar bears, whales, walrus, seals and seabirds.⁴⁵ In response to this lack of information, the nation's marine mammal experts at the National Marine Fisheries Service stated that they believed that the 2007-2012 leasing program was

unrealistically ambitious and would not allow for necessary environmental research ... [Interior] states repeatedly that little is known about the distribution, abundance, behavior, and habitat use of marine mammals in the Chukchi Sea, and the few existing studies are very dated. It is extremely important to gain a better understanding of these issues prior to any exploration, leasing, or development. The need for baseline data on the distribution of marine mammals in the Chukchi Sea is particularly urgent.”⁴⁶

In response, Interior stated that it would gather the data prior to later OCSLA stages.⁴⁷

Documents on Interior's Chukchi Sea Sale 193, which occurred in early 2008, also included acknowledgments of a massive amount of missing information, with no assessment of what information was essential to the lease sale decision or explanation about how Interior could make informed decisions despite that lack of information. This failure led a federal court to find that lease sale illegal, and remand to Interior to conduct an adequate analysis of missing information. In response, Interior declined to obtain the data it acknowledged was missing—from basic data about the distribution and habitat use of marine mammals such as beluga, bowhead whales, fish, and birds to data about the effects of oil and gas activities on these species—or develop a discernable plan to collect the information.⁴⁸

Similar deficiencies have existed in Interior's approvals of exploration plans for both the Chukchi and Beaufort seas. In the Beaufort Sea, for example, Shell's plans to explore in 2007 and 2010 were approved by Interior without detailed analysis under NEPA, and without new

⁴⁵ See e.g., Final EIS 2007-2012 OCS Oil and Gas Leasing Program at page III-114; III-119 (North Pacific right whale, which is “the most highly endangered marine mammal in the world”); III-112-114, 13306 (endangered bowhead whale); III-115 (beluga whales); III-116 (killer whales); III-121 (minke whales); III-122 (Baird's and Cuvier's beaked whales); III-125 (blue whales); III-116 (harbor porpoises); III-117 (walrus); V-55-58 (ice-dependent seals); III-131-34 (seabirds).

⁴⁶ NMFS scoping comments (April 11, 2006).

⁴⁷ 2007-2012 OCS oil and gas leasing program, FEIS at V-55 - 57, 60.

⁴⁸ *Native Vill. of Point Hope v. Salazar*, 730 F. Supp. 2d 1009 (D. Alaska 2010).

data. In 2011, Interior approved Shell's plans to explore in both the Chukchi and Beaufort seas, again without detailed review, the gathering of missing information, nor a discernable plan to gather that information.

Interior's actions to date make a mockery of NEPA's informed decision-making standards, OCSLA research requirements, and Interior's own stated commitment to integrate scientific integrity into its decision making. Interior should act now to rectify this situation. It should design and begin to implement a research and monitoring plan that provides results before further leasing occurs in the Arctic. Indeed, while Interior's exploration plan approvals for the Beaufort and Chukchi seas are reckless, the fact is that they have occurred. Providing oil companies with more leasing opportunities in Arctic waters – as in this draft 2012-2017 leasing program – complicates future options (as recent Arctic history so amply demonstrates) and should not be done by this administration.

C. The need to implement an effective oversight framework prior to more Arctic leasing

Since the BP Deepwater Horizon tragedy, Interior has initiated several important efforts to identify the causes of the incident and determine ways to prevent such incidents in the future. These efforts resulted in the following reports:

- Department of the Interior, Increased Safety Measures for Energy Development on the Outer Continental Shelf (May 27, 2010), *available at* <http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=33598>.
- National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling, Report to the President and Recommendations (January 2011), *available at* <http://www.oilspillcommission.gov/final-report>.
- The Bureau of Ocean Energy Management, Regulation and Enforcement report regarding the causes of the April 20, 2010 Macondo well blowout, (September 14, 2011), *available at* <http://www.boemre.gov/pdfs/maps/DWHFINAL.pdf>, and
- National Academy of Engineering and National Research Council, Macondo Well – Deepwater Horizon Blowout: Lessons for Improving Offshore Drilling Safety (December 14, 2011), *available at* <http://www.scribd.com/doc/75669013/NAE-report-on-the-Deepwater-Horizon-disaster>.

Many of the recommendations in these reports – particularly those focused on regulatory upgrades – are contained in several of the documents. Such recommendations may be considered critical changes that need to be implemented by the Bureau of Safety and Environmental Enforcement to prevent and contain loss of well control incidents. Without such changes in regulatory oversight, it's all too likely that another low frequency, high-consequence event like the Deepwater Horizon could occur in a frontier drilling area such as the Arctic.

It is not reasonable for BOEM to proceed with more leasing in an area as ecologically and culturally critical and pristine as the Arctic Ocean without implementing the key recommendations in these reports. The key recommendations are summarized in Attachment A to this document.

D. The Leasing Program and Climate Change

BOEM's proposed 2012-2017 program EIS must include a substantive analysis of the effects—including direct, cumulative and synergistic impacts—of climate change, ocean acidification and the potential expansion of industrial activities. Before making decisions about whether, when, where and how to permit additional lease sales or other oil and gas activity in the Arctic OCS, BOEM should ensure that it has a thorough understanding of the Arctic ecosystem and its changing baseline. In addition, BOEM should use that understanding to assess realistically the potential impacts of those activities, including industry's ability to respond effectively to oil spills in the Arctic environment.

BOEM must also analyze the effects of its leasing program in contributing to climate change, and analyze potential oil and gas activities in the *context* of climate change. BOEM must recognize that climate change is already dramatically affecting the Arctic Ocean, its species, and its coastal communities and factor in those effects when assessing the effects of potential oil and gas activities. The recently published USGS report provides important information about climate change effects on the Arctic.⁴⁹ CEQ's draft climate change NEPA guidance instructs agencies to consider climate change as part of the affected environment and baseline condition against which it evaluates impacts.⁵⁰ For instance, “[c]limate change can increase the vulnerability of a resource, ecosystem, or human community, causing a proposed action to result in consequences that are more damaging than prior experience with environmental impacts analysis might indicate.”⁵¹ Rapid climate change in the Arctic is stressing species, particularly ice-dependent marine mammals such as polar bears, seals, and walrus. BOEM must consider the heightened vulnerability of the Arctic ecosystem and those dependent upon it when assessing the potential effects of its proposed leasing program.

E. The EIS must accurately reflect economic values

A Five-Year Leasing Program must “obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.” 43 U.S.C. § 1344(a)(3); *see also id.* § 1344(a)(1). It must be “conducted in a manner which considers economic, social, and environmental values of the renewable and nonrenewable resources contained in the [OCS], and the potential impact of oil

⁴⁹ *See* USGS Report at Ch. 4.

⁵⁰ CEQ Climate Guidance at 6-7.

⁵¹ *Id.* at 6.

and gas exploration on other resource values of the [OCS] and the marine, coastal, and human environments.” 43 U.S.C. § 1344(a)(1).

Coincident with those obligations, BOEM must prepare a PEIS that “ensures that the agency . . . will have available, and will carefully consider, detailed information concerning significant environmental impacts [and] guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The obligation to provide accurate information in a useful manner extends to the presentation of economic benefits and costs. See *Natural Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 811-12 (9th Cir. 2005); *Seattle Audubon Soc’y v. Lyons*, 871 F. Supp. 1291, 1324 (W.D. Wash. 1994) (“NEPA requires, where economic analysis forms the basis of choosing among alternatives, that the analysis not be misleading, biased, or incomplete.”). “The use of inflated economic benefits in this balancing process may result in approval of a project [or plan] that otherwise would not have been approved because of its adverse environmental effects.” *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 446 (4th Cir. 1996); see also *Laub v. United States Dep’t of the Interior*, 342 F.3d 1080, 1087 (9th Cir. 2003) (finding that a “decision to convert agricultural land and water to other uses could be influenced by an environmental analysis that properly considered [economic] effects.”).⁵²

Given the legal mandates to properly weigh economic and environmental risks and benefits, economic information is essential to an informed evaluation of, and choice among, alternatives. BOEM has not effectively met its obligations. In particular, the agency can better evaluate and present potential economic costs and benefits of the alternatives under its consideration, taking particular care to ensure that information about the potential economic impacts of various alternatives is accurate. It also must ensure that this information is fully and fairly depicted in the PEIS. Importantly, BOEM must revisit its analysis of the “no action alternative” in order to more fully depict the potential benefits of no action, ensure that costs are depicted appropriately for the Arctic region, appropriately incorporate conservation and efficiency, and include a discussion of option value. Once it corrects those failings, BOEM must use this information in the final PEIS to more accurately reflect the costs and benefits of alternatives relevant to the Arctic Ocean.

⁵² In addition to the NEPA and OCSLA requirements, BOEM must also comply with the obligations and guidelines found in Office of Management and Budget circular A-94 and Executive Orders 13563 and 12866. See Office of Management and Budget (OMB), Circular A-94 (Revised) ___, available at <http://www.whitehouse.gov/omb/circulars/a094/a094.html>; ___. These provisions should guide BOEM’s net present value analysis and its use of that information in the PEIS.

Conclusion

The historical record demonstrates that industry is willing to say or do anything to gain access to oil and gas resources, in the Arctic and elsewhere. Once it gains this access, history also demonstrates that these initial promises give way to the reality of pollution, including relatively infrequent yet high-consequence oil spills to which industry cannot meaningfully respond. The historical record also includes unequivocal statements from Interior about the need to be precautionary in the Arctic, the importance of science in informing Arctic decision-making, and the importance of realistic spill response. Should Interior continue to advance Arctic leasing in this program, the EIS must acknowledge this historical record and explain how Interior can proceed with Arctic leasing in light of it.

That said, a far more constructive and sensible path forward would be for Interior to commit to a new approach to conservation and energy in the Arctic. It should address significant gaps in Arctic science, spill response preparedness, and regulatory oversight before considering additional lease sales. To allow time to undertake this work, DOI should not schedule any lease sales in the Beaufort Sea or Chukchi Sea planning areas in the 2012–2017 program.

In addition, Interior should commit to meaningful stakeholder participation, address long-standing problems with its NEPA environmental analysis, and move swiftly to enact additional OCS reforms. Finally, Interior should ensure that the 2012–2017 program is part of a holistic planning effort that looks beyond oil and gas to consider multiple sectors while acknowledging the important connections between marine, coastal and terrestrial areas in the Arctic.

A precautionary approach to oil and gas activities in the Arctic is not a new idea. A year ago, Secretary Salazar said “that the country should take a cautious approach in the Arctic, and gather additional scientific information about resources, risks, and environmental sensitivities before making decisions about potential future lease sales in frontier areas.”⁵³ In its report, the National Commission recommended that BOEM proceed cautiously with future oil and gas activity in the Arctic.⁵⁴ Such an approach will incorporate rigorous environmental and safety protections; deliberate procedures; comprehensive, integrated, and synthesized scientific analysis; effective oil spill response capabilities; and holistic planning.

⁵³ Department of Interior, Fact Sheet, A Comprehensive, Science-Based Offshore Energy Plan (May. 27, 2010), available at <http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=33566> (noting that the Mid and South Atlantic planning areas are no longer under consideration for potential development through 2017.)

⁵⁴ See National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling* (Jan. 2011) at 302 (observing that oil and gas activity “in offshore Arctic Alaska requires the utmost care, given the special challenges and risks associated with this frontier.”).

In addition to addressing issues related to oil and gas activities in the Arctic, this new path should consider the broad array of challenges that face the rapidly changing Arctic. The administration should think holistically about what the American people want and need from the Arctic region and how best to achieve competing and complementary goals. This plan can be an important piece of thinking about how we, the American public, want the Arctic region to look in the future. Adopting standards and conditions that will require a different approach in the Arctic is a vital step in that direction.

As noted above, the former MMS viewed the ocean through an oil and gas lens. Its decisions about offshore oil and gas activities—which may affect broad areas of the ocean and impact other sectors of the economy—were not integrated with decisions about other ocean uses, including ecological and cultural uses. The result has been fragmented and inefficient management and a failure to prioritize the health of ocean and coastal ecosystems. The National Ocean Council (NOC)—an interagency body charged with providing direction to federal agencies to ensure those agencies implement the National Ocean Policy and related objectives—is a valuable way for BOEM to take a broader view as it conducts planning and management activities on the OCS. Good faith participation in the NOC process would facilitate improved communication and coordination among different agencies with respect to decisions about oil and gas activities. Consistent with Executive Order 13547, the Secretary of the Interior, as a member of the NOC, should ensure that BOEM and other relevant agencies within Interior are good faith participants in the interagency NOC processes. As it develops the 2012-2017 program, BOEM should seek input from its sister agencies on the NOC, especially those agencies that are natural resource trustees. Moreover, BOEM should shape the 2012-2017 program to reflect the advice it receives, or explain why it was unable to do so. BOEM also should ensure that the 2012-2017 program is consistent with the NOC’s strategic action plan for the Arctic, currently still under development, but scheduled to be finalized soon.

The inescapable fact is that a silo approach to management of the impacts of human actions in the Arctic sets the stage for a loss of ecosystem resilience, environmental degradation and possible ecosystem collapse. The intense pressures of climate change, ocean acidification and potential industrial activities require a shift to more holistic, ecosystem-based management

in the Arctic. Unless the United States makes such a fundamental change in its approach to the Arctic, wildlife and the current users of marine resources in America's Arctic Ocean will pay a heavy cost.

Sincerely,

Cindy Shogan
Executive Director
Alaska Wilderness League

Carl Wassilie
Yup'iaq Biologist
Alaska's Big Village Network

Rebecca Noblin
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(att.)