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Water and energy bills dominate agenda

In the Courts

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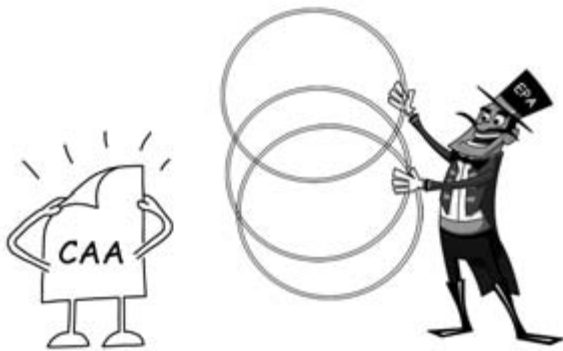
William M. Eichbaum, Arctic Stewardship: The Evolution of a New Model for International Governance

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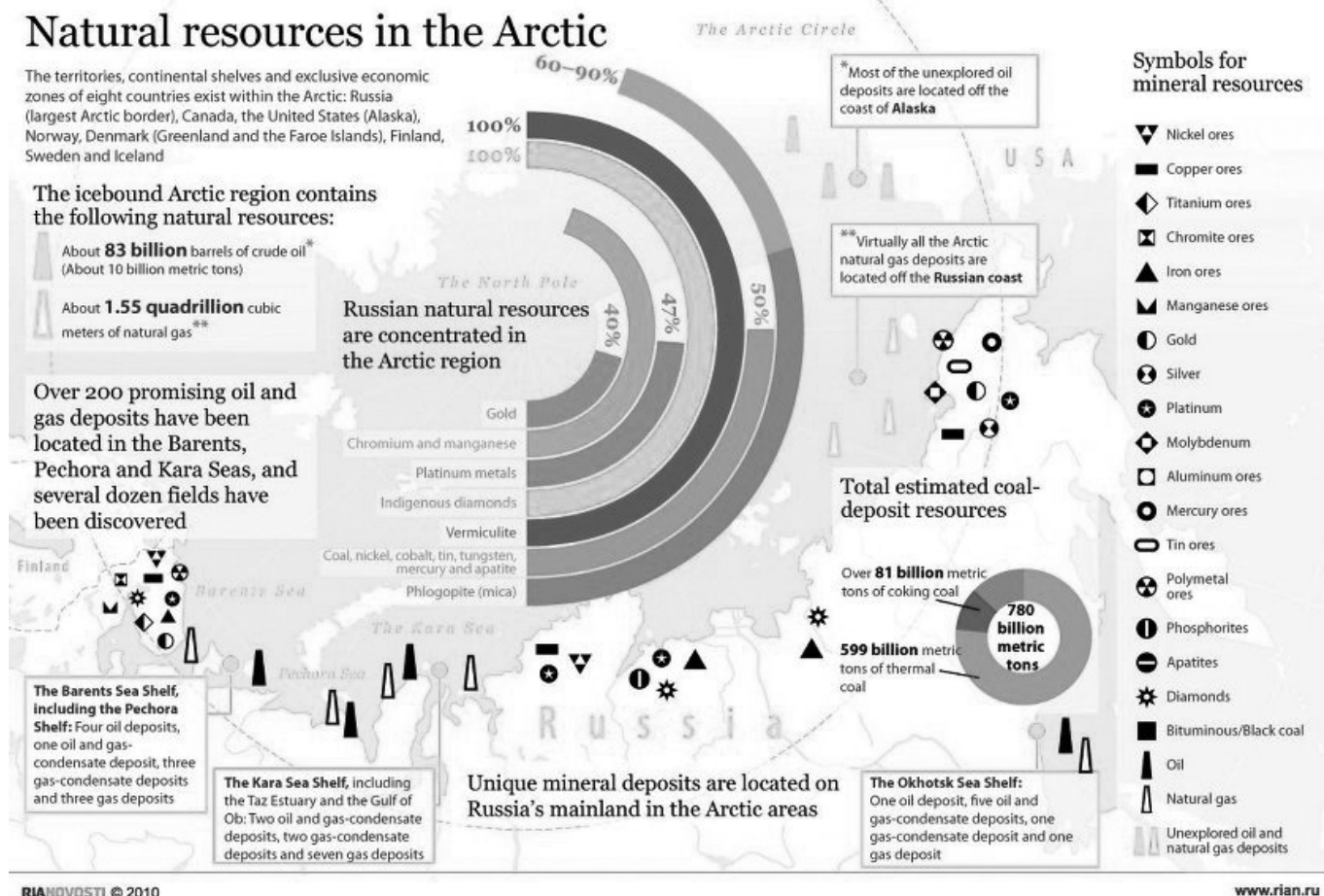
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BEYOND WORDS



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John C. Dernbach, Principal Author

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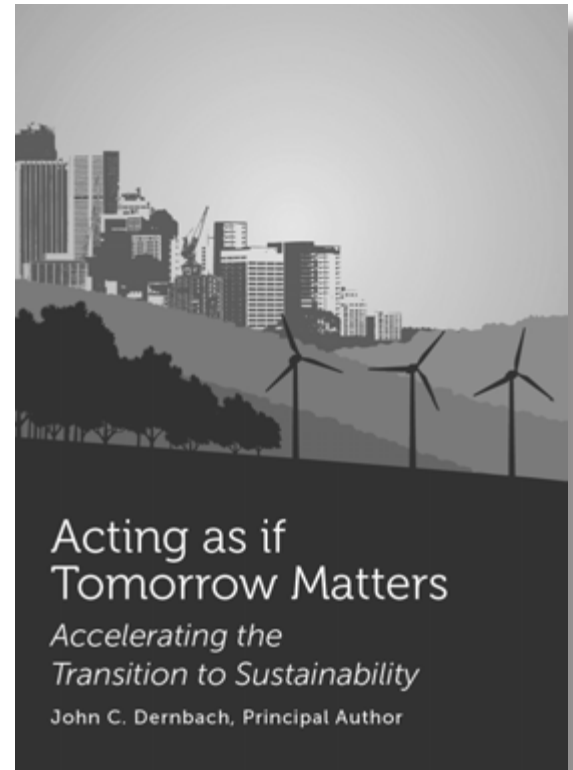
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C O M M E N T S

Arctic Stewardship: The Evolution of a New Model for International Governance

by William M. Eichbaum

William M. Eichbaum is Vice President of Marine and Arctic Policy at the World Wildlife Fund.

I. Setting the Stage

The eight Arctic countries, Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States, are in the initial phases of a profound journey to devise novel mechanisms through which they can collectively assure wise stewardship of the Arctic. This journey is urgent because the Arctic now faces dramatic changes that for the first time in millennia will transform the essential fabric of the region. These changes are not only fundamental, they are happening with unprecedented speed. The Arctic is more deeply affected by the warming of the earth's atmosphere than almost any other region, notable among the many changes are the fact that Arctic temperatures have increased at twice the rate of the global average and as a result, summer sea ice may well disappear within a decade. The disappearance of the ice will result in dramatic changes, not the least of which is that for the first time in human history, the region will be readily accessible, thereby allowing for exploitation of its abundant resources by a global economy hungry for natural resources.

The realization that the Arctic is the world's next new frontier for resource exploitation and development has excited the imaginations of many both in the Arctic region and far beyond. It has also brought about a sharpened awareness among Arctic governments of their self-interest in the orderly management of development. Before turning to an examination of the steps that governments have begun to take to exercise those management responsibilities, it is useful to sketch the system that has been in place for some decades through which nations have governed in the Arctic.

A cursory examination of an atlas reveals that while much of the High Arctic is oceanic, the adjacent land masses lie within the territorial limits of the five maritime Arctic nations, and their exercise of sovereignty therein is well-settled with few disputes as to boundaries. Similarly, in the ocean itself, five of the eight nations bordering Arctic seas have rights that are well-settled according to the United Nations Convention on the Law of the Sea

(UNCLOS). Under UNCLOS, rights and responsibilities in the marine environment are also well-settled regarding the Exclusive Economic Zone and the extended continental shelf. While there are several disputes about borders between countries, it is unlikely these will acquire major foreign policy significance. Additionally, there are a number of claims of rights to exploit the extended continental shelf that have the potential to be in conflict, requiring negotiations for settlement.¹

On the face of it, this existing international legal system would seem adequate to provide the necessary framework for the countries of the region to assure effective governance. But as long ago as the early 1990s, there was sufficient concern about the need for stronger collaboration, primarily to assure adequate environmental protection, that the eight countries came together, at the urging of then-Prime Minister Mikhail Gorbachev of the Soviet Union, and signed in 1991 at Rovaniemi, Finland, an agreement known as the Arctic Environmental Protection Strategy, which "established broad environmental objectives and specific policy plans for national implementation."² Within short order, Arctic nations concluded this agreement was too narrow, and in 1996, through the Ottawa Declaration, established the Arctic Council with a somewhat broader mandate to: "promote cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic indigenous peoples and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic." Since then, the Council's work has consisted of a number of largely scientific assessments regarding critical Arctic issues. This work has been done through a number of subsidiary working groups of the Council and, even

1. It is important to note that the United States is not a party to UNCLOS, and while it abides by its provisions as an expression of customary international law, it cannot avail itself of special processes established by UNCLOS, such as those pertaining to resolving claims to resources in the extended continental shelf.
2. Erik Jaap Molenaar, *Current and Prospective Roles of the Arctic Council System Within the Context of the Law of the Sea*, 27 INT'L J. MARINE & COASTAL L. 569 (2012).

when accepted by the Council, has rarely resulted in actual changes in policy or programs by governments or international bodies.

As late as May 2008, the Arctic countries, at least publicly, confidently expressed the view that this combination of hard (UNCLOS) and soft (Ottawa Declaration) law was sufficient to allow them to meet their governance responsibilities. At a special meeting of the five marine Arctic nations, the so-called Ilulissat Declaration was issued, which stated that the foregoing system provided a “solid foundation for responsible management by the five coastal states, and other users of this Ocean, through national implementation and the application of relevant provisions.”³

This apparent complacency on the part of key governments was shortly to trigger a series of analyses and reviews of the overall issue of Arctic governance by several non-governmental organizations. Among the most important of such published reviews were *International Governance and Regulation of the Marine Arctic*,⁴ *Arctic Governance in an Era of Transformative Change: Critical Questions, Governance Principles, Ways Forward*,⁵ and *The Shared Future: A Report of the Aspen Institute Commission on Arctic Climate Change*.⁶ Each of these reports examined with some care the existing system of governance, attempted to identify key future conditions and issues, identified gaps in the then-current system, and recommended actions for filling those gaps. The recommendations were wide-ranging and included such ideas as a new comprehensive legal treaty governing the Arctic, adoption of uniform standards for key resource development activities such as for oil and gas, and substantial measures to strengthen the Arctic Council. None of the reviews shared the perspective of governments that business-as-usual would be adequate to assure the orderly development of the Arctic and its resources.

II. Governance at the Southern Pole

An examination of how the Arctic system has evolved over the past half-decade and what further enhancements might be needed can be informed in important ways by a slight detour to briefly examine the system of governance that has emerged over the past 60 years for Antarctica—the southern polar region. Antarctica is in many ways the antithesis of the Arctic, including having a governance regime quite dissimilar to that now in place, or likely to evolve, for the Arctic. While international governance of Antarctica is not a model for the Arctic, there are lessons that can inform the evolution of 21st century Arctic governance.

The geopolitical context of the two poles could not be more different. Whereas at the core of the Arctic less than

a few meters of ice floats on an ocean, in Antarctica, as much as a mile of ice rests upon a large land mass. More than four million people live and work above the Arctic Circle. In Antarctica, there are no permanent residents and human population is limited to a very few research stations scattered across the continent. In the Arctic, there is extensive industrial activity, including hard-rock mining and oil and gas development. In Antarctica, there is essentially no economic activity other than the presence seasonally of several thousands of tourists. Antarctica has been declared a nuclear-free zone and is essentially demilitarized. In contrast, the Arctic was a key zone of confrontation between the USSR and the United States at the height of the cold war and to this day, submarines ply its waters armed with nuclear missiles. The biodiversity of the two polar regions is globally unique and also quite different from one to the other as symbolized by the presence of penguins only in Antarctica and polar bears only in the Arctic. And notably, a number of countries have existing or potential claims to the Antarctica land mass and adjacent marine waters, but many of these overlap to a significant degree, others are not specific, and none are generally recognized in international law.

International governance of Antarctica emerged more than one-half a century ago out of an extraordinary program of science conducted pursuant to the International Geophysical Year running from July 1957 to December 1958. New scientific learning about Antarctica and its importance to the well-being of the entire globe converged with growing conflicts over territorial claims and gave rise to negotiations to provide an international regime to stabilize the roles of government and others in the region. Negotiations began in Washington, D.C., in 1959, and the resultant Antarctica Treaty was signed in December, taking effect in 1961, when ratified by 12 nations. Subsequently, other treaties were negotiated: the Convention for the Conservation for Antarctic Seals (1972) and the Convention for the Conservation of Antarctic Living Marine Resources (1982)—as well as additional instruments such as the Protocol on Environmental Protection (1991). Together, these have come to be known as the Antarctic Treaty system.⁷ Looking to the words of the treaty itself, among its key purposes are to

- Assure “use of Antarctica for peaceful purposes only”;
- Facilitate “scientific research in Antarctica”;
- Suspend “the exercise of jurisdiction in Antarctica”; and
- Assure “preservation and conservation of living resources in Antarctica.”

Over time, it was recognized that an important new and overarching purpose of this system is to allow governments to assure effective stewardship of Antarctica, mean-

3. Ilulissat Declaration, dated May 28, 2008, issued by the five coastal States bordering on the Arctic Ocean at the Arctic Ocean Conference, Ilulissat, Greenland, May 27-29, 2008.

4. Timo Koivurova & Erik Jaap Molenaar, *International Governance and Regulation of the Marine Arctic*, WWF International Arctic Programme (2009).

5. HANS CORELL ET AL., *THE ARCTIC GOVERNANCE PROJECT REPORT* (2010).

6. Aspen Institute (2011).

7. NATIONAL RESEARCH COUNCIL (NRC), *SCIENCE AND STEWARDSHIP IN THE ANTARCTIC* 33 (1993).

ing “making reasoned, forward-looking decisions based on scientific knowledge for the preservation, protection, and conservation of Antarctica for current and future generations, and for Earth as a system.”⁸ This realization would lead eventually to a decision by governments to ban all mineral resource development for a period of at least 50 years.⁹

The very different environmental, economic, social, and political differences between the Arctic and the Antarctica make it unlikely that an eventual evolution of the existing Arctic Council into a structure parallel to that of Antarctica is probable or even useful. But the essential point for informing governance in the Arctic is that over a period of time in Antarctica, a system of instruments and fora has evolved through which governments seek to meet their shared objective of stewardship.

III. Evolution at the Northern Pole

Having declared at Ilulissat in 2008 that the existing system for collective responsibility for the Arctic was adequate, the Arctic countries proceeded nonetheless over the next three years to begin a process of significant transformation in the role and function of the Arctic Council. This trend became apparent at the May 2011 Ministerial meeting held in Nuuk, Greenland. Among the decisions made by the Ministers were the following:

- For the first time, a permanent secretariat for the Council was agreed to, with assured government funding.
- A first legally binding agreement, negotiated under the auspices of the Council, was signed, providing for more effective governmental cooperation in the event of an air or sea accident: the Search and Rescue Agreement.
- A commitment was made to begin to negotiate a similarly binding agreement on oil spill preparedness and response.
- An expert group was established to set the parameters for Arctic ecosystem-based management (EBM) by governments in the Arctic.

Perhaps of equal significance to these achievements was that a U.S. Secretary of State, Hillary Clinton, attended the Ministerial meeting, a first for an American Secretary of State.

While none of these developments alone could be said to constitute a significant change in course, their collective impact signaled that the eight Arctic countries were beginning to move the Council in a new direction—one still evolving. To get a sense of that direction, it is worth noting that the commitment to a permanent Secretariat is in fact an initial step toward the creation of a new interna-

tional institution, notwithstanding its current embryonic nature. The signing of one legally binding agreement and the commitment to develop a second suggests a new model for governance, one where an informally created institution, the Arctic Council, is a forum for negotiating binding international agreements. And the exploration of the role of ecosystem-based management could be the first steps toward assuring a substantive commitment to the principle that stewardship is a defining value for the exercise of government responsibility in the Arctic.

The eighth Ministerial meeting, concluded in May 2013 in Kiruna, Sweden, went further. The Ministers issued a Vision for the Arctic that aspires to set a broad policy course for future cooperation. This was a first since the Ottawa Declaration of 1996. The Vision pledges to strengthen governmental cooperation in the fields of environmental and civil security. And it expresses a commitment to manage the region with an ecosystem-based approach that balances conservation and sustainable use of the environment. It also commits to continued “strengthen[ing] of the Arctic Council to meet new challenges and opportunities for cooperation and [to] pursue opportunities to expand the Arctic Council’s roles from policy-shaping into policy-making.”

Further, the Ministers signed the promised second legally binding agreement, the Cooperation on Marine Oil Pollution Preparedness and Response. That Agreement has important substantive and procedural elements. For example, it mandates that all Arctic countries have a national contingency plan for responding to oil spills¹⁰; that reviews be held of joint spill responses as well as other activities; and that those reviews be made public.¹¹ Finally, it requires inclusion of the Arctic Council in regular assessments of the implementation of the agreement.¹² In sum, the oil spill preparedness and response agreement for the first time includes provisions imposing substantive requirements on governments, requires public involvement in aspects of implementation, and provides for an ongoing role for the Council in oversight.

Finally, the Ministers accepted a number of reports with recommendations, including those on Ecosystem-Based Management and the Arctic Ocean Review. In accepting these reports and endorsing their recommendations, the Ministers asked for follow-up actions to assure that the recommendations be implemented. Each of these decisions contributes to a strengthened foundation for shared stewardship in the development of natural resources of the Arctic.

8. *Id.* at 6.

9. Protocol on Environmental Protection to the Antarctic Treaty, art. 7, Oct 4, 1991.

10. Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, art. 4, Kiruna, 2013.

11. *Id.* art. 11.

12. *Id.* art. 14.

IV. Why the Swerve in Government Action?

With this growing agenda for action through the Arctic Council, the governments have now maintained over the span of two Ministerial meetings an expanding concept of their responsibilities for the Arctic—one that goes well beyond the complacent perspective articulated at Ilulissat in 2008. Admittedly, these actions have been taken through the instrument of the Arctic Council, but by moving to a perspective that envisions the Council as a policy-making entity, perhaps even a forum where governments would account for their implementation actions, the reality of collaborative governance is much greater than might have been anticipated.

There are a number of reasons for this accelerated commitment to action. First, the geoeconomic context of Arctic affairs has undergone significant transformation. As has been noted, as Arctic ice melts easing access to the region's raw materials, global interest in Arctic access has increased dramatically. The interests of many governments and companies to exploit Arctic resources in combination with the anticipated economic contribution that such exploitation could make to Arctic countries' gross domestic product accelerates the interest of the latter to assure orderly development of the region.

In the face of this enhanced global interest in access to the Arctic, the countries of the region have been driven to respond by at least two other factors. In the first instance, they seek to demonstrate to the world that the Arctic is largely within their legal control, save for the high seas, and that they both intend to and are capable of exercising national sovereignty over it. At the same time, they have recognized that in a region characterized by many challenges and shared features and processes, cooperation among the Arctic governments is essential to allow orderly development. One consequence of this imperative to be perceived as in control is that virtually every Arctic nation has articulated a new Arctic national strategy in the last five years. This level of policy-setting at the national level, in combination with more vigorous action at the Arctic Council level, sends clear signals to the international community that the Arctic nations are engaged at both the national and circumpolar level, and that more intrusive actions by other nations at an international level are not necessary.¹³

Further, economic and societal activity in the Arctic is carried out in a dangerous and unprecedented context. Looking to the future, assuring the highest common standards for those activities in order to avoid catastrophic accidents is an important responsibility of Arctic governments. Also, governments recognize that in the past, human activity in the region has often been characterized

by environmental degradation that, among other impacts, makes the Arctic a less-desirable place for human habitation. Particularly in countries that see Arctic development as a keystone of national economic growth, such as Russia, not repeating these mistakes is an important aspect of future development. Thus, cooperative action to establish a shared high set of standards to guide future development in the Arctic through the Arctic Council can well serve national interests.

Finally, the Arctic Council has been strengthened because specific governments see such evolution as responsive to their national policy perspectives. For example, over the past six years, the chair of the Arctic Council has rotated among the Scandinavian countries that at the outset of that period had a shared perspective to strengthen the institutions of the Council. This was achieved at the Nuuk Ministerial in 2011 with the creation of a permanent Secretariat with committed funding. Similarly, the U.S. government has exercised a leadership role in moving the Council forward on a set of substantive issues, including ecosystem-based management and responses to oil and gas development, as these issues have assumed greater domestic importance. These national perceptions about the importance of an effective Council provide critical leadership and political space for the growth of the Council.

V. The Next Plateau

While the decisions at the two most recent Ministerial meetings maintain an upward trend in the trajectory of Arctic Council effectiveness, other decisions, or issues simply not acted upon, indicate that the slope of that trend is still too weak to assure effective Arctic stewardship. Thus, action has been postponed yet again on an agreement to limit short-lived climate-forcing pollutants. There is also little clarity about next steps to set effective and uniform standards for oil and gas development. No specific places in the Arctic have been identified as critical for ecosystem-based management. And the Council has not addressed the future of fishing in the Arctic, although numerous of its technical bodies have expressed concerns about the issue.

The Arctic countries also have made it clear that there are important limits beyond which they will not now consider strengthening the current system. Thus, there appears to be little appetite for the negotiation of a comprehensive, legally binding agreement, even along the lines of a Regional Seas Agreement, to replace the Ottawa Declaration. Further, there is no interest in ceding to the Council, through its Secretariat, any responsibility for implementation of decisions taken by the Council. And, as an overarching principal, there remains a keen interest in assuring that countries of the Arctic solely retain the ability to determine the development future of their respective Arctic regions.

Given the still-early stages in the development of effective action through the Arctic Council and the clear demarcation of points beyond which the governments are not prepared to go, the critical question arises as to whether

13. Although a number of new countries—China, India, Italy, Japan, the Republic of Korea, and Singapore—were admitted to observer status at the recent Ministerial, a revised Observer manual, also adopted, makes clear that the eight Arctic countries intend to remain the decisionmakers.

there are useful steps that could be taken over the next several years that would, nonetheless, result in a more-effective Council. Below are seven such measures that would further enhance the Arctic Council as an effective body for collaboration among the Arctic countries. Implementation of these ideas would strengthen the Council as a policymaking and reviewing body, while assuring that the responsibility for tailoring policy and actually implementing it remains at the national level. Beyond these discrete areas of new or refined action, the Arctic countries could further expand their overarching vision for the system of collaborative governance of the Arctic. This refined vision would retain the Arctic Council at its core and, as argued in an imaginative approach by Erik Molenaar¹⁴ and others, additionally explicitly recognize an evolving network of formal and informal bodies and instruments that, taken as a whole, constitute the Arctic Council System (ACS). He suggests that the ACS could be seen as functionally analogous to the Antarctica Treaty System, with the crucial distinction that the international entity at its center, the Arctic Council, is the instrument of the eight Arctic countries alone and has its existence independent of an international treaty. Important attributes of an ACS could include the following:

- The core instrument for Arctic government cooperation remains the Arctic Council—essentially an informal body made up of the Arctic countries, the Permanent Participants, and governmental and non-governmental observers.
- Legally binding agreements could be negotiated under the auspices of the Council as has been the case with the SAR agreement and the more recent Agreement on Cooperation on Marine Oil Pollution Preparedness and Response.
- Implementation of Council decisions within the territory of Arctic countries, whether pursuant to binding or more informal decisions, would take place through the respective national governments with appropriate reporting to the Arctic Council.
- Where implementation beyond national territory is proposed and would bind other states, appropriate existing international bodies would be responsible, such as has been the case for the Polar Shipping Code, where proposed standards were developed by a working group of the Arctic Council, but currently are under consideration for legal adoption by the International Maritime Organization.
- Where no such arrangement exists, then relevant other states would need to be involved in negotiations of agreements that sought to affect them. This is the case currently envisaged with respect to management of potential fishing activity in the Arctic High Seas. As noted above, viewing such a fisheries agreement

as part of the ACS would certainly be responsive to the technical work done by many of the Council's working groups.

- Finally, occasional Statements and Declarations of the Arctic Council Ministers could be used to set important shared policy directions, such as was done in the recent Kiruna Vision for the Arctic, which defined the Council's role as "policymaking."

Conceptualizing the issues of Arctic governance as integrated into a virtual entity such as the Arctic Council System would explicitly recognize the broad suite of mechanisms Arctic nations have to choose from when deciding how to move from a policy decision (usually within the Arctic Council) to implementation (usually at the national level). This array of implementation mechanisms, all already quite familiar in Arctic or other contexts, can ultimately be seen as connected to one "policymaking" entity not unlike the structure of a wheel, where the hub is the Arctic Council and the wheel as a whole is the Arctic Council System with spokes (national action) and rim (other international action) being a variety of implementation mechanisms.

Beyond the vision of an integrated but virtual Arctic Council System, the governments of the Arctic Council System can work more vigorously to pursue a number of new tools and principles for further building the power of the Arctic Council, the hub of the ACS, as a true instrument of collaborative and engaged policymaking. These would ultimately add to that role the additional responsibility to assure accountability for promised results and effective governance of the region as a whole.

- The Arctic Council should assure that the policy decisions that it reaches are accompanied with *specific recommendations for implementation actions together with appropriate time lines*. Inevitably, implementation will be the responsibility of national governments or other international bodies. With increased specificity, those entities can act more responsibly and be held accountable. The recent agreement on oil spill response begins to incorporate several such specific requirements.
- The AC should establish *clear mechanisms for reporting on actions* taken and the results achieved by those actions. Through such a system, interested parties can know there are real results consequent to the decisions of the ACS and, further, with the kind of feedback inherent in such reporting, corrective and fine-tuning actions can be taken where necessary. For example, a Chairman's Report at the end of each Chair's two-year term could summarize national and international actions to implement the policy decisions of the Arctic Council.
- The AC needs to *more inclusively engage the full range of stakeholders* potentially interested in and affected by its decisions and actions. The Arctic Council is

14. Molenaar, *supra* note 2.

already unique in that it includes several indigenous peoples' organizations as Permanent Participants in the work of the Council. Mechanisms need to be developed to make their participation more-effective. In addition, the Council has provisions for recognizing Observers in its work and has recently accorded observer status to an expanded group of countries. But full engagement of civil society and various economic interests in the Arctic is essential to policymaking if it is to take into account the full range of interests on complex issues. The increased number of non-Arctic nations admitted to Observer status also suggests that at some point, the Council may need to develop rules of procedure for Observers that make a distinction between the role of non-Arctic nations and other Observers that are citizens of Arctic nations, with greater rights accorded to the latter.

- The AC needs to *apply the full range of modern techniques of web-based governance* to its research, analytic, and policymaking function, as well as the reporting and accountability activities suggested above. Interests in the Arctic are dispersed over a very wide geography and amongst peoples and entities with very different capacities. Through e-governance technologies and practices, many of the disparities created by differences in time and space, resource and technical capacity, and proximity to decisionmaking can be overcome. And by using e-governance to do so, the ACS can include a wider variety of interests in its processes, access new and different perspectives, and ultimately build a stronger base of political support for proposed actions. For example, increasing the access of the Permanent Participants to the deliberations of the Arctic Council and its working groups through enhanced e-governance could make their participation more-effective at minimal cost.
- A more-robust AC would require the *creation of a Secretariat capable of managing the complex interaction of interests and issues* across the several institutions and processes that are envisaged to act in separate but mutually supportive ways. That this is already a problem needing attention is exemplified by the fact that at each of the last two Ministerial meetings, the parties have called for more-effective action by the IMO on the Polar Code. But, the reality is that once the ministers depart, there is no entity responsible or capable of following up to give reality to that mandate. A properly invigorated and staffed Secretariat would be able to follow up with Arctic governments to assure timely action by bodies such as the IMO.

Also, a robust Secretariat could assure effective interaction between the technical work done at the Council's direction by its working groups and the political leadership of the Council, thus allowing for clearer and more-rapid identification of acceptable steps for implementation.

- The AC should seek to stimulate the development of a *robust community of "citizens"* committed to and engaged with the task of effective policymaking and implementation. This is already beginning to happen, having a strong base in the scientific experts from within and outside of government who have supported the work of the Council for years. However, increasingly, a growing number of nongovernmental organizations are engaged with the Council. Not surprisingly, economic interests are also collectively engaged with the Arctic, whether possibly through the new "Task Force to facilitate the creation of a circumpolar business forum" created by the Ministers at Kiruna or the privately organized Arctic Circle. These are all welcome advances in creating a body politic engaged with Arctic Stewardship.
- The AC should establish a permanent Arctic Science Panel, whose function would be to recommend to the Council an ongoing *program of critical science issues* requiring coordinated attention across the Arctic and with important implications for policymaking by the Council. A function of governments, through the Council, would be to select those issues of greatest importance from both an Arctic and global systems perspective and provide the funding necessary to address them.

VI. Conclusion

The explicit recognition of an Arctic Council System and a strategic commitment to evolve it as an effective tool for collaborative governance of the Arctic is within the grasp of the Arctic States. It is not a radical departure from the arrangements that are currently evolving in a de facto fashion. But a more-explicit recognition of how such a system could operate would allow the countries to act more effectively. Much that the Council has decided in the last few years, such as the development of agreements in key areas and to base cooperation in ecosystem-based management, are vital steps forward. The additional steps outlined above would move the substantive agenda already agreed by governments more effectively and thus help to assure they meet their stewardship responsibilities in the development of the region's resources.

The Inuit Future: Food Security, Economic Development, and U.S. Arctic Policy

by Jim Stotts

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Global climate change, with its resulting loss of sea ice, has opened up access to the Arctic Ocean as never before. Moreover, the rate of global warming and the pace of development are accelerating. Stakeholders have different ideas on how to handle these changes. Depending on one's perspective, the pace of development seems to be either too fast or too slow; and, like most contentious issues, the best solutions may lie somewhere in the middle.

Those who prefer a slow approach generally emphasize the following:

- The need to create new standards and technologies for development;
- Necessary robust management and oversight capabilities for industry;
- Protecting biodiversity and ecosystems; and
- The needs of Arctic peoples and communities.

In contrast, those preferring a fast approach focus on:

- Economic development standards and technologies that are already sufficient;
- The stifling effects of excessive environmental oversight and over-regulation;
- Global needs outweighing local concerns; and
- A sense of urgency to begin development to respond to the global economic crisis.

These perspectives can polarize stakeholders into different camps; unfortunately, the Inuit and other Arctic indigenous peoples are caught in the middle of this environmental discussion.

I. The Inuit Circumpolar Council

The Inuit Circumpolar Council (ICC), an international organization that advocates on behalf of 160,000 Inuit in the Arctic region, which stretches from Chukotka, Alaska,

across Canada and into Greenland, has consultative status with the United Nations and consults on a broad range of Arctic issues. Moreover, the ICC is a permanent participant to the Arctic Council, the eight-nation intergovernmental organization that works to develop Arctic policy.

ICC's principle goals include the following:

- Strengthening unity among the Inuit of the circumpolar North;
- Promoting Inuit rights and interests on an international level;
- Developing and encouraging long-term policies to safeguard the Arctic environment; and
- Seeking full and active partnership in the political, economic, and social development of the circumpolar North.

The ICC believes in sustainable development. For most of the world, this means having a balance between economic development and environmental protection. For the ICC, it also means preserving the Inuit culture and society—this belief is important to remember in any discussion with Inuit about sustainable development. As the first inhabitants and stewards of the Arctic, the Inuit have the responsibility and right to ensure the protection of their environment and culture.

II. The Inuit and Food Security

Presently, the highest priority for ICC Alaska is food security. For most of the world, food security means having enough money to purchase food and other necessities at the grocery store. In other words, food security is tied to having a permanent job and income. This is not the case for the Inuit, who measure food security from a completely different economic and cultural perspective. Well-paying jobs are at times few and far between in rural areas of Alaska, where continued access to traditional hunting and fishing areas is a key to health and well-being.

The Inuit and U.S. Arctic Policy

In January 2009, President George W. Bush issued National Security Directive 66 with respect to the Arctic region. Paragraph III of that directive sets out the policy objectives:

- (1) Meet national security and homeland security needs relevant to the Arctic.
- (2) Protect the Arctic environment and conserve its biological resources.
- (3) Ensure that natural resources management and economic development in the region are environmentally sustainable.
- (4) Strengthen institutions for cooperation among the eight Arctic nations.
- (5) Involve the Arctic's indigenous communities in decisions that affect them.
- (6) Enhance scientific monitoring and research into local, regional and global environmental issues.

Interestingly, all six policies are related to work in which the ICC has been engaged.

In May 2013, President Barack Obama issued a *National Strategy for the Arctic Region*, which lays out three lines of effort and four guiding principles. The lines of effort include:

- (1) Advance United States security interests
- (2) Pursue responsible Arctic region stewardship
- (3) Strengthen international cooperation.

The guiding principles that will inform the U.S. approach are the following:

- (1) Safeguard peace and stability
- (2) Make decisions using the best available information
- (3) Pursue innovative arrangements
- (4) Consult and coordinate with Alaska Natives.

Once again, these lines of effort and guiding principles align with work that the ICC is already doing. The following section provides a brief overview of the linkages between ICC efforts and the 2013 Arctic Strategy.

Both the Security Directive and the 2013 Arctic Strategy call for meeting U.S. security needs in the Arctic, and the 2013 Arctic Strategy calls for safeguarding peace and stability. The ICC has long maintained that the Arctic should be a region of peace. We are hopeful that any military activity in the Arctic will be minor and any buildup of military action will not increase tensions nor lead to another cold war.

Both the Security Directive and the 2013 Arctic Strategy call for Arctic stewardship and protection of the Arctic environment, with the Security Directive including a specific objective of achieving sustainable development of economic activities and natural resource management. The goals of stewardship and protection are in complete harmony with Inuit perspectives, and will go a long way toward protecting and ensuring Inuit food security. However, the ICC would add to the stewardship objectives the sustainability of the Inuit culture.

Both policies call for strengthening international cooperation, and the ICC completely agrees with these objectives and is an active participant in the Arctic Council and other international forums.

The 2009 policy calls for involving Arctic indigenous communities in decisionmaking, and the 2013 Arctic Strategy takes this objective one step further in calling for consultation and coordination with Alaska Natives. The ICC appreciates the more specific and meaningful approach taken to working with the indigenous people of the Arctic in the 2013 Strategy. However, the ICC also recognizes that consultation with indigenous communities varies greatly, depending on the agency and must be meaningful to be effective.

The 2009 Security Directive calls for enhanced scientific monitoring and research, and the 2013 Arctic Strategy takes a similar approach in calling for decisions to be made using best available information. The ICC suggests that all Arctic scientific research include interaction with indigenous experts to capture traditional ecological knowledge.

In both policies, on paper it appears that the government's objectives are aligned with the objectives of the Inuit people; however, the best way to ensure that everyone's interests are properly considered is to communicate often. The ICC is committed to keeping all lines of communication open.

Most Inuit are coastal people who rely heavily on resources from the ocean for nutritional and cultural survival. The Inuit are a hunting society and are extremely concerned about the health of the ocean ecosystem, along with birds, fish, and animals that need a clean and healthy habitat to thrive. Despite adapting to the modern world, hunting still defines the Inuit people, who are concerned regarding food security in these times of global climate change and the rapid industrialization of the Arctic.

The ICC believes food security should be the standard against which all development should be measured. If a proposed development threatens food security, it should not be allowed to proceed until all concerns are adequately addressed. A clean ecosystem with healthy, abundant flora and fauna is the best indicator that any particular type of economic development is sustainable and wise.

III. The Inuit and Development

The ICC is not opposed to sustainable development, especially if cultural sustainability is incorporated into the process. It is evident to all that Arctic development will occur, the planet is warming, and permanent sea ice and permafrost are melting. We can see it with our own eyes—our world and that of other people in the Arctic region is on the verge of being turned upside-down, and we must calculate how to manage this development as we adapt to climate changes.

In the summer of 2010, the ICC held its general assembly in Nuuk, Greenland. At this gathering, it was evident that there were differences of opinions among the Inuit on three issues:

- Offshore oil and gas development;
- Mining, particularly uranium mining; and
- The environmental and social impact assessment process.

In February 2011, the ICC hosted an Inuit Leaders Summit that resulted in a unified *Inuit Declaration on Resource Development Principles*.

The Declaration sets out basic principles that we hope will lead to responsible, sustainable development. Arctic development must bring tangible and long-lasting benefits to the Inuit people, while avoiding any degradation of the healthy ecosystems.

These are frightening yet exciting times. As we look out to the sea to study the approaching prospects, we see great opportunities and great risks on the horizon. We must get things done right the first time, as we have learned from our ancestors and our own experiences. In the Arctic, one does not get too many second chances—that is a truth we want to share with our children and grandchildren as the Inuit continue to live and thrive in the North.

A R T I C L E S

Understanding the Government-to-Government Consultation Framework for Agency Activities That Affect Marine Natural Resources in the U.S. Arctic

by Greta Swanson, Kathryn Mengerink, and Jordan Diamond

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Summary

Alaska Natives work with the federal government in managing resources in the Arctic. Federal consultation with tribes is one of the ways that such cooperative management can be achieved. Existing federal-level policies require consultation with tribes when federal agencies make decisions affecting tribal interests in Alaska. Taking into account the unique circumstances for tribes in Alaska, it is necessary to explore existing consultation policies and procedures, highlighting those that strengthen the underlying framework and how consultation occurs in practice.

I. The Role of Federal Government Consultation With Alaska Native Tribes

A. The Need for Collaborative Governance With Alaska Native Communities

The U.S. Arctic is home for many Alaska Natives—federally recognized tribal members who have specific rights to resources and rights to collaborate in federal decisionmaking. Laws, regulations, memoranda, and policies help to frame the trust responsibilities of federal agencies to tribes, and call upon federal agencies to work collaboratively with Alaska Native communities when making decisions that affect them. Just as important, federal agencies have much to gain by working with Alaska Native communities. As holders of traditional ecological knowledge (TEK), many members of Alaska Native communities can help federal agencies make better informed decisions about how to manage resources in a highly dynamic, isolated, and extreme environment in a way that also protects the lives and livelihoods of the Arctic communities.

This Article explores the legal and policy mechanisms available for federal agencies to formally work with Alaska Native communities in managing ocean and coastal resources. In Part I, the authors provide an overview of the need for consultation and the legal and policy framework designed to enable it. In Part II, the authors discuss the trust relationship that underpins consultation requirements, and Executive Order No. 13175, Consultation and Coordination With Indian Tribal Governments (EO 13175),¹ which details consultation requirements. The section also discusses statutory protections for subsistence resources for tribes and requirements for tribal participation in decisionmaking. Part III summarizes the elements of consultation as identified by EO 13175 and other recommendations. Part IV compares agency policies based on the elements of consultation identified in Part III.

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1. Consultation and Coordination With Indian Tribal Governments, Exec. Order No. 13175 of Nov. 6, 2000, 65 Fed. Reg. 67249, §3 (Nov. 9, 2000).

B. Understanding the Legal Framework for Alaska Native Communities

Alaska Native communities are represented by an array of entities authorized by tribal, state, and federal governments. These entities have both explicit and potential roles to play in managing subsistence resources and engaging in the consultation process. While the legal authorities relating to such entities are addressed throughout this Article, it is useful to summarize the key ones at the outset in order to understand the immense complexity of government-to-government consultation in the U.S. Arctic.

At the smallest level of organization is the individual village, which can range from tens of people to a few thousand in size. Each Alaska Native village is designated as a federally recognized tribe—in all, this includes 229 tribes (Figure 1).² Each village has a tribal government, and 200 of the villages have a village corporation. A village also may have a local and/or regional government under state law (e.g., Barrow, Alaska, is home to the North Slope Borough).

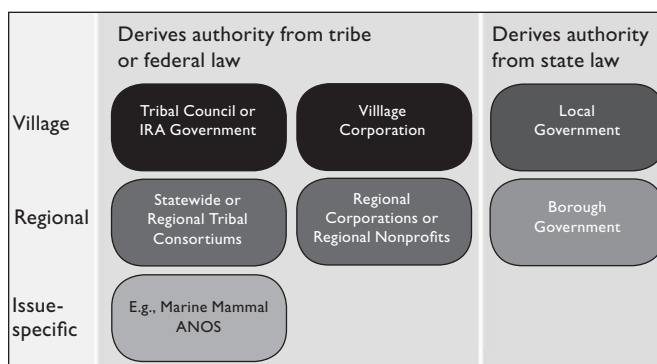
A larger unit of organization occurs at the regional level, which varies in size and organization based on the entity. At the regional level, Alaska Native communities are divided into 12 geographic regions that have corresponding regional nonprofit associations and regional corporations (there is also a 13th corporation for nonresident Alaska Natives).³ The Alaska Native Claims Settlement Act (ANCSA) issued 44 million acres to the regional corporations. Out of this land, village corporations selected land within and near the village to which they own the surface rights. The regional corporations retained the rights to subsurface resources under village corporation land, as well as surface and subsurface rights to the remaining regional corporation land. The regional nonprofit Alaska Native associations provide health and environmental services for the tribes within the region.

Another type of organizational structure is by issue. Among these, a variety of co-management bodies are authorized by Alaska Native tribes and/or federal law to represent tribal interests in managing subsistence resources. Known as Alaska Native organizations (ANOs) under the Marine Mammal Protection Act (MMPA),⁴ these co-management bodies include, for example, the following: Alaska Eskimo Whaling Commission (AEWC); Eskimo Walrus Commission; Nanuq Commission; Ice Seal Committee; and the Alaska Beluga Whale Committee, among others. Another regulatory authority establishes the co-manage-

ment structure of the Alaska Migratory Bird Co-Management Council.

At the state or broader level of organization, some state and even international entities bring together leaders to discuss Alaska Native interests. For example, the Indigenous People’s Council for Marine Mammals is comprised of 17 marine mammal commissions, and the Alaska Federation of Natives is a statewide entity with members representing villages, Alaska Native corporations, regional nonprofits, and other Alaska Native groups.

Figure 1. Alaska Native Entities Potentially Relevant to Consultation



All of these types of institutions may have a role to play in the consultation process. Specifically, government-to-government consultation can occur with representatives of a few different entities: (1) tribal governments; (2) “authorized intertribal organizations,”⁵ which receive delegated consultation authorities from tribes; and (3) Alaska Native corporations. For the purpose of this Article, the authors focus on consultation between the federal government and federally recognized tribes or authorized intertribal organizations. Legal mandates for consult with Alaska Native corporations are not explored in detail.⁶

C. Consultation Is One Form of Participatory Governance

Government-to-government consultation is one element of a broader Alaska Native-federal government framework of collaborative and participatory governance. This framework includes a spectrum of participatory activities ranging from information-sharing and public notice-and-comment processes to consultation and co-management.

Information-sharing and public notice and comment are broad mechanisms that include all stakeholders and

2. See *infra* notes 13 and accompanying text.

3. See *infra* notes 38-41 and accompanying text. Note that regional nonprofits are arms of regional corporations.

4. 16 U.S.C. §§1361-1421h, ELR STAT. MMPA §§2-410.

5. EO 13175, §§1(d), 5.

6. Pub. L. No. 108-199, 118 Stat. 452, as amended by Pub. L. No. 108-447, 118 Stat. 3267.

government bodies. For example, public commenting in the context of notice-and-comment rulemaking is a basic requirement of the Administrative Procedure Act and other federal laws that allow anyone, including Alaska Natives, to provide input into a decisionmaking process.⁷

Other participatory and collaborative processes, including consultation and co-management, reflect the special status of federally recognized tribes as domestic dependent nations. As reviewed in this Article, consultation requires a higher level of information exchange and collaboration than public notice-and-comment requirements. Co-management typically requires greater involvement still, involving collaborative research and actions under co-management agreements.

These diverse processes create different ways for Alaska Natives to engage in federal decisionmaking, which can be beneficial. However, the number of different mechanisms can also muddle both community and agency understanding of the individual processes and how one is similar to or different from another.

This Article addresses the meaning of consultation and the policies that implement it in order to better clarify consultation procedures and requirements.

II. The Trust Relationship and Alaska Native Involvement in Decisionmaking

A. The Federal Trust Responsibility

The Bureau of Indian Affairs notes that

[t]he federal Indian trust responsibility is . . . a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes and villages.⁸

The federal government's trust responsibilities developed out of the history of the federal government's treaty-making with tribes.⁹ In part, because tribes were often at a disadvantage when making treaties with the U.S. government, the U.S. Supreme Court and lower courts have interpreted treaties by resolving unclear language in favor of tribes.¹⁰ This interpretation also applies to statutes, and the Supreme Court has ruled that "statutes passed for the benefit of the dependent Indian tribes or communities are to

be liberally construed, doubtful expressions being resolved in favor of the Indians."¹¹ However, federal agencies must balance these trust responsibilities with other federal mandates, including protection of the environment and federal lands and waters¹² and other statutory duties.

Consultation requirements derive from this fundamental trust responsibility of the U.S. government to protect Native American rights and resources. Over 80,000 Alaska Natives are members of the 229 designated federal Indian tribes in Alaska,¹³ and thus encompassed within consultation directives.

B. Executive Policies Related to Tribal Consultation and Coordination

In 2000, President William J. Clinton issued EO 13175. The Order establishes consultation requirements for all federal agencies, recognizing that Native American tribes are considered domestic dependent nations with inherent sovereign powers recognized by the U.S. Constitution, treaties, statutes, executive orders, court decisions, and policies.¹⁴

To ensure that the federal government satisfies its trust duties, the Executive Order establishes criteria to be applied when a federal agency is "formulating and implementing policies that have tribal implications."¹⁵ The EO defines "[p]olicies that have tribal implications" as "regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes."¹⁶

7. Public comments are also required by some individual statutes, such as the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, or MSA), Pub. L. No. 94-265, as amended by Pub. L. No. 109-479, 16 U.S.C. §§1801 et seq., and the Outer Continental Shelf Lands Act (OCSLA), Pub. L. No. 106-580, 43 U.S.C. §§1301 et seq.

8. U.S. Department of the Interior, Bureau of Indian Affairs, *Frequently Asked Questions*, <http://www.bia.gov/FAQs/index.htm> (last visited July 18, 2013).

9. Rebecca Tsosie, *The Conflict Between the "Public Trust" and the "Indian Trust" Doctrines: Federal Public Land Policy and Native Nations*, 39 TULSA L. REV. 271 272-74 (2003) (describing the origins of the Indian trust doctrine); see also *Seminole Nation v. United States*, 316 U.S. 286, 296-97 (1942).

10. See, e.g., *Winters v. United States*, 207 U.S. 564 (1908); see also *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172, 29 ELR 20557 (1999).

11. *Alaska Pacific Fisheries Co. v. United States*, 248 U.S. 78, 79 (1918).

12. Tsosie, *supra* note 9 (advocating consultation and co-management as a way to resolve potential conflicts); Mary Turnipseed et al., *Legal Bedrock for Rebuilding America's Ocean Ecosystems*, 324 SCI. 183 (2009) (discussing federal public trust obligations).

13. See, e.g., Office of American Indian Trust, Department of the Interior, Departmental Manual Part 512, ch. 2, Departmental Responsibilities for Indian Trust Resources. The U.S. Department of the Interior publishes a list of federally recognized sovereign tribes, which includes 227 Native Alaskan tribes and villages. 25 U.S.C. §479a; 77 Fed. Reg. 47868 (Aug. 10, 2012). An *Indian tribe* is "Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. §479a." EO 13175, *supra* note 1, §1(b). See also Department of the Interior, Indian Entities Recognized and Eligible to Receive Services From the United States Bureau of Indian Affairs, 75 Fed. Reg. 60810 (Oct. 1, 2010).

14. Specifically, EO 13175 states that

[t]he United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. Since the formation of the Union, the United States has recognized Indian tribes as domestic dependent nations under its protection. The Federal Government has enacted numerous statutes and promulgated numerous regulations that establish and define a trust relationship with Indian tribes.

EO 13175, §3, *supra* note 1.

15. EO 13175, *supra* note 1.

16. *Id.* §1(b).

When developing policies that have tribal implications, EO 13175 calls upon federal agencies¹⁷ to recognize the unique legal relationship with Indian tribes as domestic dependent nations; to work with Indian tribes on a government-to-government basis; and to acknowledge the right of Indian tribes to self-government and tribal self-determination. As recognized by the EO, federal statutes and regulations “establish and define a trust relationship,” and it is a fundamental principle of the federal government to “work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, tribal trust resources, and Indian tribal treaty and other rights.”¹⁸

EO 13175 defines a general consultation requirement for agencies. When developing regulatory policies with tribal implications, each agency must have “an accountable process to ensure meaningful and timely input by tribal officials.”¹⁹ The consultation process is to be carried out with “tribal officials,” defined as “elected or duly appointed officials of Indian tribal governments or authorized intertribal organizations.”²⁰ Furthermore, agencies are required to designate an official tasked with implementing the EO, and to submit a description of the agency’s consultation process to the Office of Management and Budget (OMB).

The Executive Order establishes additional specific requirements under three different circumstances in which the federal government’s actions have implications for tribes: (1) formulating and implementing policies; (2) creating legislative proposals; and (3) developing regulations.

- (1) For formulating and implementing policies with tribal implications—which include policies, regulations, and legislation—EO 13175 outlines certain policymaking criteria: the federal government must encourage tribes to develop their own policies; defer to tribal standards when possible; and consult with tribal officials when determining whether to establish federal standards.²¹
- (2) When creating legislative proposals, agencies are to satisfy the same procedures as required for formulating policies with tribal implications, and to certify to OMB that the EO requirements have been met.
- (3) When developing regulations that have tribal implications and either (a) impose unfunded costs on tribal governments not required by statute (and the agency has not paid the costs) or (b) preempt tribal law, the agency, to the extent practicable and permitted by law, must consult with tribal officials early in

the process of developing the proposed regulation, as well as satisfy the criteria for formulating and implementing policies.²² When publishing such final regulations, the agency must document the consultation with a “tribal summary impact statement” in the *Federal Register* and show the extent to which the agency has met the concerns of tribal officials.²³ Additional requirements include that the agency must provide OMB with copies of written communication between tribes and agencies.²⁴ Further, when the consultation concerns issues that relate to tribal self-government, tribal trust resources, or Indian tribal treaty or other rights, agencies should “explore, and where appropriate, use” consensual decisionmaking mechanisms (including negotiated rulemaking).²⁵

Almost one decade after EO 13175 was issued, President Barack Obama revived the Order in November 2009, when he released a memorandum requiring agencies to develop detailed plans of action to implement EO 13175.²⁶ Agencies were directed to draft plans within 90 days of the issuance of the memorandum, to submit progress reports on the plans to OMB by August 2, 2010, and to submit annual progress reports thereafter. Departments and agencies were to consult with Indian tribes and tribal officials to develop the action plans²⁷ and to designate an agency official to coordinate implementation plans and progress reports.

In July 2010, OMB issued guidance to clarify agency requirements for consultation and progress reports, and to update earlier guidance on EO 13175. One of the issues that the OMB Guidance addresses is the role of the tribal consultation official, who has the “principal responsibil-

22. This specific process applies only when developing “regulations.” EO 13175, *supra* note 1, §5(b). However, the requirement to consult, guided by the agency’s plan or policy for consultation, applies to all “regulatory policies” that have tribal implications. §5(a).

23. §5(b) and (c). The National Marine Fisheries Service (NMFS) has included a tribal impact summary statement for two final fisheries rules in 2010. *See* Fisheries of the Exclusive Economic Zone Off Alaska; Chinook Salmon Bycatch Management in the Bering Sea Pollock Fishery, 75 Fed. Reg. 53026 (Aug. 30, 2010) (final rule); Fisheries of the Exclusive Economic Zone Off Alaska; Bering Sea Subarea, 75 Fed. Reg. 41123 (July 15, 2010) (proposed regulations); Fisheries of the Exclusive Economic Zone Off Alaska; Chinook Salmon Bycatch Management in the Bering Sea Pollock Fishery, 75 Fed. Reg. 14016 (Mar. 23, 2010) (proposed regulations); and Fisheries of the Exclusive Economic Zone Off Alaska; Modified Nonpelagic Trawl Gear and Habitat Conservation in the Bering Sea Subarea, 75 Fed. Reg. 61642 (Oct. 6, 2010) (final rule).

24. EO 13175, *supra* note 1, §5(b) and (c).

25. *Id.* §5(d). The Negotiated Rulemaking Act of 1996, 5 U.S.C. §§501 et seq., applicable to all agencies, defines “negotiated rulemaking,” as “rulemaking through the use of a negotiated rulemaking committee” (§502(6)), which is in turn defined as “an advisory committee established by an agency in accordance with this subchapter and the Federal Advisory Committee Act to consider and discuss issues for the purpose of reaching a consensus in the development of a proposed rule” (§502(7)). Consensus means “unanimous concurrence among the interests represented on a negotiated rulemaking committee,” unless the committee defines it differently (§502(2)).

26. Presidential Memorandum for the Heads of Executive Departments and Agencies on Tribal Consultation (Nov. 5, 2009), *available at* <http://www.whitehouse.gov/the-press-office/memorandum-tribal-consultation-signed-president>.

27. *Id.* at 1.

17. “Agencies” are defined as “any authority of the United States that is an ‘agency’ under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(5).” *Id.* §1(c).

18. *Id.* §2.

19. *Id.* §5(a).

20. *Id.* §1(d).

21. *Id.* §3.

ity for the agency's implementation" of the Executive Order. It calls upon agency tribal consultation officials to "assure that the agency program personnel have considered the fundamental principles and policymaking criteria stated in [the EO] in formulating or implementing policies, and in the development of legislative proposals, that have tribal implications."²⁸ Although EO 13175 "is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law,"²⁹ the OMB Guidance states that the tribal consultation official must certify that the Executive Order requirements are met "in a meaningful and timely manner" when submitting draft regulations to OMB.³⁰ Although tribal beneficiaries do not have the right to enforce the consultation policies of the Executive Order in court, the Executive Order is a mandate to agencies to fulfill trust obligations in part through consultation.

Until 2010, the consultation requirements only applied to federal decisions that could impact Indian tribes.³¹ Through a provision in a 2010 omnibus bill, the requirement for OMB and agencies to consult with tribes under EO 13175 was explicitly extended to include Alaska Native corporations, and the OMB Guidance calls for all federal agencies to consult with Alaska Native corporations "on the same basis as Indian tribes."³² It may be noted that the corporations, as for-profit entities, may or may not have interests consistent with tribal interests. Further, because village corporations own only the surface rights to their land, while regional corporations own the subsurface rights, there may be conflicting interests between the village and regional corporations.

C. The Trust Relationship and Alaska Native Rights to Subsistence Resources

Satisfying tribal trust responsibilities through government-to-government consultation is uniquely challenging in Alaska. This is due, in part, to issues involving the extent of tribal rights to subsistence resources retained by Alaska Natives, the number of designated tribes, the structure of the Alaska Native governance framework, the

remote location and difficulty of reaching Alaska Native villages, and the myriad laws designed to manage use of key trust resources.

As discussed in the previous section, all federal agencies are to consult with tribal officials on federal policy, regulatory, or legislative actions that may have substantial effects on tribes, their relationship with the federal government, or the distribution of power between tribes and the federal government. A particularly important issue for Alaska Native communities, and one that often triggers federal-tribal consultation, is the protection of subsistence fishing and hunting practices and resources. Several statutes protect Alaska Native subsistence rights to marine and other living resources, in particular through provisions that exempt Alaska Natives' subsistence harvest from prohibitions on take. These provisions are described in this section.³³

As explained in Secretarial Order 3206, which sets out the tribal obligations of the Secretaries of the U.S. Departments of the Interior (DOI) and Commerce (DOC) under the Endangered Species Act (ESA),³⁴ "tribal trust resources" are defined as "natural resources, either on or off Indian lands, retained by, or reserved by or for Indian tribes through treaties, statutes, judicial decisions, and executive orders, which are protected by a fiduciary obligation on the part of the United States."³⁵ Based on this definition, those subsistence resources to which Alaska Natives have legal hunting and fishing rights are among the "tribal trust resources."³⁶ Therefore, the federal government's trust responsibility to Alaska Native tribes requires government-to-government consultation when a federal agency takes actions that may affect subsistence resources.³⁷

28. Peter Orszag, Memorandum for the Heads of Executive Departments and Agencies, and Independent Regulatory Agencies on Guidance for Implementing E.O. 13175, "Consultation and Coordination With Indian Tribal Governments," 2-3 (July 30, 2010) [hereinafter OMB Guidance].

29. EO 13175, *supra* note 1, §10 (Judicial Review).

30. OMB Guidance, *supra* note 28, at 4.

31. EO 13175, *supra* note 1, §1(b).

32. OMB Guidance, *supra* note 28. The memorandum stated that pursuant to Pub. L. 108-199, 118 Stat. 452, as amended by Pub. L. 108-447, 118 Stat. 3267, OMB and all Federal agencies are required to "consult with Alaska Native corporations on the same basis as Indian tribes under Executive Order No. 13175." SEC. 161. The Consolidated Appropriations Act requires that [t]he Director of the Office of Management and Budget shall hereafter consult with Alaska Native corporations on the same basis as Indian tribes under Executive Order No. 13175.

Consolidated Appropriations Act, 2004, Pub. L. No. 108-199, Div. H. Sec. 161, 118 Stat. 3, 452 (2004), as amended by Consolidated Appropriations Act, 2005, Pub. L. No. 108-447, Div. H., Title V. Sec. 518, 118 Stat. 2809, 3267 (2004).

33. The authors provide a more extensive exploration of the information summarized here about Alaska Native marine subsistence hunting and fishing rights and the existing and potential management roles for Alaska Natives in a forthcoming paper in the *Fla. A&M U. L. Rev.* (forthcoming 2013).

34. 16 U.S.C. §§1531-1544, ELR STAT. ESA §§2-18.

35. Secretarial Order 3206, American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act (June 5, 1997), issued by the Secretary of the Interior and the Secretary of Commerce.

36. Secretarial Order 3225 is an Alaska-specific DOI Order that supplements Secretarial Order 3206 by expanding the recognized tribes to include Annette Island Reserve, which is a formally designated Indian reservation. The order also expands upon the consultation policy for DOI. DOI, Secretarial Order 3225, Endangered Species and Subsistence Uses in Alaska (supplement to Secretarial Order 3206) (Jan. 19, 2001).

37. See *Klamath Tribes v. United States*, 1996 WL 924509 (D. Or. Oct. 2, 1996) (consultation required before sale of timber from tribal land "to avoid adverse effects on treaty resources"); *Yakima Nation v. U.S. Dept. of Agric.*, 2010 WL 3434091 (E.D. Wash. Aug. 30, 2010) (requiring consultation before placing landfill next to tribal lands, because would interfere with tribe's treaty-protected hunting, gathering, and fishing rights); *Quechan Tribe of Fort Yuma Indian Reservation v. U.S. Dept. of Interior*, 755 F. Supp. 2d 1104 (S.D. Cal. 2010) (requirements under the National Historic Preservation Act); *California Wilderness Coalition v. U.S. Dept. of Energy*, 631 F.2d 1072 (9th Cir. 2011) (Energy Policy Act requirements to consult in developing electrical transmission congestion studies); cf. *Center for Biological Diversity v. Salazar*, slip op. 2011 WL 6000497 (D. Ariz., Nov. 30, 2011) (in the context of a challenge to a DPS listing, the court found that, in contrast to other situations that involve tribal treaty rights or specific statutory or regulatory requirements, "Congress and Interior have not imposed such consultation obligations in the ESA context." Therefore, the court would not impose specific standards when statute or regulations did not specify them).

While the trust responsibility applies broadly, the contours of its application depend on the particular rights or statutes involved.³⁸ Regarding the subsistence rights of Alaska Natives, there are several relevant doctrines, statutes, and judicial decisions that outline subsistence rights and delineate the federal government's trust responsibilities. This section briefly reviews these rights and authorities.

The 1958 Alaska Statehood Act forbade the state from taking lands held by Alaska Natives under aboriginal title, under legally cognizable rights, or "by the United States in trust for said natives."³⁹ During the next decade, conflict developed over land title and native claims, especially with the discovery of oil on the North Slope, and Congress passed the ANCSA of 1971 to address these conflicts.⁴⁰ ANCSA created the current land tenure framework for Alaska Natives.⁴¹ As described previously, the Act established 13 for-profit regional native corporations and 200 smaller village corporations.⁴² The Act extinguished all land claims based on aboriginal use, right, or title and all aboriginal hunting and fishing rights in Alaska. In exchange, village corporations could claim a prescribed amount of land in the area where their township was situated, proportional to the size of the village, but the rights of village corporations are limited to the surface estate.⁴³ An additional 44 million acres was conveyed to regional corporations, which also own the subsurface resources under village corporation land.⁴⁴

The territorial scope of extinguished Alaska Native claims and rights is limited, in part, by the phrase "in Alaska."⁴⁵ Specifically, ANCSA provides that "[a]ll aboriginal titles, if any, and claims of aboriginal title *in Alaska* based on use and occupancy, *including* submerged land underneath all water areas, both inland and offshore, and *including* any aboriginal hunting or fishing rights that may exist, are hereby extinguished."⁴⁶ However, as courts have noted, ANCSA applies to state lands and state waters out to three miles, so Alaska Natives may retain aboriginal

hunting and fishing rights in federal waters and claims to the submerged lands on the outer continental shelf.⁴⁷

Although ANCSA formally extinguished aboriginal claims in Alaska, Congress intended that Alaska Natives maintain subsistence rights⁴⁸ and believed that the Secretary of the Interior had the power to and would protect those rights.⁴⁹ Congress subsequently passed the Alaska National Interest Lands Conservation Act (ANILCA), in part with the intent to protect Alaska Native subsistence rights.⁵⁰

Under ANILCA, special status is given to subsistence harvesting of wildlife on federal lands in Alaska.⁵¹ ANILCA provides that fish and wildlife taken on federal public land for non-wasteful subsistence purposes shall be afforded priority over the taking of fish and wildlife for all other purposes. It is important to note, however, that ANILCA does not apply to endangered species, marine mammals, migratory birds, marine fisheries, or marine invertebrates.⁵²

The Federal Subsistence Board administers the subsistence harvest of fish and wildlife on federal public lands in Alaska. It is made up of the U.S. Fish and Wildlife Service (FWS), National Park Service, Bureau of Land Management, Bureau of Indian Affairs, the U.S. Forest Service, and two rural representatives.⁵³ When making its decisions, the Federal Subsistence Board must give deference to the subsistence recommendations of the Regional Advi-

38. See *United States v. Mitchell*, 463 U.S. 206, 225 (1983) (federal trust relationship includes a general trust responsibility, specific statutory responsibilities, and a fiduciary relationship when the federal government manages tribal assets); Tsosie, *supra* note 9, at 276-77; *Gros Ventre Tribe v. United States*, 469 F.2d 801, 810 (9th Cir. 2006); *Shoshone-Bannock Tribes v. Reno*, 56 F.2d 1465, 1482 (D.C. Cir. 1995); *United States v. Jicarilla Apache Nation*, 131 S. Ct. 2313, 180 L. Ed. 2d 187 (2011) (common law of trusts did not require more than specific statutory provisions that asserted that fulfilled trust obligation to tribes); Curtis G. Berkey, *Rethinking the Role of the Federal Trust Responsibility in Protecting Indian Land and Resources*, 83 DENVER UNIV. L. REV. 1069 (2006).

39. Alaska Statehood Act, 48 U.S.C.A. ch. 2 §4 (1958).

40. JAMES D. LINXWILER, ALASKA NATIVE CLAIMS SETTLEMENT ACT AT 35: DELIVERING ON THE PROMISE, PAPER 12 53RD ANNUAL ROCKY MOUNTAIN MINERAL LAW INSTITUTE (2007), available at <http://www.lbbllawyers.com/ANCSA%20at%2035%20Delivering%20on%20the%20Promise%20Proof%2010-25-07.pdf>.

41. 43 U.S.C.A. §1621(c).

42. 43 U.S.C.A. §1606.

43. 43 U.S.C.A. §1607.

44. 43 U.S.C.A. §1611 (b).

45. Public Lands Act, 43 U.S.C. §1603(b).

46. Emphasis added. Public Lands Act, 43 U.S.C. §1603(b).

47. *Amoco Production Co. v. Gambell*, 480 U.S. 531, 533, 17 ELR 20574 (9th Cir. 1987). The U.S. Court of Appeals for the Ninth Circuit has held that ANCSA did not extinguish any preexisting aboriginal rights on the outer continental shelf (*Village of Gambell v. Hodel*, 869 F.2d 1273, 19 ELR 21150 (9th Cir. 1989)), and Supreme Court decisions hold that the reserved rights doctrine applies (*United States v. Winans*, 198 U.S. 371 (1905); *Winters v. United States*, 207 U.S. 564 (1908)). The reserved rights doctrine states that any rights not explicitly granted by a tribe to the federal government are reserved by that tribe. This doctrine supports Alaskan Natives' rights to marine subsistence resources where they have not otherwise been limited. See *Amoco Production*, 480 U.S. 531. Under the ESA, the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit has found a federal trust responsibility to protect Alaska Natives' subsistence resources, although the responsibility was discharged by carefully taking into account the needs of the Alaska Natives under the statute. *North Slope Borough v. Andrus* 486 F. Supp. 332, 10 ELR 20115 (D.D.C. 1980), *affid in part and revid in part*, 642 F.2d 589, 614, 10 ELR 20832 (D.C. Cir. 1980).

48. DAVID S. CASE & DAVID A. VOLUCK, ALASKA NATIVES AND AMERICAN LAWS, 291-92 (3d ed. 2012) ("Congress viewed neither the extinguishment of hunting and fishing rights nor the absence of specific subsistence provisions as the end of Alaska Native subsistence interests") (citing H.R. CONF. REP. NO. 92-746, 92d Cong., 1st Sess. (Dec. 14, 1971)).

49. See H.R. CONF. REP. NO. 92-746, at 24 (1971), reprinted in 1971 U.S.C.C.A.N. 2247, 2250. ("The conference committee, after careful consideration, believes that all Native interests in subsistence resource lands can and will be protected by the Secretary through the exercise of his existing withdrawal authority.") (cited in Jack McGee, *Subsistence Hunting and Fishing in Alaska: Does ANILCA's Rural Subsistence Priority Really Conflict With the Alaska Constitution?*, 27 ALASKA L. REV. 221, 228 (2010); Regina M. Cutler, *A Question of Trust: The Role of Alaskan Native Tribes in Natural Resource Damage Action*, p. 24 (2000), available at <http://www.msaj.com/papers/alaska.htm>; S. CONF. REP. NO. 481, 92d Cong., 1st Sess. (1971); H.R. CONF. REP. NO. 746, 92d Cong., 1st Sess. (1971)).

50. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, §§801, 802 (1980). ANILCA's language applies generally to all rural Alaskans.

51. 16 U.S.C.A. §3114.

52. 16 U.S.C.A. §3125.

53. 36 C.F.R. §242.10.

sory Councils, made up of 70% rural subsistence, typically tribal, representatives.⁵⁴

In addition to subsistence rights under ANILCA, other federal laws, such as the ESA, the MMPA, and the Migratory Bird Treaty Act, have provisions that protect Alaska Native subsistence rights. These rights include rights to resources and, in some instances, rights to share management responsibilities with the federal government. International instruments, and U.S. statutes that help implement them, also recognize the rights of Alaska Natives to subsistence resources. Among these resources are fur seals, migratory birds, polar bears, and bowhead whales; Alaska Natives also have the rights to share management responsibilities for the resources. The following section provides a brief overview of these laws and their subsistence provisions.

The **ESA** generally prohibits the taking of endangered and threatened species in the United States. It, however, provides an exemption for Alaska Native subsistence harvest.⁵⁵ Any Alaska Native, or non-native who permanently resides in an Alaskan village, is exempt from the prohibition on the take of endangered species, as long as the take is for subsistence purposes and is not accomplished in a wasteful manner.⁵⁶ Subsistence use is defined to include the sale of edible products sold for native consumption in native villages and towns in Alaska.⁵⁷ An exemption for non-edible byproducts, made into native handicrafts, allows them to be sold in interstate commerce.⁵⁸ Restrictions on take can only be imposed if the protected species in question is being negatively affected by subsistence harvest.⁵⁹ Such regulations must be preceded by public notice and hearings, and must be removed once it is determined that the regulations are no longer needed.⁶⁰

The **MMPA** imposes a moratorium on the take of all marine mammals and importation of their products, with some exceptions.⁶¹ One exemption from the prohibition on take is for Alaska Native subsistence harvests of marine mammals.⁶² Any Alaska Native who dwells along the coast of the North Pacific or the Arctic Ocean is exempt from the moratorium on the taking of marine mammals, and may take marine mammals for subsistence consumption⁶³ and to create native articles of handcraft, if the resources

are harvested in a non-wasteful manner.⁶⁴ The MMPA provides that edible portions of marine mammals may be sold in native villages and towns for native consumption and that native handicrafts may be sold in interstate commerce.⁶⁵ Regulations may be imposed if the Secretary decides a stock of marine mammal is becoming depleted.⁶⁶

The MMPA also includes a provision for cooperative marine mammal management between the federal government and Alaska Native organizations.⁶⁷ A related memorandum of agreement provides that individual agreements will include funding terms, but that funding is subject to the availability of agency appropriations.⁶⁸

The **Migratory Bird Treaty Act** protects migratory birds by prohibiting, subject to regulation, activities that include hunting, killing, possessing, transporting, selling, importing, and exporting certain migratory birds.⁶⁹ The Act includes several seabirds and shorebirds found in Alaska.⁷⁰ Hunting is permitted by regulation during fall and winter, but prohibited during the summer. In 1978, the Act was amended to allow Alaska Natives within subsistence areas to continue their traditional subsistence harvest of migratory birds and their eggs during the closed summer season,⁷¹ subject to regulation by the Secretary of the Interior.⁷²

A treaty protocol with Canada, which the U.S. Senate approved in 1997, authorized co-management of the subsistence harvest with Alaska Natives, whose representatives were to be given “an effective and meaningful role” in conservation of migratory birds, and development of subsistence harvest regulations.⁷³ The Alaska Migratory Bird Co-Management Council, formed in 2000 and authorized by the protocol, develops proposed subsistence regulations. It consists of Alaska Natives and federal and state representatives who work together as equals to develop proposed regulations and guidelines governing subsistence harvest of migratory birds.⁷⁴

54. The Regional Advisory Councils also have a role under §810(a) of ANILCA. Before a federal agency disposes of land, it must give notice to local committees and regional councils, as well as state agencies, and hold a hearing in the area of the proposed action. In its final decision, the agency must determine that any restriction of subsistence uses is necessary and consistent with “sound management practices” and involves the minimum impact on public lands and it must take steps to minimize adverse impacts on subsistence uses. 16 U.S.C. §3120(a).

55. ESA, 16 U.S.C. §§1538-39.

56. 16 U.S.C.A. §§1539(e)(1)-(2).

57. 16 U.S.C.A. §1539(e)(3)(i).

58. 16 U.S.C.A. §1539(e)(1)(B).

59. 16 U.S.C.A. §1539(e)(4).

60. *Id.*

61. MMPA, 16 U.S.C. §§1371-72.

62. 16 U.S.C.A. §1371(b).

63. 16 U.S.C.A. §1371(b)(1).

64. 16 U.S.C.A. §1371(b)(2).

65. *Id.*

66. 16 U.S.C.A. §1371(b)(3).

67. 16 U.S.C.A. §1388(a): “The Secretary may enter into cooperative agreements with Alaska Native organizations to conserve marine mammals and provide co-management of subsistence use by Alaska Natives.”

68. Memorandum of Agreement for Negotiation of Marine Mammal Protection Act Section 119 Agreements Among the U.S. Department of Commerce, National Marine Fisheries Service, the Department of the Interior, Fish and Wildlife Service and the Indigenous Peoples Council for Marine Mammals, Section VI, p. 7, provides that “Funding for individual agreements will be obligated under agreements executed under section 119 of the Marine Mammal Protection Act.”

69. 16 U.S.C.A. §703.

70. 50 C.F.R. §10.13.

71. 50 C.F.R. §93.3.

72. 16 U.S.C.A. §712.

73. Historical Timeline, Alaska Migratory Bird Co-Management Council, available at <http://alaska.fws.gov/ambcc/ambcc/Historical%20Timeline.pdf>, Protocol Between the Government of the United States of America and the Government of Canada Amending the 1916 Convention Between Great Britain and the United States of America for the Protection of Migratory Birds in Canada and the United States (1996), art. II(4)(2)(b)(ii).

74. 50 C.F.R. §92.10.

The **Fur Seal Act**,⁷⁵ which generally prohibits the taking of fur seals in the North Pacific,⁷⁶ allows Indians, Aleuts, and Eskimos to take fur seals for subsistence purposes and by traditional means.⁷⁷

Polar bear take and management is governed by a few laws and treaties. It is a marine mammal, so take is managed in accordance with the MMPA and it is listed as a threatened species under the ESA. Further, the International Agreement on the Conservation of Polar Bears⁷⁸ allows parties to exempt taking “by local people using traditional methods in the exercise of their traditional rights and in accordance with the laws of that Party.”⁷⁹ An agreement between the United States and Russia⁸⁰ establishes a United States-Russia Polar Bear Commission and calls for an Alaska Native to be included as one of two members of the U.S. delegation.⁸¹ In implementing this treaty, §119 of the MMPA gives the Alaska Nanuuq Commission (the ANO representing 15 villages in the management of polar bears) authority to co-manage polar bears.

The **International Convention for Regulation of Whaling** allows “aboriginal subsistence whaling” within agreed-upon catch limits in the Bering, Chukchi, and Beaufort Seas as codified in the Schedule to the International Convention for Regulation of Whaling.⁸² The U.S. Whaling Convention Act requires compliance with the International Convention, and regulations lay out the framework for subsistence harvest of bowhead whales.⁸³ The regulations grant the “relevant Native American whaling organization” the authority to allocate quotas, monitor the hunt, and tally whale strikes and landings.⁸⁴ It also requires reporting by whaling captains and the whaling organization.

The recognition of Alaska Native subsistence rights by these statutes and treaties indicates that Alaskan tribal trust resources include subsistence resources. It is these rights to resources that trigger government-to-government consultation when federal agencies plan actions that could affect the resources.

D. *Examples of Consultation Requirements and Other Opportunities for Collaboration*

Consistent with the trust responsibilities of the federal government to protect Alaska Natives’ rights to subsistence, policies or regulations under the ESA, the MMPA, the Outer Continental Shelf Lands Act (OCSLA) (with regard to alternative energy development), and the National Historic Preservation Act require tribal consultation at particular points in decisionmaking. Several statutes also require public participation processes beyond the mandates of the Administrative Procedure Act, to accommodate the interests of the public or particular governing units, which can include tribes. This section describes some of the legal requirements for agency engagement with Alaska Natives during decisionmaking, to provide context for understanding the consultation framework.⁸⁵

I. The National Environmental Policy Act

The National Environmental Policy Act (NEPA)⁸⁶ is a procedural law requiring agencies to conduct environmental impact statements for all major federal actions that are likely to significantly affect the human environment.⁸⁷ NEPA regulations allow for “cooperative consultation” with tribes.⁸⁸ These provisions support and could provide a procedural mechanism for consultation in the NEPA context, although they do not replace other mandates to consult. Agencies have consulted with tribes during the NEPA scoping process and reviewed the adequacy of consultations in environmental impact statements.

First, NEPA provides the opportunity for tribes to participate in the environmental assessment as cooperating agencies—meaning that tribes work side by side with the agency to conduct the environmental review.⁸⁹ In its declaration of policy, NEPA states that its environmental goals are to be achieved “in cooperation with State and local governments, and other concerned public and pri-

75. Fur Seal Act, 16 U.S.C. §§1151-1187.

76. 16 U.S.C. §1152.

77. 16 U.S.C. §1153. Aleuts include the tribes of the Aleutian Islands in Alaska. Eskimos include the Yup’ik and Inuit people of northern Alaska.

78. 27 U.S.T. 3918 (Nov. 15, 1973).

79. Agreement on the Conservation of Polar Bears, Nov. 15, 1973, 27 U.S.T. 3918.

80. Agreement Between the Government of the United States of America and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population, in force Sept 23, 2007.

81. *Id.* art 8.

82. International Convention for the Regulation of Whaling, 1946: Schedule ¶ 13 (2011).

83. Title 50 C.F.R. §§230.1-230.8.

84. 50 C.F.R. §230.8.

85. As noted previously, the authors provide a more extensive discussion of this summary of Alaska Native roles in subsistence resource management in a forthcoming article in the *Fla. A&M U. L. Rev.* See *supra* note 33.

86. 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

87. 42 U.S.C. §§4331 et seq.

88. 40 C.F.R. §1501.1(b), which states that one purpose of agency planning is “[e]mphasizing cooperative consultation among agencies before the environmental impact statement is prepared rather than submission of adversary comments on a completed document.” This regulatory provision combined with the potential for a tribe to be designated as a “cooperating agency” (see *infra* note 87 and accompanying text) for the purpose of NEPA would create regulatory justification for including tribes as cooperating agencies and then consulting early in the NEPA process.

89. 40 C.F.R. §1508.5 states:

Cooperating agency” means any federal agency other than a lead agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. The selection and responsibilities of a cooperating agency are described in Sec. 1501.6. A State or local agency of similar qualifications or, when the effects are on a reservation, an Indian Tribe, may by agreement with the lead agency become a cooperating agency.

40 C.F.R. §1501 on NEPA and Agency Planning.

vate organizations.”⁹⁰ Before developing an environmental impact statement, action agencies must consult with those federal agencies that have relevant jurisdiction or expertise with respect to environmental impacts.⁹¹ The Council for Environmental Quality (CEQ) has promoted tribal involvement as cooperating agencies in memoranda to both agencies and tribal leaders.⁹²

The Bureau of Ocean Energy Management (BOEM) invited tribes to participate as cooperating agencies during the preparation of environmental impact statements, such as for the 2012-2017 five-year offshore oil and gas leasing program. However, actual tribal involvement in Alaska has been extremely limited.⁹³ NOAA worked with the AEWG as a cooperating agency for the recent bowhead whale quota environmental assessment.⁹⁴

Second, CEQ regulations governing the NEPA scoping process require that the agency will “[i]nvite the participation of . . . any affected Indian tribe,”⁹⁵ implying that tribes have the opportunity to become involved early on during the scoping stage. Further, agencies frequently use the scoping process as a framework for consulting with tribes and subsequently documenting that consultation.⁹⁶ Scoping is the first step in a NEPA process that is designed to help the agency frame the suite of issues that may be relevant in a NEPA analysis. Agencies may conduct government-to-government consultations during the scoping and public comment periods.⁹⁷ For example, the National Marine Fisheries Service (NMFS) notifies Alaskan Native tribes and organizations of the opportunity for consultation when it sends a notice of intent for scoping under NEPA and when it issues a draft environmental impact statement

for comments.⁹⁸ BOEM (and its predecessor agencies) has documented consultation in environmental impact statements.⁹⁹ Participation may be limited, however, in the case of certain federal actions affecting the environment that are exempt from NEPA requirements.¹⁰⁰

2. The Endangered Species Act

Although tribes are exempt from the ESA take prohibition, the Secretaries of the Interior and Commerce can regulate subsistence harvest if the take will materially and negatively affect a protected species.¹⁰¹ The Secretaries must provide notice and a hearing before imposing any regulations. DOI Secretarial Order 3225, which applies only in Alaska,¹⁰² requires the Secretary to seek the “full and meaningful participation in evaluating and addressing conservation concerns” of Alaska Natives, tribes, and other Native organizations whenever there are conservation concerns about an endangered or threatened species that Alaska Natives also use for subsistence.¹⁰³

Secretarial Order 3225 sets out requirements for consultation whenever the Secretary identifies conservation concerns related to subsistence species that are threatened or endangered or seeks to regulate subsistence take. Under the requirements, both FWS and NMFS (together, the Services)¹⁰⁴ are required to work collaboratively with Alaska Natives to achieve goals that include preserving Alaska Natives’ subsistence rights and minimizing adverse impacts on listed species. Engagement with tribes is to take place at several points in decisionmaking¹⁰⁵:

90. 42 U.S.C. §4331.

91. 42 U.S.C. §4332.

92. July 28, 1999, Memorandum for Heads of Federal Agencies on the Designation of Non-Federal Agencies to Be Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act; January 30, 2002, memorandum regarding “Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act”; a Memorandum for Tribal Leaders of February 4, 2002, further encouraged tribes to participate as cooperating agencies when they have legal jurisdiction or special expertise on relevant actions.

93. Notice of Intent to Prepare and Scope an Environmental Impact Statement (EIS) for the Outer Continental Shelf (OCS) Oil and Gas Leasing Program for 2012-2017 (Mar. 30, 2010), *available at* (<http://www.doi.gov/whatwedo/energy/ocs/upload/Scoping-For-5yr-Leasing-Program-on-OCS-2012-2017.pdf>). Bureau of Ocean Energy Management, *Outer Continental Shelf Oil and Gas Leasing Program, 2012-2017; Draft Programmatic Environmental Impact Statement*, 1-3 (Nov. 2011).

94. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Final Environmental Impact Statement for Issuing Annual Quotas to the Alaska Eskimo Whaling Commission for a Subsistence Hunt on Bowhead Whales for the Years 2013-2018 (January 2013).

95. 40 C.F.R. §1501.7(a)(1).

96. *See, e.g.*, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Bering Sea Chinook Salmon Bycatch Management, Final Environmental Impact Statement (Dec. 2009); OCS EIS/EA BOEMRE 2011-041, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 in the Chukchi Sea, Alaska, Final Supplemental Environmental Impact Statement, 315-19 (Aug. 2011).

97. *See, e.g.*, Bureau of Ocean Energy Management, Regulation and Enforcement, Alaska OCS Region, U.S. Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 in the Chukchi Sea, Alaska, *Revised Draft Supplemental Environmental Impact Statement*, OCS EIS/EA BOEMRE 2010-034, at 2.

98. NMFS, Alaska Region, Sustainable Fisheries Division, Tribal Consultation Process (2012), <https://alaskafisheries.noaa.gov/tc/> (last visited Aug. 14, 2013) [hereinafter Alaska SFD Consultation Process].

99. U.S. Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 in the Chukchi Sea, Alaska, *Revised Draft Supplemental Environmental Impact Statement*, *supra* note 89, at 2.

100. Section 7(c) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. §793(c)(1), exempts certain actions under the Clean Air Act from NEPA requirements. Second, the Clean Water Act exempts discharges from oil and gas exploratory activities from NEPA by excluding exploratory wells and activities from the definition of “new source.” Therefore, the NPDES permits do not require NEPA review.

101. 16 U.S.C. §1539(e)(4).

102. DOI, Secretarial Order 3225, *supra* note 36.

103. 16 U.S.C. §1538; §10(e) states in pertinent part:

Except as provided in paragraph (4) of this subsection the provisions of this Act shall not apply with respect to the taking of any endangered species or threatened species, or the importation of any such species taken pursuant to this section, by—(A) any Indian, Aleut, or Eskimo who is an Alaskan Native who resides in Alaska; or (B) any non-native permanent resident of an Alaskan native village; if such taking is primarily for subsistence purposes.

The §10 subsistence exemption also allows for sale of “byproducts of species taken pursuant to this section” when they are made into “authentic native articles of handicrafts and clothing.” The provisions do not apply to non-natives who are not primarily dependent upon the taking of fish and wildlife for consumption or sale of authentic native handicrafts.

104. The policy applies to both NMFS and FWS.

105. The policy does not specifically set out these stages as sequential, but its language implies this sequence. The initial consultation is to take place “at the earliest stage after information arises indicating conservation concerns relative to a species that is listed as endangered or threatened under the ESA and also used for subsistence. . . .” After the agency makes a determination that subsistence take affects the species, the agency seeks to develop cooperative conservation agreements and then to implement them on an on-going basis.

- (1) Agencies are to obtain information and input from tribes in evaluating and addressing conservation concerns, in order to determine whether subsistence take is negatively and materially affecting listed species;
- (2) Agencies are to work with Alaska Natives to develop “cooperative agreements that will conserve the species, fulfill the subsistence needs, and preclude the need for regulations”;
- (3) Agencies are to ensure to the maximum extent practicable that Alaska Natives participate in all aspects of management of the listed species, including in planning, monitoring, enforcement, education, research, habitat protection, and recovery projects; and
- (4) If regulations are needed, full consultation with Alaska Natives is to take place during the development and implementation of the regulations.

Secretarial Order 3225 also addresses consultation requirements for other provisions of the ESA. It refers to existing departmental policy to guide the application of other sections of the ESA, such as §7 consultation.¹⁰⁶ It further states that “[t]he Department of the Interior will ensure that consultation with Alaska Natives continues on a government-to-government basis as it has to date.”¹⁰⁷ Also, the Order states that DOC will follow the 1995 American Indian and Alaska Native Policy of the DOC for all DOC interactions with Alaska Natives.¹⁰⁸

3. The Marine Mammal Protection Act

The MMPA contemplates Alaska Native participation in decisions that impact marine mammals in at least two circumstances. First, the MMPA provides for cooperative agreements with Alaska Native organizations and co-management of marine mammal subsistence uses.¹⁰⁹ Second, Alaska Natives may be involved in determining whether to allow and in the monitoring of incidental take and incidental harassment authorizations for offshore oil and gas activities.

Alaska Natives are exempt from the prohibition on take for subsistence or handicraft purposes. If the species is depleted the federal government may regulate subsistence take.¹¹⁰ Alaska Natives may generally regulate their own

subsistence take of marine mammals.¹¹¹ However, §119(a) provides for the development of cooperative agreements between the Secretary of Commerce or of the Interior and Alaska Native organizations, in order to both “conserve marine mammals and provide co-management of subsistence use by Alaska Natives.”¹¹² The agreements may include provisions for research, regulation, allocation, and enforcement.¹¹³ The statute also authorizes funding for data collection, harvest monitoring, research, and developing marine mammal co-management structures. A Memorandum of Agreement for the Negotiation of MMPA §119 Agreements requires a substantive role for Alaska Natives in the agreements. Its principles state that “[t]he best way to conserve marine mammal populations in Alaska is to provide full and equal participation by Alaska Natives in decisions affecting the subsistence management of marine mammals, to the maximum extent allowed by law.”¹¹⁴ Further, decisionmaking under the co-management agreements is to be through consensus; and Alaska Natives are to have equal representation within decisionmaking structures. Carrying out the agreements entails close cooperation and communication, the use of TEK, and information exchange.

Co-management agreements may provide for joint decisionmaking between Alaska Natives and the agency. The agreements may also provide for consultation as a method of reaching joint decisions. For example, an agreement with the Ice Seal Committee sets out issues for consultation between the Committee and NMFS.¹¹⁵ In these circumstances, consultation is a means to achieve consensus on an issue covered by co-management.

Offshore oil and gas activities can adversely impact marine mammals. Incidental take regulations set out specific procedures that companies must follow in order to obtain an Incidental Take Authorization or Letter of Authorization for activities that may kill or harm “small numbers” of marine mammals. Incidental harassment authorizations (IHAs) may be obtained when the effects of the oil or gas activity are expected to harass and not kill a “small number” of marine mammals, and provide a more streamlined process for companies to obtain permission to affect marine mammals. In both cases, the activity must have only “a negligible impact on such species or stock and . . . not have an unmitigable adverse impact on the availability of such species or stock for taking for subsistence uses.”¹¹⁶

Finally, the agency only develops regulations if “needed,” implying that it develops regulations only after it has already attempted to use conservation agreements to protect the species.

106. The Secretary, through the Services, must ensure that agency actions do not place or threaten to put species in jeopardy. 16 U.S.C. §1536(a)(2), (3).

107. Secretarial Order 3225, *supra* note 36.

108. *Id.* The Department of Commerce issued its final consultation policy, 78 Fed. Reg. 33331, Tribal Consultation and Coordination Policy for the U.S. Department of Commerce, June 4, 2013, which “builds upon and expands the principles” of the 1995 tribal policy.

109. NMFS, Alaska Regional Office, Tribal Consultation in Alaska, <https://alaskafisheries.noaa.gov/tc> (last visited Mar. 28, 2013).

110. 16 U.S.C.A. §1371(b).

111. See Eric Smith, *Some Thoughts on Comanagement*, 14 HASTINGS W.-Nw. J. ENVTL. L. & POL’Y 763 (Winter 2008).

112. 16 U.S.C. §1388(a).

113. §119(b), 16 U.S.C. §1388(b).

114. Memorandum of Agreement for the Negotiation of Marine Mammal Protection Act Section 119 Agreements, Among U.S. Department of Commerce National Marine Fisheries Service, U.S. Department of Interior Fish and Wildlife Service and Indigenous Peoples Council for Marine Mammals (Oct. 30, 2006).

115. Agreement Between the Ice Seal Committee and the National Marine Fisheries Service for the Co-Management of Alaskan Ice Seal Populations, Section VIII, Consultations (Oct. 25, 2006).

116. 16 U.S.C. §1371(a)(5).

Incidental take and incidental harassment regulations provide that if oil and gas development may affect subsistence harvest, companies have the option to consult or, for some regulations, must consult with affected Native communities and develop a Plan of Cooperation (POC) to minimize and mitigate these effects.¹¹⁷ The POC is submitted as part of an application for an Incidental Take Authorization or IHA. NOAA then reviews the application and determines whether the proposed activity will negatively impact subsistence resources, among other impacts. Thus, although consultation is involved, it is the oil or gas company—not the federal agency—that engages with the tribe for consultation.¹¹⁸ Requirements for peer review of monitoring and reporting also provide some community input into oil and gas activities' effects on marine resources in the Arctic.¹¹⁹ Peer review of monitoring plans occurs annually at the Arctic Open-Water Meeting.¹²⁰

4. The Magnuson-Stevens Fishery Conservation and Management Act

Alaska Natives have long relied upon fisheries as a key subsistence resource. Although rural residents of Alaska, including Alaska Natives, have a subsistence priority under ANILCA, the Magnuson Stevens Fishery Conservation and Management Act does not explicitly require any consideration of subsistence, nor does it impose tribal consultation requirements in the Act.¹²¹ It only provides that the public be given an opportunity to comment during the development of a plan, amendment, or regulation.¹²² It also gives stakeholders an opportunity to be appointed to the Council and participate on various committees, although the statute does not call for members with knowledge of subsistence resources.¹²³

5. The Outer Continental Shelf Lands Act

OCSLA governs both oil and gas and renewable energy development on the outer continental shelf. Both forms of development can impact the trust (or subsistence)

117. MMPA §101(a)(5)(A)-(D) sets out the overall requirements for incidental take regulations; 50 C.F.R. §§18.111-119; 18.121-129 cover incidental take of polar bears and Pacific walrus in the Chukchi and Beaufort Seas; 50 C.F.R. §§216.101-216.108 are incidental harassment authorization regulations for Arctic waters.

118. 50 C.F.R. §18.27; 50 C.F.R. §216.104(12).

119. 50 C.F.R. §216.108(d).

120. NOAA Fisheries, Arctic Open Water Meeting, <http://www.nmfs.noaa.gov/pr/permits/openwater.htm> (last visited Aug. 14, 2013).

121. However, under the Convention Between Canada and the United States of America for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea, managed internationally by the International Pacific Halibut Commission, and implemented by the Northern Pacific Halibut Act of 1982 (16 U.S.C. §§773-773k; Pub. L. No. 97-176, *as amended*, the NPFMC administers a subsistence halibut program. National Marine Fisheries Service, Alaska Regional Office, "Subsistence Halibut Fishing in Alaska," available at <http://alaskafisheries.noaa.gov/ram/subsistence/halibut.htm>.

122. 16 U.S.C. §§1852(h)(3), (i)(2)(D).

123. 16 U.S.C. §1852; National Marine Fisheries Service Response to NMFS and Tribal Representatives Workgroup Meeting Report and Recommendations at 7 (Nov. 9-10, 2009); 16 U.S.C. §1852(i)(2)(D).

resources of tribes. The statute does not require consultation with tribes for oil and gas development, although provisions that call for state and local government input could include tribal input. In contrast, newer statutory provisions governing renewable energy development require tribal consultation.

For oil and gas development, OCSLA sets out various opportunities for third parties to provide input. These include requirements for public comment, input from states and local governments, consultation with parties with interests in the outer continental shelf, and cooperative agreements with states. While the statute does not specifically require consultation with tribes, Alaska tribes could potentially participate in several of these opportunities, as they are members of the public, local governments, and parties with interests in the outer continental shelf.

During the development of five-year plans for oil and gas development, states and affected local governments, as well as other interested parties, may submit comments on the plans.¹²⁴ Before approving a proposed five-year plan for offshore oil and gas development, the Secretary is required to explain to the president and Congress "why any specific recommendation of . . . a State or local government was not accepted."¹²⁵ A caveat to this provision is that local governments must first submit their recommendations to the governor of the state.¹²⁶ The state may therefore place its interests, which may not be consistent with those of local governments, ahead of the requests of local governments.

OCSLA also allows for periodic consultation with lessees, state and local governments, and those involved in activities on the outer continental shelf, including those engaged in shellfish and other fisheries.¹²⁷ Although tribes are governments and have subsistence resource interests on the outer continental shelf, regulations have implemented this provision narrowly, providing only for an advisory board comprised of oil and gas interests, and for following the public notice requirements during the development of the five-year plan.¹²⁸

Following completion of the five-year plan, BOEM defines sale areas and issues leases.¹²⁹ When making leasing decisions, the Secretary must accept states' and may accept local governments' recommendations for size, timing, and location of proposed sales if, after an opportunity for consultation, the Secretary determines that the recommendations "provide for a reasonable balance between the national interest and the wellbeing of the citizens of the affected State."¹³⁰ However, any local government recommendations must first be submitted to the governor of the state.¹³¹ In addition, the Secretary may

124. 30 C.F.R. §§556.16(a), 556.17(a).

125. 43 U.S.C. §1331(d)(2), 30 C.F.R. §556.17(c).

126. 30 C.F.R. §§556.16(a), 556.17(b).

127. 43 U.S.C. §1344(f)(4).

128. §556.19, *see* OCS Advisory Board, <http://ocsadvisoryboard.org/index.html>.

129. 30 C.F.R. §§556.23-556.29.

130. 30 C.F.R. §556.31(b).

131. 30 C.F.R. §556.31(a).

enter into cooperative agreements with states for a variety of purposes related to leasing.¹³² In a 2009 Resolution, the National Congress of American Indians unsuccessfully called for cooperative agreements with tribes under this provision.¹³³

In contrast to oil and gas development, provisions concerning the granting of offshore renewable and alternative energy leases require the agency to “coordinate and consult” with “any affected Indian tribe,” as well as other governmental units.¹³⁴ The agency must consult both when considering areas to lease and in developing measures to mitigate effects on the human, marine, and coastal environments.

6. Section 706 of the Coast Guard Authorization Act of 2010

Section 706(a) of the Coast Guard Authorization Act of 2010¹³⁵ requires the Secretary of Homeland Security to develop a tribal consultation policy for the U.S. Coast Guard “to improve the Coast Guard’s consultation and coordination” with tribal governments “with respect to oil spill prevention, preparedness, response and natural resource damage assessment.” It also provides for the Coast Guard to create and fund cooperative agreements with tribal governments on these issues.¹³⁶

7. The National Historic Preservation Act

The National Historic Preservation Act contains explicit requirements for consultation with tribes as to identification of historic sites, and the process for determining their protection under the statute. Section 106 of the Act requires a federal agency that undertakes, spends money for, or issues a license for an activity that may affect a place or item eligible or potentially eligible for inclusion on the National Register of Historic Places to allow the Advisory Council on Historic Preservation to comment on the undertaking.¹³⁷ Regulations that set out procedures for the §106 process require consultation with Indian tribes on undertakings that affect properties on tribal lands or, importantly for Alaska tribes, properties of significance to Indian tribes, whether or not they are on Indian land.¹³⁸ Section 800.2(c)(2) specifies procedures, including giving Indian tribes “a reasonable opportunity to identify its concerns,” “advise on the identification and evaluation” of properties, “articulate its views,” and “participate in the resolution of adverse effects.” It states that “consultation should commence early in the planning process.” In addition,

the agency shall consult with representatives determined by tribes. These requirements are similar to but more specific than the policies of EO 13175, although several agency policies also contain specific procedures. Unlike the policies of the Executive Order, however, the NHPA consultation regulations may be enforced by courts.

III. Key Elements of Consultation

Building from the relevant legal framework and some of the ways that Alaska Natives can engage in cooperative governance, this part turns back to consultation specifically to explore key elements of the process and the approaches that agencies take to satisfy them.

Therefore, the following synthesis summarizes key elements of consultation and uses these elements to compare federal agency policies. The authors identified these elements by reviewing the requirements of EO 13175 and considering other published suggestions that tribes have made for improvements to consultation procedures,¹³⁹ including the report *Tribal Consultation: Best Practices in Historic Preservation (Best Practices Report)*.¹⁴⁰ Although the *Best Practices Report* addresses consultation that is required by regulation, the analysis is applicable to best practices for government-to-government consultation under the Executive Order. Tribes’ comments on the implementation of the Executive Order identify similar needs. In all, the authors focused on the following six key elements: (1) including the right participants; (2) engaging in meaningful information exchange; (3) creating a timely and early process; (4) establishing a flexible and collaborative process; (5) creating an accountable process; and (6) ensuring adequate resources. Several elements are interrelated; in particular, timing and process affect the extent to which meaningful information is exchanged.

132. 43 U.S.C. §1344(e); 30 C.F.R. §581.13 provides for joint federal-state cooperation and joint task forces.

133. National Congress of American Indians, Resolution #PSP-09-024, Outer-Continental Shelf Protection and Coordination (Oct. 11-16, 2009).

134. §8(p)(4) and (7), 43 U.S.C. §1337(p)(4) and (7); 30 C.F.R. §285.211(b).

135. Pub. L. No. 111-281, Oct. 15, 2010, 124 Stat. 2905, 33 U.S.C. §1321b.

136. 33 U.S.C. §1321b(d).

137. 16 U.S.C. §1470f.

138. 36 C.F.R. Part 800.

139. National Congress of American Indians, Background and Recommendations on Tribal Consultation and Government-to-Government Coordination, submitted to Secretary Locke (Dec. 11, 2009); NMFS and Tribal Representatives Workgroup Meeting Report and Recommendations, Nov. 9-10, 2009 [hereinafter Tribal Representatives Workgroup]; National Congress of American Indians, White House Meeting With Tribal Leaders: Background Paper on Tribal Consultation and Tribal Sovereignty (2009) [hereinafter White House Meeting Background Paper]; National Congress of American Indians, Final Federal Consultation Recommendations (2010); Department of Homeland Security Plan to Develop a Tribal Consultation and Coordination Policy Implementing Executive Order 13175 (Mar. 1, 2010) [hereinafter DHS Plan] (summarizes input received from tribes about consultation challenges and needs).

140. NATIONAL ASSOCIATION OF TRIBAL PRESERVATION OFFICERS, TRIBAL CONSULTATION: BEST PRACTICES IN HISTORIC PRESERVATION (May 2005), available at http://www.nathpo.org/PDF/Tribal_Consultation.pdf [hereinafter BEST PRACTICES REPORT].

A. Including the Right Participants

As previously described, EO 13175 specifies that “tribal officials,” defined as “elected or duly appointed officials of Indian tribal governments or authorized intertribal organizations,”¹⁴¹ are to be involved in government-to-government consultation. This means that tribes may be represented in consultations individually or as part of a larger tribal organization. Consultation is also extended by statute to ANCSA corporations. For ANCSA corporations, for example, DOI policy requires consultation with ANCSA corporation officials or designees, defined as “official[s] or ANCSA member[s] designated in writing by an ANCSA corporation.”¹⁴²

EO 13175 requires agencies to designate tribal consultation officials to coordinate the consultation program for the agency, but does not require a particular agency official to engage in the actual consultation. In practice, multiple agency personnel may be engaged in consultation decisions.¹⁴³

The *Best Practices* Report summarizes the results of surveys of agency staff and tribal officials engaged in consultation. Its authors concluded that an agency tribal liaison contributes to the success of the consultation process.¹⁴⁴ Also, tribes and some agencies agree that, in addition to using a tribal liaison, agencies should contribute a subject matter expert to the consultation process, along with persons with authority to make decisions and implement policy.¹⁴⁵

B. Engaging in Meaningful Information Exchange

EO 13175 requires that the consultation process enable tribal officials to contribute “meaningful” input. Tribal summary impact statements, required in some circumstances, are to recognize and respond to tribal concerns.¹⁴⁶ The quality of the information exchanged between agencies and Alaska Native entities is thus a key part of the Executive Order. Meaningful input requires the exchange of information before a consultation meeting and is related to the elements of timing and process. The *Best Practices* Report found that, for consultation to be successful, agencies should provide full information about proposed agency action to tribes and ANOs before consultation.¹⁴⁷ An initial notice about a consultation opportunity should provide sufficient detail about the scope of the subject matter at issue that the tribes can make a decision on whether to participate in consultation,

request technical assistance, and submit additional questions. Tribes should also have substantial opportunity to contribute information and concerns. They have suggested that the exchange of information and ideas be comparable to agencies’ dealings with a state.¹⁴⁸

TEK has become an increasingly important part of the consultation process, although the Executive Order does not address it directly. It is central to issues concerning subsistence resources in particular. Policies under the ESA and the MMPA require that decisionmakers consider TEK (which also has been referred to as traditional knowledge and wisdom or local and traditional knowledge) during consultation and decisionmaking.¹⁴⁹ EPA, NMFS, BOEM, and the Coast Guard also have developed policies or practices requiring the use of TEK.¹⁵⁰ A study by the U.S. Geological Survey stressed the importance of traditional knowledge to oil and gas development in the Arctic.¹⁵¹ Under the MSA, Congress created a pilot program that incorporates traditional knowledge in fisheries decisions. Finally, Alaska Natives have requested that they be allowed to contribute TEK to the scientific stage of decisionmaking.¹⁵²

C. Creating a Timely and Early Process

EO 13175 requires consultation to be “timely,” and to begin “early” in the process. Timeliness will vary based on the issue involved, the time line of the action, and the calendars of both Alaska Natives and agencies. For example, timing should take into account subsistence hunting calendars. In addition to addressing timeliness generally, initiating processes early is particularly important to ensure that consultation can meaningfully affect the outcome of the decision.

When agencies develop regulations that impose substantial costs on tribes or preempt tribal law, EO 13175

141. EO 13175, §1(d), *supra* note 1.

142. *Department of the Interior Policy on Consultation With Alaska Native Claims Settlement Act (ANCSA) Corporations* (Aug. 10, 2012) [hereinafter DOI ANCSA Corporation Policy], available at <http://www.doi.gov/news/press-releases/Interior-Announces-Consultation-Policy-for-Alaska-Native-Corporations.cfm>.

143. For example, DOI tribal consultation policy identifies appropriate officials as those who are knowledgeable, are authorized to speak for the Department, and have decisionmaking authority.

144. BEST PRACTICES REPORT, *supra* note 140.

145. Tribal Representatives Workgroup, *supra* note 139.

146. EO 13175, §5, *supra* note 1.

147. BEST PRACTICES REPORT, *supra* note 140, at 144.

148. Tribal Representatives, Workgroup, *supra* note 139.

149. *See, e.g.*, Secretarial Order 3225 (consultation policy for ESA §10(e) concerning subsistence uses of endangered or threatened species in Alaska), *supra* note 36; ESA Section 7 Consultation Handbook, “Coordination With Tribal Governments,” §2.6; Memorandum of Agreement for Negotiation of MMPA Section 119 Agreements; and Magnuson-Stevens Act §305(j)(2)(E), 18 U.S.C. §1855(j)(2)(E). Unless the definition requires that the different terms be considered separately, this Article refers to all of these considerations as TEK or “traditional ecological knowledge.”

150. EPA’s Tribal Strategy: Partnership to Improve Environmental Decisionmaking in Indian Country and Alaska Native Villages promotes the use of TEK; Report to Congress: U.S. Coast Guard Polar Operations FY 2008 (Coast Guard makes statement that TEK is important part of its work); Alaska Groundfish Fisheries: Final Programmatic Supplemental Environmental Impact Statement ES-25 (2004) (TEK is to be incorporated into fisheries management); Bureau of Ocean Energy Management, Regulation and Enforcement, Alaska OCS Region, U.S. Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 in the Chukchi Sea, Alaska, *Revised Draft Supplemental Environmental Impact Statement*, OCS EIS/EA BOEMRE 2010-034; *see, e.g.*, inclusion of TEK regarding impacts of development on marine mammals and subsistence resources in Final Supplemental Impact Statement, Chukchi Sea Planning Area Oil and Gas Lease Sale 193 in the Chukchi Sea, Alaska, OCS EIS/EA, BOEMRE 2011-041.

151. U.S. Geological Survey, *An Evaluation of the Science Needs to Inform Decisions on Outer Continental Shelf Energy Development in the Chukchi and Beaufort Seas*, Alaska Circular 1370 (2011).

152. Tribal Representatives Workgroup, *supra* note 139.

requires that the agency has “consulted with tribal officials early in the process of developing the regulation.”¹⁵³ In addition to specific requirements of the Executive Order, the *Best Practices* Report recommended that agencies engage in an early effort to identify issues of concern to tribes: having tribes participate in setting the agenda and planning the consultation; establishing multiple contacts beginning early in the process; and continuing through the decision-making process. Tribes also have suggested that consultation include early informal scoping to address tribal issues before defining federal action, so that the agency incorporates tribal viewpoints in its consideration of actions.¹⁵⁴ However, challenges exist. As stated by the National Congress of American Indians, early consultation can be challenging because proposals are not yet formulated, while later consultation may occur too late in the process when decisions are already made.¹⁵⁵

D. Establishing a Flexible and Collaborative Process

When tribal self-government, tribal trust resources, or Indian tribal treaty or other rights could be affected by proposed regulations, EO 13175 states that agencies should use *consensual mechanisms*, including negotiated rulemaking, when appropriate.¹⁵⁶ As stated by the National Congress for American Indians, “tribal consultation should be redefined as a process of decisionmaking that works in a cooperative process toward reaching a consensus before a decision is made or an action is taken.”¹⁵⁷ The *Best Practices* Report found that consultation was most successful when there was an ability to come to consensus or final resolution in an agreement, although a consultation could still be successful even without consensus or an agreement. Tribes have sought to reach a mutually agreeable understanding that acknowledges the interests of both federal and tribal governments.

The *Best Practices* Report also found that an effective process that complies with the spirit of the consultation requirement requires flexibility that maintains the goal of a collaborative approach to the issues.¹⁵⁸ Similarly, the National Congress for American Indians noted that formal consultation should be combined with informal discussions to help agencies understand tribal issues.¹⁵⁹

Some suggest multiple consultation venues, formal and informal meetings, and meetings at regional levels, at sub-regional levels, and with individual tribes. Several recommendations reflect the need to have face-to-face meetings, along with other meetings that are carried out by conference call or by webinar.¹⁶⁰

E. Creating an Accountable Process

EO 13175 requires each agency to have “an *accountable process*.” When practical and permitted by law, EO 13175 calls upon agencies to produce a tribal summary impact statement that documents tribal concerns raised in the process and the agency’s responses to them, along with written communication exchanged.¹⁶¹ However, for other actions, it does not require that the agency explain to tribes how their input was used. Many reports that document tribal concerns indicate that tribes are frustrated by the lack of accountability in the consultation process. For example, in the Department of Homeland Security’s effort to get input from tribes about its consultation policy, it noted that tribal leaders are frustrated by the significant time that tribes dedicate to consultation and the apparent lack of consideration of tribal recommendations—a reflection, in part, of the lack of accountability mechanisms in place.¹⁶² Tribes seek adequate notice, accountability, and tracking mechanisms,¹⁶³ and that the agency follows up with tribes to explain how it used the results of the consultation in its final decisions.¹⁶⁴

F. Ensuring Adequate Resources

EO 13175 does not address funding for consultation. The *Best Practices* Report and many tribal leaders call for adequate *resources* for tribes to support meaningful consultation.¹⁶⁵ In particular, the agency should provide sufficient resources for travel and/or hold meetings or consultation on tribal land.¹⁶⁶ Some tribes also suggest that consulting agencies fund tribal participation and provide alternative means to ensure that tribal leaders can participate.¹⁶⁷ Adequate resources are necessary for consultation to allow satisfactory participation, information exchange, a collaborative process, and accountability.

IV. Comparing Agency Consultation Policies

A. Overview of Agency Policies

Pursuant to the requirements of EO 13175 and the presidential memorandum, federal agencies have been developing overarching tribal consultation policies. Such policies apply to all departmental or agency actions in which there are tribal implications, not only those for which there are statutory requirements to consult. These policies are summarized in the table below.

153. EO 13175, §5(b)(1) and (c)(1), *supra* note 1 (emphasis added).

154. National Congress of American Indians, White House Meeting Background Paper, *supra* note 139.

155. White House Meeting Background Paper, *supra* note 139.

156. EO 13175, *supra* note 1, §5(d).

157. White House Meeting Background Paper, *supra* note 139.

158. BEST PRACTICES REPORT, *supra* note 140; White House Meeting Background Paper, *supra* note 139.

159. White House Meeting Background Paper, *supra* note 139.

160. *See, e.g.*, DHS Plan, *supra* note 139, at 3.

161. EO 13175, §5; *see supra* note 1; *see* NMFS rules, *supra* note 17.

162. DHS Plan, *supra* note 139, at 2.

163. DHS Plan, *supra* note 139, at 3.

164. Tribal Representatives Workgroup, *supra* note 139.

165. BEST PRACTICES REPORT, *supra* note 140; Tribal Representatives Workgroup, *supra* note 139; DHS Plan, *supra* note 139, at 3

166. Tribal Representatives Workgroup, *supra* note 139.

167. *Id.*

Figure 2

ELEMENTS OF CONSULTATION^a	DOI tribal policy^b	DOI ANCSA corporation policy^c	Dept. of Homeland Security^d	U.S. Environmental Protection Agency (EPA)^e	DOC tribal policy^f	Federal Subsistence Board (tribal policy)^g
DEFINITION OF CONSULTATION	“a deliberative process that aims to create effective collaboration and informed Federal decision-making. Consultation is built upon government-to-government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. Communication will be open and transparent without compromising the rights of Indian tribes or the government-to-government consultation process” (consultation defined in tribal policy and adopted by corporation policy)		the “direct, timely, and interactive involvement of Indian Tribes regarding proposed Federal actions on matters that have Tribal Implications”	“a process of meaningful communication and coordination between EPA and tribal officials prior to EPA taking actions or implementing decisions that may affect tribes”	“accountable process ensuring meaningful and timely input from tribal officials on Department policies that have tribal implications” (EO definition)	“a direct two-way communication conducted in good faith to secure meaningful participation in the decision-making process to the full extent allowed by law. The Board will consider and respond to the Tribes’ concerns brought forth through the consultation process (as defined in this policy) before making final decisions”
PARTICIPANTS						
Tribal liaison or similar	Tribal governance officer and tribal liaison officers	Refers to DOI Policy on Consultation with Indian Tribes	Tribal liaison	Designated consultation official; tribal consultation advisors	Tribal consultation official; head of operating units to coordinate	OSM Native liaison Board members
Agency participants	Appropriate official who is knowledgeable, authorized, and exercises delegated authority		Typically local level personnel	No specific provisions	Designated officials	Federal land managers
Tribal/intertribal organization/ ANCSA corporation participants	Appropriate tribal officials (designated in writing by tribe to represent it); in some cases Tribal Leader Task Force convened by the agency	Appropriate ANCSA corporation officials (designated in writing by an ANCSA corporation)	Tribal governments, which include Indian Tribes and Alaska Native Villages under ANCSA Tribal officials	Tribal officials	Appropriate tribal officials; tribes	Tribes ANCSA corporations
INFORMATION EXCHANGE	Adequate notice required, including sufficient detail for tribes to “fully engage” in consultation	Refers to Policy on Consultation with Indian Tribes, with adjustments for status of ANCSA corporations	Notice to tribes gives “sufficient detail” about proposed decision; DHS receives input from Tribal Governments	Initial notice should provide sufficient information for tribes to decide whether to continue and to provide input	Reasonable effort to identify and provide timely and accurate information for consultation	Ensure two-way exchange on regulatory proposals, after proposals analyzed by federal staff, advisory council, and Federal Subsistence Board (FSB) meetings

ELEMENTS OF CONSULTATION ^a	DOI tribal policy ^b	DOI ANCSA corporation policy ^c	Dept. of Homeland Security ^d	U.S. Environmental Protection Agency (EPA) ^e	DOC tribal policy ^f	Federal Subsistence Board (tribal policy) ^g
TIMING	Consultation early in the planning process and during the proposal development stage; take into account the input of tribes in planning timeline; when receive request from tribes	Follows tribal consultation policy, with adjustments for unique status of ANCSA corporations	Consultation as early as reasonably possible in decisionmaking process; consultation required before adopting policies or regulations with tribal implications	Consultation early enough to be meaningful in deciding whether, how, and when to act on decision; continued consultation during proposal development	Policy does not specify timing of consultations, except that ongoing communication is part of relationship; Department to make reasonable efforts to respond to tribal requests; and tribes should have enough time to prepare and submit views	Communication is timely in order to “maximize opportunities to provide input to the Board’s decisions”; early notification and respect for tribal timeframes; when receive request from tribes
FLEXIBLE AND COLLABORATIVE PROCESS	May include negotiated rule-making, tribal leader task force, series of open tribal meetings, and single meetings; process should maximize the opportunity for tribal input and account for departmental schedules and tribal timelines	Refers to Policy on Consultation with Indian Tribes, with adjustments for unique status of ANCSA corporations	Flexible: Can be with local tribal officials or involve larger workgroups or national meetings to be determined by DHS officials and Tribal Governments	Flexible—how consultation occurs should be based on the particular action under consideration	Coordinates with tribal officials to plan process, which can include formal and informal meetings, letters, conference calls, webinars, on-site visits, or participation in regional or national events; reasonable efforts to accommodate tribal requests	Flexible—consider all aspects of the issue in planning
ACCOUNTABILITY	Annual reporting requirements; may have post-consultation review process in which it invites tribal input	Refers to Policy on Consultation with Indian Tribes, with adjustments for unique status of ANCSA corporations	Incorporate tribal input into final decision; communicate decision to tribes.	For each consultation, agency provides written document to tribes to explain how concerns taken into account	Written document after consultation that summarizes communication and responds to tribal concerns	Yearly evaluation of the consultation process, with tribal input

a. The consultation element related to ensuring adequate resources is not included here, since the existing policies do not specifically address funding needs.
 b. Secretary of the Interior, *Department of the Interior Policy on Consultation With Indian Tribes* (Dec. 1, 2011), available at <http://www.doi.gov/cobell/upload/FINAL-Departmental-tribal-consultation-policy.pdf> [hereinafter DOI Consultation Policy]. DOI has a separate policy for Alaska Native Corporations.
 c. DOI ANCSA Corporation Policy, *supra* note 141.
 d. Published May 11, 2011, available at <https://www.dhs.gov/sites/default/files/publications/DHS%20Tribal%20Consultation%20Policy%20Final%20PDF.pdf>.
 e. EPA Policy on Consultation and Coordination With Tribes (May 4, 2011).
 f. Tribal Consultation and Coordination Policy for the U.S. Department of Commerce, 78 Fed. Reg. 33331 (June 4, 2013) [hereinafter DOC Consultation Policy].
 g. *Federal Subsistence Board Government-to-Government Tribal Consultation Policy* (May 9, 2012), available at <http://alaska.fws.gov/asm/pdf/consult/tribal.pdf>. ANCSA Corporation policy under development.

The following section explores in more detail how agency policies address the different consultation elements described in the previous section.

B. Including the Right Participants

The issue of *who* consults, both from the tribal perspective and the agency perspective, is an important and complex one.

I. The Tribal Entities Involved

First, the structure of Alaska Native communities and their representatives is complex. More than 200 villages are designated as individual tribes, multiple ANOs are involved in co-managing tribal trust (or subsistence) resources and may have consultation agreements with federal agencies, Alaska Native corporations have consultation authority, and regional nonprofits and other regional tribal entities may have consultation authority.

While the number of potential consultations may be limited in part by the breadth of the decision being made—e.g., a federal decision may only affect a single type of resource found in one or a few villages—federal agencies may need to engage in consultation with three different types of entities: consultation with village tribal councils; consultation with Alaska Native corporations; and consultation with intertribal organizations. And many tribal trust resources involve species that are migratory and are targeted by many communities. Therefore, the potential required consultations could include multiple villages, intertribal organizations, and corporations.

Consistent with the special legal relationship between the federal government and tribes upon which consultation is based, most policies list tribes as entities with which they must conduct government-to-government consultation. For example, DOI consultation policy requires that it consult with tribes on departmental policies with tribal implications.¹⁶⁸ In addition, DHS lists Alaska Native villages “defined in or established pursuant to ANCSA” as entities with which it must consult.

As previously discussed, an omnibus bill extended consultation to Alaska Native corporations (ANCSA corporations). DOI and the FWS both address such consultation with separate policies. DOI’s ANCSA corporation policy states that, “when taking departmental action that has a substantial direct effect on ANCSA corporations, the department will initiate consultation with ANCSA corporations.”¹⁶⁹

Because the definition of “tribal officials” in the Executive Order encompasses officials of “authorized intertribal organizations,” the requirement to consult could and

sometimes does include consulting with larger multi-tribal entities. These entities can include both ANOs and larger networks of Alaska Natives, such as the Alaska Federation of Natives. The NMFS-Alaska Sustainable Fisheries Division policy is to notify federally recognized tribes, regional nonprofits, ANCSA corporations, and local governments of the opportunity for consultation on proposed actions known to be of interest to tribes.¹⁷⁰

In addition to overarching DOI and DOC policies, FWS and NMFS carry out consultation under the ESA and the MMPA, as discussed previously. Secretarial Order 3225, under the ESA, requires FWS and NMFS to “consult with “affected Alaska Natives, tribes, and other Native organizations”¹⁷¹ in relation to §10(e) subsistence exemption decisions. For example, FWS has consulted with the Alaska Nanuq Commission on its deterrence guidelines for polar bears¹⁷² and obtained peer review from the Commission on the status assessment and proposed listing.¹⁷³

FWS and NMFS have entered into numerous co-management agreements with marine mammal ANOs under MMPA §119. In addition to carrying out co-management responsibilities, the agencies may consult on specific issues with Alaska Native marine mammal organizations. NMFS’ Alaska Region website states that its consultation on marine mammals is governed by the MMPA.¹⁷⁴

Individual marine mammal co-management agreements also may set out specific consultation requirements.¹⁷⁵ For example, the beluga whale co-management agreement provides that the Alaska Beluga Whale Committee and NMFS will consult concerning co-management issues.¹⁷⁶ Similarly, NOAA and the AEWWC have agreed to consult on issues that concern the Commission through their co-management agreement.¹⁷⁷

170. Alaska SFD Consultation Process, *supra* note 97.

171. See *supra* notes 101-07 and accompanying text, for an overview of the ESA and consultation requirements.

172. Dept. of the Interior, Fish and Wildlife Service, Marine Mammal Protection Act, Deterrence Guidelines, 75 Fed. Reg. 61631, 61635 (Oct. 6, 2010).

173. Dept. of the Interior, Fish and Wildlife Service, Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range, 73 Fed. Reg. 20212, 28251 (May 15, 2008).

174. NMFS, Alaska Regional Office, Tribal Consultation in Alaska, *supra* note 108.

175. See *supra* notes 109-19 and accompanying text, for an overview of the MMPA and consultation requirements.

176. 18 U.S.C. §1388(a).

177. Cooperative Agreement Between the National Oceanic and Atmospheric Administration and the Alaska Eskimo Whaling Commission (as amended 2008) ¶ 8, specifically stating:

NOAA and the AEWWC shall consult during the operation of this Agreement concerning the matters addressed herein as well as all other matters related to bowhead whales which either party believes are suitable for such consultation. Specifically, NOAA shall consult with the AEWWC on any action undertaken or any action proposed to be undertaken by any agency or department of the Federal Government that may affect the bowhead whale and/or subsistence whaling and shall use its best efforts to have such agency or department participate in such consultation with the AEWWC.

168. DOI Consultation Policy, *supra* Figure 2, note b.

169. DOI ANCSA Corporation Policy, *supra* note 142, Federal Subsistence Board Alaska Native Claims Settlement Act (ANCSA) Corporation Consultation Policy (draft), available at <http://alaska.fws.gov/asm/pdf/consult/ancsa.pdf>.

2. The Federal Agency Entities Involved

Federal agencies may include one or more of the following types of personnel in a consultation process: (1) participants with decisionmaking authority; (2) tribal liaisons that have established relationships with communities; (3) technical experts; and/or (4) local personnel. However, the participation of these types of personnel may vary according to the stage of the process and the type of meeting. Furthermore, some agencies have specific policies or procedures about who should be involved in consultation, while other agencies provide little information about who they expect to engage in a consultation process.

DOI policy provides qualifications for departmental officials involved in the consultation: they are to be knowledgeable about the subject matter; be authorized to speak for the Department; and have delegated authority to make decisions on and implement agency actions.¹⁷⁸

As stated in its policy, the FSB uses its Native Liaison in the Office of Subsistence Management as the key contact for consultation with tribes, and the Native Liaison is tasked with assisting in consultation “as requested and needed.”¹⁷⁹ The policy also calls upon federal land managers and staff with local relationships to maintain effective communication and coordination.¹⁸⁰

EPA Region 10, which includes Alaska, also has a well-defined suite of personnel involved in the consultation process. In its Region 10 Tribal Consultation and Coordination Procedures, EPA designates roles and responsibilities for its personnel as follows:

- The Regional Administrator and Deputy Regional Administrator may be involved in consultation when there are significant tribal issues or a high degree of tribal interest.
- The Senior Tribal Policy Advisor advises EPA senior management on effective communication with tribes and/or participates in tribal consultations.
- The EPA Project Lead, the person with primary responsibility in an EPA action, has the primary responsibility for the relevant consultation process with support from the tribal specialists. The Project Lead is to inform the Tribal Specialist of activities that may affect the tribe.
- The Tribal Specialist is the main point of contact and source of information and support on tribal issues in each program office.
- Tribal Coordinators serve as liaisons between the tribes and EPA and assist in the consultation.
- Region 10 also has an Alaska Resource Extraction Tribal Policy Advisor who serves as a coordinator

for consultation and community involvement when large-scale resource extraction projects are at issue.¹⁸¹

C. Engaging in Meaningful Information Exchange

Information exchange is an important component of the consultation process, and agency policies, for the most part, provide little clarity about what information is shared and how the information is shared. For example, NMFS Alaska Region, Sustainable Fisheries Division, calls for the agency to e-mail, mail, or fax relevant information in advance of the consultation and answer questions about the information in informal telephone conversations, but the Division does not indicate what type of information is typically shared or the format of information.¹⁸² The FSB states that information includes (but is not limited to) traditional knowledge, research, and scientific data.¹⁸³

EPA Region 10 tribal consultation procedures provide more detailed direction for information exchange. They call upon the points of contact (tribal and federal) to discuss what information each party will need for the consultation and state that the parties should share technical and factual information whenever possible.¹⁸⁴ They recognize that tribes and EPA may wish to designate technical points of contact to discuss data and findings in advance of a consultation meeting that includes decisionmakers.¹⁸⁵ The procedures also recognize that tribes may lack the resources necessary to conduct a legal and technical review and that it may be beneficial to host a technical meeting or workshop.¹⁸⁶ Furthermore, EPA notes that the Agency may not be able to meet tribal expectations, so it encourages clarifying the consultation process to help address this challenge.¹⁸⁷

D. Creating a Timely and Early Process

EO 13175 requires that consultation procedures allow for “timely” input by tribal officials. When regulations impose substantial costs on tribes or preempt tribal law, the Executive Order specifically requires agencies to consult “with tribal officials early in the process of developing the proposed regulation.”¹⁸⁸ Most departmental and agency policies reviewed recognize that consultation should take place early in the process. EPA Region 10 policy states that initial consultation should take place early enough so tribes can potentially affect the action or decision; this “will often involve notifying a tribe of an expected action or decision.” DOI policy calls for consulting as early as possible when

178. DOI Consultation Policy, *supra* Figure 2, note b.

179. *Federal Subsistence Board Government-to-Government Tribal Consultation Policy*, *supra* Figure 2, note g, at 3.

180. *Id.*

181. U.S. EPA, EPA Region 10 Tribal Consultation and Coordination Procedures, EPA 910-K-12-002, 6-7 (2012) [hereinafter EPA Region 10 Consultation Procedures].

182. Alaska SFD Consultation Process, *supra* note 97.

183. *Federal Subsistence Board Government-to-Government Tribal Consultation Policy*, *supra* Figure 2, note g, at 3.

184. EPA Region 10 Consultation Procedures, *supra* note 181, at 13.

185. *Id.* at 14.

186. *Id.*

187. *Id.*

188. EO 13175, *supra* note 1, §5(b)-(c).

considering an action with tribal implications. DHS policy tells federal actors to contact tribes as early as is reasonably possible in the decisionmaking process. The FSB policy states that information-sharing should occur early and often.

In addition, most agency policies call for consultation and communication throughout the consultation process. Agencies vary as to the extent to which they spell out when and how to engage. Some agencies have robust declarations of their process and are developing consultation procedures that provide further detail about the agencies' approaches to timing. Both DOI and EPA emphasize that consultation should take place throughout the policymaking process. DOI provides an example of a more robust approach. It divides consultation into three stages: (1) the initial planning stage, which calls upon the agency to consult with tribes "as early as possible when considering a Departmental Action with Tribal Implications"; (2) the proposal development stage, which calls upon the agency to maximize the opportunity for timely input at this stage and develop a process with the tribes that considers tribal structures, traditional needs and schedules; and (3) the implementation of the final federal action stage, which allows for a post-consultation review process.¹⁸⁹

In addition to describing "early" consultation, EPA Region 10's consultation procedures also consider timing more fully, including taking into account fishing and hunting seasons. They adopt the following approaches:

- Provide another communication opportunity "far enough along in the process that EPA can provide significant detail about the decision or action the Region is considering." Ideally, it would "have active communication throughout the data gathering and decision process about the scope and nature of consultation that the tribe desires."
- Consider timing of tribal elections and fishing, hunting, and gathering seasons when scheduling consultation.¹⁹⁰

The FSB states that consultation should take place throughout the process of developing the policy, regulation, or proposed legislation. FSB policy identifies several points in the process of developing a rule when consultation should take place: when rules are proposed; after an initial expert ("Team") review; during Regional Advisory Council meetings; and during FSB meetings.

More generally, DOC policy calls for "ongoing communication" as a regular part of the government-to-government relationship. The Department and its units are to engage in an ongoing dialogue, and they are to "make every effort to provide timely and accurate information for consultation."¹⁹¹

A special issue as to timing occurs with the applicability of consultation requirements to the North Pacific Fishery Management Council. The MSA gives the primary authority for developing fishery management plans (FMPs) to regional fishery management councils, which submit proposed FMPs to NMFS. NMFS may approve, disapprove, or partially approve the plans. Alaska's federal marine fisheries are covered by the North Pacific Fishery Management Council (NPFMC). The Council has taken the position that EO 13175 does not apply to it because it does not have the status of a federal agency. Instead, the Council has developed a stakeholder involvement policy.¹⁹² To carry out the policy, in August 2009, it convened a Rural Community Outreach Committee, which is to arrange for communication with rural communities on an ongoing basis. It has also created outreach plans for specific proposals.¹⁹³ NMFS conducts consultation after the NPFMC submits the proposed FMP to it, although it has also participated in some of the outreach meetings. With this regulatory structure, there is an issue as to whether consultation can take place "early" in the development of the regulation when formal consultation actually takes place after development of the proposed plan.

E. Establishing a Flexible and Collaborative Process

I. Initiating the Consultation Process

Usually, agencies indicate that either the tribe or the agency can initiate the consultation process. For example, the NMFS Alaska Region, Sustainable Fisheries Division, consultation process acknowledges that either the Sustainable Fisheries Division or a tribe can initiate the consultation process.¹⁹⁴ NMFS initiates its consultation after it receives a proposed regulation from the North Pacific Fishery Management Council. Similarly, the FSB states that a tribe or the Board can initiate consultation.¹⁹⁵

EPA Region 10's consultation procedures provide some recommendations for how to address a consultation request from a tribe. They call for the request to be forwarded to the appropriate program officer, who should acknowledge receipt of the request within two weeks of receiving it.¹⁹⁶ The program office should respond to the letter "in a reasonable time" and notify appropriate tribal personnel.

192. Statement of Organization, Practices, and Procedures of the North Pacific Fishery Management Council Sect. 3.10, at 12, Draft (June 20, 2008); North Pacific Fishery Management Council, Groundfish Policy Workplan at 2 (revised February 2008); Summary and Results of Outreach Plan for DEIS on Chinook Salmon Bycatch in the Bering Sea Pollock Fishery (April 2009).

193. North Pacific Fisheries Management Council, Proposed Community Outreach Plan for the Arctic FMP at 1 (Dec. 2007).

194. Alaska SFD Consultation Process, *supra* note 97.

195. *Federal Subsistence Board Government-to-Government Tribal Consultation Policy*, *supra* Figure 2, note g, at 3.

196. EPA Region 10 Consultation Procedures, *supra* note 181, at 12.

189. DOI Consultation Policy, *supra* Figure 2, note b.

190. EPA Region 10 Consultation Procedures, *supra* note 181.

191. DOC Consultation Policy, *supra* Figure 2, note b.

2. Means of Notifying Tribes

Several policies describe the notice of consultation that must be given, including DOI, EPA, Alaska Sustainable Fisheries Division, and DOC policies. Agencies take similar approaches to notifying tribes about consultation opportunities: the main methods of notification are hard copy letters, e-mails, fax, and phone calls. Agency policies and procedures differ in the extent to which they make an effort to ensure tribes have received reasonable notification. For instance, the NMFS, Alaska Region's Sustainable Fisheries Division consultation process only requires that tribes be notified through letters that describe the proposed actions.¹⁹⁷ EPA Region 10's consultation procedure also calls for a letter to be sent to tribes; the procedure also sets forth key information to include in the letter.¹⁹⁸ It further states that, when possible, the Agency should follow up with phone calls, e-mail, or fax to ensure receipt of the letter or to open the dialogue.¹⁹⁹ If the tribe does not respond, the procedure recommends that the EPA project lead work with its tribal coordinator to reach out to the tribe.²⁰⁰

3. Planning the Process

Policies differ in the extent of coordination that they require with tribes. For example, DOI, DOC, NMFS Alaska, and EPA Region 10 require widely varying levels of coordination with tribal officials to plan the process. DOI policy states that it will make reasonable efforts to comply with tribes' view as to process time line and in addressing sensitive information. DOC and its units are to "coordinate with tribal officials to plan logistical considerations for the consultation." NMFS, Alaska Sustainable Fisheries Division requires only coordination as to date and time, and whether tribes would like to include other tribes, organizations, or staff. EPA Region 10 is most detailed: its policy advises that EPA and tribal contacts "should work together in order to develop a mutually acceptable approach to planning, preparing for, and implementing the consultation process." The policy addresses planning for goals and expectations, incorporating consultation policies of tribes and the Agency, identifying authorized tribal officials, determining scope and number of meetings, consultation plan, meeting dates and locations, information exchange, and meeting facilitation.

4. Ways to Host Consultation

Several policies provide for different means of hosting consultation. The NMFS Alaska Region, Sustainable Fisheries Division notes that while staff sometimes travel to villages for consultation, consultations are usually held

by teleconference.²⁰¹ It also may conduct outreach meetings together with the Council. For example, during the Council's development of the Chinook salmon bycatch regulations, NMFS staff participated in some of the Council outreach meetings.²⁰²

EPA Region 10 procedures call for leadership meetings between tribal and Agency decisionmakers to be "held face-to-face whenever possible, preferably on tribal homelands."²⁰³ It recognizes that in-person meetings are not always possible and, if telephone consultation is needed, "participants should take extra care" to ensure that proper protocols are followed and that tribal participants are given appropriate opportunity to speak.²⁰⁴ DOI considers the possibility of inviting tribal leaders to attend a series of open meetings; single meetings are considered appropriate for local, regional, or tribe-specific issues.

5. Consensual Processes

The Executive Order states that when tribal self-government, trust resources, or tribal treaty or other rights are involved, agencies should explore the possibility of consensual mechanisms for developing regulations. The DOI policy specifies consideration of processes during proposal development that include negotiated rulemaking and using a tribal leader task force. While not mentioning negotiated rulemaking, EPA Region 10 policy requires staff to try to understand the tribe's point of view and "make a concerted effort to identify solutions that do not negatively impact a tribe's rights, resources and interests."

6. Other Methods

The FSB calls for familiarity and use of tribes' constitutions and consultation protocols to ensure more effective consultation.

F. Creating an Accountable Process

In addition to the Executive Order's requirement to certify compliance with the Executive Order to OMB, and in some circumstances to submit a tribal summary impact statement,²⁰⁵ agency policies may create other procedures

201. Alaska SFD Consultation Process, *supra* note 98.

202. Bering Sea Chinook Salmon Bycatch Final EIS—December 2009, at 9, April 2009.

203. EPA Region 10 Consultation Procedures, *supra* note 181, at 13.

204. *Id.* at 16.

205. NMFS included a tribal impact summary statement for two final fisheries rules in 2010. *See* Fisheries of the Exclusive Economic Zone Off Alaska; Chinook Salmon Bycatch Management in the Bering Sea Pollock Fishery, 75 Fed. Reg. 53026 (Aug. 30, 2010) (final rule); Fisheries of the Exclusive Economic Zone Off Alaska; Bering Sea Subarea, 75 Fed. Reg. 41123 (July 15, 2010) (proposed regulations); Fisheries of the Exclusive Economic Zone Off Alaska; Chinook Salmon Bycatch Management in the Bering Sea Pollock Fishery, 75 Fed. Reg. 14016 (Mar. 23, 2010) (proposed regulations); and Fisheries of the Exclusive Economic Zone Off Alaska; Modified Non-Pelagic Trawl Gear and Habitat Conservation in the Bering Sea Subarea, 75 Fed. Reg. 61642 (Oct. 6, 2010) (final rule). For example, the final rule for Chinook Salmon bycatch documented the Fisheries Service's consultation with Native groups. The Service initiated consultation at the beginning

197. Alaska SFD Consultation Process, *supra* note 97.

198. EPA Region 10 Consultation Procedures, *supra* note 181, at 11.

199. *Id.*

200. *Id.* at 12.

for accountability. Of particular interest are requirements to provide a written summary to tribes of the decision, included in DHS, EPA, EPA Region 10, DOC, and Alaska Sustainable Fisheries policies. Policies may also require that the written summary explain why tribal input was incorporated or not incorporated into the final decision. For instance, Alaska Sustainable Fisheries is to send a draft summary of the meeting, with responses to questions, to participants. After receiving and incorporating comments, a final summary is sent to participants. DOC requires that a formal written communication that summarizes the consultation and responds to the issues and concerns be provided to tribal officials. EPA and EPA Region 10 policies go further in addressing tribes' concerns that their views be taken into account in the final decision; the policies require that written feedback after consultation explains how tribal input was considered in the final action. DOI and FSB policies provide a level of accountability by requiring a yearly or ongoing review of the consultation process, and DOI also provides for an optional post-consultation review.

V. Conclusion

The federal government carries out its trust relationship with Native Americans and Alaska Natives in myriad ways. One such mechanism is government-to-government consultation, as required by EO 13175 and advanced in several resource management statutes. This Article explored the legal framework for engaging in consultation with Alaska Natives on matters related to offshore natural resources.

Stepping back from questions about how consultation has occurred in practice, it provided an overview and comparison of legal and policy requirements in order to highlight the potential for the consultation process.

As described in the Article, there are several key elements that are critical to achieving consultation that meaningfully integrates tribal input into decisionmaking. They include establishing mechanisms to ensure consultation brings together the right participants, including specified agency personnel; involving tribes early and throughout the decisionmaking process; and fully exchanging information, including incorporating TEK in decisionmaking and providing technical support. As for how the consultation is conducted, agencies and tribes should mutually develop a collaborative and flexible process, and agencies should provide feedback to tribes about how their input was used in the decision. As a general matter, consultation requires sufficient resources. Finally, most federal agencies could improve their consultation frameworks by more fully articulating consultation guidelines, procedures, and protocols, and ensuring that the policies respond to tribal concerns and reflect best practices.

In a perfect world, consultation would result in decisions that maximize the satisfaction of all parties involved and affected. In Alaska, consultation is a particularly important tool as federal agencies strive to find ways to fulfill their trust responsibilities to protect tribal interests and the environment, and tribes face increasing pressures caused by quickly changing ecosystem and socioeconomic conditions.

of the EIS scoping process (after the North Pacific Fisheries Management Council submitted certain fisheries management alternatives). It received 12 letters of comment from tribal representatives. The Council also conducted outreach meetings and open council meetings, at which "a number of tribal representatives and tribal organizations provided written public comments and oral public testimony." 75 Fed. Reg. 53053.

A Pioneering Effort in the Design of Process and Law Supporting Integrated Arctic Ocean Management

by Jessica S. Lefevre

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Summary

Offshore oil and gas development in arctic Alaska carries a high risk of interference with nutritionally and culturally critical bowhead whale (*Balaena mysticetus*) subsistence hunting. Since the mid-1980s, the Alaska Eskimo Whaling Commission has engaged offshore oil and gas exploration and development companies, including oil majors, in an annual process of collaboration and negotiation to create mitigation measures capable of avoiding adverse impacts to bowhead whales, habitat, and hunting opportunities. The process, founded on local ecological knowledge and western science, has become a staple of offshore oil and gas development in arctic Alaska. In addition to avoiding adverse impacts to subsistence uses that are protected under federal law, this highly efficient process also reduces conflicts that might otherwise slow offshore permitting.

Ocean management experts, along with development experts in other fields, increasingly recognize the need for mechanisms to reduce user conflict and address trade offs among competing uses of coastal zones. This perspective is becoming increasingly prevalent as energy development and commercial activities expand in our coastal waters and the oceans beyond. The system of collaboration between oil and gas developers and Alaskan Eskimo bowhead whale subsistence¹ hunters in the U.S. Arctic provides useful insights into how conflicts and the need for trade offs among competing uses in the Arctic and beyond might be addressed, while maintaining a priority for habitat protection. Eskimo people in coastal communities of arctic Alaska have depended on marine life, including bowhead whales (*Balaena mysticetus*), one of the great whales of the Arctic, for millennia.² This dependence continues today, with the coastal villages of northern and northwestern Alaska (Barrow, Nuiqsut, Kaktovik, Wainwright, Pt. Lay, Pt. Hope, Kivalina, Wales, Little Diomedea, Gambell, and Savoonga) continuing to rely on annual whale harvests from the Bering-Chukchi-Beaufort Seas (BCBS) stock of bowhead whales, also referred to as the “western Arctic” stock of bowhead whales.³ The subsistence

Author's Note: The accomplishments documented in this Article owe their success to the efforts of many talented and hard-working people, too numerous to name. Two remarkable individuals require special mention, however: Thomas Napageak, without whose vision and determination the Conflict Avoidance Agreement (CAA) Process would never have been born; and Dr. Tom Albert, without whose unparalleled skill at seeing the Traditional Knowledge of arctic hunters through the lens of the western scientific process the scientific foundations of the CAA would never have been laid.

1. In general, “subsistence” is best understood as a way of life in which cultural and economic pursuits combine around the central activity of “food production for local distribution and use.” Robert J. Wolfe, *An Overview of Subsistence in Alaska*, in SYNTHESIS: THREE DECADES OF RESEARCH ON SOCIOECONOMIC EFFECTS RELATED TO OFFSHORE PETROLEUM DEVELOPMENT IN COASTAL ALASKA 163, 164 (Stephen R. Braund & Jack Kruse eds., 2009). Eskimo subsistence whaling captains bear all costs associated with the whale harvest, for the privilege of sharing the whale with the other residents of the village, free of charge.
2. REPORTS OF THE INTERNATIONAL WHALING COMMISSION, SPECIAL ISSUE 4, ABORIGINAL SUBSISTENCE WHALING (with special reference to the Alaska and Greenland Fisheries) (G.P. Donovan ed., 1982).
3. A Native Alaskan subsistence whaling crew typically consists of approximately 10 Native hunters who cooperate in the preparations for and conduct of the whale hunt. The captain is responsible for organizing, outfitting, and equipping the crew, and for feeding crew members during the weeks spent hunting. The successful captain and crew members share the whale, with the size and makeup of shares defined by custom. The captain also shares the take with other community members who might contribute to the crew's support, such as by donating food or equipment. In addition to caring for and sharing with the crew and those supporting the crew, the captain also is responsible for offering to share the whale as part of a meal prepared for all members of the community, immediately following a successful hunt. For spring hunts, a successful captain repeats this community-wide sharing practice during the early summer festival of *Nalukataq*, or “blanket toss.” For both spring and fall hunts, successful captains again offer

hunt of bowhead whales by these Eskimo people is sanctioned under U.S. law.⁴ The hunt also is highly regulated at the international, national, and local levels, with major aspects of regulation found in the U.S. Marine Mammal Protection Act (MMPA),⁵ Endangered Species Act (ESA),⁶ and Whaling Convention Act.⁷ With the apparent increase in seasonal retreat of the arctic ice pack in recent decades, interest in offshore oil and gas development in the Beaufort and Chukchi Seas has increased. Oil and gas experts believe that these areas of the Arctic Ocean may hold some of the world's few remaining large plays of oil recoverable with traditional technologies. Ice retreat also raises the likelihood of commercial uses in this area of the Arctic, including shipping routes and commercial fishing.

Since the mid-1980s, the Eskimo bowhead whale subsistence hunters, through their representative organization, the Alaska Eskimo Whaling Commission (AEWC), and offshore oil and gas operators have worked together to address the challenge of managing offshore industrial development in a setting dominated by nutritionally and culturally vital bowhead whale subsistence hunting. For the Eskimo hunters, direct collaboration with offshore operators is completely natural. Successful hunters are innately intelligent and inventive individuals. This is especially true of Alaskan Native subsistence whale hunters, who continue to use hand-held weapons and hand-made six-to-eight man "skin boats" in their ocean-going hunt for whales that range up to 60 feet in length. The whaling captains, who organize, outfit, and manage these crews, also are felt by their communities to be the most knowledgeable about the tolerances for anthropogenic disturbance of the whales they hunt, and thus the best-equipped to advise on the timing, location, and levels of industrial activities relative to migrating whales and hunting areas. Moreover, as community leaders, the whaling captains of the AEWC are equally responsible for bringing both whales and jobs into their villages. Therefore, they are motivated to seek management solutions that optimize the uses of the ocean for both sets of stakeholders.

Collaboration between the subsistence hunters and offshore oil and gas operators is centered on an agreement, revised annually in face-to-face meetings, that has come to be known as the "Open Water Season Conflict Avoidance Agreement (CAA)."⁸ The process of annual discussions and revisions is referred to as the "CAA Process." As industrial and commercial activities increase in the Arctic and other marginal areas, developers, local residents, and regulators, both within and beyond the Arctic, may

benefit from an understanding of this stakeholder-driven approach to multi-use management. Adding dimension to this discussion, and implicit in the CAA Process, is the recognition that in situations where conflicts are localized and relatively unique: (a) immediate stakeholders may be the most-qualified candidates for identifying effective solutions; (b) well-crafted and appropriately peer-reviewed scientific research is a key element underlying decision-making; and (c) formally recognizing local residents as stakeholders in the decision process provides a sense of control in a setting where the outside forces of change can appear overwhelming.⁹

I. The Open-Water Season CAA and Process Today

Each year, as the February winds sweep through the Inupiat Eskimo village of Barrow, Alaska, representatives of some of the largest corporations on earth gather in the local high-school auditorium to meet with Inupiat hunters. The hunters are the captains of subsistence whale hunting crews from 11 northern and northwestern Alaskan coastal villages where the millennia-old bowhead whale subsistence hunt continues. Most of the corporate representatives are from subsidiaries of international oil and gas majors, including BP (operating as BP Exploration (Alaska) Inc.), Royal Dutch Shell (operating as Shell Offshore Inc.), ExxonMobil Corporation, ConocoPhillips, Statoil, Eni (operating as ENI U.S. Operating Company Inc.); smaller companies, including Pioneer Natural Resources, and various geophysical operators, also participate in the meetings.¹⁰ Researchers undertaking various projects on the arctic marine ecosystem, as well as U.S. federal regulators, attend as observers. The oil industry participants are at the meeting to discuss their companies' plans for the year's open-water season offshore oil and gas exploration and development work in the Beaufort and Chukchi Seas of the Arctic Ocean.

Considered remote by most of the world's population, and certainly by offshore developers, the coastal areas of the Alaskan Arctic¹¹ are home to an ancient culture that, for thousands of years, has survived largely off the marine life of these waters.¹² The area around Barrow, itself, has been

to feed the entire community at Thanksgiving and Christmas. Telephone Interview with Johnny Aiken, Executive Director of the Alaska Eskimo Whaling Commission (Apr. 17, 2012).

4. Marine Mammal Protection Act, §101(a)(5)(A), (D), (b), 16 U.S.C. §1371(a)(5)(A), (D), (b) (2006).
 5. 16 U.S.C. §§1361-1421h, ELR STAT. MMPA §§2-410.
 6. 16 U.S.C. §§1531-1544, ELR STAT. ESA §§2-18.
 7. 16 U.S.C. §§916-916l (2006).
 8. The "Open Water Season" in the Alaskan Arctic generally refers to the summer and early fall months, usually mid-July through mid-October, when the near-shore areas of the Arctic Ocean in this region are relatively ice-free.

9. See Sverre Pedersen et al., *Chapter 7: Subsistence Harvest Patterns and Oil Development on Alaska's North Slope*, in SYNTHESIS, *supra* note 1, at 208, discussing the 1983 regional report prepared by John Kruse et al., *A Description of the Socioeconomics of the North Slope Borough*, Institute of Social and Economic Research, Univ. of Alaska, Contract No. AA851-CTZ-37 (A19/PB 87-189338).
 10. 2012 Open Water Season Conflict Avoidance Agreement Meetings (Feb. 16-17, 2012), available at <http://www.nmfs.noaa.gov/pr/pdfs/permits/openwater/aewc2012.pdf>.
 11. For purposes of this Article, "Alaskan Arctic" refers to the region of northern Alaska from St. Lawrence Island in the northern Bering Sea, north through the Chukchi and Beaufort Seas coastal areas and outer continental shelf, and east along the coastal areas and outer continental shelf to the Canadian border.
 12. Stephen R. Braund et al., *North Slope Subsistence Study*, Barrow, 1987, 1988, and 1989, MMS OCS Study No. 91-0086, 17-24 (1993).

inhabited for approximately 6,000 years.¹³ In the Arctic, however, ancient does not spell static in cultural terms. The ancestors of the subsistence whaling captains who gather at these meetings survived extended periods of social change brought on by various outside forces, including the introduction of cash economies based on now-defunct Yankee commercial whaling, the fur trade, missionary activity, the establishment of trading posts, and government intervention in the form of modern military operations and federal social programs.¹⁴ With each successive external influence, they found ways to take what they could use and adapt it to their needs, while maintaining the core cultural identity that continues to define them today.¹⁵ At the same time, their tenacity carried them through starvation and population decline as outsider trade in walrus ivory and commercial whaling on the bowhead stock, combined with low caribou populations, decimated critical food supplies in the late 19th and early 20th centuries, while outside contact brought devastating disease.¹⁶

Appearing to be “hard-wired” for survival through adaptation, the modern-day descendants of those hardy men and women move seamlessly from hand-made skin boats used for spring subsistence whaling to corporate boardrooms and the halls of government, where their natural leadership skills engender high regard. Through the AEW, the subsistence whaling community commands respect at the International Whaling Commission (IWC), where their subsistence hunting practices are scrutinized by delegates from former commercial whaling nations, whose past exploitations are responsible for the depletion of many of the earth’s whale populations, including bowhead whale stocks.¹⁷ When oil and gas development moved into Alaska’s Arctic waters in the 1980s, it was axiomatic that the whaling captains of these villages, whose ranks continue to give rise to the leaders of their communities, would step forward to define a role for themselves and their constituents in addressing the effects of this activity.¹⁸ After all, subsistence whaling, as it has throughout their history, continues to serve as the single most important culturally defining activity for these communities, and oil and gas development is only the latest in a long line of agents of social change.¹⁹

Now, gathered in the auditorium of Barrow’s state-of-the-art high school, paid for with tax revenues from the Prudhoe Bay oil fields, the whaling captains contemplate how the year’s exploration and development work, as planned by the offshore companies, can be coordinated and carried out so as not to interfere with the fall bowhead whale migration and their critical fall whale harvest.²⁰ The discussions between developers and hunters draw on the hunters’ ecosystem knowledge gained through generations devoted to observing the arctic environment and whale behavior.

For those not familiar with these meetings and their history, some see “oil-whaler collusion” to monetize the Arctic Ocean with no regard for environmental effects. Others see “environmentalist-whaler collusion” to create legal and regulatory barriers to development in a world hungry for petroleum. The whaling captains of the AEW see only the latest exercise in pragmatism and adaptation, traditions as ancient to their culture as whaling.

As with past incursions from the outside, the hunters look for opportunities to bring benefit to their communities while maintaining their core identity and traditions. Offshore oil and gas development brings the opportunity for jobs, tickets into the modern world for residents of a rural economy. However, much of the development work is taking place in the fall migratory path of the BCBS bowhead whale stock. Along with a door into the international cash economy, the industrial work brings noise and water pollution, both of which the subsistence whale hunters know, and research confirms, will drive the fall migrating bowhead whales away from their normal migratory route where they are accessible to the hunters.²¹ These seemingly localized impacts can reverberate throughout northern Alaska’s subsistence economy. The 11 subsistence whaling villages that rely on this nutritionally and culturally central subsistence resource constitute one-third of the communi-

13. Sverre Pedersen et al., *Chapter 7: Subsistence Harvest Patterns and Oil Development on Alaska’s North Slope*, in SYNTHESIS, *supra* note 1, at 193.

14. See, e.g., John A. Kruse, *Subsistence and the North Slope Inupiat: The Effects of Energy Development*, *Man in the Arctic Program*, Monograph No. 4, Inst. of Social and Economic Research, Univ. of Alaska (1982), at 11.

15. Int’l Whaling Comm’n, *Report on Nutritional, Subsistence, and Cultural Needs Relating to the Catch of Bowhead Whales by Alaskan Natives*, IWC/TC/40/AS2 (1988), at 43-44.

16. Int’l Whaling Comm’n, *Report on Nutritional, Subsistence, and Cultural Needs Relating to the Catch of Bowhead Whales by Alaskan Natives*, IWC/TC/35/AS3 (1983), at 46. Int’l Whaling Comm’n, *Report on Nutritional, Subsistence, and Cultural Needs Relating to the Catch of Bowhead Whales by Alaskan Natives* (1988).

17. See <http://www.iwcoffice.org>, for membership, annual reports, and other relevant information.

18. Kruse, *Subsistence and the North Slope Inupiat: The Effects of Energy Development*, *supra* note 14, at 11, 43.

19. Int’l Whaling Comm’n, *Report on Nutritional, Subsistence, and Cultural Needs Relating to the Catch of Bowhead Whales by Alaskan Natives*, IWC/

TC/35/AS3 (1983), at 6. Note that oil and gas exploration and development work is currently limited to the relatively ice-free “Open Water” period from late July to late October. As discussed *infra*, this is when fall whaling occurs, principally in the Beaufort Sea, but increasingly in the Chukchi Sea as well. To date, spring whale hunting, which begins in March in the Bering Straits region and concludes in June at Barrow, remains relatively free of industrial disturbance.

20. This research definitively confirmed the hunters’ reported observations of bowhead whale migratory behavior displayed as the whales pass the census station at Pt. Barrow. Thomas F. Albert, *The Influence of Harry Brower, Sr., An Inupiaq Eskimo Hunter, on the Bowhead Whale Research Program Conducted at the UIC-NARL Facility by the North Slope Borough*, in FIFTY MORE YEARS BELOW ZERO: TRIBUTES AND MEDITATIONS FOR THE NAVAL ARCTIC RESEARCH LABORATORY’S FIRST HALF CENTURY AT BARROW, ALASKA 273-86 (David W. Norton ed., 2001). Given this validation of the hunters’ observations through well-designed, western science studies, when senior hunters, in later years, began to talk repeatedly about the changes they were seeing in whale behavior in the presence of industrial activities, it was reasonable to take their claims seriously and to develop studies capable of determining the veracity of these reports. See the discussion below in Section IV.B. “The Central Roles of Local Knowledge and Western Science.”

21. NAT’L RESEARCH COUNCIL, CUMULATIVE ENVIRONMENTAL EFFECTS OF OIL AND GAS ACTIVITIES ON ALASKA’S NORTH SLOPE, 100 (2003). Alaskan Native marine mammal subsistence harvests are federally authorized under §101(b) of the MMPA, 16 U.S.C. §1371(b), and protected from industrial interference pursuant to Sub-Sections 101(a)(5)(A) and (D) of that statute, 16 U.S.C. §1371(a)(5)(A), (D).

ties in northern Alaska's three census districts.²² Through the subsistence economy's established sharing networks, the bowhead whale's importance extends, as well, to other northern Alaskan villages, the populations of which are overwhelmingly Native.²³ Therefore, the business of the annual whaler-industry meetings is to evaluate the location and timing of planned oil and gas activities in relation to the route of the fall whale migration and the fall subsistence whale hunting areas. The challenge for the participants is to devise measures that mitigate adverse impacts of the industrial work—i.e., to tweak developers' plans enough to greatly reduce industrial disturbances to migrating whales and key areas of habitat and hunting, while ensuring that the oil and gas work remains operationally and economically feasible.



A bowhead whale migrating in an opening in the spring ice-cover. Openings of this type, that extend over distance, are referred to as "ice leads" or "leads in the ice." Photo by Gennady Zelensky.

Agreed mitigation measures are recorded in the document referred to as the CAA. The CAA is reviewed and revised annually to reflect changing needs. The spirit of cooperation and collaborative management reflected in this process is memorialized in the signatures of representatives of the companies and the AEWG and its affected constituent villages.

Over the years, certain mitigation measures have come to be used consistently and as a result have become permanent features of the CAA. In any given year, additional measures may be agreed to on an as-needed basis to address issues unique to a specific operation. Together, these measures, and the process used to develop them, provide a multi-pronged approach to managing potential conflicts through application of mutually acceptable trade offs among the competing uses of subsistence hunting and industrial development. As described in further detail below, the core mitigation measures currently

include communications strategies to allow for real-time decisionmaking, time-area closures that align with the whale migration to minimize disruption to hunters as well as oil and gas operators, pollution discharge protocols, restrictions on vessel movements, and scientific research requirements.

II. Context and History

A. *The Bowhead Whale Migration and the Subsistence Hunt by Alaskan Eskimos*

The coastal villages of Alaska's northern shores constitute some of our planet's most remote outposts of human civilization. Hundreds of miles removed from highway systems and power grids, the majority of these villages are accessible only by air or seasonal barge transport, and some can be reached only at certain times of the year. The annual bowhead whale migration provides the largest subsistence resource available in these distant villages, with a single bowhead whale, on average, yielding between 6 and 25 tons of food.²⁴

The BCBS bowhead whale stock winters in the northern Bering Sea, migrating north through the Bering Strait, into the Chukchi Sea and ultimately the Beaufort Sea, where the majority of its members appear to summer in the Amundsen Gulf region of the Canadian Beaufort Sea, north of the McKenzie River delta.²⁵ The spring migration takes place typically from late March into early June.²⁶ During this time, the villages of Gambell and Savoonga, on St. Lawrence Island in the northern Bering Sea; Wales and Little Diomedé, in the Bering Straits Region; Kivalina, Pt. Hope, Pt. Lay, and Wainwright, along the Chukchi Sea coast; and Barrow, at the junction of the Chukchi and Beaufort Seas, all conduct their spring hunt for bowhead whales.

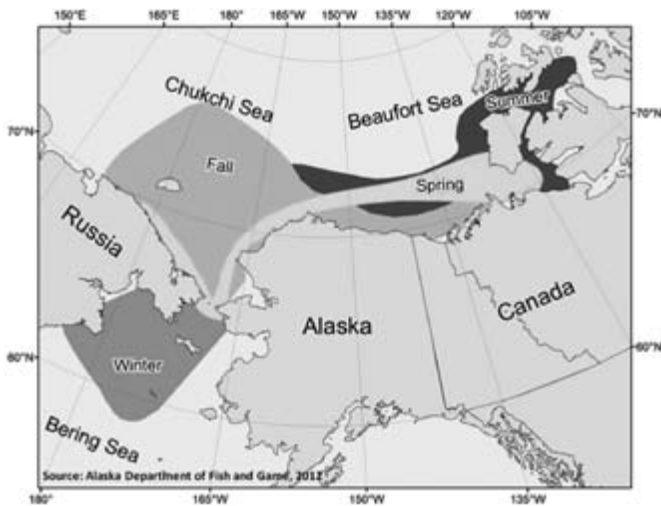
22. Research and Analysis Section, Alaska Department of Labor and Workforce Development, 2010 Census, <http://labor.alaska.gov/research/index.htm> (last visited Aug. 19, 2013).

23. Kruse, *supra* note 14, at 44. Int'l Whaling Commission, *supra* note 15, at 6.

24. Interview with Dr. John Craighead George, Research Biologist, North Slope Borough Department of Wildlife Management (June 27, 2012).

25. Sue E. Moore & Randall R. Reeves, *Distribution and Movement*, in THE BOWHEAD WHALE SPECIAL PUBLICATION NO. 2: THE SOCIETY FOR MARINE MAMMALOGY, 313-86, at 313-56 (Burns et al. eds., 1993). LORI QUAKENBUSH ET AL., SATELLITE TRACKING OF WESTERN ARCTIC BOWHEAD WHALES OCS STUDY BOEMRE 2010-33 74 (2010). This recent research also has revealed that some whales remain in the Chukchi and Alaskan Beaufort Seas throughout the summer. LORI QUAKENBUSH ET AL., at 32 and fig. 25.

26. Moore & Reeves, *supra* note 25, at 336-39; QUAKENBUSH ET AL., *supra* note 25, at 74.



Bering-Chukchi-Beaufort Seas Bowhead Whale Range Map, Alaska Department of Fish and Game, 2012.

The spring hunt takes place primarily from hand-made skin boats, or *umiaks*, fashioned from walrus or bearded seal skin stretched over a wood frame and sewn with threaded sinew taken from caribou tendons.²⁷

The whales summering in the Canadian Beaufort Sea begin their return migration to the northern Bering Sea in early September.²⁸ The migration proceeds through the nearshore waters of the Alaskan Beaufort Sea, with a majority of the whales appearing to continue westward toward Wrangel Island and the Russian coast of Chukotka before turning south toward the Bering Sea.²⁹ This “open-water season” migration typically continues through November.³⁰ During this return migration, the Beaufort Sea villages of Kaktovik, on Barter Island near the Canadian border; Nuiqsut, hunting from Cross Island to the east of Prudhoe Bay; and Barrow conduct the fall bowhead whale subsistence hunt using outboard skiffs.

In recent years, the spring “shore-fast” ice (near-shore ice that is grounded into the sea floor at the coast line) has been thinner and less stable than in the past. Historically used as the platform from which spring whaling is conducted, the ice now presents a less stable and less safe structure from which to hunt.³¹ As a result, the Chukchi Sea villages of Wainwright, Pt. Lay, and Pt. Hope have begun to hunt for bowhead whales in the fall, as well, with Wainwright taking a fall whale for the first time in memory in 2010, and then taking a second fall whale in 2011.³² Gambell and Savoonga, on St. Lawrence Island in the northern Bering

Sea, now hunt and take whales regularly in late November and early December.³³



An *umiak* on the spring ice with the harpoon mounted on the darting gun laying in the front of the boat, ready for use. Photo by Bill Hess.

B. Alaskan Arctic Offshore Oil and Gas Development

The U.S. Department of the Interior’s (DOI’s) Bureau of Land Management (BLM) held the first federal sale of offshore leases in the U.S. Beaufort Sea outer continental shelf (OCS), along the northern coast of Alaska, in 1979.³⁴ By that time, the creation of the infrastructure necessary to support the expansion of oil and gas development in the Beaufort and Chukchi Seas of the Alaskan Arctic was under way. Two years previously, on June 20, 1977, onshore oil production began at the North Slope’s giant Prudhoe Bay oil field, the largest in North America and 18th largest worldwide.³⁵ From the 46 lease-sale tracts offered in 1979, 24 leases, covering 85,776 acres (134.025 square miles (sq. mi.)), were issued.³⁶ In 1982, the year the U.S. Congress created DOI’s Minerals Management Service,³⁷ to take over federal responsibility for oil and gas leasing in federal waters, another 338 tracts of the Beaufort Sea, covering 1.826 million acres (2,853.125 sq. mi.), were

are available through the AEWG or the U.S. Department of Commerce, National Marine Fisheries Service, Anchorage Regional Office.

27. The animal skin enables the boat to glide quietly through the water, reducing the risk of disturbance to the migrating whales. The caribou sinew, both tough and elastic, expands and contracts with the skin as it is subjected to the freezing conditions of ice-based spring subsistence whale hunting.
28. Moore & Reeves, *supra* note 25, at 339-44; QUAKENBUSH ET AL., *supra* note 25, at 15-16.
29. Moore & Reeves, *supra* note 25, at 339-44.
30. *Id.* at 344; QUAKENBUSH ET AL., *supra* note 25, at 16.
31. Int’l Whaling Comm’n, *Report on Weapons, Techniques, and Observations in the Alaskan Bowhead Whale Subsistence Hunt*, IWC/64/WKM&AW1 8 (2012), at 2.
32. ALASKA ESKIMO WHALING COMM’N, FALL HARVEST REPORT (2010); ALASKA ESKIMO WHALING COMM’N, FALL HARVEST REPORT (2011). Both reports
33. Interview with George Noongwook, AEWG Chairman, whaling captain from the village of Savoonga on St. Lawrence Island (July 24, 2012); Interview with Merlin Koonooka, AEWG Secretary, whaling captain from the village of Gambell on St. Lawrence Island (July 24, 2012).
34. See Lease Sales, Alaska OCS Region, BUREAU OF OCEAN ENERGY MANAGEMENT, http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Leasing/Alaska%20Region%20Lease%20Sales%20To%20Date.pdf (last visited Aug. 19, 2013).
35. The Prudhoe Bay field was originally discovered by Atlantic Richfield (ARCO) and Exxon in 1968. Prudhoe Bay Fact Sheet, BP (Aug. 2006), available at http://www.bp.com/assets/bp_internet/us/bp_us_english/STAGING/local_assets/downloads/a/A03_prudhoe_bay_fact_sheet.pdf.
36. Two of these leases remain active today. See Lease Sales, *supra* note 34. See also Detailed Active Leases, Alaska OCS Region, BUREAU OF OCEAN ENERGY MANAGEMENT, available at http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Regional_Leasing/Alaska_Region/detailed_active_leases.pdf.
37. History of Interior, U.S. Department of the Interior, <http://www.doi.gov/whoware/history.cfm> (last visited Aug. 19, 2013).

offered for development, with 662,860 acres (1,035.72 sq. mi.) purchased through 121 leases.³⁸ The next Beaufort Sea federal lease sale came in 1984, with 1,419 tracts covering 7.773 million acres (12,145.3 sq. mi.) offered for sale, and 96 leases covering 1.2 million acres (1,875 sq. mi.) purchased.³⁹ Hard on the heels of the 1984 lease sale, the first continuously producing offshore field in the Arctic, BP's Endicott Unit, located three miles from the Beaufort Sea coast and connected to shore by a solid-fill, breached causeway, was brought online in 1987.⁴⁰

In 2001, the first production unit in the Alaskan Arctic that is connected to shore only by a subsea pipeline, BP's Northstar Unit in the central Beaufort Sea, came online.⁴¹ By September 1, 2011, the Alaskan Beaufort Sea contained 183 active federal oil and gas leases, with 487 active leases in the Chukchi Sea, for a total of more than 1,506,835 hectares (5,817.9 sq. mi.) of the Alaskan Arctic's OCS under active federal lease for oil and gas development.⁴²

C. The AEWG

As fate would have it, in 1977, two years before BLM's first arctic offshore lease sale, the IWC expressed serious concern over the status of the western arctic bowhead whale stock, including "potential habitat pollution and destruction by [pre-lease sale] oil exploration and development."⁴³ At the time, research efforts indicated that there were approximately 600-2,000 animals left in a stock, decimated by commercial whaling, that was thought to have originally numbered between 11,700 and 18,000 animals.⁴⁴ The current population estimate for this stock is 16,892 (95% confidence interval of 15,704 to 18,928).⁴⁵

With its concern over the status of the whale stock, based on the early research efforts, the IWC voted to assume direct jurisdiction over the Alaskan Native bowhead whale subsistence hunt. The IWC expressed this decision by amending its Schedule, containing the organization's regu-

lations, to delete the exemption under which the Alaskan hunt had been conducted since the United States adhered to the International Convention for the Regulation of Whaling (ICRW) on December 2, 1946.⁴⁶ The IWC's only mechanism for protecting whale stocks is the setting of hunting quotas. Therefore, while the organization was motivated in part by concerns over offshore development, its only recourse for addressing its concerns was to act to prohibit the Alaska Native bowhead whale subsistence hunt.⁴⁷ This action devastated local communities, creating immediate and severe food shortages.⁴⁸ Native subsistence hunters, who learned of the IWC's initial action only after the fact, were shocked to be informed that their millennia-old subsistence whale hunt had been banned without their input or prior knowledge.⁴⁹ Under the ICRW, the United States could have enabled the subsistence hunt to continue uninterrupted by lodging an "objection" to the IWC's decision.⁵⁰ The United States chose not to object to the decision, and it was only after legal action by the subsistence whale hunters that the United States approached the IWC to set a quota greater than zero.⁵¹

At the time of the IWC's action to limit the bowhead whale subsistence hunt, the whaling villages required a total of approximately 26 whales per year to meet nutritional and cultural needs in those communities.⁵² The IWC quota initially reduced this take to no more than 18 struck and 12 landed whales per year.⁵³ The quota did not reach a level necessary for all of the AEWG's villages to have the opportunity to take an adequate supply of whales for almost 15 years.⁵⁴ Resourceful and fiercely independent, community leaders from the principal whale-hunting vil-

38. Lease Sales, *supra* note 34.

39. *Id.*

40. BP, Verified Site Report Alaska 5 (2007), available at www.bp.com/livesets/bp_internet/globalbp/STAGING/global_assets/downloads/V/verified_site_reports/N_America/Alaska_2007.pdf.

41. *Id.*

42. Lease Sales, *supra* note 34.

43. Int'l Whaling Comm'n, *Report of the International Whaling Commission, Special Issue 4, Aboriginal Subsistence Whaling* (with special reference to the Alaska and Greenland fisheries) (1982), at 2. Other factors driving this decision were physical and methodological challenges confronting researchers attempting to conduct a census of the BCBS bowhead whale stock that led to very significant underestimates of population size, and an increase in Native Alaskan takes of bowhead whales. See discussion in Judith E. Zeh et al., *Current Population Size and Dynamics*, in THE BOWHEAD WHALE SPECIAL PUBLICATION No. 2: THE SOCIETY FOR MARINE MAMMALOGY, *supra* note 25, at 410-21.

44. Int'l Whaling Comm'n, *Report of the International Whaling Commission, Special Issue 4*, *supra* note 43.

45. Int'l Whaling Comm'n, Geoffrey H. Givens et al., *Estimate of 2011 Abundance of the Bering-Chukchi-Beaufort Seas Bowhead Whale Population*, SC/65a/BRG01 (2013), at 1. Significantly, in 1977 and 1978, the Eskimo hunters informed the United States and the IWC that the BCBS bowhead whale stock was healthy and growing, a fact now born out by more than 30 years of research on BCBS bowhead whale biology. Interview with Eugene Brower and Harry Brower Jr. (June 27, 2012).

46. Int'l Whaling Comm'n, Geoffrey H. Givens et al., *Estimate of 2011 Abundance of the Bering-Chukchi-Beaufort Seas Bowhead Whale Population*, *supra* note 45; Int'l Whaling Comm'n, *28th Report of the International Whaling Commission* (1978) at 22.

47. Int'l Whaling Comm'n, *28th Report of the International Whaling Commission* (1978), *supra* note 46, at 22. See generally INTERNATIONAL CONVENTION FOR THE REGULATION OF WHALING, Dec. 2, 1946, 62 Stat. 1716, 161 U.N.T.S. 72.

48. NOAA, A SPECIAL REPORT TO THE INTERNATIONAL WHALING COMMISSION ON BOWHEAD WHALES 56-57 (1978), available at docs.lib.noaa.gov/noaa_documents/NOS/CZIC/89FF36.pdf. Interview with Eugene Brower and Harry Brower Jr., *supra* note 45.

49. Interview with Eugene Brower and Harry Brower Jr., *supra* note 45.

50. INTERNATIONAL CONVENTION, *supra* note 47, art. V, 3(a).

51. *Adams v. Vance*, 570 F.2d 950, 8 ELR 20160 (D.C. Cir. 1977). In recognition of the fact that the circumstances of the bowhead whale subsistence hunt, including the use of hand-held weapons, hunting large animals from small boats, and the influence of sea state, sea ice, and weather, can cause some whales to be lost after being struck, the IWC sets the quota for bowhead whales on both struck and landed whales. INTERNATIONAL CONVENTION FOR THE REGULATION OF WHALING, SCHEDULE (2012) ¶ 13(b)(1), available at <http://iwc.int/cache/downloads/11v6fvjz06f48wc44w4s4w8gs/Schedule-February-2013.pdf>.

52. Int'l Whaling Comm'n, *Report on Nutritional, Subsistence, and Cultural Needs Relating to the Catch of Bowhead Whales by Alaskan Natives*, IWC/TC/35/AS3 (1983), at 59.

53. Int'l Whaling Comm'n, *Report of the International Whaling Commission, Special Issue 4*, *supra* note 43.

54. 48TH REPORT OF THE INTERNATIONAL WHALING COMMISSION 28 (1998), at 51, available at <http://iwc.int/annual-reports>. For documentation of subsistence need to support the level of quota set in 1997, see Int'l Whaling Comm'n, *Alaska Eskimo Subsistence Need for Bowhead Whales, Submitted by the United States Under Agenda Item 10 IWC/46/37* (Technical Committee, 1994), at 7.

lages joined together quickly to form the AEWEC, tasking the organization with responsibility for representing their whaling interests.⁵⁵ The governing body of the AEWEC is a Board of Commissioners composed of one whaling captain from each constituent village, elected to a three-year term by the whaling captains of the village.⁵⁶ The whaling captains of each village organize themselves into village “Whaling Captains’ Associations.”

Following formal incorporation of the AEWEC in January of 1981, the new organization entered into a Cooperative Agreement, under §112 of the MMPA, with the National Oceanic and Atmospheric Administration (NOAA) within the U.S. Department of Commerce.⁵⁷ By the terms of this agreement, unique at the time and remaining in force today, NOAA delegates to the AEWEC principal local authority for co-management of the bowhead whale subsistence hunt. Under this delegation, the federal government vests the AEWEC with responsibility for ensuring that local hunters follow the IWC’s quota limits and other regulatory measures. In return, the Cooperative Agreement binds NOAA to “consult with the AEWEC on any action undertaken or any action proposed to be undertaken by any agency or department of the Federal Government that may affect the bowhead whale and/or subsistence whaling”⁵⁸

III. Managed Development: The Need and Challenge

A. Triggering Events: Industrial Development and Threats to Subsistence Livelihood

Forced by the IWC’s actions into an international legal fray, the bowhead whale hunters and their new organization were immediately confronted with added threats to their food security and cultural survival from offshore industrial development. By 1985, the bowhead subsistence hunters of the AEWEC’s villages along the Beaufort Sea coast, particu-

larly the fall open-water season hunters of Kaktovik and Nuiqsut (who conduct their annual whale hunt from Cross Island, in the Beaufort Sea to the east of Prudhoe Bay), found their whale hunting opportunities threatened and their small craft imperiled by enormous, ocean-going oil and gas industry exploration vessels, including drill ships and seismic exploration vessels.⁵⁹

The bowhead subsistence hunters knew from generations of observation that bowhead whales are extremely shy and reactive in the presence of even minor anthropogenic noise, movements, or smells.⁶⁰ Therefore, they were not surprised, although they were extremely distressed, to observe that the large-vessel traffic, seismic blasts, and drilling operations suddenly being introduced into the fall open-water areas of the Beaufort Sea were causing the fall migrating bowhead whales to deflect miles offshore, beyond the reach of the small six-to-eight man skiffs used by fall hunters.⁶¹ Whales that continued to migrate through the areas of industrial disturbance became “skittish,” changing swimming patterns and speeds in a way that made them effectively unavailable to the hunters, who continue to use traditional hand-thrown harpoons.⁶²

In the area of the Alaskan mid-Beaufort Sea where much of the industrial activity was concentrated, efforts to hunt the whales, already a risky business with the potential for loss of human life, were resulting in near catastrophes. Crews found themselves being forced to travel as far as 35 miles, and in some cases farther, from shore into the Arctic Ocean, with the normal travel distance being no more than 10-12 miles from shore.⁶³ Rapidly changing fall weather

55. Inupiat Community of the Arctic Slope, Resolution 78-14, “Delegation of Authority to the Alaska Eskimo Whaling Commission on Whaling Matters,” Feb. 15, 1978. Concurrent Resolution of the Native Villages of Gambell, Kivalina, Savoonga, Wales, and the Inupiat Community of the Arctic Slope, Mar. 20, 1978. State of Alaska, Department of Commerce and Economic Development, Certificate of Incorporation of the Alaska Eskimo Whaling Commission and Articles of Incorporation of the Alaska Eskimo Whaling Commission, a Nonprofit Corporation, Jan. 8, 1981. The nine original villages forming the AEWEC are: Kaktovik, Nuiqsut, and Barrow on the Beaufort Sea coast; Wainwright and Pt. Hope, on the Chukchi Sea coast; and Kivalina, Wales, Gambell, and Savoonga in the Bering Straits region. Those villages since have been joined by Little Diomedea, in the Bering Straits region, and Pt. Lay on the Chukchi Sea coast, bringing the AEWEC’s membership to 11 villages. (Documents available through the Alaska Eskimo Whaling Commission, P.O. Box 570 Barrow, Alaska 99723. Tel. 907-852-2392.)
56. RESTATED BYLAWS OF THE ALASKA ESKIMO WHALING COMMISSION, art. V. (Dec. 9, 2009).
57. NAT’L OCEANIC AND ATMOSPHERIC ADMIN. & ALASKA ESKIMO WHALING COMM’N, COOPERATIVE AGREEMENT (2013), *available at* http://www.nmfs.noaa.gov/ia/species/marine_mammals/inter_whaling/aewc_cooperative.pdf; MMPA §112(c), 16 U.S.C. §1382(c) (2006).
58. NAT’L OCEANIC AND ATMOSPHERIC ADMIN & ALASKA ESKIMO WHALING COMM’N, COOPERATIVE AGREEMENT (2013), *supra* note 57, ¶ 8.

59. Interview with Thomas Napageak, former Chairman AEWEC (deceased) and Nolan Solomon, former Vice Chairman of the AEWEC (deceased) (Nov. 1985).
60. Interview with Archie Ahkiviana, AEWEC Commissioner from the village of Nuiqsut (February 1995, July 2008). Interview with Harry Brower Jr., AEWEC Vice Chairman from the village of Barrow (June 27, 2013).
61. Affidavit of Herman Aishanna, exh. 1, Affidavit of Frank Long Jr., exh. 6, Alaska Eskimo Whaling Comm’n et al. v. Foster (1993), Plaintiff’s Motion for Preliminary Injunction, United States District Court for the District of Columbia (Civil Action No. 93 1629 HHG). *See also* NAT’L RESEARCH COUNCIL, *supra* note 21, at 100.
At the 1992 Kuvlum site the approaching fall-migrating whales began to deflect to the north at a distance of 32 km (19 mi.) east of the drilling platform and bowhead calling rates peaked at about the same distance At the 1993 Kuvlum #3 site the whales were nearly excluded from an area within 20 km (12 mi.) of the drilling platform During the 1986 open-water drilling operations at the Hammerhead site, no whales were detected closer than 9.5 km (6 mi.) from the drillship, few were seen closer than 15 km (9 mi.), and one whale was observed for 6.8 hours as it swam in an arc of about 25 km (15 mi.) around the drillship The zone of avoidance therefore seemed to extend 15-25 km (9-15 mi.) from the drillship. Acoustic studies done at the same time provided received levels of drillship noise that can be related to the zone of avoidance. At 15 km (9 mi.) from the 1986 Corona site, received sound was generally 105-125 dB . . . at 11 km (6 mi.) from Hammerhead, received sound was generally 105-130 dB.
62. Affidavit of Frank Long Jr., exh. 6, Alaska Eskimo Whaling Comm’n et al. v. Foster (1993), *supra* note 61. The harpoon is mounted on a wooden shaft, which is approximately six feet in length. Also mounted on the wooden shaft is a device called a “darting gun,” which is designed to fire an explosive projectile when the darting gun, activated by a protruding trigger rod, hits the whale.
63. Affidavit of Burton “Atqaan” Rexford, exh. 10, Affidavit of Thomas Napageak, exh. 8, Alaska Eskimo Whaling Comm’n et al. v. Foster (1993),

and seas almost cost crews their lives as small skiffs were swamped and men struggled to survive in frigid waters until neighboring crews could reach them and pull them to safety.⁶⁴ On a few occasions, whales that could be found and struck, after days of searching, had to be cut loose in high seas or took so long to bring to shore for butchering that the meat became rotten.⁶⁵ These “struck but lost” whales were counted against the hunters under the draconian IWC quota regime and further contributed to the food shortages and the social and psychological damage caused by the newly imposed IWC quota system.⁶⁶ The hunters’ appeals to federal regulators for help in addressing these impacts met with little success, despite the consultation requirements of the newly minted NOAA-AEWC Cooperative Agreement.

With the AEWC established, hunters facing threats from offshore oil and gas activities turned to the young organization, still trying to find its way in the international legal and political arena of the IWC, for assistance in seeking avenues to mitigate this industrial interference with their hunting. In this case, however, the task put to the AEWC’s Board of Commissioners was less clearly defined than the task of addressing quota levels at the IWC. The hunters welcomed the promise of employment opportunities that accompany development, but wanted that development undertaken in a way that would not interfere with subsistence hunting resources or opportunities.⁶⁷

Unfortunately, there was no precedent in practice or in literature that seemed to offer a good model for balancing conflicting uses in a situation where one activity was capable of effectively eliminating the other. Similarly, legal and regulatory standards pertaining to the two sets of activities did not provide adequate guidance on steps that might be taken to balance the uses.

B. *Response: A Practical Approach to Addressing Adverse Development Impacts*

With federal regulators apparently willing to remain on the sidelines, the only option was for the AEWC to approach the developers directly. Fortunately, strong support from the Alaska Delegation to Congress enabled the AEWC’s Board of Commissioners to bring corporate representatives to the table. Thus began the now decades-old task of designing operational measures that enable modern industrial development to coexist with ancient subsistence hunting practices. The first such arctic offshore stakeholder meeting was held in the fall of 1985, in preparation for the 1986 Open Water Season.

To address the immediate threats to human life posed by the industry’s large vessels transiting waters occupied

by small hunting skiffs, the stakeholders initially worked through the details of an Open Water Season communications scheme.⁶⁸ This communication scheme, an expanded version of which is still in use today, became the foundation for today’s CAA, known in those early days as the “Oil/Whaler Agreement.”

With the communications scheme in place, direct threats to the hunters’ safety from industry vessels were reduced. The AEWC and industry stakeholders then turned to the work of understanding and addressing indirect interference with hunting activities, resulting from behavioral changes in fall migrating bowhead whales as they react to the noise and other pollutants accompanying oil and gas work. To this end, the AEWC-industry stakeholder group began to meet on an annual basis.

With this early initiative, direct collaboration with local hunters, specifically the whaling captains and their representative organization, the AEWC, became a critical element of offshore industrial development planning and management in the Alaskan Arctic.

C. *Constructing the Legal and Regulatory Framework: The 1986 MMPA Reauthorization*

I. *Starting Point: The Preexisting Statutory Structure*

The MMPA of 1972 instituted a moratorium on the “taking” of marine mammals by any U.S. citizen, with the sole exemption allowing intentional subsistence-use “takes” of marine mammals by Alaskan Natives.⁶⁹ In addition to the subsistence-use exemption, and other exemptions added after original passage, the MMPA contains a limited number of defined exceptions to the moratorium, allowing takes incidental to other actions, one of which allows for small takes by harassment incidental to specified and geographically localized activities.⁷⁰ This exception is used in allowing offshore oil and gas exploration and development

68. COOPERATIVE PROGRAMS FOR THE BEAUFORT SEA, OIL/WHALERS WORKING GROUP (July 9, 1986). Signatories include Pete Woodson, Shell Western E&P Inc., Wayne Smith, Amoco Production Company, Frank Locascio, Geophysical Services, Inc., L.E. Bratos, Western Geophysical, Arnold Brower Jr., Chairman, Alaska Eskimo Whaling Commission, Darrel Kava, Secretary, Alaska Eskimo Whaling Commission, Nolan Solomon, Treasurer, Alaska Eskimo Whaling Commission, Thomas Napageak, Alaska Eskimo Whaling Commission. (A copy of this document is available from the AEWC or from Jessica Lefevre.)

69. MMPA §101(a)-(b), 16 U.S.C. §1371(a)-(b) (2006). Other exemptions were added in later years. “Take” under the MMPA means “to harass, hunt, capture, or kill, or [to] attempt to harass, hunt, capture, or kill any marine mammal.” MMPA §3(13), 16 U.S.C. §1362(13) (2006).

70. “Harassment” is defined in the MMPA to mean (i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered. MMPA §2(18)(A), 16 U.S.C. §1362(18)(A) (2006). See also 50 C.F.R. §216.3 (defining “Level A Harassment” and “Level B Harassment,” consistent with the statutory definition cited here).

^{supra} note 61.

64. Affidavit of Frank Long Jr., exh. 6, Alaska Eskimo Whaling Comm’n et al. v. Foster (1993), ^{supra} note 61.

65. *Id.*

66. Declaration of Stephen R. Braund, exh. 3, Alaska Eskimo Whaling Comm’n v. Foster (1993) (Civil Action No. 93 1629 HHG), ^{supra} note 61.

67. Interview with Thomas Napageak, ^{supra} note 59.

and is subject to the limitation that it can cause no more than a “negligible impact” on a species or stock.⁷¹ As originally passed, this exception also was subject to the limitation that it could cause no more than a “negligible impact” to Native Alaskan subsistence uses of marine mammals.⁷² Because the exception is for “small takes” as defined under the MMPA, the statute also requires that operators working under “small-take authorizations” issued pursuant to this exception, conduct site-specific monitoring and research to provide a basis for estimating actual levels of take.⁷³

The dual “negligible-impact” standards of the MMPA were consistent with the hunters’ desire to balance the development and subsistence uses on the ocean. However, the statutory language was vague. Arguably, the impacts they were experiencing might be considered “negligible” by regulators or even a court, despite the fact that the oil and gas work was creating serious threats to hunters’ safety and communities’ food supplies.

2. Modifying Law to Reflect Practice “On the Ground”

With its members following the unfolding events in the new hydrocarbon frontier of the Alaskan Arctic, Congress quickly recognized the effectiveness of the collaborative, stakeholder-driven approach to avoiding potential conflicts between development and subsistence—both physical and legal—recently embarked upon by the AEWG and offshore oil and gas operators. To ensure continued reliance on this process, Congress decided to codify the practice in its 1986 Amendments to the MMPA. Bringing together representatives of the AEWG and the principal arctic offshore operators of the time, including ARCO, Amoco, and Shell Oil, congressional representatives sought agreement on legislative language that would memorialize the collaborative development planning process in which the stakeholders already were engaged.

The language would have to address the multiple objectives of: (1) allowing oil and gas exploration and development to go forward; (2) ensuring that the industrial activity would not reduce the availability of bowhead whales and other marine resources for subsistence uses; and (3) promoting continued collaboration between developers and hunters on measures needed to address the first two goals. Consensus ultimately was reached to replace the second “negligible-impact” standard of MMPA §101(a)(5)(A) with the more descriptive, albeit inelegantly phrased, standard of “no unmitigable adverse impact” to the availability of marine mammal subsistence resources for taking for sub-

sistence uses.⁷⁴ The standard was first codified in 1986 and enacted again when §101(a)(5)(D) was added to the MMPA in 1994.⁷⁵

3. Regulatory Language to Implement Congressional Intent

The National Marine Fisheries Service (NMFS) has jurisdiction over the industry-subsistence whaling interactions, and consistent with congressional intent, instituted the practice of looking to the CAA as a means of ensuring that the statutory finding of “no unmitigable adverse impact” to the availability of subsistence resources for subsistence uses is met in each instance. Tasked with elaborating this statutory standard in a regulatory context, NMFS chose the phrase “Plan of Cooperation (POC)” to refer to the collaborative process already underway.⁷⁶

IV. The Management Regime

A. A Concrete and Adaptive Approach to the Management of Offshore Industrial Activities

There is a dawning recognition in policy and regulatory circles of the need to tailor natural resource development and commercialization to the tolerances of affected ecosystems, to avoid further impoverishing our natural environment. Similarly, the livelihoods of local communities must be preserved to avoid situations where resource extraction to meet national and international demands impoverishes

74. MMPA §101(a)(5)(A), (D), 16 U.S.C. §1371(a)(5)(A), (D). An “unmitigable adverse impact” is defined to be an impact resulting from a “specified activity:” (1) That is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by: (i) Causing the marine mammals to abandon or avoid hunting areas; (ii) Directly displacing subsistence users; or (iii) Placing physical barriers between the marine mammals and the subsistence hunters; and (2) That cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.

A “specified activity” is defined to mean “any activity, other than commercial fishing, that takes place in a geographical region [having biogeographic characteristics], that potentially involves the taking of small numbers of marine mammals.” 50 C.F.R. §216.103 (2011).

75. MMPA §101(a)(5)(A), (D), 16 U.S.C. §1371(a)(5)(A), (D) (2006). See the discussion of the 1994 MMPA reauthorization below.

76. 50 C.F.R. §216.104(a)(12) (2011).

Where the proposed activity would take place in or near a traditional Arctic subsistence hunting area and/or may affect the availability of a species or stock of marine mammal for Arctic subsistence uses, the applicant must submit either a plan of cooperation or information that identifies what measures have been taken and/or will be taken to minimize any adverse effects on the availability of marine mammals for subsistence uses. A plan must include the following: (i) A statement that the applicant has notified and provided the affected subsistence community with a draft plan of cooperation; (ii) A schedule for meeting with the affected subsistence communities to discuss proposed activities and to resolve potential conflicts regarding any aspects of either the operation or the plan of cooperation; (iii) A description of what measures the applicant has taken and/or will take to ensure that proposed activities will not interfere with subsistence whaling or sealing; and (iv) What plans the applicant has to continue to meet with the affected communities, both prior to and while conducting the activity, to resolve conflicts and to notify the communities of any changes in the operation.

71. MMPA §101(a)(5)(A), (D), 16 U.S.C. §1371(a) (2006). “Negligible impact is an impact . . . that cannot be reasonably expected to, and is not reasonably likely to, adversely affect [a] species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. §216.103 (2011).

72. *Id.* (1984).

73. MMPA §§101(a)(5)(A)(ii)(III)(bb), (D)(ii)(III), 16 U.S.C. §§1371(a)(5)(A)(i)(II)(bb), (D)(ii)(III) (2006).

local populations. Management in this context means finding a balance among competing uses. Ideally, management tools also should be adaptive to meet shifting needs and demands, including altered ecosystems resulting from climate change.

An effective technique for achieving balance is to identify opportunities for trade offs among the competing uses and then to establish processes and rules that govern implementation of the trade offs. The contemporary initiatives referred to as “ecosystem-based management” and “marine spatial planning” express the awareness that we are in an age where decisionmakers need tools to help them balance development demands against adverse impacts to local ecosystems and economies.⁷⁷ Unfortunately, these proposed approaches to mitigating development impacts and integrating multiple uses are currently articulated primarily at a very general, even theoretical, level, leading to an understandable wariness on the part of developers and some in the policy world. For close to 30 years, however, the Open Water Season CAA has provided a real-world application of many of the ideas embodied in these recent policy initiatives. Thus, it offers insights into how, at least in certain contexts, decisions can be made in a way that balances development with ecosystem and local economic needs.

In addition to offering insights into the real-world “nuts and bolts” of decisionmaking in a context where local impacts must be taken into account, the CAA Process offers an adaptive approach to management that is especially critical in the rapidly changing natural and economic policy environment of the Arctic. In any management setting, adaptive management requires regular and periodic review. Through the CAA Process, hunters and operators meet before each open-water season and typically meet again in the fall or winter following the end of operations, providing an opportunity to review experiences from the season just ended. This annual process allows the stakeholders to refine management techniques over time, based on experience, so that they provide the necessary mitigation of impacts with the least disruption to planned activities. Proven mitigation measures are retained from year to year, providing structure and predictability for participants. Measures that are no longer necessary or have not worked are dropped, and new measures needed to address changing circumstances are added.⁷⁸

77. See, e.g., CHARLES EHLER & FANNY DOUVERE, INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION AND MAN AND THE BIOSPHERE PROGRAMME, MARINE SPATIAL PLANNING: A STEP-BY-STEP APPROACH TOWARD ECOSYSTEM-BASED MANAGEMENT, IOC MANUAL AND GUIDES No. 53 (2009), available at <http://www.unesco-ioc-marinesp.be/uploads/documentenbank/3368f5bca7792e8da75ed70c9d8dd63.pdf>.

78. The evolution of mitigation measures in the CAA can be observed through a review of the terms agreed to, beginning with the first agreement, ALASKA ESKIMO WHALING COMM'N & OIL/WHALERS WORKING GRP., COOPERATIVE PROGRAMS FOR THE BEAUFORT SEA (1986), available from the AEWC or from Jessica Lefevre) through the 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT: FINAL FOR SIGNATURE (2012), available at http://www.nmfs.noaa.gov/pr/pdfs/permits/bp_openwater_cca2012.pdf.

Thus, consistent with general principles of ecosystem-based management, the CAA is an adaptive management tool that: (1) minimizes user conflicts by (2) establishing optimal trade offs among competing uses. As it has evolved, the CAA Process also has fostered an understanding of the need for carefully designed and implemented scientific studies on the impacts of development to marine mammals and habitat to ensure that proper care is given to maintaining the health of both. As a result, and again consistent with principles of ecosystem-based management, the CAA Process achieves the twin goals of minimizing cumulative impacts to living resources and habitats while facilitating development activities.

B. The Central Roles of Local Knowledge and Western Science

As noted, the CAA rests on the bowhead whale subsistence hunters' traditional ecosystem knowledge of the Arctic. Through IWC-related research collaboration with the North Slope Borough's wildlife biologists, the hunters have gained a keen understanding of the scientific process and a significant level of comfort cooperating with scientists on the design of research proposals and the interpretation of results.⁷⁹ This cooperation first began in the early 1980s as scientists struggled to design a research program for counting the BCBS bowhead whale stock. Early whale census efforts met with criticism, especially from prominent whaling captains in the village of Barrow, who said the counts were too low. The captains subsequently helped the scientists understand how to locate whales that were not being counted because they were swimming under the ice cover.⁸⁰ The reliability of this “traditional knowledge” has been further verified through peer-reviewed western science studies.⁸¹ The collaboration between hunters and scientists related to the IWC work has greatly benefitted the CAA Process because researchers already have had experience with the quality and veracity of the hunters' observations.

I. The Proposal for a New Collaborative Process: Independent -Stakeholder Peer Review

As offshore development activity first began to impinge on subsistence whaling activities in the 1980s, discrepancies arose between the whaling captains' observations of bowhead whale reactions to offshore oil and gas exploration work and the reported results of scientific research into bowhead whale reactions to seismic noise. In particular,

79. Alaska's North Slope is home to the municipality of the North Slope Borough and its Department of Wildlife Management, which conducts an internationally recognized wildlife research program focusing on the bowhead whale.

80. Albert, *supra* note 20, at 265-78.

81. See GEORGE NOONGWOOK ET AL., *Traditional Knowledge of the Bowhead Whale (Balaena mysticetus) Around St. Lawrence Island, Alaska*, 60 ARCTIC, No. 1, 47-54 (Mar. 2007).

Eskimo whale hunters reported strong and long-term reactions of bowhead whales to active seismic testing.⁸² Data published in 1985 and 1988, from an earlier study, however, indicated that the whales' reactions were less dramatic and shorter term.⁸³

The hunters appealed to their consulting scientists, with whom they were collaborating on the IWC issues, and also engaged federal regulators and industry scientists in an effort to understand the source of the discrepancies. With this began a multi-year push to establish a requirement and procedure for the independent peer review of the industry monitoring plans required under the MMPA, and of other research efforts undertaken on the effects of industrial activities on bowhead whales. The population studies required by the IWC to support continuation of the bowhead whale subsistence hunt were—and are—subjected to intense independent peer review by the IWC's Scientific Committee. So, the hunters reasoned, research on industrial impacts to this critical food resource and studies designed to gather that research should be subject to a similarly rigorous review process. In this case, however, the hunters advocated that their traditional knowledge of bowhead whale behavior be recognized as an expertise qualifying their representatives to join the scientific peer reviewers.

Scientists working with the hunters focused the drive for independent peer review on the design of research studies and the interpretation of data resulting from the studies. Given their experience with the high quality of the hunters' traditional knowledge, observed through the work on bowhead whale population studies, these scientists strongly endorsed the inclusion of this traditional knowledge in an independent peer review process. In particular, they argued, consulting the hunters' traditional knowledge of bowhead whale behavior during the review of a study's design (the process of structuring questions to elucidate the nature of the phenomena being observed) would greatly enhance the quality of research in this area. Similarly, they argued that

this body of traditional knowledge should be consulted during the interpretation of study results. This ensures that the findings attributed to these studies are consistent with practical experience and local observation.

With time, the initiative to establish a procedure for independent-stakeholder peer review that would enable the hunters to participate in the review process began to gain traction. The effort was aided in 1989, when the Arctic Research Commission issued recommendations on the importance of and the appropriate structure for independent review during the environmental review process.⁸⁴ However, neither operators nor regulators were willing at that time (the late 1980s) to fully embrace the notion of "independent-stakeholder peer review." The result was a legal confrontation that arose following the AEW's and North Slope Borough's request that the marine mammal monitoring study proposed by ARCO for its 1992 planned drilling operations at the Kuvlum prospect in the central Beaufort Sea be subject to an independent-stakeholder peer review. ARCO refused to agree with the request, and the Office of Protected Resources of NMFS issued the small-take authorization allowing ARCO to operate, without subjecting ARCO's monitoring plan to the requested peer review.⁸⁵ The Native plaintiffs, armed only with affidavits attesting to their observations of impacts, lost the court challenge.⁸⁶

2. A Second Codification in Law: The 1994 MMPA Reauthorization

Given the positive track record of stakeholder collaboration in the development of mitigation measures to reduce conflicts between developers and subsistence whale hunters, Congress, when approached by the AEW to intervene on the peer review question, was favorably disposed to consider another request for a collaborative approach to dispute resolution. This time, the collaborative process would involve a larger group: offshore operators; whaling captains; scientists for both sets of stakeholders; and federal regulators. Rather than the mitigation measures of the Open Water Season CAA, the subject of collaboration this time would be study design and interpretation for monitoring plans required for small-take authorizations. Thus, in 1994, Congress amended the MMPA to impose the new requirement for "independent peer review" of industry monitoring plans when offshore oil and gas activities might affect the availability of marine mammal subsistence resources.⁸⁷

With this second amendment, Congress reaffirmed the "no unmitigable adverse impact" standard, and the bill's sponsors stated their intent "that the Secretary will encourage extensive consultation between affected parties on

82. See Affidavit of Burton "Atgaan" Rexford, *supra* note 63; Affidavit of Eugene Brower, *exh. 4 supra* note 61.

83. See, e.g., DONALD K. LJUNGBLAD ET AL., OBSERVATIONS ON THE BEHAVIOR OF BOWHEAD WHALES (*BALAENA MYSTICETUS*) IN THE PRESENCE OF OPERATING SEISMIC EXPLORATION VESSELS IN THE ALASKAN BEAUFORT SEA, REPORT TO MINERALS MANAGEMENT SERVICE, ALASKA OCS REGION 78 (1985) SEACO Inc.; DONALD K. LJUNGBLAD ET AL., *Observations on Behavioral Responses of Bowhead Whales (*Balaena mysticetus*) to Active Geophysical Vessels in the Alaskan Beaufort Sea*, 41 ARCTIC 41183-94 (1988) (providing the often cited results showing that bowhead whales did not react strongly to the approaching seismic vessel until it was 7.5 km (4 mi.) from the animals). This result and accompanying data were cited repeatedly for a number of years in Draft Environmental Impact Statements. E.g., MINERALS MGMT. SERV., OCS EIS/EA MMS 97-0011 BEAUFORT SEA PLANNING AREA OIL AND GAS LEASE SALE 170, DRAFT ENVIRONMENTAL IMPACT STATEMENT IV-B-19 (1997). This information was also cited in review documents. E.g., W. John Richardson & Charles I. Malme, *Man-Made Noise and Behavioral Responses*, in THE BOWHEAD WHALE SPECIAL PUBLICATION NO. 2: THE SOCIETY FOR MARINE MAMMALOGY, *supra* note 25, at 671, 674; W. John Richardson, *Documented Disturbance Reactions*, in MARINE MAMMALS AND NOISE 241, 298 (W. John Richardson et al. eds., 1995); W. John Richardson, *Acoustic Effects on Bowhead Whales: Overview*, in PROCEEDINGS OF THE 1995 ARCTIC SYNTHESIS MEETING OCS STUDY MMS 95-0065 107, 109 (1996).

84. See U.S. Arctic Research Comm'n, *Improvements to the Scientific Content of the Environmental Impact Statement Process*, Issue No. 4 (1989).

85. NAT'L MARINE FISHERIES, LETTER OF AUTHORIZATION FOR ARCO ALASKA, INC. (1993).

86. Alaska Eskimo Whaling Comm'n v. Foster (1993), *supra* note 61.

87. 16 U.S.C. §1371(a)(5)(D) (2006).

appropriate monitoring, reporting and mitigation measures in granting authorizations under [§ 101(a)(5)].”⁸⁸ Speaking in 1994, Sen. Ted Stevens (R-Alaska) clearly articulated the congressional intent that “the bill codifies the arrangement that has been worked out between Native subsistence harvesters, the oil industry and executive branch agencies regarding the authorization of activities—such as oil exploration—which disturb, or incidentally harass . . . marine mammals.”⁸⁹ Thus, in adopting the new requirement for independent peer review and reaffirming the “no unmitigable adverse impact” standard, Congress explicitly directed that the balance of trade offs between modern offshore industrial activities and northern Alaska’s long-standing coastal subsistence culture be struck through collaboration between offshore operators and subsistence hunters.

3. Federal Regulatory Response

NMFS, whose jurisdiction includes the review of industry monitoring plans required under the MMPA,⁹⁰ took responsibility, on behalf of the U.S. government, for sponsorship of the collaborative independent-stakeholder peer review that emerged from the 1994 MMPA Amendments. Known as the annual “Open Water Season Peer Review Meeting,” this independent-stakeholder review joined the CAA Process as a central feature of the arctic development planning process.⁹¹

C. Development of the Key Tools for the Management of Offshore Industrial Activities in Marine Mammal Subsistence Hunting Areas

As this overview indicates, the five key management tools that have emerged from the CAA Process and the Open Water Season Peer Review Meetings to date are the following. First, it is essential to provide for regular and ongoing radio contact among hunters and industry or commercial vessel traffic, using shore-based communications centers. Specific traffic management guidelines can help to reduce the possibility of unexpected interactions between small hunting skiffs and larger vessels. These guidelines can also help to reduce disturbances to marine mammals and to opportunities for subsistence takes of marine mammals.

Second, a set of time-area closures corresponding to the movement of the migration and the timing of the hunt reduce impacts to the migration and help to ensure an undisturbed subsistence harvest. Third, restrictions on levels of pollution in marine mammal habitat are important. The goal here is not only habitat preservation and guarding human health, but also the reduction of the potential

for disturbance to marine mammals. Hunter observations indicate that bowhead whales react to anthropogenic smells or substances in the water, and those reactions can cause behavior changes in the whales, resulting in a reduction in availability for subsistence takes.⁹² Fourth, it is important to establish restrictions on vessel movement in the presence of bowhead whales, for the safety of the whales and to reduce the likelihood of disturbance.

Finally, providing for independent-stakeholder peer review of the drafts of the design and interpretation of research proposals and results can greatly increase the reliability of data-gathering. In the case of monitoring plans required for small-take authorizations in the Arctic Ocean, independent peer review that includes hunters on the review panel can enhance the scientific process by making the traditional knowledge and ongoing hunter observations available to researchers.⁹³

I. The Communications Scheme: Keeping Industry Operators and Eskimo Hunters in Touch While on the Water⁹⁴

With receding sea ice and increasing interest in the Arctic Ocean, the transit of both small and large ocean-going craft and their impacts to hunters and marine mammals increasingly are becoming sources of concern. The communications provisions of the CAA were developed for the purpose of managing the interactions between small fall bowhead whale subsistence hunting boats and oil and gas industry vessels, and continue to serve that purpose. Companies participating in the CAA agree to fund radio-based communications centers (Com Centers), primarily at Deadhorse⁹⁵ and in Kaktovik, Barrow, Wainwright, and Pt. Hope.⁹⁶ As development activity ramps up in the Chukchi Sea, Com Centers are being added to villages in the southern Chukchi Sea and the Bering Straits region.⁹⁷ The Com Centers are staffed by local residents. The companies also agree, under the terms of the CAA, to hire local residents and place them on vessels operated by or

88. See CONGRESSIONAL RECORD, *Marine Mammal Protection Act Amendments of 1993*: Section-by-Section Analysis of S. 1636, p. S. 3294 (Mar. 21, 1994) (discussion of §4(d)).

89. *Floor Debate on S. 1636, S. 3297* (1994) (discussion of Alaska Provisions, statement of Senator Ted Stevens).

90. 50 C.F.R. §218.108 (2001); 50 C.F.R. §216.206 (2011).

91. See <http://www.nmfs.noaa.gov/pr/permits/openwater.htm>, for details of the 2013 meeting.

92. Interviews with Archie Ahkiviana and Harry Brower Jr., *supra* note 60. These observations are supported by recent research findings indicating that bowhead whales have the capacity for olfactory perception. See J.G.M. Hans Thewissen et al., *Olfaction and Brain Size in the Bowhead Whale (Balaena mysticetus)*, 27 MARINE MAMMAL SCI. 2:282-94 (2011).

93. See discussion in this Article *supra* at Part IV.B.1. Small-take authorizations are governed by MMPA §§101(a)(5)(A) and (D), 16 U.S.C. §1371(a)(5)(A) and (D).

94. See 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT: FINAL FOR SIGNATURE tit. II, *available at* http://www.nmfs.noaa.gov/pr/pdfs/permits/bp_openwater_caa2012.pdf.

95. Deadhorse is a community on the North Slope of Alaska, primarily comprising facilities for companies and workers operating the Prudhoe Bay oil fields located nearby.

96. See 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, *supra* note 94, at §203(a) and (b).

97. Com Centers for Kivalina, Wales, and St. Lawrence Island were added by Shell for the 2012 operating season. See REVISED CHUKCHI SEA EXPLORATION PLAN ERRATA FOR SHELL GULF OF MEXICO, INC. BUREAU OF OCEAN ENERGY MGMT. (2011), *available at* http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Plans/Regional_Plans/Alaska_Exploration_Plans/2012_Shell_Chukchi_EP/ChukchiErratadocumentOct28RFAI.pdf.

for the companies, to serve as marine mammal observers and to handle vessel-Com Center communications.⁹⁸ The CAA contains communications protocols for industry vessels and hunting boats to follow, enabling the Com Center operators to track and report on vessel movements, so that industry vessels do not interfere with whale hunting activities.⁹⁹

The communications scheme serves as an important “traffic management” tool, helping to ensure against the threats posed to small hunting boats by larger ocean-going craft. Radio contact also lends itself to real-time cooperation between operators and hunters, enabling stakeholders to “fine-tune,” on a real-time basis, the broader mitigation measures. Since the communications system is open and available on agreed VHF channels, it is available for use by any vessels transiting the area, whether or not they are affiliated with an offshore oil and gas operator.

2. The Time-Area Closures: Using Space and Time to Separate Industrial Activity From Subsistence Hunting¹⁰⁰

To enhance the research opportunities, in some years, especially the late 1980s and the 1990s, the hunters agreed to accept limited adverse impacts to their hunting opportunities in exchange for heavy investments by operators in collaboratively designed monitoring plans aimed at studying whale reactions to specific industrial operations. This approach was used, most notably, for the collection of data from acoustic and aerial survey monitoring of seismic exploration undertaken for BP in the mid-Beaufort Sea during the 1996 and 1997 open-water seasons. The results of this study show that bowhead whale-call rates changed at least 45 kilometers (km) (27 mi.) from an active seismic vessel.¹⁰¹ These and additional data collected in 1998 showed that nearly all fall-migrating bowhead whales stayed 20 km (12 mi.) away from an operating seismic vessel.¹⁰² The findings supported the observations of whaling captains and crews from the villages of Nuiqsut and Kaktovik, who hunt in the mid-Beaufort Sea region. Whales that do not deflect are reported to become “skittish,” changing their migratory behavior such that swimming and breathing patterns are unpredictable.¹⁰³ More aggressive behavior also has been reported in these disturbed whales.¹⁰⁴

These findings clearly show the value of independent-stakeholder peer review. The study design and draft report for the 1996 through 1998 BP work were among the first subjects of the early Open Water Season independent-stakeholder Peer Review Meetings. Not surprisingly, the results of these carefully designed and implemented studies were consistent with the local observation of hunters from the affected villages.

Early efforts at mitigation of these behavioral impacts to fall migrating bowhead whales involved establishing an “avoidance” radius around active whaling crews, with the intent of excluding active seismic operations and support and supply vessels, so that the hunters could pursue whales they had spotted.¹⁰⁵ This technique did not eliminate disputes, however, as the hunters found the radii too small and the operators argued that the radii were not necessary at all.¹⁰⁶ This issue led to the deletion of reference to the radii and to seismic operations from the 1991 CAA as the two sets of parties attempted to work together to resolve the dispute.¹⁰⁷ By 1997, the structure of the present Beaufort Sea time-area closures was emerging as the AEWG worked with BP and ARCO on measures for their mid-Beaufort Sea operations at Northstar and Warthog.¹⁰⁸ The title of the annual agreement was also updated to the “Open Water Season CAA.”¹⁰⁹

When offshore oil and gas exploration in the Beaufort and Chukchi Seas began to pick back up in 2006, the time-area closure for Barrow was established and the annual agreement became the “Open Water Season Programmatic CAA.”¹¹⁰ In earlier iterations, the mitigation measures set forth in the agreement were tailored, on an annual basis, to address specific operations. The change in title reflects the parties’ recognition that, with the present increases in offshore activity, mitigation measures designed to protect the hunt generally provide predictability for all stakeholders and facility cooperation. In 2007, the stakeholders reached agreement on the need for a temporary cessation, each season, of industrial activity in the vicinity of the whaling areas along the Beaufort Sea coast.¹¹¹

By 2008, the present structure of the Beaufort Sea time-area closures, including details for operations within and beyond the mid-Beaufort Sea barrier islands, were in

98. See 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, *supra* note 94, at §201.

99. *Id.* at §202.

100. See 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, *supra* note 94, at §502.

101. MARINE MAMMAL AND ACOUSTICAL MONITORING OF BPXA’S SEISMIC PROGRAM IN THE ALASKAN BEAUFORT SEA, 1997 318 (W. John Richardson ed., 1998) (cited in NAT’L RESEARCH COUNCIL, *supra* note 21, at 136).

102. *Id.*

103. Interview with Thomas Napageak, Nuiqsut Whaling Captain, former Chairman, AEWG, *supra* note 59.

104. *Id.* See also *Documented Disturbance Reactions*, *supra* note 83, at 268-70.

105. 1989 OIL/WHALERS COOPERATIVE PROGRAM FOR THE BEAUFORT SEA, ¶ 8.B.1. (Sept. 8, 1989); 1990 OIL/WHALERS COOPERATIVE PROGRAM FOR THE BEAUFORT SEA, ¶ 8.B.1. (Sept. 8, 1990). (Documents available from the AEWG or from Jessica Lefevre.)

106. 1989 OIL/WHALERS COOPERATIVE PROGRAM FOR THE BEAUFORT SEA, at 12, n.1. (Sept. 8, 1989); 1990 OIL/WHALERS COOPERATIVE PROGRAM FOR THE BEAUFORT SEA, at 13-14 n.1. (Sept. 8, 1990).

107. FALL COMMUNICATIONS AND AVOIDANCE PROCEDURES FOR THE ARCTIC AND BEAUFORT SEA OCS, at 11, n.3 (1991). (Available from the AEWG or from Jessica Lefevre.)

108. 1997 OPEN WATER SEASON CONFLICT AVOIDANCE AGREEMENT, tit. III (July 29, 1997). (Available from the AEWG or from Jessica Lefevre.)

109. *Id.*

110. 2006 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT (May 12, 2006). (Available from the AEWG or from Jessica Lefevre.)

111. 2007 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, at 22-23 (Feb. 27, 2007). (Available from the AEWG or from Jessica Lefevre.)

place.¹¹² Moving from east to west with the fall bowhead whale migration, these temporary “quiet zones” allow the whales to travel through the Beaufort Sea relatively undisturbed, and each of the three Beaufort Sea villages to take their fall whales with little or no interference as the migration reached their hunting areas, in succession. The quiet period for each village ends with the cessation of hunting. Throughout this time, the stakeholders also have worked to develop a similar structure for the Chukchi Sea. This effort continues as the offshore operators refine their plans for that area and hunters from the Chukchi Sea villages work to adapt to rapidly changing climate and hunting conditions.

While ongoing communications through the AEW/C have enabled operators to request slight modifications to initiation and termination of the closures, on an as-needed basis, establishment of the dates and areas for closure has created a relatively predictable, annual schedule by which the stakeholders alternate their respective uses of the selected areas of the marine environment.

3. The Pollution Limits: Minimizing the Pollution Footprint in Key Habitat and Hunting Areas¹¹³

While laying the groundwork for mitigation measures developed to reduce impacts from future operations, the hunters’ traditional knowledge observations also serve other useful purposes. They provide direct and ongoing observations of arctic marine mammal reactions to offshore development and other anthropogenic impacts. Additionally, they have set the stage for our current understanding that bowhead whales react differently to certain anthropogenic impacts depending upon the activities in which the whales are engaged, observations that have been corroborated by scientific research.

The observations of changes in whale behavior in response to industrial disturbance also have led to a deeper understanding of bowhead whale biology. For example, bowhead whales have long been assumed, by “western” scientists and regulators to have no olfactory sense, similar to other marine organisms known not to be equipped with this sense. However, insistence by hunters that bowhead whales can “smell” led to research recently that disclosed that in fact these animals have a well-developed olfactory anatomy and associated gene structures consistent with an active sense of smell.¹¹⁴ These anatomical findings give support to the often-expressed view by Eskimo hunters that bowhead whales do respond to odors, such as those that can be given off by ice-edge camp sites or engine exhaust from drilling platforms. This could help to explain behavioral changes not easily correlated with noise levels, such as those observed in

the vicinity of exploratory drilling operations where ice management is not in use, but drilling and operational wastes are discharged.

4. The Vessel Transit Guidelines and Restrictions on Vessel Movement: Keeping Bowhead Whales Safe in Areas of Ship Traffic¹¹⁵

Relative to other marine mammal species and stocks, the BCBS bowhead whale stock would seem to be extremely fortunate in that it has a group of humans—the coastal communities of northern and northwestern Alaska—whose well-being is intimately tied to the well-being of the whale.¹¹⁶ This relationship gives rise to the Eskimo hunters’ deep knowledge of the whales’ behavior and biological characteristics, as well as the communities’ strong advocacy regarding the need to protect the whales and their habitat.¹¹⁷ Thus, as the hunters and scientists have increased their understanding regarding the threats posed to whales and other marine mammals from the industrialization and coming commercialization of the Arctic, protections specific to feeding and migrating whales themselves have become integral features of the CAA.

Importantly, CAA restrictions on vessel movements and speeds in the vicinity of fall migrating bowhead whales and whale aggregations reduce the probability of ship strikes on whales from oil and gas industry vessels, even in the absence of any such regulatory requirement in place from federal agencies. The CAA provisions set limitations on vessel speeds and specify avoidance measures to help reduce the risk of whale-ship collisions.¹¹⁸

In fact, while the BCBS bowhead whales have enjoyed the protections placed on vessel movements through the CAA for decades, it was not until 2008 that NOAA began to institute similar restrictions on commercial ship traffic transiting the migratory corridor of the highly endangered North Atlantic right whale (*Eubalaena glacialis*).¹¹⁹ Despite the long-standing recognition that significant mortality from ship strikes was preventing recovery of these right whales, federal agencies took many years to institute protections for this whale stock. The CAA Process provides an excellent starting point for the development of a management regime for protecting the BCBS bowhead whale stock from commercial ship traffic before it becomes a significant danger to the whales.

112. 2008 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, at 21-22 (May 30, 2008). (Available from the AEW/C or from Jessica Lefevre.)

113. 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, *supra* note 94, at §503.

114. See Thewissen et al., *supra* note 92.

115. 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, *supra* note 94, tit. 3.

116. It is not unusual for hunters to take a leading role in wildlife and habitat protection. See, e.g., *About Ducks Unlimited*, DUCKS UNLIMITED, <http://www.ducksunlimited.org/about-du?poe=hometxt> (last visited Aug. 19, 2013).

117. See, e.g., George N. Ahmaogak, *Protecting the Habitat of the Bowhead Whale*, in PROCEEDINGS OF THE SIXTH CONFERENCE OF THE COMITÉ ARCTIQUE INTERNATIONAL (May 13-15, 1985), at 93, 594 (Louis Rey & Vera Alexander eds., 1989).

118. 2012 OPEN WATER SEASON PROGRAMMATIC CONFLICT AVOIDANCE AGREEMENT, *supra* note 94, at 36.

119. 50 C.F.R. §224.105 (2011).

V. Other Opportunities for Application of Multi-Use Management Techniques Similar to the CAA and the CAA Process

Development over most of our planet has occurred without the benefit of either long-term or geographically comprehensive planning. Without adequate planning, environmental degradation and conflicts over resource uses are obvious and with predictable consequences. The Open Water Season CAA Process, described here, presents an example of a rational approach to development, with the potential for reduced levels of ecosystem impacts and increased opportunities for local participation in decision-making. In Arctic Alaska, this stakeholder approach also offers the opportunity for preservation of the culturally and nutritionally important mixed subsistence-cash economy of the local Native community. With the success of the CAA Process, interest in expanding the collaborative model to encompass a broader range of Arctic marine subsistence resources and impacts is emerging.

A. Commercial Shipping

With Arctic ice retreat, commercial ship traffic through the Bering Strait has begun to increase and projections are for both of these trends to continue.¹²⁰ These projections portend a future for the Arctic that includes a large annual volume of ship traffic. According to the Arctic Council, the most significant environmental threats from this increased activity are expected to be oil spills, the introduction of alien species, the disruption of migratory patterns of marine mammals, increased anthropogenic noise, and ship strikes on marine mammals.¹²¹

Obviously, adverse environmental impacts of increased ship traffic will affect arctic coastal communities and their opportunities to maintain their subsistence livelihood. Recent bowhead whale-tagging research reveals that fall migrating bowhead whales tend to congregate along the Russian coast north of the Bering Strait, creating the potential for habitat loss and large numbers of ship strikes if ships traverse this route at the same time the whales are

leading the southern ice edge into the Bering Strait and northern Bering Sea.¹²² On the southern side of the Bering Strait, in the western north Pacific and on the path of Asia-bound vessel traffic, is important habitat for the western gray whale stock thought to be critically endangered.¹²³ Addressing these threats will require proper and careful traffic regulation. Perhaps even more pressing should be the concern for human safety, as the U.S. Coast Guard station at Dutch Harbor in the Aleutian chain, the station nearest to Arctic Alaska, is more than 1,000 miles and approximately five days' ocean transit from Pt. Barrow at the intersection of the Beaufort and Chukchi Seas.¹²⁴

To begin the work of building a regime for protecting arctic marine mammal species from impacts of the projected increases in ship traffic, five Arctic Alaska Native organizations, having federal co-management responsibilities for marine mammal species taken for subsistence, have joined in a coalition effort focused on shipping. The AEW, the Alaska Beluga Whale Committee, the Eskimo Walrus Commission, the Ice Seal Committee, and the Alaska Nanuq Commission decided in September 2012 to work together on these issues under the umbrella of the Arctic Marine Mammal Coalition. This coalition effort is directed specifically at representing Arctic marine mammal hunters' interests related to the potential adverse impacts from commercial ship traffic on marine mammals and their availability for subsistence takes.¹²⁵

B. Commercial Fishing

In August 2009, the North Pacific Fisheries Management Council imposed a moratorium on all commercial fisheries north of the Bering Straits.¹²⁶ The stated goal of the moratorium is to allow time for research on fish and the Arctic marine ecosystem to enable managers to regulate Arctic commercial fish harvests.¹²⁷ The Council's decision offers an excellent example of how regulators can approach planning and management in a step-wise fashion. However, the fact that a temporary moratorium was deemed necessary serves to underscore the significant likelihood that the future of the western Arctic Ocean includes commercial fishing and possibly crabbing as well. In light of this likely future, one would hope that the Fisheries Management Council would look to the success of the collaborative stakeholder initiative underlying the CAA Process as a starting point for future fisheries regulation in the Arctic.

120. ARCTIC COUNSEL, ARCTIC MARINE SHIPPING ASSESSMENT 2009 REPORT 70-91 (2009), available at http://www.arctic.noaa.gov/detect/documents/AMSA_2009_Report_2nd_print.pdf. See also U.S. COAST GUARD ARCTIC STRATEGY at "The Arctic Region" (summary insert following Commandant Papp's introductory letter, citing an arctic warming trend of twice the U.S. average over the past 60 years and a 118% increase in maritime transit through the Bering Strait from 2008 to 2012) (2013), available at http://www.uscg.mil/seniorleadership/DOCS/CG_Arctic_Strategy.pdf. For evidence of interest in tourism, see, e.g., *How Wildlife Cruises to Kamchatka, Chukotka and Wrangel Island, Russia Makes a Difference*, RESPONSIBLE TRAVEL, <http://www.responsibletravel.com/holiday/5753/wildlife-cruises-to-kamchatka-chukotka-and-wrangel-island-russia> (last visited Aug. 19, 2013).

121. ARCTIC COUNSEL, ARCTIC MARINE SHIPPING ASSESSMENT 2009 REPORT, *supra* at 120. For some surprising research findings on the impacts of anthropogenic noise to large whales, see Rosalind M. Rolland et al., *Evidence That Ship Noise Increases Stress in Right Whales*, 279 PROC. ROYAL SOC'Y BIOLOGICAL SCI. 1737:2363-68 (2012), available at <http://rspb.royalsocietypublishing.org/content/279/1737/2363.short>.

122. QUAKENBUSH ET AL., *supra* note 25, at 16 and fig. 2.

123. *Western Gray Whale Fact Sheet*, INT'L UNION FOR THE CONSERVATION OF NATURE (Dec. 2, 2010), available at http://cmsdata.iucn.org/downloads/western_gray_whale_fact_sheet.pdf.

124. See <http://ports.com/sea-route/port-of-dutch-harbor,united-states/barrow-harbor,united-states/> (last visited Aug. 19, 2013).

125. See letter from the above-named groups dated September 20, 2012, to the U.S. Coast Guard on Docket Nos. USCG-2012-0720 and USCG-2010-0833.

126. N. PAC. FISHERIES MGMT. COUNCIL, FISHERY MANAGEMENT PLAN FOR FISH RESOURCES OF THE ARCTIC MANAGEMENT AREA 5 (2009), available at <https://alaskafisheries.noaa.gov/npfmc/PDFdocuments/fmp/Arctic/ArcticFMP.pdf>.

127. *Id.* at 2.2.2.

VI. Conclusion

Presented here is a real-world example of a scheme for the ecosystem-based multi-use management of a coastal area. For close to 30 years, the CAA Process has enabled offshore oil and gas development to proceed in a setting dominated both by important marine mammal habitat and federally protected bowhead whale subsistence hunting. By facilitating the creation of a negotiated mitigation regime, through the collaborative effort of stakeholders pursuing potentially conflicting uses of the marine environment, the CAA Process offers an efficient and highly effective means of reaching a successful outcome for all participants.

The prospect of expanding industrial and commercial uses in the Arctic marine environment means that the potential for conflicts between subsistence and non-subsistence uses, as well as impacts to resource habitat, are likely to increase. These potential conflicts are not insignificant, since adverse impacts to subsistence resources can affect the social and nutritional health of the thousands of indigenous people residing in Arctic Alaska. At the same time, resolving these kinds of conflicts is not a simple matter. Industrial and commercial development promise economic opportunity and improved living conditions for Arctic peoples. However, the cultural and nutritional livelihood of these remote coastal communities remain tightly woven into the seasonal and migratory characteristics of the Arctic ecosystem, especially its marine mammals. If resources are not harvested when their migratory routines make them available, significant nutritional opportunities will be lost. At the same time, signs of psychological and social stress could appear quickly within the Native community if outside forces threaten a long-term reduction in these opportunities. Yet, energy development is an imperative of our times and the OCS of the Alaskan Arctic Ocean contains what are thought to be significant reserves. Commercial shipping and fishing appear to be fast on the heels of energy development in the Arctic. As a backdrop to all of this, the Arctic environment itself is changing, introducing heightened uncertainty for all who, now or in the future, may find life and livelihood in this harsh environment.

With so much at stake for all involved, conflicts in this dynamic and multifaceted setting carry an urgency

and immediacy to which traditional regulatory measures, built on long lead times and layered decision processes, are not easily adapted. The CAA and the procedures built around it grew out of the need for an adaptable process that allows those directly affected by conflicting uses and requirements to craft specific, and if need be immediate, solutions to problems as they are identified. The opportunity for local residents to formally participate in these decisions will not alleviate all of the social and psychological stresses and attendant social ills that accompany rapid, externally imposed social change. However, local residents and their leaders instinctively recognize the importance of this opportunity and have long sought to participate in the development decisions that are transforming their lives. Recognition of the importance of their participation and their very important contributions is emerging.¹²⁸ The CAA Process is one mechanism for addressing this need, and the hope is that local involvement in decisionmaking through this process will make a positive contribution to the ability of these communities to keep a sense of equilibrium as they live through this period of change.

The CAA Process has grown up in the relatively unique setting of seasonal bowhead whale subsistence hunting and Arctic offshore oil and gas exploration. However, there is no reason the model it provides should be limited to this specific application. Certainly, in the arctic marine context, some of the industrial and commercial activities being introduced have the potential to affect the other key marine mammal resources: beluga whales; walrus; ice seals; and polar bears. If commercial or industrial activities begin to impinge on the availability of these resources, the CAA Process might be looked to as an example of how to address needs in that context.

More broadly, in an era where humans must think increasingly in terms of the sustainable use of resources and integrated management, direct stakeholder involvement such as this seems quite appropriate for addressing certain user conflicts. The next challenge, of course, is to find the means by which the outcomes of these stakeholder-driven processes, which occur outside the traditional legal and regulatory context, can be incorporated into traditional legal and regulatory decisionmaking.¹²⁹

128. See President Obama's NATIONAL STRATEGY FOR THE ARCTIC REGION (2013), at 8, available at http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf; MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC, A REPORT TO THE PRESIDENT (2013), at 14-15 (noting the importance of traditional knowledge, including "for sustainable management of natural resources"), 41-42 and inset at 42 (referencing the CAA and the Arctic Marine Mammal Coalition), available at http://www.afsc.noaa.gov/Publications/misc_pdf/IAMreport.pdf.

129. For a discussion of relevant recommendations, see Christopher G. Winter, *Collaborative Decisionmaking in the Arctic Under the Marine Mammal Protection Act and a Proposal for Enhanced Support From the Federal Government*, 43 ELR 10938 (Oct. 2013).

Arctic Marine Subsistence Use Mapping: Tools for Communities

by Layla Hughes, Maryann Fidel, and Jim Gamble

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Summary

Identifying marine areas of significance for Arctic communities is crucial for preventing future conflicts between coastal communities and marine-based industries. The Arctic Marine Shipping Assessment 2009 Report recommends that states conduct surveys on Arctic marine use by indigenous communities to help assess impacts from Arctic shipping activities. Arctic indigenous use mapping practices employed to date include a range of practices used in mapping the indigenous use of Arctic marine resources. Techniques employed in both the terrestrial and marine context can inform a methodology developed specifically for marine use mapping.

The objective of this Article is to provide a broad overview of Arctic indigenous use mapping practices employed to date and to identify a range of practices used in mapping the indigenous use of Arctic marine resources in order to provide Arctic communities with the information they need to map their use of Arctic waters. Although a number of studies examine the methodology of subsistence use mapping in the Arctic, most focus on terrestrial use mapping and do not specifically address the marine environment.¹ Thus, a closer look at methodologies that work in the marine environment is needed. In addition, the choices for how a community maps its use will depend on the purpose for which the maps are created and upon the preferences and resources of each particular community. Thus, a full range of options should be presented. Finally, regardless of the options selected, a community will want to ensure that its maps are appropriately created for their intended use. Thus, it is important to ensure that the maps meet minimum requirements tailored to their intended purpose. This Article begins with an overview of techniques employed in both the terrestrial and marine context that can inform the choices available to communities that want to map their use of the marine environment. The Article then examines specific examples of Arctic marine use mapping in order to provide a baseline understanding of options for creating Arctic indigenous marine use maps.

Identifying marine areas of significance for Arctic communities is crucial for preventing future conflicts between coastal communities and marine-based industries. The Arctic Marine Shipping Assessment (AMSA) 2009 Report identified the need for “regional analyses of traditional marine use patterns (spatial and seasonal) for application in the development of strategies and measures to reduce potential conflicts and impacts of multiple users of arctic waterways.”² AMSA recommendation IIA provides, “the Arctic States should consider conducting surveys on Arctic marine use by indigenous communities where gaps are identified to collect information for establishing up-to-date baseline data to assess impacts from Arctic shipping

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1. See, e.g., Linda J. Ellanna et al., *Subsistence Mapping: An Evaluation and Methodological Guidelines*, Alaska Department of Fish and Game, Department of Subsistence, Tech. Paper No. 125 (1985); Terry N. Tobias, *Living Proof: The Essential Data-Collection Guide for Indigenous Use-and-Occupancy Map Surveys*, Ecotrust Canada, Vancouver (2009); Mike Robinson, *Mapping How We Use Our Land Using Participatory Action Research*, Arctic Institute of North America, Calgary, AB (1994); TERRY GARVIN ET AL., A GUIDE TO CONDUCTING A TRADITIONAL KNOWLEDGE AND LAND-USE STUDY (Edmonton: Northern Forestry Centre 2001); Jamie Honda-McNeil, *Best Practices Handbook for Traditional Use Studies*, Alberta Aboriginal Affairs and Northern Development and Denise Parsons, Alberta Department of Energy (2003).
 2. ARCTIC COUNCIL, ARCTIC MARINE SHIPPING ASSESSMENT 2009 REPORT 132 (2009) [hereinafter AMSA].

activities.”³ The purpose of this Article is to provide information that may inform the development of a process for mapping Arctic indigenous marine use.

One of the primary methodologies for mapping traditional use is the map biography process, where interviewers ask knowledgeable community members about their subsistence use, and mark this information onto base maps.⁴ This Article will focus on the map biography process, but will also discuss examples of other methodologies that have been employed to document indigenous use.

In addition to assessing the current state of knowledge for indigenous marine use mapping, the aim of this Article is to examine existing indigenous use mapping methodologies with two particular goals in mind. The first goal is to support the ability for Arctic communities to create their own indigenous use maps. The second goal is to highlight methodologies that may strengthen a community's ability to successfully influence government management decisions.

Because indigenous use maps often contain sensitive information and are frequently created to deal with local issues, communities should have control over the creation, ownership, and use of these maps. Historically, one of the ways that community members have gained greater power over the design, collection, analysis, and control of the information from the study was through “participatory action research,” which involves the direct participation of community members in all phases of the study.⁵ Community-based mapping began to incorporate the use of computerized mapping techniques as they were developed, including data management, geographic information system (GIS), and global positioning system (GPS), and these methodologies are often referred to as participatory GIS or PGIS.⁶

However, most of these projects involve at least some participation by outside researchers or consultants, who assist with defining the methodology to be employed and with organizing and managing data and digitizing the information. Similarly, most handbooks designed to guide communities through a mapmaking process do not provide sufficiently detailed guidance or materials to enable a community to conduct a mapping project without at least some help from outside researchers or consultants, and in fact, many of the handbooks include guidance on how a community can select a consultant or research institution for assistance with its mapping project.

As indigenous communities exert increasing control over the mapping process, there is a risk that the information generated will not be viewed by decisionmakers as credible. One concern is that information coming from indigenous communities will not be viewed as scientifically justifiable. Another concern is that maps created by indigenous communities will be viewed as biased, because the

community may stand to gain by characterizing their use in a particular way. This report identifies various aspects of indigenous marine use mapping that can increase the likelihood that the maps will be successful in influencing management decisions. Camilla Brattland notes that three factors playing a role in success are credibility (based on a scientific process), legitimacy (included the appropriate people and input), and saliency (relevant to the decision-making process at issue).⁷ However, the outcome of government management decisions is influenced by a number of factors, many of which do not relate to the mapmaking process. Often, whether or not an indigenous use map is influential in a government management decision will depend on the interests of the people involved and on the politics of the situation. However, as Brattland points out, the same is also true in the role of scientific knowledge in government decisionmaking.⁸ Brattland finds that fishers' ecological knowledge has a greater likelihood of acceptance if it fulfills different social groups' criteria of social justice and if it meets the most relevant management goals. The same is likely true for maps.

Various factors in the mapping process can help to support the successful use of the maps in influencing government decisions. As Karim-Aly Kassam points out: “Validity is achieved by practice, through the lived experiences and accumulated knowledge of the indigenous peoples who participate in the creation of the maps.”⁹ In addition, the very process of documenting traditional knowledge and indigenous land use lends credibility to the information it reflects.¹⁰ A rigorous survey method and a report documenting this methodology will also provide credibility.

One important part of the survey methodology in this regard is the selection of the study population, which should be representative of the community's subsistence use. Other important aspects of the survey methodology that influence its credibility are the design of the questionnaire, how the interviews are conducted, and how the information is documented, managed, and presented. A rigorous methodology that is carefully documented will not only improve the credibility of the maps, but it will also improve their usefulness, especially when the intention is to compare indigenous use over a period of time. For example, the state of Alaska has been collecting subsistence use data for the past 50 years. However, most early survey efforts were not systematic, the population sizes and sampling rates were not recorded, and the data analysis methods were not published. Therefore, it is not possible to compare the information from these earlier surveys to more recent surveys.¹¹

3. *Id.* at 6.

4. Tobias, *supra* note 1.

5. GARVIN ET AL., *supra* note 1, at 4.

6. Mac Chapin et al., *Mapping Indigenous Lands*, 34 ANN. REV. ANTHROPOLOGY 619-38, 623 (2005).

7. Camilla Brattland, *Proving Fishers Right: Effects of the Integration of Experience-Based Knowledge in Ecosystem-Based Management*, ACTA BOREALIA: A NORDIC J. CIRCUMPOLAR SOCIETIES 4 (2013).

8. *Id.* at 16.

9. KARIM-ALY S. KASSAM, *BIOCULTURAL DIVERSITY AND INDIGENOUS WAYS OF KNOWING: HUMAN ECOLOGY IN THE ARCTIC* 198 (Univ. of Calgary Press 2009).

10. Brattland, *supra* note 7, at 12.

11. James S. Magdanz et al., *Subsistence Harvests in Northwest Alaska, Kivalina and Noatak During 2007*, Alaska Department of Fish and Game, Technical

After the initial maps are created, their credibility can be strengthened by verifying the information they contain. Verification can occur in a variety of ways that are discussed in more detail below.

I. Indigenous Use Mapping

A. The Purpose of Arctic Indigenous Use Mapping

Before conducting a mapping exercise, the community usually identifies the purpose and goals of the project. It is helpful to identify the specific purpose for which the maps will be used because this will shape the particular methodology that is chosen and the presentation (in the form of maps and associated data) of the information that is collected.

Arctic indigenous use maps have been created for a variety of purposes. One purpose has been to define indigenous rights to use or occupy certain places. For example, during the 1970s, land use mapping studies in the Arctic were conducted for comprehensive land-claim settlements in Canada and the United States, such as the Inuit Land Use and Occupancy Project of 1976, used to resolve Canadian Inuit land claims.¹² In the United States, mapping was similarly conducted to resolve land claims and to determine eligibility for subsistence preferences.¹³ More recently, the Sami have created marine use maps to document traditional rights to fish in certain marine areas.¹⁴

Indigenous use maps have also been produced to address potentially conflicting land/water and resource uses.¹⁵ For instance, the Bering Sea Sub-Network (BSSN) has created maps to identify existing or potential conflicting marine uses and to work toward cooperative resolution of these conflicts.¹⁶

Similarly, maps have been created to establish baseline data and to support social and environmental impact assessments for specific projects, such as the numerous terrestrial and marine subsistence use maps in the U.S. Arctic that have been generated to assist the federal government in assessing potential impacts from development activities.¹⁷

Arctic indigenous use maps have also been created in order to strengthen the development of indigenous organizations and to support the co-management of subsistence resources between these groups and government resource

managers. In this way, the question of indigenous land use rights has become broader than the question of land title and legal access to resources, and includes political rights such as the right to self-determination.¹⁸ For example, a project to map Russian Sami reindeer herder land use on the Kola Peninsula was designed to support co-management on the Kola Peninsula and to introduce Russia to participatory action research.¹⁹ The Sami shared the maps with the Russian mayor of the town of Lovozero, on the Kola. Although he was not Sami and did not participate in the production of the maps, he supported their authenticity and value in a meeting with the governor of the capital of the region, Murmansk. Soon thereafter, a gold mine was proposed in the area, which would have threatened the reindeer grounds. The maps were used to illustrate the potential impacts of the mine to the environment and the livelihoods of the people in the area, and the mining company withdrew its plans.²⁰ Kassam observes, “the map alone is not sufficient. It can serve as a catalyst as long as the indigenous community has the basic organizational infrastructure and institutions that can enable the production of the maps and the realization of its socio-political potential.”²¹

Another project mapping marine mammal presence and harvest along the coast of eastern Russia had as one of its goals to strengthen the development of nonprofit organizations managing marine mammal hunts in eastern Russia.²² As discussed in more detail below, the information collected helped to create a report substantiating the need of indigenous residents of Chukotka for a bowhead whale quota from the International Whaling Commission (IWC), and in 1998, the Chukotka Natives received a quota of five bowhead whales.

In Norwegian waters, much of the recent research on Norwegian Sami use of the marine environment developed as a result the co-management role of the Sami Parliament in fisheries management.²³ Another purpose for creating indigenous use maps is to document and preserve traditional knowledge.²⁴ It is important for a community to consider the purpose for which its maps will be used and to select methodologies that will ensure its maps are designed with the outcome in mind.

Paper No. 354 (2010).

12. Milton Freeman, *Inuit Land Use and Occupancy Project*, Department of Indian and Northern Affairs (1976).
 13. Magdanz et al., *supra* note 11, at 3-4.
 14. Camilla Brattland, *Mapping Rights in Coastal Sami Seascapes*, 1 ARCTIC REV. L. & POL. 28-53 (2010).
 15. Chapin et al., *supra* note 6, at 624.
 16. Maryann Fidel et al., *Subsistence Density Mapping Brings Practical Value to Decision Making*, in FISHING PEOPLE OF THE NORTH: CULTURES, ECONOMIES, AND MANAGEMENT RESPONDING TO CHANGE (C. Carothers et al. eds., 2012).
 17. See, e.g., S.R. Braund & Associates (SRB&A), *Subsistence Mapping of Nuiqsut, Kaktovik, and Barrow*, MMS OCS Study No. 2009-003 (2010); Magdanz et al., *supra* note 11.

18. KERRY ABEL & JEAN FRIESEN, ORIGINAL RESOURCE USE IN CANADA: HISTORICAL AND LEGAL ASPECTS (Univ. of Manitoba Press 1991).
 19. Mike Robinson & Karim-Aly Kassam, *Sami Potatoes, Living With Reindeer and Perestroika*, Arctic Institute of North America, Calgary (1998).
 20. KASSAM, *supra* note 9, at 214.
 21. *Id.*
 22. LUDMILLA AINANA & MIKHAIL ZELENSKY, PRESERVATION AND DEVELOPMENT OF THE SUBSISTENCE LIFESTYLE AND THE TRADITIONAL USE OF NATURAL RESOURCES BY NATIVE PEOPLE (ESKIMO AND CHUKCHI) IN SEVERAL COASTAL COMMUNITIES (INCHOUN, UELEN, LAVRENTIYA, LORINO, YANRAKYNOT, NOVOYE CHAPLINO, SIRENIKI, NUNLIGRAN, ENMELEN) OF CHUKOTKA IN THE RUSSIAN FAR EAST DURING 2000 (2000).
 23. Camilla Brattland, *Making Sami Seascapes Matter: Ethno-Ecological Governance in Coastal Norway* (2012) (dissertation for the degree of Philosophiae Doctor, Univ. of Tromsø) (on file with author).
 24. See, e.g., Inuit Sea Ice Use and Occupancy Project (ISIUOP), <https://gcr.carleton.ca/confluence/display/ISIUOP/Inuit+Sea+Ice+Use+and+Occupancy+Project+%28ISIUOP%29>; KASSAM, *supra* note 9, at 218.

B. *Planning an Indigenous Use Study*

Once a community identifies a need for mapping, it will typically develop a strategic plan, also referred to as a term of reference or a study framework. This plan outlines the methodology to be used, identifies how the project will be managed, and provides a budget. This document can be used to communicate the project to potential funders and consultants. Before the research begins, the community might also address the question of how the information generated from the study will be used. An information-sharing protocol can outline the community's agreement on how the information will be owned, controlled, and shared.

Developing community support for the mapping process, obtaining and administering funds, and managing a relationship with the funders are important components of the process, but are not further discussed in this Article. Rather, the issues discussed below focus more specifically on the methodologies employed to create indigenous use maps.

C. *Structuring Leadership, Responsibility, and Oversight for the Project*

Early in the process, a community must identify a project manager or research director who will be the primary person in charge of the project and will have team members who help carry out the study. The project manager may be responsible for managing the project budget, facilitating the community's participation, and communicating with the community and funders about progress of the study. Often, outside contractors or researchers have filled this role, with the assistance of a community coordinator. Sometimes, the role of the contractor includes transferring the skills needed to manage the study to someone from the community. Similarly, a consultant might be hired to provide technical advice on issues such as how to digitize and manage the information from the project.

Communities that are engaged in a mapping exercise often create a community advisory committee. The role of a community advisory committee is particularly important if consultants or outside researchers are involved, in order to ensure local oversight and control over the project and to facilitate community participation. However, some communities find that an advisory committee is unnecessary.

D. *Identifying the Study Area*

A study area may cover an area of particular concern or the entire traditional use area. Study areas are as small as a few square miles or extend for thousands of square miles. The study area might be chosen because it encompasses the majority indigenous users. For example, the Russian Sami project created two maps, one for each of the areas surrounding two villages selected on the Kola Peninsula,

where most Sami inhabitants were located.²⁵ A study area may also be selected because it is considered representative of a larger area. For example, a study of Norwegian Sami land use focused on the area around the village of Deanodat, at the head of the Tana Fjord, because the Sami communities in this area represented both migrating reindeer herding communities and a sedentary coastal Sami community and was considered to be representative of the region as a whole.²⁶

E. *Designing the Interview Process*

When using the map biography process, the interview is the heart of the study. However, there are a number of steps that must be taken before the interview process begins.

First, the interviewers must be identified. The interviewers are often community members who are respected and trusted by the community and who have good knowledge of their people, language, and subsistence use. The interviewers are often trained by a consultant in how to conduct the interview. However, in some cases, an interviewer well-known to the community may not feel comfortable asking, or documenting the answers to, questions for which the interviewer already knows the answer. In this case, an interviewer from outside the community may be more appropriate.

The study population is then selected. There are a variety of ways to ensure that the information from the study is representative of the overall community, which strengthens the credibility of the maps. One option is to identify people who are considered especially knowledgeable in the community. For example, in the Russian Sami mapping project, more than 80 elders and herders identified as experts were interviewed.²⁷ Another way to identify a study population is to create an initial list of experts and then ask those experts to identify others who are also knowledgeable, known as snowball sampling. This larger list can be prioritized according to those with most hunting experience and knowledge, as well as those who are most often mentioned by others as experts.²⁸ Yet another way is to interview elders and active hunters until a "saturation point" is reached, where no interviewees have any new information to add to what has already been collected.²⁹

If one of the purposes of the study is to measure a community's reliance on subsistence use, it will be important to interview more than just the most active hunters. One study showed that the most active hunters in Wainwright accounted for 69% of the community's total subsistence harvest over a two-year period. Thus, 31% of the harvest came from less-active and occasional hunters.³⁰ Much of

25. Robinson & Kassam, *supra* note 19.

26. Stine Barlindhaug, *Mapping Complexity: Archaeological Sites and Historical Land Use Extend in a Sami Community in Arctic Norway*, FENNOSCANDIA ARCHAEOLOGICA XXIX (2012).

27. Robinson & Kassam, *supra* note 19, 1998.

28. SRB&A, *supra* note 17, at 13.

29. Brattland, *supra* note 23, at 12.

30. SRB&A and Institute of Social and Economic Research (ISER), *North Slope Subsistence Study—Wainwright 1988-1989*, prepared by S.R. Braund et

the subsistence research conducted by the Alaska Department of Fish and Game (ADF&G) is quantitative, documenting the amount of subsistence resources harvested by a community. In small communities, the researchers aim to get a complete census of each household. In larger communities, random samples are used to estimate the community's use.³¹

Interviews are conducted with the help of supplies, including base maps or overlays, writing equipment, and audio or video recorders. Base maps with scales of 1:50,000 (for smaller areas) to 1:250,000 (for larger areas) are most commonly used for indigenous use mapping.

Information can be noted on the maps in a variety of ways. One way is to create icons of cultural sites and of different species and mass-produce these icons on plastic film with adhesive backing. The interviewee places these icons directly on the map during the interview process.³² Another way is to document spatial information provided in the interview on the map as points, polygons, or lines.³³ Although Terry Tobias recommends that the interviewers document the information on the map to ensure consistency, others have found that it works to have the community members themselves draw on the maps.³⁴ An alternative to the map biography process is the use of observers, such as subsistence resource users, who document information they observe directly onto a map.³⁵ Another alternative is to provide subsistence users with GPS units, where they document information in the course of their activities.³⁶

F. Determining What Information Is Collected

The interview will usually be based on a questionnaire that was created for the project, which will guide what information is collected in the interview process. The research questions and the format of the survey should be designed according to the specific purpose for which the maps will be created, in order to ensure the maps are salient. Involving the decisionmakers for whom the map is intended to influence in the design of the questionnaire may help to ensure the relevance of the information generated through the mapping process.³⁷

Some handbooks provide suggested lists of species, activities, and landmarks that might be identified.³⁸ Another approach has been to identify indigenous place

names as indicators of indigenous use.³⁹ In order to examine how management decisions affect specific fishing communities, another researcher identified separate communities based on their port and the fishing gear they used, in order to identify the particular areas these communities used.⁴⁰

Sometimes, the information that is collected is divided according to meaningful time periods in the community. For example, for the village of Jona on the Kola Peninsula, the Russian Sami project mapped reindeer herding practices over three eras: pre-1930, when extended Sami families practiced private reindeer herd ownership; the Stalin period, 1930-1974, when collectivization and state ownership occurred; and perestroika, 1985-present, when collective farms broke down and Sami asserted private ownership again.

Especially in the Arctic, mapping resource use according to seasons is often important.⁴¹

An important part of ensuring a rigorous methodology (and therefore credible maps) is to create conventions for conducting the interview, including the coding and documenting of information. Tobias recommends creating interview scripts and a data-collection manual that describes conventions for how the interview is conducted and how the data is coded.⁴² For example, one convention might direct whether the interviewer or interviewee will mark information on the map, and another convention might guide the symbols, colors, or text to be used when marking the maps. Codes can be created for various types of information gathered during the interview in order to categorize the information and facilitate its translation into GIS. Jessica Jelacic, for example, created a six-digit code system comprised of two-digit fields describing an increasing level of detail.⁴³ The researchers reviewed video recordings of the interviews, noting the time stamp for each piece of information conveyed in the interview, assigning a six-digit code, and designating whether the information was geographically specific and whether it was described as a point, line, or polygon. After this, each interview logging sheet was combined into a master sheet that contained all the information from every video, from which the GIS dataset was created.⁴⁴

A wide range of choices thus exists in determining what information to collect and how to collect it. Regardless of the choices selected, it is essential that the method for collecting and documenting the information is itself documented. This methodology report provides a backbone of credibility to the process and therefore to the final product.

al., U.S. Department of the Interior, Minerals Management Service, Alaska OCS Region Social and Economic Studies Technical Report No. 147 (MMS 91-0073) 182 (1993).

31. Magdanz et al., *supra* note 11, at 8.

32. See, e.g., Robinson, *supra* note 1; Robinson & Kassam, *supra* note 19.

33. See, e.g., Tobias, *supra* note 1; Barlindhaug, *supra* note 26.

34. See, e.g., Barlindhaug, *supra* note 26.

35. See, e.g., AINANA & ZELENSKY, *supra* note 22.

36. See, e.g., Michael Galginaitis, *Final Report, Annual Assessment of Subsistence Bowhead Whaling Near Cross Island 2001-2007*, prepared by Applied Socio-cultural Research for USDOI, MMS (2009); see also ISIUOP, *supra* note 24.

37. Brattland, *supra* note 7, at 4.

38. See, e.g., Tobias, *supra* note 1; Robinson, *supra* note 1; GARVIN ET AL., *supra* note 1.

39. See Brattland, *supra* note 14.

40. Kevin St. Martin, *Mapping Community Use of Fisheries Resources in the U.S. Northeast*, 4:1 J. MAPS 38-49 (2008).

41. Barlindhaug, *supra* note 26, at 116; SRB&A, *supra* note 17, at 27.

42. See Tobias, *supra* note 1.

43. JESSICA JELACIC, THE DEVELOPMENT OF AN INDIGENOUS KNOWLEDGE PARTICIPATORY GIS FOR AN IÑUPIAQ COMMUNITY, NORTH SLOPE, ALASKA (May 19, 2010).

44. *Id.*

G. Verification

Verification of the information collected in a map biography process usually occurs in two ways: through community mapping sessions and through field checking. During community mapping sessions, the community reviews the maps created in the interview process and provides feedback on their accuracy. The mapping process may be continued in the community meetings by adding additional details.⁴⁵

During a field check, community members are taken to a location marked on an interview map and a GPS coordinate is taken. In the Arctic, where little infrastructure exists, field verifications can be very expensive. However, in addition to getting a precise GIS location for certain features, a visit to the site with the interviewee can help elicit additional information.⁴⁶

Verification helps to strengthen the legitimacy of the maps. In addition, audio or video recordings that are indexed and linked to features on the map provide traceability of the information provided on the maps, improving the credibility of the map.

Conducting scientific studies to verify indigenous observations can also add credibility. For example, when the government of Norway created local marine fishing area maps, an additional scientific study confirmed the presence of spawning grounds identified by interviews with fishers.⁴⁷

H. Information Management and Digitalization of Maps

After the interviews are conducted, the information collected must be entered into a database. If the interview was recorded, the recordings must be transcribed and coded as well, and entered into a database. Many subsistence use projects use a Microsoft Access database because of its compatibility with ESRI's ArcGIS.⁴⁸

Spatial data collected during interviews are often digitized (converted into digital form) through ArcGIS software developed by ESRI,⁴⁹ although some projects have used open-source GIS software.⁵⁰ This allows for the information given during the interview to be connected to the spatial locations drawn on the map. The interview data can be entered into traditional data-management software, such as SPSS, Excel, or Access, then joined to the spatial data using a unique identifier, or it can be entered directly into the GIS attribute table. Respondents' drawn locations can then be portrayed by selected attributes, for example all harvest locations for spotted seal, or all harvests that occurred during March.

Any data collected during the interview process can be selected and used to create a map.

In Russia, it has been particularly difficult for researchers to create digitized maps, due to government security concerns. As the U.S. State Department notes,

in general, mapping and natural resource data collection activities associated with normal commercial and scientific collaboration may result in seizure of the associated equipment and/or arrest. The penalty for using a GPS device in a manner which is determined to compromise Russian national security can be a prison term of ten to twenty years.⁵¹

This is perhaps due to a government view that geospatial information is a fundamental part of military defense and security.

Depending on what the maps will be used for, the community will also have to decide how the final maps will be designed. Indigenous use maps can show "extensivity" or "intensity."⁵² An extensivity map shows the geographic extent of subsistence use. They often depict large areas that communities have used for the harvest of a particular resource. Extensivity maps are better at protecting the confidentiality of respondents and communities, as all use areas are combined and depicted in one color. An intensity map shows variations among subsistence use areas according to how much they are used. Intensity can be shown through overlapping polygons where shading can show varying degrees of overlap. Intensity can also be shown on hodgepodge maps, where different symbols denote harvest sites for different species. Finally, intensity can be shown in density mapping, where colors are used to define the relative use of an area as compared to other areas. Intensity maps are generally preferred for use in decisionmaking, as they allow decisionmakers to identify areas of more and less potential overlap of conflicting uses.

It is important that the scope of the map is clearly stated. Often, the assumption with these maps is that if the entire area is "protected," then communities will have access to sufficient resources. Yet, harvest areas alone do not necessarily represent the entire area necessary to support the particular resource or harvesting activity. For example, biologically productive areas, such as salmon spawning areas, may be extremely important for subsistence, but they may not be included in the maps. Similarly, intensity maps display areas that are more heavily used, but do not capture other measures of value, such as areas with particularly high cultural value, or areas relied upon by certain hunters.⁵³

45. Barlindhaug, *supra* note 26, at 108.

46. Barlindhaug, *supra* note 26, at 110.

47. Brattland, *supra* note 7, at 9.

48. *See, e.g.*, SB&A 2010; Barlindhaug, *supra* note 26.

49. *See, e.g.*, Barlindhaug, *supra* note 26; SRB&A, *supra* note 17; Jelacic, *supra* note 43.

50. *See, e.g.*, ISIUOP, *supra* note 24.

51. U.S. Department of State, Russian Federation: Country Specific Information http://travel.state.gov/travel/cis_pa_tw/cis/cis_1006.html.

52. *See* Tobias, *supra* note 1.

53. Henry P. Huntington et al., *Mapping Human Interaction With the Bering Sea Ecosystem: Comparing Seasonal Use Areas, Lifetime Use Areas, and "Calorie-Sheds,"* 94 DEEP-SEA RESEARCH II 292 (2013).

II. Examples of Arctic Indigenous Marine Use Mapping

A. Northern and Eastern Russia

I. Coastal Communities of Chukotka

The “Preservation and Development of the Subsistence Lifestyle and the Traditional Use of Natural Resources by Native People in Several Coastal Communities of Chukotka in the Russian Far East During 2000”⁵⁴ was a joint project between the Yupik Eskimo Society, the Naukan Production Cooperative, the North Slope Borough (NSB), and the U.S. National Park Service that occurred between 1997 and 2000. This project built on early work conducted through a cooperative agreement with the NSB to study the distribution and migration of bowhead whales, conducted during 1992-1996.

The purpose of the project was to promote mutual understanding between the indigenous people living on both sides of the Bering Strait sharing the same natural resources, and to make a more detailed study of these resources and their traditional subsistence use. The project included a number of specific objectives, such as documenting the importance of marine mammals to the Native people by documenting harvest, distribution, and utilization by a selected group of hunters and identifying Chukotka coastal areas that are heavily used by marine mammals and therefore of importance to the indigenous people. Another objective was to establish better contact and build relations between governmental and nongovernmental organizations (through the documentation of marine mammal hunting for use in the international management of marine mammals).

Nineteen hunter-observers participated in the project, about one per community. The hunters were selected based on their experience observing marine mammals and prior experience working on earlier research projects.

The study covered the coastal area of Chukotka Peninsula. Most of the observations were conducted within 10-25 kilometers (km) of the observer’s home village or hunters’ camp, with other more distant areas visited less frequently.

Observation posts were located in five villages in the Provideniya Region and in six villages and hunting camps in the Chukotka Region. Hunter-observers collected information in the course of their subsistence activities and wrote this information in tables and on sketch maps. Hunter-observers also questioned other hunters about their harvest and distribution data. Each month, observers would telephone a central office and communicate the data in their tables. The tables and sketch maps were sent by mail.

Hunter-observers collected information about the species (including marine mammals and birds) they encountered, the number sighted, and the place of the sighting.

At the end of each month, this information was summed up in tables, including a marine mammals observation table (observations entered daily, as well as weather and ice conditions), subsistence activities, and utilization of subsistence harvest (containing information about distribution of the meat). The observer also used a sketch map to mark aggregations of different species, noted by points on the map. Often, the sketch maps do not show seasonality, but some of the sightings that are mapped also note the month in which the sighting occurred. Additional sketch maps show whaling grounds and harvest areas for bowhead and grey whale hunts in 2000, as well as traditional hunting grounds for whales, seals, walrus, and fish on a regional level (noted by polygons).

Information from hunters was verified during telephone calls and through in-person meetings when hunters travelled to the towns where the principle investigators were located.

To the best of our knowledge, the information was not digitized. Annual reports were created, and electronic copies of these reports do not appear to be available.

The information collected helped to create a report substantiating the need of indigenous residents of Chukotka for bowhead whales for quotas from the IWC, and in 1998, the Chukotka Natives received a quota of five bowhead whales from the IWC. The research also supported an agreement on polar bear utilization and harvest by the indigenous residents of Chukotka and Alaska. Management decisions under this agreement are made by a four-member commission consisting of an indigenous and federal representatives from the United States and Russia.

2. Nenets Autonomous Okrug

The “Monitoring of Development of Traditional Indigenous Land Use Areas in the Nenets Autonomous Okrug, Northwest Russia,”⁵⁵ project was a collaboration between the Norwegian Polar Institute and the Association of Nenets People Yasavey. The goal of the project was to strengthen the ability of the indigenous population of the Nenets Autonomous Okrug (NAO) to promote their interests and traditional way of life in and to generate data to support decisionmaking on industrial development in the area.

The study population included a total of 103 traditional land users from 10 rural settlements, most of whom were reindeer herders, from six areas in the NAO.

The six areas in the study (Kanin Peninsula, Kolguev Island, and the villages of Indiga, Nelmin Nos, Krasnoe, and Khorey-Ver) were chosen because they included various degrees of oil development and impacts from oil-related activities.

A questionnaire on traditional land use issues was formulated by the project’s anthropologist, and amended by

54. AINANA & ZELENSKY, *supra* note 22.

55. WINFRIED DALLMANN ET AL., MONITORING OF DEVELOPMENT OF TRADITIONAL INDIGENOUS LAND USE AREAS IN THE NENETS AUTONOMOUS OKRUG, NORTHWEST RUSSIA (Jan. 2010).

the project staff and members of the expert group. Seminars were held in the capital city, Naryan-Mar, where the project anthropologist trained representatives from villages in conducting the survey. These representatives went to their villages and carried out the interviews. Interviews were transcribed by hand and recorded on tape, then transcribed.

The questionnaire requested detailed information about the background of the respondent, his or her activities, and recent changes in traditional modes of livelihood, like fishing, hunting, sea mammal hunting, gathering, reindeer herding, and income. The questionnaire also included questions about the existence of sacred places, the condition of their natural environment, the influence of the oil industry on livelihoods, and general reflections on future development. Information about land use, including sacred sites, historical sites, camp sites, fishing sites, sea mammal hunting sites, reindeer calving areas, migration routes, gathering areas, winter pastures, and slaughtering sites were drawn on maps.

The database was developed using the ESRI software ArcGIS. The map information was transferred to kml files (GoogleEarth). In addition, satellite images in GoogleEarth were used to identify visible, physical damage of the tundra. These data were combined with various publicly available data in a bilingual (Russian and English) GIS database. The database was published on the Internet using GoogleEarth.⁵⁶

The people of Yasavey are working with the NAO Department on Indigenous Peoples and Traditional Economies to promote the database as an additional tool for decisionmaking.

B. Sami

I. Sami Place Names in Norwegian Sea Charts⁵⁷

This research paper compared Sami and Norwegian names for marine fishing grounds in Porsanger Fjord, Norway, and conducted a historical and linguistic analysis of the names to reveal examples of cooperation and resource competition between Norwegians and Sami fishers. The premise of the study was that marine areas that have names are a result of activities such as fishing that “require greater exchange of information between groups of people than in other settings” and therefore represent in and of themselves areas of marine use.⁵⁸ The paper relied on a Sami marine place names and traditional knowledge database organized by the Coastal Sami Resource Center (CSRC) in Porsanger. This overview examines how the database of Sami marine use areas was created.

The study area, Porsanger Fjord, lies in the northernmost part of Norway, in Finnmark County. Respondents

considered knowledgeable about local history and place names were selected from each of seven communities along the western side of the Fjord by teachers, resource managers from the municipality, and leaders of local history associations involved in local history projects. Respondents were interviewed in the Sami language and were asked to locate the Sami place names of any features or locations and write the information on either terrestrial or sea charts.

The local community associations who initially conducted the interviews turned their information over to the CSRC, which maintains and continues to augment the database. The database consists of place names and traditional knowledge collected among Sami language speakers in the villages along the western side of the fjord since the 1980s. In 2009, the CSRC held a database with over 1,400 Sami toponyms covering the fjord itself and the land along the west of the fjord from the bottom to its mouth. The CSRC entered map coordinates into excel sheets, containing the name identified and a short explanation if available. The sheets were then imported into Google maps and made available on their web page.⁵⁹

Using ArcGIS, Brattland placed Sami marine toponyms in the CSRS database in the same coordinate system as the current sea charts for Porsanger and then compared them with already registered toponyms collected by the Norwegian surveyors in the same locations in the sea charts. In this way, the researcher was able to identify potential conflicts between local and large-scale fishers in the Fjord.

2. Fisheries in Lyngen Fjord⁶⁰

The Norwegian Directorate of Fisheries conducted interviews with fishermen in Lyngen Fjord, in northern Norway, pursuant to the Norwegian marine habitat mapping program, which implements biodiversity conservation goals set out by national law (Convention on Biological Diversity and the Nature Diversity Act). The purpose of the mapping is to document local knowledge about fisheries to contribute to the overall knowledge of fisheries in order to improve the management of coastal fisheries.

The Directorate of Fisheries interviewed one or two fishermen who were part of each of the local fisher’s associations that exist in communities along the fjord. To get information in places where no local fisheries associations existed, the Directorate of Fisheries interviewed other fishers recommended by the associations along the fjord. The resulting polygons therefore represent information provided by a small selection of respondents for each area, and do not represent marine use by non-organized fishers.

The survey was conducted according to a handbook and an interview manual created by the Directorate. The handbook contains four different forms used to conduct interviews about fishery resources, fishing areas and storage locations, shellfish locations, and coral and sponge loca-

56. See <http://ipy-nenets.npolar.no/main%20pages/frame.html>.

57. Camilla Brattland & Steinar Nilsen, *Reclaiming Indigenous Seascapes: Sami Place Names in Norwegian Sea Charts*, 34:4 POLAR GEOGRAPHY 275-97 (Dec. 2011).

58. *Id.* at 276.

59. See <http://www.meron.no/index.php/nb/lokalkunnskap/stedsnavn/porsanger>.

60. Brattland, *supra* note 7.

tions. The handbook also provides directions on how to fill out the forms.

The Directorate of Fisheries asked the fishermen to draw fishing areas and observations of spawning grounds for cod on sea charts.

The maps were systematized and digitized in a publicly available GIS system.⁶¹

The form for fishery resources includes the identification of spawning areas, key growth areas for fry/small fish, important feeding grounds for adult fish, and important migration routes for adult fish.

A single form is used to identify both fishing grounds and fish storage areas, since these areas are often the same. For fishing grounds, the form requires identification of the type of equipment used, the number of vessels that use the area, the month(s) fishing takes place, and whether fishing is commercial, leisure, or tourism. The form also requires identification of whether the fishing ground use is local, regional, or national. The identification of fish storage areas is rated in terms of “very important,” “important,” and “less important.” All areas that have been used within the past 25 years as fish storage areas are to be identified.

The form for shellfish and coral includes information about the size of the area and how the area was identified (visually or with acoustic equipment).

In addition, the forms contain a place for any additional information to be noted, such as bottom topography, currents, and soundings, as well as information about other use (recreational vessels, shipping, etc.) and infrastructure in the sea (harbor/marina, cables, pipes and emissions, etc.).

Codes are associated with the categories of information collected, and these codes are used to identify the locations on a map during the interview.

The maps with the spawning grounds were verified as correct by the fishers present at a group meeting. In addition, the government conducted its own investigation of spawning groups later the same year. The study checked the fishermen’s observation by conducting a study that collected eggs floating in the water and estimated where the eggs had come from based on the movement of the ocean currents. In this way, both the local knowledge and the scientific studies supported the management decisions that were made based on the information.

A cod fish farm operating in the fjord applied to expand its business from six to 10 locations. The Directorate of Fisheries declined the request because the proposed locations of the expanded farms overlapped with the mapped spawning grounds for wild cod, citing research that suggested there was a danger of genetic interaction between farmed cod and wild cod stocks in the fjord. The fish farm company appealed the decision, claiming that the mapping of spawning and nursery areas for coastal cod in the fjord was not based on scientific knowledge. The Minister of Fisheries affirmed the decision of the Directorate and implemented a new regulation disallowing the siting of cod farms in cod spawning fjords.

As Brattland notes, “the Storfjord controversy is an illustration of a case where FEK (fishers’ ecological knowledge) was quite successfully transformed into fact, integrated in the knowledge base for spatial management of cod farm sites in the coastal zone, and also had an influence on aquaculture management policies.”⁶²

C. Canada

I. Use and Occupancy Mapping in Nunavut⁶³

The purpose of a use and occupancy study by the Nunavut Planning Commission (NPC) was to provide information necessary to create a Nunavut Land Use Plan. Participants were recruited using radio ads and notification posters placed in groceries stores, post offices, health centers, airports, and hamlet offices two weeks in advance of interviews held in the community. Interviews were conducted with over 400 participants from 25 communities in the territory.

The study area included the entire Territory of Nunavut.

Terry Tobias was hired as a consultant to help develop the Nunavut Planning Commission Use and Occupancy Map Survey Data-Collection Manual. Information on traditional, individual lifetime, and community use of water and land resources was mapped through detailed interviews with community members. Interviewers documented activities within a living memory time frame and created map biographies. Between one and 15 maps at a scale of 1:250,000 were generated by each participant.

Seventy categories of features were recorded as points, lines, or polygons and included animal and plant harvest sites; occupancy sites, i.e., cabins, tents, and igloos; sites of life events, i.e., births, deaths, and burials; and cultural sites, i.e., sacred areas and landforms.

The maps were incorporated into the Nunavut Land Use Plan. The NPC requested comments on the plan and held workshops in Nunavut communities to get feedback. The NPC then plans to review all feedback at a public hearing and to make final revisions, prior to submission for final approval by the government, expected later in 2013.

NPC staff scanned and sent the original map sheets to Geopraxis, a Canadian firm with expertise in digitizing. Geopraxis registered, digitized, error-checked the images, and created an aggregated dataset. The data are currently held onsite in a geodatabase with ESRI software.

The use and occupancy maps were used to inform the creation of the Nunavut Land Use Plan, by incorporation into one of the planning goals, Building Healthier Communities. A draft land use plan was issued in 2011/2012. The draft land use plan recommends that for areas identified as community use areas through the use and occupancy mapping (UOM) process, that all permitted uses of the land be allowed, but that for conforming and approved project proposals, the NPC should recommend

61. See <http://kart.fiskeridir.no/default.aspx?gui=1&lang=1>.

62. Brattland, *supra* note 7, at 10-11.

63. See <http://npc.nunavut.ca/en/draft-plan>.

to regulators and project proponents that they consider the cultural value of the area. The draft plan states that this is preferred over a designation that does not permit inappropriate uses, because the preferred option “reflects the uncertainty and lack of agreement regarding the management of the areas.”⁶⁴

2. Inuit Sea Ice Use and Occupancy Project⁶⁵

Inspired by the Inuit Land Use and Occupancy Project of 1976, the Inuit Sea Ice Use and Occupancy Project (ISIUOP) documented and mapped sea ice knowledge and use around several Inuit communities between 2004-2008. The project includes two different mapping efforts, the Atlas of Inuit Sea Ice Knowledge and Use and the Igliniit. The atlases, created through a map biography process, characterize the importance of sea ice processes, use, and change around three Nunavut communities. “Igliniit” in Inuktitut (the Inuit language) refers to trails routinely travelled by members of a community. The Igliniit project equips hunters with GPS systems that are mounted on snow machines and used to track the hunter’s routes, as well as log information such as observations by the hunters and weather conditions. Maps were then created from this information.

The purpose of the ISIUOP is to document elder knowledge of ice for youth safety, through the creation of educational materials. This includes documenting elder knowledge about ice to improve safety of youth travel on ice, as well as observations about changes in seasonal sea ice conditions, to ensure that youth are aware of these changes.

Information for the atlases and the Igliniit project was contributed by elders and hunters considered sea ice experts in their community. Their knowledge was shared with ISIUOP researchers during interviews, focus groups, and sea ice trips, between 2004 and 2008. Most of the time, interviews were one-on-one, with the help of an interpreter. Occasionally, small groups were interviewed together.

The general study area was Baffin Island, Nunavut. The Atlas of Inuit Sea Ice Knowledge and Use collected information for three villages: Cape Dorset, Igloodik, and Pangnirtung. The Igliniit project was conducted in the Clyde River.

For the atlases, the mapping sessions were conducted with community experts who drew sea ice features, travel routes, camps, or other notable features (e.g., fishing and hunting areas) on transparent film overlaid onto topographic maps. The project used National Topographic Service maps as the basemaps, available for free from GeoGratis.⁶⁶

For the Igliniit project, Inuit hunters mounted a hand-held computer and GPS system on their snow machines, which automatically logged their location and weather

conditions every 30 seconds, for two full sea ice seasons. Hunters also logged observations on the system, such as animal and hunting locations. The data was used to create maps of a single hunter’s travel routes and was integrated to create a map that reflects the routes and observations of the entire community.

The interviews were informal and unstructured. Community or university researchers asked about the local expert’s background and experiences, including the extent and area of sea ice use, the location of notable sea ice hazards, key harvesting areas, and traditional and current ice routes. Interviewers also asked about the expert’s understanding of the freezing and melting processes and seasonal sea ice conditions, Inuktitut toponyms or terminology associated with ice features, conditions, or dynamics, the importance and uses of sea ice in their community, safety concerns and survival strategies on the sea ice, and sea ice or weather changes observed and shifts in patterns of sea ice use due to social and/or climatic change. Interviews were conducted in various locations in a community, as well as out of town on the land or sea ice. Points, lines, and polygons were all used to represent information on the maps.

Focus groups, workshops, and various one-on-one meetings with local experts and/or community researchers were a critical part of verifying that the information collected was being interpreted and presented in appropriate and accurate ways.

The information collected on the transparency was converted to digital form and stored in GIS. In addition, detailed descriptions and stories related to a feature, the name of the expert who contributed the information, and photographs of the feature were stored and associated with the features on the map. The project used a second-generation iteration of the open source Nunaliit software.⁶⁷ Paper maps were then produced for the communities. The information was also made available electronically on the project website, using Google maps.⁶⁸

D. United States

I. Subsistence Mapping of Nuiqsut, Kaktovik, and Barrow⁶⁹

In 2004, Stephen R. Braund & Associates (SRB&A), in association with the NSB Department of Wildlife, initiated a subsistence mapping study in Nuiqsut, Kaktovik, and Barrow designed to develop a GIS dataset to describe regional subsistence patterns and to measure changes in these patterns over time. The purpose of this mapping project was to assist the federal government in projecting, mitigating, and assessing the effects of offshore oil and gas activities on subsistence.

64. Nunavut Planning Commission, Draft Nunavut Land Use Plan, Options and Recommendation, 2011-2012, *available at* [http://www.nunavut.ca/en/downloads; Region Social and Economic Studies Technical Report No. 147 \(MMS 91-0073\)](http://www.nunavut.ca/en/downloads; Region Social and Economic Studies Technical Report No. 147 (MMS 91-0073)).

65. ISIUOP, *supra* note 24.

66. GeoGratis, <http://geogratias.cgdi.gc.ca/>.

67. *See* <http://nunaliit.org/>.

68. *See* <http://sikuatlas.ca/index.html>.

69. SRB&A, *supra* note 17.

The NSB Department of Wildlife Management identified active and knowledgeable harvesters for each of the subsistence resources identified in the study. The researchers asked these people to name other knowledgeable harvesters in their communities. This list of 222 people was prioritized based on the number of times someone was mentioned. The researchers interviewed 146 people, including 75 from Barrow, 38 from Kaktovik, and 33 from Nuiqsut.

The study area included all areas used for subsistence involving the selected resources by residents of Barrow, Kaktovik, and Nuiqsut.

The researchers developed a field mapping guide and field mapping protocol.

Two study team members were present for each interview. One team member conducted the interview and recorded information on an acetate sheet positioned over a 1:250,000 U.S. Geological Survey (USGS) map. The overlays were marked with locations on the U.S. Coast Guard (USCG) map, so that it could be realigned for digitizing.

Information was recorded using color-coded permanent markers on the acetate sheet. The second team member took detailed notes of the discussion and responses of the interviewees using a laptop computer. Interviewers recorded each feature as either a polygon (subsistence use areas, harvest areas), line (travel routes), or point (harvest locations, camps, and cabins).

Researchers assigned numbers to each feature as the interview proceeded and recorded this number next to the feature on the map and in the notes about that feature. This provided a link between the notes and the map and was later used to create distinct feature codes in the GIS database.

The subsistence use resources identified were: caribou; moose; bowhead whale; Arctic cisco; Arctic char/Dolly Varden trout; broad whitefish; burbot; geese; eider; ringed seal; bearded seal; walrus; wolf; and wolverine.

Interviewers began by mapping the respondents' subsistence use areas for each resource over the last 10 years, then mapping use areas for the last 12 months. For each use area on the map, the researchers recorded the month that the area was used. Interviewees then were asked to identify camps and cabins used during the last 12 months and the last 10 years and travel routes taken.

After recording the hunting areas, interviewers mapped the location of the participants' most recent successful harvest activity for each resource, and recorded the harvest month, number of participants, and duration of hunt.

A code for each feature was assigned, which contained the community's airport code, interview date, respondent ID number, feature type, and the feature number. Each feature was entered once for each species harvested. The researchers entered all of the features on each overlay into an Access field database according to these codes to create a feature table. The Access database resulting from entry of field data consists of four related tables: (1) Feature; (2) Resource; (3) Respondent; and (4) Species. Geographic

feature types include polygons, lines, and points. Types of Feature records include: (1) subsistence use ("harvest") areas; (2) cabins; (3) camps; (4) travel routes; and (5) harvest sites.

SRB&A digitized the features recorded on the acetate overlays using ArcGIS ArcEdit software, including polygons associated with subsistence use areas and key habitat areas; lines associated with travel routes and key migration routes; and points associated with camps, cabins, and harvest locations.

Each GIS field record was assigned a unique Feature Code matching the unique Feature Code assigned to the Access Feature Record containing data on the type of feature, months used, and travel method. The Feature Table contains one record for each geographic feature mentioned by a respondent in connection with an individual resource. The Merged Feature Table from the Access database was linked to the GIS field database to produce the Analysis GIS. The Analysis GIS was used to develop maps for the final report.

The SRB&A GIS mapping system consists of three possible methods of presenting mapped information. The first method is referred to as a "spaghetti map." The spaghetti map as shown is made up of vectors (e.g., a point, line, or polygon) and represents overlaying all of the individual respondent outlines of Barrow, Kaktovik, and Nuiqsut subsistence use areas for all resources. This representation is not used in map production, as it presents individual harvester data (e.g., individual polygons).

The second method uses a single polygon to depict the extent of subsistence use areas for all respondents and all resources combined. Researchers often use this method to represent subsistence use areas on maps, and it is the expected representation of subsistence use areas in this study. While this single-polygon approach clearly shows the extent of the use area, it does not differentiate between areas that are used by one person from those that are used by multiple persons.

In a third method, SRB&A converted polygons (use areas) to a grid with each pixel being assigned a value of one. Then, the number of overlapping pixels are summed and assigned a color, with the darkest color representing the highest density (or number) of overlapping pixels.

The maps generated by SRB&A and the information from this study have been incorporated into environmental impact analyses. For example, the 2012-2017 Outer Continental Shelf Lease Program incorporates information from this study to describe subsistence use patterns.⁷⁰ The National Marine Fisheries Service (NMFS) Draft Environmental Impact Statement (EIS) for Arctic Seismic and Drilling included the maps for Kaktovik, Nuiqsut, and Barrow.⁷¹ However, neither document appears to rely on

70. BOEM, *Proposed Final Outer Continental Shelf Oil & Gas Leasing Program 2012-2017*, June 2012, at 12.

71. NMFS, *Effects of Oil and Gas Activities in the Arctic Ocean Supplemental Draft Environmental Impact Statement*, Mar. 2013, fig. 3.3-18.

this information for mitigation measures or conclusions about possible impacts to subsistence.

The spatial information from this study also appears to be incorporated into an online marine cadastre.⁷²

2. State of Alaska Department of Fish and Game Mapping

The ADF&G has been collecting spatial data on subsistence harvests since the early 1980s, through the Division of Subsistence Technical Paper and the Division of Subsistence Special Publication series. The technical subsistence reports from the ADF&G characterize the customary and traditional uses of fish and wildlife resources and address various scientific and policy questions. Some reports document subsistence harvests.⁷³ Others deal with specific resource management issues, such as to determine what uses, users, and methods of harvest should be defined as “subsistence use” for purposes of preferences granted by various state and federal laws, evaluating the impact of state and federal laws and regulations on subsistence, and for the development of management plans that incorporate subsistence use. When a resource development project is proposed, there is often the need for updated baseline information to document subsistence economies, to assess and mitigate potential impacts of development, and to monitor long-term ecological conditions.⁷⁴

Many different mapping methodologies have been used by the ADF&G, including intensity maps with different sizes of points to convey harvest amounts⁷⁵ and intensity maps quantifying harvests by management units.⁷⁶ Others have used a combination of points and polygons within the same map to differentiate between harvest areas (harvest effort areas) and harvest or kill sites, resulting in a maxi-

mum extent-type map (from the polygons) overlaid with an intensity map (from the clusters of points).⁷⁷ Purely maximum extent maps made of polygons have also been used,⁷⁸ while some have used only points to denote harvest/kill sites.⁷⁹

The ADF&G has mapped subsistence use in a variety of environments, including terrestrial,⁸⁰ coastal (for herring spawn and marine invertebrates such as clams),⁸¹ marine, and a combination of marine and freshwater (for species such as salmon or waterfowl that are harvested in both environments).⁸² Below, we discuss one specific example of subsistence mapping by the ADF&G in Kivalina and Noatak.⁸³

The ADF&G, in cooperation with SB&A, the city of Kivalina, and the Native Village of Noatak, conducted a subsistence use survey in February 2008 pursuant to this program. One of the specific needs for data in this year was to provide information for an EIS for an expansion of the Red Dog Mine, located near the two villages.

The researchers created a list of all households in both villages and attempted to interview every household in both villages. In Kivalina, the survey was administered to 52% of households and in Noatak, 76% of the households participated in the survey.

The study area included marine and terrestrial areas for subsistence searching and harvest by Kivalina and Noatak residents.

Researchers worked with the municipality and native organizations to review the surveys, prepare household lists, and obtain community approval. The Noatak traditional council selected the eight community surveyors, and in Kivalina, five community members were selected as surveyors. Before the survey, an orientation was held with all community and non-community surveyors.

Most surveys were conducted by two people (a community and non-community member) at the respondent's home. Community workers administered the survey, while non-community members did the mapping.

The survey asked questions about which foods were harvested and how much, for the past year. The survey also asked about employment, wages earned, and other sources of income. It also covered questions about food security, such as whether households were able to harvest sufficient amounts of food. The demography section included questions about gender, kin relationships, age, birthplace, etc.

To document subsistence use areas, the interviewers asked the respondent to locate on a map the area where they searched for and where they harvested 11 subsistence

72. See <http://www.marinecadastre.gov/MMC%20Pages/gallery.aspx>.

73. Lauren Sill & Terri Lemons, *The Subsistence Harvest of Herring Spawn in Sitka Sound, Alaska, 2011*, Alaska Department of Fish and Game, Division of Subsistence, Tech. Paper No. 369 (2012); Malla Kukkonen & Garrett Zimpelman, *Subsistence Harvests and Uses of Wild Resources in Chistochina, Alaska*, Department of Fish and Game, Division of Subsistence, Tech. Paper No. 370 (2012); James M. Van Lanen et al., *Subsistence Land Mammal Harvests and Uses, Yukon Flats, Alaska: 2008-2010 Harvest Report and Ethnographic Update*, Alaska Department of Fish and Game, Division of Subsistence, Tech. Paper No. 377 (2012).

74. For example, two studies address subsistence issues related to the Pebble Mine Project: Sarah Evans et al., *Harvests and Uses of Wild Resources in Dillingham, Alaska, 2010*, Department of Fish and Game, Division of Subsistence, Tech. Paper No. 375 (2013), and Davin Holen et al., *Subsistence Harvests and Uses of Wild Resources in Aleknagik, Clark's Point, and Manokotak, Alaska, 2008*, Department of Fish and Game, Division of Subsistence, Tech. Paper No. 368 (2012). Another study to assess potential impacts to subsistence from a possible natural gas pipeline: David Holen et al., *Subsistence Harvests and Uses of Wild Resources by Communities in the Eastern Interior of Alaska, 2011*, Department of Fish and Game, Division of Subsistence, Tech. Paper No. 372 (2012).

75. Sill & Lemons, *supra* note 73.

76. Nicole M. Braem, *Subsistence Wildlife Harvests in Noorvik, Shungnak, and White Mountain, Alaska 2008-2009*, Alaska Department of Fish and Game, Division of Subsistence, Special Publication Series No. SP2011-003 (2012); Nicole M. Braem, *Subsistence Wildlife Harvests in Ambler, Buckland, Kiana, Kobuk, Shaktoolik, and Shishmaref, Alaska, 2009-1010*, Alaska Department of Fish and Game, Division of Subsistence, Special Publication Series No. SP2012-003 (2012); Van Lanen et al., *supra* note 73.

77. Evans et al., *supra* note 74; Holen et al., *supra* note 74; Kukkonen & Zimpelman, *supra* note 73.

78. Holen et al., *supra* note 74; Kukkonen & Zimpelman, *supra* note 73.

79. Kukkonen & Zimpelman, *supra* note 73.

80. Braem (both sources), *supra* note 76; Holen et al., *supra* note 74; Kukkonen & Zimpelman, *supra* note 73; Van Lanen et al., *supra* note 73.

81. Sill & Lemons, *supra* note 73; Holen et al., *supra* note 74.

82. Evans et al., *supra* note 74; Holen et al., *supra* note 74.

83. James S. Magdanz et al., *Subsistence Harvests in Northwest Alaska, Kivalina and Noatak, 2007*, Alaska Department of Fish and Game, Tech. Paper No. 354 (2010).

resources in four resource categories. Maps used at the interviews were available at three different scales.

Surveys were coded for data entry by researchers and entered by ADF&G staff. During coding, the researchers recorded and summarized harvest reports for major species. These summaries were compared to the results of the data analysis and discrepancies were examined. In addition, all survey data was entered twice, and the sets were compared to each other to minimize data entry errors.

After the database and maps were created, community meetings were held to review the study information.

The survey responses were coded following ADF&G conventions. The data entered was backed up along the way. Information was processed using SPSS (statistical package for the social sciences).

The hand-drawn maps were entered into ESRI ArcGIS. For each resource and category, all search areas and harvest locations were combined to create a series of maps. Marine and terrestrial harvest areas were represented as points and search areas as polygons.

The EIS for the Red Dog Mine expansion incorporated information from this study and found that activities at the Red Dog Mine had led to wildlife disturbances and declines and had affected subsistence hunting of marine mammals near the port for the mine.⁸⁴ As a result, the EIS proposed a mitigation measure that would close the port during the beluga whale migration and hunt in June.⁸⁵ However, after the EIS took into account other factors beyond environmental impacts, such as economic and technical factors, the U.S. Environmental Protection Agency (EPA) concluded that the preferred alternative in the EIS was to allow the expansion of the mine without the discussed mitigation measures. In addition, EPA concluded that it did not have the authority to require the mining company to close the port during the beluga whale migration. EPA noted that the mining company stated that it would only proceed with shipping operations after a Subsistence Committee notified the company that whale hunting was finished for the year. EPA explained that it was not able to determine the effectiveness of the Subsistence Committee and suggested that its procedures be reviewed.⁸⁶

The information from this study was also used by NMFS in its Draft EIS for Arctic Seismic and Drilling. However, no mitigation measures were proposed for the area around Kivalina in the Draft EIS.

3. Subsistence Bowhead Whaling Near Cross Island⁸⁷

This study was part of the Continuing Arctic Nearshore Impact Monitoring in the Development Area (cANIMIDA) study funded by the U.S. Department of the Interior to monitor impacts associated with oil and gas activities in

the Beaufort Sea. The purpose of the study was to measure basic parameters of Cross Island bowhead whaling at Cross Island in the Beaufort Sea, in order to analyze any potential future changes in hunting in relation to oil and gas activities, weather and ice conditions, or other variables and in order to inform agency oil and gas plans and decisions. The project is also working to develop a system for collecting hunting information that local whalers themselves can adopt, adapt, and maintain.

The study population was all of the bowhead whale subsistence hunters from the village of Nuiqsut. The study area was the marine travel route between Nuiqsut and Cross Island, and the marine areas around Cross Island used by the whalers during their subsistence hunt of bowhead whales.

The information was collected through observation by the researcher, GPS units, and self-reporting by the whalers. The whalers were given hand-held GPS units that recorded the travel route of the boat and other points entered by the whalers. This information was supplemented by subsequent conversations with each boat crew, while reviewing the mapped GPS information on a laptop computer with them. When reviewing tracks after their return, boat crew members would often identify locations where they saw whales, and these points were added to the GPS information. Observations by the whalers about whale behavior were also documented. The researcher completed a form for each boat trip that documented time spent whaling, way points, weather observations, and the associated GPS file name. A portable weather station on Cross Island provided additional information.

The following information was collected:

- Number of whaling crews actively whaling and number of boats used (observation)
- Size and composition of whaling and boat crews, and fluctuation over the whaling season (observation)
- Number of whales harvested (observation, self-report)
- Days spent whaling, and days prevented from whaling (observation, self-report)
- Days suitable for whaling when whaling did not occur (observation, self-report)
- Subsistence activities occurring other than whaling (self-report, observation)
- Location of whale searching, whale sightings, and whale harvest (GPS, self-report)
- Local weather and ice conditions (observation, self-report)
- Bowhead whale behavior in the Cross Island area, and differences from past experience (self-report)
- Changes in access or other issues related to the whale hunt, such as increased effort for the same (or reduced) harvest, increased risk, increased cost (self-report)

84. U.S. EPA, *Red Dog Mine Extension Aqqaq Project Final Supplemental Environmental Impact Statement* 3-38 (Oct. 2009).

85. *Id.* at 2-53.

86. *Id.* at 2-40.

87. Galginaitis, *supra* note 36.

The GPS data Garmin's MapSource software was converted to be used with the Manifold GIS system.

The project was designed to collect quantitative measures of Cross Island whaling, but not to collect similar information about oil and gas activities. In addition, no seismic or drilling activity occurred in the study area during the study period, so the study provided no conclusions on the impacts of oil and gas activities. However, the study did document impacts to subsistence from ice and wind conditions, the distribution (distance from Cross Island) and apparent abundance (how many whales the whalers could find) of whales, and the behavior of the whales.

The information in this study was included in a number of EISs and industry applications. For example, the Environmental Assessment of Shell's 2012 Beaufort Sea drilling plans relied on this study to describe subsistence activities at Cross Island, including the apparent effects of climate change on the timing for the start of the whale hunt and the effect of other (non-oil-and-gas-related) vessel traffic on whale behavior. A draft EIS for leasing in the Beaufort and Chukchi Seas relied on the study in drawing a connection between climate change and sea state conditions that affect hunting. An environmental assessment for GXT seismic activity in 2009 also relied on the study to describe subsistence activities at Cross Island and, in addition, the development and production plan for Liberty (drilling from an artificial island in the Beaufort Sea). ION and Statoil also relied on information from this study in their applications for Incidental Harassment Authorizations for seismic activity from NMFS. However, none of these analyses includes mitigation measures supported by the study.

The draft EIS for Arctic seismic and drilling by NMFS relied on the study in its discussion of subsistence activities at Cross Island and to support a mitigation measure that requires shutdown of exploration activities in the Beaufort Sea for Nuiqsut and Katovik bowhead whaling. Because this EIS is not yet complete, it is unclear whether the mitigation measure will be implemented.

4. Barrow Participatory GIS⁸⁸

This project was part of a thesis developed by a master of arts in geography student at the University of Cincinnati. The researchers created a traditional knowledge "Inupiat Web GIS," based on a five-year study. The website, "Arctic Cultural Cartography," was created to be an open portal through which the password-protected Inupiat Web GIS could be accessed. One of the main research focuses was to investigate, document, verify, and archive local observations about geomorphological processes, landscape changes, and local resource use. The project also sought to foster a positive and cooperative connection between the local community and scientists.

Over the course of five years, 52 Inupiat elders and hunters from the North Slope villages of Barrow, Atqasuk, Wainwright, and Nuiqsut were interviewed. The study

area covered a few thousand square miles in the Barrow area, extending from the west near Wainwright Inlet to the western edge of Smith Bay in the east, and extending north about 10 miles offshore of Barrow to around 50 miles south of Atqasuk.

Interviewees were asked to sign consent forms, and each interviewee was assigned a subject number. Interviews were video-recorded and assigned a coded number denoting the year, month, and sequential interview occurrence. Satellite and USGS topographical maps of the North Slope of Alaska were used in the interviews, which were semi-directed, and the information shared by the interviewees was diverse, dealing with landscape changes, water resources, hunting, fishing, and cultural and historical sites.

The researchers created a six-digit code system, comprised of three two-digit fields, to categorize geographically specific information from the interviews. A Microsoft Excel chart was used to create a log of time stamps from the video that corresponded to geographical information provided during the interview, including the six-digit code and whether the information was described as a point, line, or polygon.

The data layers included villages, various hydrological and geological features, resources (which included fish, caribou, seals, walrus, whales, waterfowl, and berries), historical/cultural sites (which included cabins, camping, and hunting locations), trails, and lakes. An additional layer contained elder videos that would link specific geographical points to selected clips from the interviews describing events at these points.

Some of the geographic information provided by interviewees was cross-referenced with other geological information. Otherwise, the project does not appear to have verified information received through the interviews.

The Excel charts from each interview were combined into a "Master Geocoding" sheet that contained all the information from every video. From these reference sheets, the GIS data set was created. The data set was created using ESRI's ArcGIS desktop application ArcCatalog. Video files were compressed into MPEG format.

The GIS information was then incorporated into a web-based platform using ArcGIS Server and a website framework from the ESRI community resource center. The website, called Arctic Cultural Cartography, can be found at <http://northslope.arcticmapping.org/>. To ensure privacy of data, a user login is required. An online survey was created to get feedback on the website, including its ease of use and usefulness. A website training tutorial was also created.

5. Subsistence Mapping in Gambell and Togiak, Alaska, by the Bering Sea Sub-Network⁸⁹

The Bering Sea Sub-Network (BSSN) is a four-year, community-based project that builds on a two-year pilot,

88. Jelacic, *supra* note 43.

89. Maryann Fidel et al., *Subsistence Density Mapping Brings Practical Values to Decision Making*, in *FISHING PEOPLE OF THE NORTH: CULTURES, ECONOMIES, AND MANAGEMENT RESPONDING TO CHANGE*, Alaska Sea Grant,

to collect quantitative, qualitative, and spatial data on subsistence activities in eight indigenous communities bordering the Bering Sea, in the Russian Federation and the United States. Here, two assessments based on the research conducted in the villages of Gambell and Togiak, Alaska, is discussed.

The overall goal of the BSSN is to improve knowledge of environmental changes that are of significance to understanding pan-arctic processes, and to enable scientists, Arctic communities, and governments to predict, plan, and respond to these changes.

The objective of the first assessment in Gambell, Alaska, was to identify the spatial relationships between subsistence use areas and shipping activity using an innovative mapping technique, in order to provide a tool that could empower communities in decisionmaking and as a research tool to examine change or variation over time.⁹⁰ The goal of the second assessment in Togiak, Alaska, was to demonstrate how LTK and subsistence mapping through a community-based observation network can be used to detect change. This analysis examined the ability of indigenous peoples to adapt to change resulting from converging factors, including climate change, a change in walrus population dynamics, socioeconomic conditions, regulations, and development.⁹¹

Respondent selection began with a complete list of all residents of the town. Community experts were then asked to identify people who have lived and harvested in the community for at least 15 years to identify all “high-harvesters” in each village. Different sample sizes occurred over each year of the project, due to out-migration, unknown factors, and deaths. Response rates also varied. For example, in Gambell, for the first year of the project, the response rate was 57% of the people identified (95 people). For the village of Togiak, the total response rate was 80% or 180 people out of the 224 identified high-harvesters.

Study areas include all areas where respondents harvested “focus species.” These are four to five species selected by each community as important subsistence species. For the village of Gambell, the study area consisted of those areas used by residents of Gambell to harvest whale, walrus, seal, and salmon. In Togiak, the study area for this particular analysis was the location where residents harvest walrus, although other focus species include seal, red salmon, Dolly Varden trout, and smelt.

Community research assistants were hired from the community and trained to conduct semi-structured interviews with subsistence harvesters. The interview includes a participatory mapping component, where respondents circle areas used to harvest a particular species during a pre-defined six-month period (spring/summer and fall/winter).

At the end of the project, interviews will have taken place twice a year for four years.

A small-scale (1:1,500,000) and a large-scale (1:375,000) map were used for the interviews. Respondents were assigned a code to protect confidentiality. Notes were taken on each interview by the Community Research Assistant, and recorded if given consent by the respondent.

The BSSN Steering Committee (SC) includes one person from each participating community. It was formed to advise the research team of sensitive issues, data accuracy, and to help with community coordination. All data that is released has been presented to the SC members who then may present it to the community or tribal council, if the information is deemed sensitive. Together, they may determine if the data is suitable for release.

Each map was digitized in GIS, and corresponding data from the survey were entered into excel and then joined with the spatial data. Polygons were selected based on months and species of concern. The concern in the first assessment was that an increase in shipping activity could cause marine mammals (bowhead whale, walrus, and three species of ice seal) to avoid an area or flush from the ice, making them less available to subsistence hunters. So, the resulting map displayed harvest areas for those species during the time period where most shipping activity occurs (fall). These data were aggregated using a kernel density function in Spatial Analysis Tools in ESRI's ArcGIS. Harvest areas are displayed as an intensity using graduated colors.

In Togiak, walrus harvest data were selected throughout the four-year time period. At the start of the project, a baseline survey was used that asked respondents where they “normally go” to harvest walrus in order to capture areas commonly used over the course of one's lifetime. The baseline survey was compared with where respondents had gone for the four-year time period.

The map for Gambell was presented to the USCG officials to inform the USCG's Port Access Study of the Bering Strait. The final USCG decision is expected later in 2013 or 2014. In the second assessment, baseline data was compared with areas used over the four-year study period revealing a dramatic shift in where residents of Togiak harvest walrus. During the four-year period, the traditionally preferred location of Qayassiq was not used to harvest walrus. Two other main locations were used that were farther away and potentially more dangerous. Identified potential factors causing this shift included climate change, a change in walrus population dynamics, socioeconomic conditions, federal and state regulations, and development (trawling). Because the Qayassiq Walrus Commission does not believe Qayassiq has been permanently abandoned as a walrus harvest site and because the community generally feels comfortable with the regulations and with their communications with resource managers, the observed changes in this study are unlikely to lead to modifications in resource management regulations.

Univ. of Alaska Fairbanks, doi:10.4027/fpncemrc.2012.15 (2012); Maryann Fidel et al., *Walrus Harvest Locations Reflect Adaptation: A Contribution From a Community-Based Observation Network*, POLAR GEOGRAPHY (forthcoming 2013).

90. Fidel et al. (2012), *supra* note 89.

91. *Id.*

III. Conclusion

As the selected examples of subsistence mapping demonstrate, there are many techniques that can be used to capture spatial data on traditional harvest activities. Although the details will vary depending upon the goal of the project, some common best practices may be identified to strengthen the legitimacy of subsistence use maps in the research or decisionmaking arena. Important steps include the following: (1) At the onset of a project, the purpose and goals must be clearly defined. This will guide the techniques used. (2) A strategic plan may help to ensure that a project stays on track by clearly defining conventions used at each step and assigning responsibility and roles of the individuals involved. (3) The study area, methodology used to collect information, and what information will be collected should be clearly documented. (4) Sampling should follow established social science methodologies, such as snowball or representative random sampling. (5) The dis-

play of information should be catered to the purpose of the map, culturally appropriate, and protect the confidentiality of respondents as much as possible. (6) The resulting maps will need to go through some verification process with the respondents or communities involved.

The marine and terrestrial environments vary in the way they are experienced through travel and harvesting activities, and thus the most effective techniques for capturing subsistence use in these environments is also likely to vary. Understanding the strengths and weakness in the creation of mapped products will lead to more effective use in decisionmaking or research. The people of the Arctic are faced with increasing development, rapid environmental and socioeconomic change, and increased potential for conflict with shipping. Equipping communities with the opportunities and resources required to create their own maps of marine use for decisionmaking, detecting change, or to document use for historical purposes may also provide a tool for greater self-determination.

From the Gulf of Mexico to the Beaufort Sea: Inuit Involvement in Offshore Oil and Gas Decisions in Alaska and the Western Canadian Arctic

by Betsy Baker

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Summary

In 2013, do the Inuit on either side of the U.S.-Canada Beaufort Sea maritime boundary have better tools for taking more meaningful part in decisions relating to offshore oil and gas development in the Arctic than they did in the wake of the 2010 Macondo/*Deepwater Horizon* explosion and spill? A review of legal and policy developments in both countries over that three-year period allows the conclusion that U.S. and Canadian officials have taken incremental but non-systematic steps that improve modestly Inuit involvement in their respective regulatory processes for Arctic offshore oil and gas activities.

This Article examines developments across three spring seasons—from 2010 to 2013—to laws, regulations, and policies affecting how Inuit in Canada and the United States participate in decisions about Arctic offshore oil and gas activity. Spring 2010 witnessed the Macondo well blowout and *Deepwater Horizon* drill rig explosion in the warm mid-latitude waters of the Gulf of Mexico.¹ The disaster set in motion official responses in both countries, including initiatives specific to the Arctic Ocean.² Three years later, those Arctic-relevant responses, taken together with other official Arctic measures, are numerous enough to bear scrutiny from the perspective of the people most likely to be affected by offshore oil and gas activity in the Beaufort Sea, where both countries abut the Arctic Ocean.³ More specifically, the Article looks at whether the Inuit on either side of the Beaufort Sea maritime boundary do or do not have better tools for taking more meaningful part in related decisions than they did three years ago. It concludes that officials in both countries have taken incremental but non-systematic steps that improve modestly Inuit involvement in the respective regulatory processes for oil and gas activities that may profoundly affect their use of the Beaufort Sea's mammal-rich waters and rapidly diminishing sea ice.⁴

Of the many Arctic-specific responses over the five months that elapsed between the April 20th blowout and

Author's Note: The author presented earlier versions of the paper that underlies this Article at the Arctic Frontiers, Tromsø, Norway, January 2010, session on Northern Communities, and at the seminar Geopolitical and Legal Aspects of Canada's and Europe's Northern Dimensions, May 2010, University of Alberta, Edmonton, Canada. The latter paper will appear in Mark Nuttall & Anita Dey Nuttall, Eds., Arctic Geopolitics and Resource Futures (Edmonton: CCI Press 2014).

1. As is now well-documented, on April 20, 2010, the BP Macondo well suffered a catastrophic loss of control leading to the *Deepwater Horizon* explosion and fire that killed 11 workers. Numerous studies document the events surrounding the *Deepwater Horizon*. See, e.g., 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 (2011).
2. Popular reaction was also quick to draw connections between the Macondo incident and the Arctic. For example, the *New York Times* called on the Secretary of the Interior to withhold all outstanding permits and authorizations and not to allow any oil exploration in the Alaskan Arctic in 2010, or until investigations of the Gulf incident were complete. Editorial, *The Arctic After the Gulf*, N.Y. TIMES, May 26, 2010, at A26, available at <http://www.nytimes.com/2010/05/26/opinion/26wed2.html>.
3. While Canada's Arctic offshore also includes Nunavut in the eastern part of the country, this Article focuses on the Beaufort Sea (where the Western Canadian Arctic meets the U.S. Arctic) because the Beaufort has been the site of more oil and gas activity than Nunavut.
4. See, e.g., Nuka Planning & Research Group, Oil Spill Prevention and Response in the U.S. Arctic: Unexamined Risks, Unacceptable Consequences 19 fig. 2-10, 60 fig. 4-11 (2010) (figures showing sea ice loss and bowhead whale migration routes and concentrations).

September 17th capping of the Macondo well in 2010,⁵ several are notable: the National Energy Board (NEB) of Canada announced its expanded Arctic Offshore Drilling Review⁶; Mary Simon, then-President of Canada's national Inuit organization Inuit Tapiriit Kanatami, called for a moratorium on drilling in the Canadian Arctic⁷; and the U.S. president appointed the Presidential Commission on the Deepwater Horizon and Offshore Drilling.⁸ By early October, the U.S. Commission had issued an Arctic-specific paper on the challenges of oil spill response in the Arctic.⁹

Three springs later, the U.S. government has issued two reports directly related to resource development in the U.S. Arctic: one from the U.S. Department of the Interior (DOI) on its expedited review of Shell's 2012 mishap-plagued Arctic exploration season,¹⁰ for which permitting had

begun prior to the Macondo incident¹¹; and one from the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska,¹² calling for Integrated Arctic Management.¹³ More generally, the White House issued the five-year research plan for the Interagency Arctic Research Policy Committee (IARPC) in February 2013 through its Office of Science and Technology Policy (OSTP)¹⁴ and, in May 2013, the National Strategy for the Arctic Region.¹⁵ The White House issued the national Arctic strategy in time for the Ministerial Meeting of the Arctic Council in Kiruna, Sweden. The U.S. Coast Guard (USCG) soon followed with its own Arctic Strategy.¹⁶ In June 2013, DOI launched the scoping process for a rulemaking on Alaska-specific amendments to the implementing regulations for the Outer Continental Shelf Lands Act (OCSLA), the primary piece of legislation governing oil and gas development in the U.S. offshore.¹⁷ Finally, President Barack Obama issued an Executive Order in June 2013 establishing the White House Council on Native American Affairs at the cabinet level.¹⁸ While not Arctic-specific, the order applies to all 229 federally recognized Alaska Native tribes.¹⁹

5. The well was sealed on July 15, 2010, and capped on September 17, 2010. See, e.g., David A. Fahrendthold & Steven Mufson, *BP Macondo Oil Well Successfully Capped*, WASH. POST, Sept. 18, 2010. Over that five-month period, some five million barrels of oil had spilled and countless ocean-dependent livelihoods, flora, and fauna had been affected. National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *The Amount and Fate of the Oil*, Staff Working Paper No. 3, at 16 (Oct. 6, 2010), available at <http://www.oilspillcommission.gov/document/amount-and-fate-oil> ("The emerging consensus among government and independent scientists is that roughly five million barrels of oil were released by the Macondo well . . .").
6. The NEB announced its Arctic Offshore Drilling Review on May 11, 2010, cancelling a technical review of same-season relief-well requirements that had begun pre-*Deepwater*. NAT'L ENERGY BD. (CAN.), *THE PAST IS ALWAYS PRESENT: REVIEW OF OFFSHORE DRILLING IN THE CANADIAN ARCTIC: PREPARING FOR THE FUTURE 5-6* (2011), available at <http://www.neb-one.gc.ca/clf-nsi/rthnb/pplctnsbfrthnb/rctcfsfshrdrlngvrw/fnlrprt2011/fnlrprt2011-eng.html>; see also, e.g., Nat'l Energy Bd. (Can.), *Public Review of Arctic Safety and Environmental Offshore Drilling Requirements (Arctic Review)—Background, Regulation of Offshore Drilling in the Canadian Arctic*, File OF-EP-Gen-AODR 01 (Dec. 22, 2010), available at [https://www.Neb-One.Gc.Ca/Ll-Eng/Livelink.Exe?Func=Ll&Objid=659374&O](https://www.Neb-One.Gc.Ca/Ll-Eng/Livelink.Exe?Func=Ll&Objid=659374&Objaction=Browse)
7. Michel Comte, *Inuit Call for Arctic Offshore Oil Drilling Moratorium*, AGENCE FRANCE-PRESSE, May 26, 2010, http://www.google.com/hostednews/afp/article/ALeqM5i1_XTMLKiMs1AW5Su6kyLjSRwPfg (last visited Aug. 30, 2013). In June 2010, at the 11th Inuit Circumpolar Council general assembly, representatives from Alaska spoke of the Gulf of Mexico events as a "reminder of the catastrophe that could occur in Arctic waters," but also pointed to "examples of successful . . . oil and gas developments on land in Prudhoe Bay." Inuit Circumpolar Council 11th General Assembly, June 28-July 2, 2010 Proceedings, Inoqatigiinneq—Sharing Life, pp. 12, 13, <http://inuitcircumpolar.com/index.php?ID=435&Lang=En> (last visited Aug. 30, 2013). In February 2011, the Inuit Circumpolar Council hosted an Inuit Leaders Summit on Resource Development in the Arctic, resulting in *A Circumpolar Inuit Declaration on Resource Development Principles in Inuit Nunaat* (2011), which was called for at the 11th Inuit Circumpolar Council general assembly, CBC Eye on the Arctic, July 6, 2010.
8. President Barack Obama appointed the Commission on June 14, 2010. Press Release, White House Office of the Press Sec'y, President Obama Announces Members of the BP Deepwater Horizon Oil Spill and Offshore Drilling Commission (June 14, 2010), available at <http://www.whitehouse.gov/the-press-office/president-obama-announces-members-bp-deepwater-horizon-oil-spill-and-offshore-drill>.
9. National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *The Challenges of Oil Spill Response in the Arctic*, Staff Working Paper No. 5 (Jan. 11, 2011), available at <http://www.oilspillcommission.gov/sites/default/files/documents/updated-arctic-working-paper.pdf>.
10. U.S. DEP'T OF THE INTERIOR, *REVIEW OF SHELL'S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM* (2013), available at <http://www.doi.gov/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf> [hereinafter DOI SHELL REVIEW]. Shell's 2012 season involved a failed Arctic containment dome test, vessels losing anchor in rough Arctic seas, and a

drilling rig almost running aground as it was being towed at the end of the season, but no oil spills and no human casualties.

11. *Id.* at 17:
 - In May 2010, while efforts to control the Macondo well blowout in the Gulf of Mexico were still ongoing, Shell submitted to DOI a list of safety measures that Shell pledged to incorporate into its Arctic drilling program, based on lessons Shell stated it had already learned from the *Deepwater Horizon* incident. (citing Letter from Marvin Odum, to S. Elizabeth Birnbaum, dated May 14, 2010, attached to the DOI Report at Tab 3).
12. Executive Order No. 13580, July 12, 2011, established the Working Group "[t]o formalize and promote ongoing interagency coordination, this order establishes a high-level, interagency working group that will facilitate coordinated and efficient domestic energy development and permitting in Alaska while ensuring that all applicable standards are fully met." Exec. Order No. 13580, 76 Fed. Reg. 4198 (July 15, 2011).
13. JOEL P. CLEMENT ET AL., *INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC: A REPORT TO THE PRESIDENT* (2013).
14. EXECUTIVE OFFICE OF THE PRESIDENT, NAT'L SCI. & TECH. COUNCIL, *ARCTIC RESEARCH PLAN: FY2013-2017* (2013) [hereinafter OSTP IARPC Five-Year Plan], available at http://www.nsf.gov/geo/plr/arctic/iarpc/arc_res_plan_index.jsp.
15. EXECUTIVE OFFICE OF THE PRESIDENT, *NATIONAL STRATEGY FOR THE ARCTIC REGION* (2013), available at www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.
16. U.S. DEP'T OF HOMELAND SECURITY, U.S. COAST GUARD, *ARCTIC STRATEGY* (2013), available at http://www.uscg.mil/seniorleadership/DOCS/CG_Arctic_Strategy.pdf.
17. U.S. Dep't of the Interior, *Bureau of Ocean and Energy Management (BOEM) and Bureau of Safety and Environment and Enforcement (BSEE) Review of Alaska Outer Continental Shelf Oil & Gas Drilling Standards*, REGULATIONS.GOV (June 6, 2013), <http://www.regulations.gov/#!docketDetail;D=BOEM-2013-0035> (last visited Aug. 30, 2013).
18. Exec. Order No. 13647, *Establishing the White House Council on Native American Affairs* (June 26, 2013), available at <http://www.whitehouse.gov/the-press-office/2013/06/26/executive-order-establishing-white-house-council-native-american-affairs>.
19. See *id.* at (d) ("For purposes of this order, 'federally recognized tribe' means an Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a.").

In Canada, major Arctic-specific developments over the three-year period include the NEB's simultaneous release in December 2011 of two documents: the final report of its Review of Offshore Drilling in the Canadian Arctic²⁰; and Filing Requirements for Offshore Drilling in the Canadian Arctic.²¹ In May 2013, the NEB published Draft Financial Viability and Financial Responsibility Guidelines, both of which are a direct outgrowth of the NEB's Arctic Offshore Drilling Review.²² Two further events are not specific to the Arctic, but potentially relevant to development there. First, in November 2010, the Supreme Court of Canada decided that the Crown's duty to consult with Canada's aboriginal citizens exists even under modern land claims agreements.²³ Second, the new Canadian Environmental Assessment Act,²⁴ largely considered to have weakened environmental protections nationwide, entered into force in 2012.

In February 2013, the regulatory bodies in Canada and the United States whose responsibilities include offshore operational safety in the Arctic signed a Memorandum of Understanding (MOU) Regarding Cooperation.²⁵ The MOU is not specific to the Arctic or to any geographic region, but formalizes and encourages the regulators' exchange of information, best practices, and experience.

To examine how these developments are relevant to Inuit interests in the regulatory processes in both countries, the Article begins with a concise geography of the Western Canadian Arctic and the Alaskan Beaufort Sea, relating it to the governmental structures that have developed on either side of the U.S.-Canadian maritime boundary. It then provides a spare outline of relevant federal rules in the United States and Canada, sufficient to connect these existing rules to the policy and regulatory initiatives identified above. Throughout, it assesses at this early stage how those initiatives have affected the systems already in place for Inuit engagement in decisionmaking processes and how they might be used to strengthen that engagement.

I. The Beaufort Sea: Some Comparative Geographic, Co-Management, and Constitutional Basics

The Beaufort Sea in the Arctic Ocean abuts both Canadian and U.S. shores. The unresolved maritime boundary between the two countries is managed through peaceful diplomatic relations.²⁶ The Inuvialuit Settlement Region (ISR) in Canada and the North Slope Borough (NSB) in Alaska account for the bulk of Beaufort Sea coastline. The ISR is a product of the 1984 Inuvialuit Final Agreement (IFA), a modern-day treaty between Canada and, representing the Inuvialuit, the Committee for Original Peoples' Entitlement (COPE).²⁷ By the treaty's terms, the Inuvialuit ceded all aboriginal rights to "adjacent offshore areas . . . within the sovereignty or jurisdiction of Canada," yet the ISR was defined to include all of the Beaufort Sea covered by the agreement, including the submarine Crown (federal) lands.²⁸ The ISR covers 906,430 square kilometers (km²), of which 91,000 km² are terrestrial and the rest are marine areas.²⁹ The IFA establishes co-management and subsistence regulatory bodies, including the Inuvialuit Game Council, Wildlife Management Advisory Council, and the Fisheries Joint Management Committee.³⁰ The principle of equal federal and Inuvialuit representation that appears throughout the IFA applies as well to these bodies.³¹

26. Resolution of the long-standing but well-managed maritime boundary dispute in the Beaufort Sea between Canada and the United States is now the topic of technical diplomatic discussions. Potentially relevant to any resolution is how each legal system treats resources on either side of the disputed area, given that any resolution might involve joint management of living resources and unitisation of any transboundary oil and gas resources. For further information, see, for example, TED McDORMAN, *SALT WATER NEIGHBORS: INTERNATIONAL OCEAN LAW RELATIONS BETWEEN THE UNITED STATES AND CANADA 181-90* (2009) (providing a concise history of the dispute); Betsy Baker, *Filling an Arctic Gap: Legal and Regulatory Possibilities for Canadian-U.S. Cooperation in the Beaufort Sea*, 34 VT. L. REV. 57 (2001) (offering suggestions for joint oversight of the disputed area).

27. The Western Arctic (Inuvialuit) Claims Settlement Act, S.C. 1984, c. 24 (Can.), authorized the land claims settlement agreed to in the June 5, 1984, Inuvialuit Final Agreement (IFA), between the Committee for Original Peoples' Entitlement (COPE) and Canada.

28. *Id.* IFA, s. 3.(4), ceding all such areas adjacent to the NWT and in the NWT itself. See also THE REGULATORY ROADMAPS PROJECT, OIL AND GAS APPROVALS IN THE NORTHWEST TERRITORIES—INUVIALUIT SETTLEMENT REGION, A GUIDE TO REGULATORY APPROVAL PROCESSES FOR OIL AND NATURAL GAS EXPLORATION AND PRODUCTION IN THE INUVIALUIT SETTLEMENT REGION, at 9-2 (2001).

29. Helen Fast et al., *Integrated Management Planning in Canada's Western Arctic: An Adaptive Consultation Process*, in *BREAKING ICE: RENEWABLE RESOURCE AND OCEAN MANAGEMENT IN THE CANADIAN NORTH 95* (F. Berkes et al. eds., 2005).

30. For a brief overview of this structure, and the bodies' roles in environmental assessment, see Henry P. Huntington et al., *Less Ice, More Talk: The Benefits and Burdens for Arctic Communities of Consultations Concerning Development Activities*, 1 CARBON & CLIMATE L. REV. 33, 39 (2012).

31. Fast et al., *supra* note 29, at 102:

In 1999 the Inuvialuit management, co-management bodies, DFO and industry agreed to follow the model outlined in the Oceans Act and collaborate on the development of integrated management planning for marine and coastal areas in the Inuvialuit Settlement Region. The Senior Management Committee and Working Group are not formal co-management bodies, however, the balanced

20. NEB, *THE PAST IS ALWAYS PRESENT*, *supra* note 6.

21. NAT'L ENERGY BD. (CAN.), *FILING REQUIREMENTS FOR OFFSHORE DRILLING IN THE CANADIAN ARCTIC 9* (2011) ("Beginning in November 2010, we held more than 40 meetings in 11 communities across Yukon, the Northwest Territories [NWT], and Nunavut. We met with Elders, hunters and trappers, community corporation representatives, students, local governments, Northern land claim organizations, territorial governments, and community residents.")

22. NAT'L ENERGY BD. (CAN.), *DRAFT FINANCIAL VIABILITY AND FINANCIAL RESPONSIBILITY GUIDELINES* (2013), available at <http://www.neb-one.gc.ca/clf-nsi/rcmmn/hm-eng.html>.

23. *Beckman v. Little Salmon/Carmacks First Nation*, 2010 SCC 53 (Can.). See *infra* Part III.2.

24. Canadian Environmental Assessment Act, 2012, S.C. 2012, c. 19, s. 52 (Can.) [hereinafter CEAA 2012].

25. Memorandum of Understanding Regarding Cooperation Between the Bureau of Safety and Environmental Enforcement of the Department of the Interior of the United States of America and the National Energy Board of Canada, Feb. 4, 2013, Washington, D.C., <http://www.bsee.gov/BSEE-Newsroom/BSEE-News-Briefs/2013/BSEE-and-Canadas-National-Energy-Board.aspx> (last visited Aug. 30, 2013).

In the United States, the NSB covers some 203,000 km² of land, which is a substantially larger area than the terrestrial portion of the ISR.³² The NSB is the public governing body for all parts of Alaska that abut the Beaufort Sea. As a municipal government established under Alaska state law, the NSB has no interest in federal offshore waters comparable to the Inuvialuit's *sui generis* interest in the marine and terrestrial components of the ISR.³³ However, Alaska Native entities recognized by federal law may have some rights in federal marine waters (beyond three miles) that lie above the U.S. outer continental shelf (OCS).³⁴ Under the 1971 Alaska Native Claims Settlement Act (ANCSA) and the 1980 Alaska National Interest Lands Conservation Act (ANILCA)³⁵ and subsequent case law, the scope of Alaska Native nonexclusive aboriginal use rights in the waters above the federal OCS remains unresolved.³⁶ Co-management also exists in the U.S. Arctic, but is simply allowed—not required—under §119 of the Marine Mammal Protection Act (MMPA).³⁷

In considering how the two countries regulate co-management and subsistence activity of their respective Inuit citizens, one striking difference emerges that will also prove relevant to the discussions in Parts II and III

below regarding such involvement in regulatory decisions about Arctic offshore oil and gas activity. In the Canadian Beaufort, co-management and subsistence boards are the product of a negotiated treaty, the Inuvialuit Final Agreement, while in the U.S. Arctic, they have been built more haphazardly in piecemeal response to numerous legislative acts, with less direct input by the Inupiat whom those acts affect. In addition, as Chanda Meek observes: “Unlike co-management agreements that arise from land claims or court settlements, marine mammal co-management institutions in Alaska are largely voluntary agreements based on memoranda of understanding.”³⁸

The striking differences continue when comparing the stated purposes and principles in each system. The IFA is founded on the principles of preserving “Inuvialuit cultural identity and values within a changing northern society”; enabling “Inuvialuit to be equal and meaningful participants in the northern and national economy and society”; and protecting and preserving “the Arctic wildlife, environment and biological productivity.”³⁹

By contrast, the ANCSA states its purpose, starkly, as the “immediate need for a fair and just settlement of all claims by Natives and Native groups of Alaska, based on aboriginal land claims.”⁴⁰ Unlike the principles of the IFA, this congressional finding of purpose for ANCSA contains no statements about culture, values, or equal participation of Alaska Natives, nor does it mention the environment.⁴¹ ANCSA extinguished “Alaska Native aboriginal hunting and fishing rights . . . as a matter of federal law in 1971,”⁴² yet remarkably did not effectively address subsistence use. In an attempt to correct this deficiency, the U.S. Congress amended ANCSA through the 1980 Alaska National Interest Lands Conservation Act (ANILCA).⁴³ However, the very language in ANILCA discussing subsistence establishes a rural rather than an exclusively Native preference: “the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives, . . . is essential to Native physical, economic, traditional, and cultural existence.”⁴⁴ ANILCA does authorize subsistence regional councils; however, they can only provide recommendations to the Federal

representation on these committees is consistent with the principles of co-management outlined in the IFA.

32. GLENN GRAY & ASSOCS., NORTH SLOPE BOROUGH COASTAL MANAGEMENT PLAN FINAL DRAFT PLAN AMENDMENT 1, 198 (2007) (noting that “[t]he NSB includes 24,564 square miles of coastal zone and 8,031 miles of coastline” and also that the NSB “encompasses 88,817 square miles of land and 5,945 square miles of water”).
33. The NSB was established in 1972, one year after and independently of the Alaska Native Claims Settlement Act (ANCSA), and is neither a tribal entity nor a native corporation.
34. The Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. §§1331 et seq. (2012), provides in §1331(a): “The term ‘outer Continental Shelf’ means all submerged lands lying seaward and outside of the area of lands beneath navigable waters as defined in section 1301 of this title, and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.”
35. Alaska Native Claims Settlement Act (ANCSA), 43 U.S.C. §§1601 et seq. (2012); Alaska National Interest Lands Conservation Act (ANILCA), 16 U.S.C. §§3120 et seq. (2012). For an introductory history of ANCSA and ANILCA, see Dalee Sambo Dorough, *Inuit of Alaska: Current Issues*, in POLAR LAW TEXTBOOK 199, 202 (N. Loukacheva ed., 2010) (explaining that ANCSA “transferred to the Alaska Native peoples 44 million acres of land and 962.5 million dollars in compensation for all lands lost. These so-called ‘entitlements’ were channelled through twelve regional and two hundred village corporations created by the Act.”). For a comparison of ANCSA/ANILCA history with that of the IFA, see BARRY S. ZELLEN, *BREAKING THE ICE: FROM LAND CLAIMS TO TRIBAL SOVEREIGNTY IN THE ARCTIC* (2008). For a comprehensive history of ANCSA and ANILCA, see WILLIAM H. RODGERS, *ENVIRONMENTAL LAW IN INDIAN COUNTRY* §1:7 (2009).
36. See, e.g., ENERGY, ECONOMICS AND THE ENVIRONMENT 300 (F. Bosselman et al. eds, 3d ed. 2010); Dalee Sambo Dorough, *Inuit of Alaska: Current Issues*, in POLAR LAW TEXTBOOK, *supra* note 35, at 199-217; Greta Swanson et al., *Understanding the Government-to-Government Consultation Framework for Agency Activities That Affect Marine Natural Resources in the U.S. Arctic*, 43 ELR 10872, n.33 (Oct. 2013). Swanson et al. also provide a thorough introduction to the ANCSA and the ANILCA.
37. MMPA 16 U.S.C. §§1361-1421h, ELR STAT. MMPA §§2-410. 16 U.S.C. §1388(a) allows the relevant department Secretary to “enter into cooperative agreements with Alaska Native organizations to conserve marine mammals and provide co-management of subsistence use by Alaska Natives.” 16 U.S.C. §1388(a) (2012). For more detail on co-management in Alaska, see, e.g., Swanson et al., *supra* note 36, and Chanda Meek, *Forms of Collaboration and Social Fit in Wildlife Management: A Comparison of Policy Networks in Alaska*, 23(1) GLOBAL ENVTL. CHANGE 217-28 (2013).

38. Chanda Meek, *Comparing Marine Mammal Co-Management Regimes in Alaska: Three Aspects of Institutional Performance 19-20* (2009) (unpublished Ph.D. dissertation, Univ. of Alaska, Fairbanks) (on file with Univ. of Alaska Fairbanks Library).

39. IFA, *supra* note 27, at s. 1.

40. 3 U.S.C. §1601.

41. Dorough, *supra* note 36, at 202 (“A significant omission in the Act was the fact that there was no single provision addressing the right of Alaska Native peoples to self-determination”), 203 n.6 (“Despite the so-called ‘1991 amendments’ to the ANCSA, the threats to Native ownership and control remain and the land is still held by the corporations originally created under the Act.”).

42. 3 U.S.C. §1603(b); see also Dorough, *supra* note 36, at 203 (stating that ANCSA “purportedly ‘extinguished’ aboriginal title to all other lands and aboriginal hunting and fishing rights of the Alaska Native people despite their dependence upon a subsistence-based economy”) (citing ANCSA §§4(a)-(c)); David S. Case, *Subsistence and Self-Determination: Can Alaska Natives Have a More “Effective Voice”?*, 60 U. COLO. L. REV. 1009 (1989).

43. Dorough, *supra* note 36, at 204.

44. 16 U.S.C. §3111(5); see also RODGERS, *supra* note 35, at §1:7.

Subsistence Board concerning regulatory and land management actions that may affect subsistence uses of fish and wildlife.⁴⁵

Section 35(1) of Canada's Constitution Act (1982) recognizes and affirms the "existing Aboriginal and treaty rights of the Aboriginal peoples of Canada," including the Inuit (§35(2)). Section 35(3) specifies that the term "'treaty rights' includes rights that now exist by way of land claims agreements or may be so acquired."⁴⁶ A detailed discussion of the case law since 1982 regarding the governmental fiduciary relationship to Canada's aboriginal citizens and the Crown's well-established duty to consult with them is beyond the scope of this Article.⁴⁷ However, the *Little Salmon/Carmacks First Nation* case mentioned in the introduction falls within its 2010 to 2013 time frame. The land claims agreement in question defined what constituted consultation and was, according to the Court, the "entire agreement" between the parties; however, the agreement existed within a larger legal framework that includes the duty to consult.⁴⁸

The U.S. Constitution provides only a passing reference to federal relations with Native Americans, stating that the "Congress shall have Power . . . To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes."⁴⁹ Absent express constitutional provisions, the U.S. system has developed the doctrine of a federal trust relationship that is neither consistently nor well-defined in U.S. case law.⁵⁰ As the 1995 U.S. Department of Commerce (DOC) American Indian and Alaskan Native Policy states: "The trust relationship between the federal government and American Indian and Alaska Native tribes is established in a very diffuse way, by specific statutes, treaties, court decisions executive orders, regulations and policies."⁵¹

II. The Federal Legislative, Regulatory, and Executive Framework for Consultation Regarding the U.S. OCS in the Beaufort Sea

A. The OCSLA

Multiple state and federal agencies, laws, and regulations govern offshore oil and gas activity in the U.S. Arctic.⁵² This Article touches only on those aspects of the federal system needed to assess how government initiatives between 2010 and 2013 might affect the involvement of Inupiat and other Alaska Natives in regulatory decisions about such activity.⁵³ The primary relevant law is the OCSLA,⁵⁴ under which DOI has lead agency responsibility to regulate mineral exploration and development of the OCS. DOI does so in the Arctic⁵⁵ through the Alaska offices of the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE), which were created when the former Minerals Management Service was reorganized in the wake of the Macondo/*Deepwater Horizon* oil spill.⁵⁶ Other key agencies include the U.S. Fish and Wildlife Service (FWS), which is also in DOI; the National Marine Fisheries Service (NMFS) in DOC; the U.S. Environmental Protection Agency (EPA); and the Department of Homeland Security (through the USCG). All of these agencies have implemented or updated their tribal consultation policies or procedures in the three years that this Article studies, Spring 2010 to Spring 2013,⁵⁷

45. 16 U.S.C. §3120.

46. Constitution Act, pt. II §35, 1982, Schedule B to the Canada Act, 1982, c. 11 (U.K.) 1982.

47. For a concise summary of recent developments, including the *Little Salmon/Carmacks* case (see *supra* note 23) as they relate to environmental assessments, see Huntington et al., *supra* note 30, at 39-40. For a more general introduction to consultation issues in Canada, see, for example, Mary C. Hurley, Library of Parliament, Law and Government Division, *The Crown's Fiduciary Relationship With Aboriginal Peoples* (2002); Peter Carver, *Comparing Aboriginal and Other Duties to Consult in Canadian Law*, 49 ALBERTA L. REV. 855 (2012).

48. *Beckman v. Little Salmon/Carmacks First Nation*, 2010 SCC 53 (Can.), see *supra* note 23.

49. U.S. CONST. art. I, §8, cl. 3 (emphasis added).

50. The literature on the history and current exercise of the trust relationship is extensive. For an Alaska-specific analysis, see, for example, RODGERS, *supra* note 35, at §1:7. See generally William J. Dunaway, *Eco-Justice and the Military in Indian Country: The Synergy Between Environmental Justice and the Federal Trust Doctrine*, 49 NAVAL L. REV. 160, n.162 (2002); Derek Haskew, *Federal Consultation With Indian Tribes: The Foundation of Enlightened Policy Decisions, or Another Badge of Shame?*, 24 AM. INDIAN L. REV. 21 (2000).

51. U.S. Department of Commerce 1995 Policy.

52. The federal definition of the Arctic comes from the Arctic Policy and Research Act of 1984 and includes areas below the geographic Arctic Circle: "All United States territory north of the Arctic Circle and all United States territory north and west of the boundary of formed by the Porcupine, Yukon and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering and Chukchi Seas, and the Aleutian chain." 15 U.S.C. §4111.112.

53. For brief but more detailed overviews of the federal regulatory system for offshore oil and gas, see, e.g., Huntington et al., *supra* note 30, and Jennifer Dagg et al., *Comparing the Offshore Regulatory Regimes of the Canadian Arctic, the U.S., the U.K., Greenland and Norway* 11 (Drayton Valley, Alberta: The Pembina Inst., 2011), available at <http://www.pembina.org/pub/2227> [hereafter Pembina Institute Comparison].

54. OCSLA, 43 U.S.C. §§1331 et seq.

55. *Supra* note 55.

56. Following the Macondo/*Deepwater Horizon* accident, DOI delegated OCSLA responsibilities formerly handled by the Minerals Management Service (now dissolved) first to the newly established Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE). Press Release, U.S. DOI, *Salazar Receives Implementation Plan for Restructuring the Department's Offshore Energy Missions*, July 14, 2010. See also U.S. DOI, Secretarial Order 3302, June 18, 2010. Subsequently, OCSLA regulatory responsibility was split between three new entities: BOEM, BSEE, and the Office of Natural Resources Revenue (ONRR). See <http://www.boem.gov/About-BOEM/Reorganization/Reorganization.aspx> (last visited Sept. 3, 2013).

57. U.S. EPA, EPA POLICY ON CONSULTATION AND COORDINATION WITH INDIAN TRIBES (May 4, 2011), available at <http://www.epa.gov/tp/pdf/cons-and-coord-with-indian-tribes-policy.pdf>. The policy applies nationwide. Tribal Consultation and Coordination Policy for the U.S. Department of Commerce, 78 Fed. Reg. 33331-02 (June 4, 2013). The policy applies nationwide. SEC'y OF THE INTERIOR, ORDER No. 3317, DEPARTMENT OF THE INTERIOR POLICY ON CONSULTATION WITH INDIAN TRIBES (Dec. 1, 2011), available at <http://www.doi.gov/tribes/upload/SO-3317-Tribal-Consultation-Policy.pdf>. The policy applies nationwide. Letter from Janet Napolitano, Sec'y of Homeland Security, to Tribal Leaders

partly—as will be seen—in response to a presidential memorandum on the topic.⁵⁸

B. Tribal Consultation, the OCSLA, and the MMPA

Like the trust relationship, tribal consultation is not well-defined in U.S. law.⁵⁹ Consultation is, however, considered one way of exercising the special trust relationship between the federal government and Native Americans, including Alaska Natives.⁶⁰ Consultation obligations can arise from statute, regulation, executive action, or a combination of sources.⁶¹ The agency consultation policies identified in the preceding section all attempt to describe, if not define, what consultation entails. These efforts cannot overcome the fact that, as with co-management and subsistence boards in the United States, the development of U.S. approaches to consultation is equally piecemeal, reactive to specific legislation, and draws on diffuse a range of sources, not all of them legally binding.

As detailed by Swanson et al. elsewhere in this issue,⁶² Executive Order No. 13175 on Consultation and Coordination With Indian Tribal Governments requires every federal agency to “have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.”⁶³ By definition, the Executive Order covers Alaska Native tribes.⁶⁴ The 2009 Presidential Memorandum mentioned above requires all federal agencies to institute plans of action for their interactions with Native

Americans tribes, including Alaska Natives, and to file annual reports on their implementation.⁶⁵

DOI Secretary Ken Salazar issued Secretarial Order 3317 in December 2011, to “update, expand, and clarify” the DOI Policy on Consultation With Indian Tribes.⁶⁶ The Order describes (but does not define) consultation as

a process that aims to create effective collaboration with Indian tribes [including Alaska Native tribes] and to inform Federal decision-makers. Consultation is built upon government-to-government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. Communication will be open and transparent without compromising the rights of Indian tribes or the government-to-government consultation process.⁶⁷

Order 3317 contains identical language as that found in the undated Final DOI Tribal Consultation Policy:

Efficiencies derived from the inclusion of Indian Tribes in the Department’s decision-making processes through Tribal consultation will help ensure that future Federal action is achievable, comprehensive, long-lasting, and reflective of Tribal input.⁶⁸

Such language notwithstanding, it is disputed whether DOI decisions (and those of other agencies) in offshore oil and gas decisions in the U.S. Arctic are adequately “reflective of Tribal input,”⁶⁹ or that of other Alaska Natives.⁷⁰

The 2011 DOI Secretarial Order on Tribal Consultation applies not only to BOEM and BSEE, but also to FWS. FWS, with jurisdiction in the Arctic over Pacific walrus and polar bear, is one of the two agencies involved in marine mammal co-management with Alaska Natives under the MMPA.⁷¹ Whales, sea lions, and seals fall under the jurisdiction of another agency, the NMFS, in DOC. This split responsibility means that the subsistence users of those species are subject to different departmental consultation procedures⁷² and, in some cases, different agency cultures and approaches to federal-Alaska Native relations.⁷³

(May 11, 2011), available at http://www.mtwytlc.org/images/stories/users/01559_01039.pdf. The policy applies nationwide. U.S. EPA, 910-k-12-002, EPA Region 10 Tribal Consultation and Coordination Procedures (2012), available at http://www.epa.gov/region10/pdf/tribal/consultation/r10_tribal_consultation_and_coordination_procedures.pdf. The policy applies to tribes in Alaska, Idaho, Oregon, and Washington. NMFS-Alaska Region, Sustainable Fisheries Division Tribal Consultation Process, available at <https://alaskafisheries.noaa.gov/tc/sfprocess.pdf>. The policy applies only in Alaska.

58. Presidential Memorandum for the Heads of Executive Departments and Agencies, Tribal Consultation, 74 Fed. Reg. 57879 (Nov. 5, 2009).

59. There is no agreed definition of “consultation” in U.S. law. See Haskew, *supra* note 50, at 23. Derek Haskew does, however, cite to a judicial definition of the term: “Meaningful consultation means tribal consultation in advance with the decision maker or with intermediaries with clear authority to present tribal views to the [federal regulatory] decision maker.” Lower Brule Sioux Tribe v. Deer, 911 F. Supp. 395, 401 (D.S.D. 1995).

60. See, e.g., Edmund Goodman, *Protecting Habitat for Off-Reservation Tribal Hunting and Fishing Rights: Tribal Co-management as a Reserved Right*, 30 ENVTL. L. 299, 339 (2003). Marren Sanders, *Ecosystem Co-Management Agreements: A Study of Nation Building or a Lesson in Erosion of Tribal Sovereignty?*, 15 BUFF. ENVTL. L.J. 97, 126 (2007-2008). (“In *Klamath Tribes v. United States*, the district court expressly recognized a procedural duty arising from the trust relationship that required the federal government to consult with Indian tribes in the decision-making process to avoid adverse effects on treaty resources,” citing to *Klamath Tribes v. United States*, No. 96-381-HA, 1996 WL 924509 at *8 (D. Or. Oct. 2, 1996)).

61. See, e.g., Haskew, *supra* note 50, who compiles statutes and regulations requiring federal consultation with tribes at 21, n.3, and at 41-55, collects and analyzes conflicting cases interpreting consultation requirements.

62. Swanson et al., *supra* note 36.

63. 65 Fed. Reg. 67249, §5(a) (2000).

64. See, e.g., Exec. Order No. 13647, *supra* note 18.

65. Presidential Memorandum, *supra* note 58. As Swanson et al. explain, tribes include all 229 federally recognized Alaska Native tribes. *Supra* note 36.

66. *Id.* Secretary of the Interior, Order No. 3317, DOI Policy on Consultation With Indian Tribes (Dec. 1, 2011), <http://www.doi.gov/tribes/Tribal-Consultation-Policy.cfm> (last visited Sept. 3, 2013).

67. *Id.* §4(b).

68. Compare *id.* §4(c), with Department of the Interior Policy on Consultation With Indian Tribes, undated, available at www.doi.gov/cobell/upload/FINAL-Departmental-tribal-consultation-policy.pdf (last visited Sept. 6, 2013), Part II, p.3.

69. See Clement et al., *supra* note 13, at 27-34 *passim*.

70. See, e.g., Huntington et al., *supra* note 30.

71. 16 U.S.C. §§1331 et seq. The MMPA contains no consultation requirement similar to that in the OCSLA, but does authorize agencies to enter into co-management agreements with Alaska Native organizations. See 16 U.S.C. §1388(a). The MMPA defines Alaska Native Organizations as “a group designated by law or formally chartered which represents or consists of Indians, Aleuts, or Eskimos residing in Alaska.” 16 U.S.C. §1362(17). Co-management in both countries is discussed further below.

72. MMPA, 16 U.S.C. §§1361 et seq.

73. See, e.g., Meek, *supra* note 38.

The MMPA has multiple interfaces with the offshore oil and gas regulatory system.⁷⁴

While some statutes do require tribal consultation,⁷⁵ OCSLA and its implementing regulations do not. The OCSLA regulations do, however, require the Secretary of the Interior to “[c]ooperate and consult with affected States, *local governments*, other interested parties, and relevant Federal agencies.”⁷⁶ Whether the regulations provide a sufficiently strong role for local governments has been questioned in the context of the plans announced in June 2013 for Alaska-specific implementing regulations under the OCSLA.⁷⁷ The NSB falls under the OCSLA regulations because it is a municipal government in the state of Alaska, but Alaska Native tribes and corporations do not. They must instead engage with the regulatory process either through existing consultation or co-management mechanisms or through the public comment process for rulemaking that is open to everyone.

C. Public Comment Is Not Consultation

Consultation with tribal and Alaska Native organizations allows, at least in theory, for a different quality and degree of participation in governance than the general public comment process for administrative rulemaking that is open to all U.S. citizens, native and non-native. To identify just a few examples of public comment relevant to offshore oil and gas activity in the U.S. Arctic: The National Environmental Protection Act (NEPA)⁷⁸ requires that public comment be solicited on the environmental impact statements (EISs) that are part of required scoping of federal actions—such as the issuance of five-year lease plans for the OCS by BOEM—under the Act. NEPA’s implementing regulations require the lead agency on a project to invite comment from “Federal, State, and local agencies, any affected Indian tribe, the proponent of the action, and other interested persons.”⁷⁹ Public comment is also required for subsequent lease sales of individual and grouped blocks as they are leased under the five-year plan. Developers submitting individual Exploration Plans and Development and Production Plans must submit environmental impact analysis information, which shall include a list of agencies and persons with whom they have consulted or will consult regarding potential impacts associated with the proposed activities.⁸⁰ Proposed activity on the U.S. Arctic OCS must

also comply with permitting and authorization requirements under other federal laws, including the Endangered Species Act (ESA),⁸¹ the Clean Air Act (CAA),⁸² the Clean Water Act (CWA),⁸³ and the MMPA, all of which are addressed elsewhere in this publication.⁸⁴

On paper, these requirements apply to all stakeholder groups equally. In practice, they place an enormous burden on Alaska Native communities and organizations trying to keep abreast of the federal regulatory processes for Arctic offshore development, especially as the sea ice has diminished and activity there has increased.⁸⁵ Henry Huntington et al. identify 15 comment periods “associated with just some OCS leasing and exploration activities, on the Chukchi Sea” that occurred from October 2010 through December 2011.⁸⁶ That amounts to one comment period per month for 15 months, requiring anyone interested in commenting in an informed manner to review a total of well over 8,000 document pages (not including all appendices), to attend at least some of the 29 associated public hearings, and to meet turnaround times as short as 10 days on often-overlapping comment periods.⁸⁷ And those examples cover just 15 months for the Chukchi Sea; the increased level of activity in the Beaufort Sea in that same period generated its own considerable opportunities for public comment.

One important change to the offshore regulatory process in the U.S. Arctic between 2010 and 2013 is the loss of the federal Coastal Zone Management Act (CZMA)⁸⁸ consistency review in Alaska. The National Oceanic and Atmospheric Administration (NOAA) administers the CZMA, which provides for public and local government participation in such matters as federal review of a coastal state’s performance in carrying out coastal zone management (CZM) plans adopted by the state or by communities in the state.⁸⁹ The permitting process under the OCSLA requires DOI to first determine that an oil company’s exploration plan (EP), development and production plan (DPP), and accompanying information are sufficient, accurate, and complete under the OCSLA regulations. DOI is then to forward the EP and the information to the governor of each affected state for a consistency review with the state(s)’ coastal zone management plan (CZMP).⁹⁰

74. Swanson et al. provide a more-detailed discussion of the MMPA interface with oil and gas permitting processes under the OCSLA. *Supra* note 36.

75. See, e.g., §106 of the National Historic Preservation Act (NHPA), 16 U.S.C. §470(f), and its attendant regulations, 36 C.F.R. Pt. 800.

76. 30 C.F.R. §250.106(d) (emphasis added). The OCSLA implementation regulations are titled Oil and Gas and Sulphur Operations in the Offshore, 30 C.F.R. pt. 250.

77. Letter from Mayor Reggie Joule, to Tommy Beaudreau, BOEM (June 20, 2013), submitted as part of the public comment process in the DOI *Review of Alaska Outer Continental Shelf Oil & Gas Drilling Standards*, *supra* note 17. “The implementing regulations for OCSLA, however, do not provide a strong role for local governments in the review of OCS activities.”

78. 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

79. 40 C.F.R. §1501.7.

80. 50 C.F.R. §§250.221 and .261.

81. 16 U.S.C. §§1531-1544, ELR STAT. ESA §§2-18.

82. 42 U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618. Until recently, EPA had primary oversight of permitting offshore activity under the CAA. Pursuant to an appropriations rider, in December 2011, Congress transferred OCS CAA permitting for the Alaskan Arctic to BOEM for *future* leases; however, “EPA retains permitting and enforcement authority for Shell’s existing operations.” DOI Shell Review, *supra* note 10, at 12 & n.14.

83. 33 U.S.C. §§1251-1387, ELR STAT. FWPCA §§101-607.

84. See, e.g., Swanson et al., *supra* note 36.

85. For a general introduction to changes in the marine and terrestrial U.S. Arctic, including diminishing sea ice, see RONALD O’ROURKE, CONG. RESEARCH SERV., R41153 CHANGES IN THE ARCTIC: BACKGROUND AND ISSUES FOR CONGRESS (Jan. 2, 2013).

86. Huntington et al., *supra* note 30, at 36-38.

87. *Id.*

88. 16 U.S.C. §§1451 et seq.

89. 16 U.S.C. §§1455, 1458.

90. 30 C.F.R. §250.232.

In states with CZMPs, the federal process cannot proceed without the state certifying that the EP complies with such a plan (or plans).⁹¹ Alaska no longer has a CZMP because, in 2011, the state legislature failed to extend the Alaska Coastal Management Program (ACMP).⁹² The ACMP, established in 1977 under the CZMA, was generally regarded as a success.⁹³ It gave municipalities, including indigenous communities, a powerful tool to form enforceable coastal management policies premised on the balance of economic development and conservation.⁹⁴ Alaska Native representatives view the demise of the ACMP as the loss of an important vehicle for incorporating local and traditional knowledge into the regulatory decisions about the U.S. Arctic OCS.⁹⁵

This brief survey of relevant U.S. legislation reveals that the pattern of federal-Alaska Native relations across the U.S. laws, regulations, Executive Orders, and departmental memoranda reviewed is generally top-down. The government is given the initiative to solicit input and to begin consultation, rather than allowing Alaska Native groups to request participation or to begin consultation. There is a trend in some agencies toward allowing Alaska Native entities to initiate consultation, but lack of adequate resources to do so can make this difficult.⁹⁶

D. U.S. Policy and Strategy Documents and Other Changes 2010-2013

As noted earlier, several different U.S. federal actors issued Arctic-specific regulatory, policy, and strategy initiatives in 2013. These are revisited briefly here to build on the preceding discussions of how Alaska Natives have engaged to date with the offshore regulatory process in the U.S. Arctic.

Of all federal documents issued in the first half of 2013, in some ways, the February OSTP/IARPC five-year Arctic research plan offers the greatest promise and most concrete recommendations toward achieving greater Alaska Native input into governmental decisionmaking. Some of the

plan's relevant research priorities include involving Alaska Natives in various Arctic observing networks,⁹⁷ arctic community sustainability and resilience,⁹⁸ and strengthening and reviving languages and cultural heritage.⁹⁹ The seven priority areas the plan identifies are intended specifically to guide decisionmakers as they work toward mitigating and adapting to the "rapidly changing conditions in Arctic communities and around the world."¹⁰⁰

The March 2013 Integrated Arctic Management (IAM) Report to the President, produced by the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska,¹⁰¹ speaks of all stakeholders, but clearly includes Alaska Natives when it states that constituents "feel listened to but not heard" in the regulatory processes for Arctic development.¹⁰² The IAM Report devotes an entire section, 3.3 Tribal Governments and Alaska Native Organizations, to summarizing input from those groups. Among the key findings:

[T]he Federal Government and tribal governments need to improve the system for effective and meaningful consultation on issues of mutual concern. Such a process should: (1) respect and take into account local and traditional knowledge; (2) provide a predictable and consistent framework for consultation; and (3) streamline consultations to minimize the workload burden on Alaska Native groups.¹⁰³

Conservation groups also identified the need for improved and early consultation with elders, hunters, and tribal leaders as one of their recommendations to the authors of the IAM Report.¹⁰⁴ While the federal government also acknowledged that early consultation would improve the federal decisionmaking process, it referred more generally to consultation with "governments and

91. 43 U.S.C. §1340(c) (2012).

92. Baker, *supra* note 26, at 178.

93. *Id.*

94. *Id.* See also Richard Mauer, *Loss of Coast Zone Program Hurts Beluga Whale Case*, ANCHORAGE DAILY NEWS, Oct. 30, 2011, <http://www.adn.com/2011/10/30/2146856/coast-zone-loss-hurts-states-beluga.html> (last visited Sept. 3, 2013).

95.

What about traditional knowledge? How will traditional knowledge be captured? How will local input be obtained? We don't mean to rub salt on old wounds, but what happened regarding Alaska's Coastal Zone Management Program recently was a big step backwards in our opinion. This was a huge lost opportunity for cooperation between the State and local authorities. This was a huge lost opportunity to incorporate traditional knowledge into the planning process.

Jim Stotts, ICC Alaska President, Remarks to the Northern Waters Task Force (July 2011), available at http://housemajority.org/coms/anw/pdfs/27/Jim_Stotts_ICC_AK_President_speech.pdf.

96. See, e.g., NOAA Fisheries, Tribal Consultation in Alaska, <https://alaskafisheries.noaa.gov/tc/> (last visited Sept. 4, 2013) ("If an Alaska Native tribe or Native corporation would like to initiate a consultation on any issue that is under the authority of NMFS, a person representing the tribe or Native corporation should write to the Alaska Regional Administrator.")

97. OSTP IARPC Five-Year Plan, *supra* note 14, at 3 ("Combine *in-situ* and remotely sensed observation of sea ice with local community and traditional knowledge.")

98. *Id.* at 3.6.1. ("In collaboration with local communities, develop methods for assessing community sustainability and resilience and determine the efficiency of current adaptation strategies.")

99. *Id.* at 3.6.4 ("Assist Arctic communities in documenting, revitalizing, and strengthening indigenous languages and cultural heritage.")

100. *Id.* at iii.

101. Clement et al., *supra* note 13. Among the Working Group functions was to "(d) ensure the sharing and integrity of scientific and environmental information and cultural and traditional knowledge among agencies to support the permit evaluation process of onshore and offshore energy development projects in Alaska." Exec. Order No. 13580, *supra* note 12, §4(d).

102. Clement et al., *supra* note 13, at 35.

It is clear that stakeholders are not interested in additional layers of process; existing processes already tax the capacity of many stakeholders without necessarily leaving them feeling fully informed or involved regarding federal decisions. A desire for more engagement and information may seem to contradict the desire for less process, but suggests that constituents and partners feel listened to but not heard.

103. Clement et al., *supra* note 13, at §3.3, Alaska Native Organizations.

104. Clement et al., *supra* note 13, at §3.5, Conservation Organizations, calling for "a consistent governance framework that incorporates consultation well in advance of management decisions and includes elders, hunters, and tribal leaders."

stakeholders,” rather than limiting consultation only to Alaska Native entities.¹⁰⁵

The consultation policies identified above¹⁰⁶ mostly predate the IAM Report, but may begin to address some of these concerns. To provide just one example, in its 2011 policy, EPA “takes an expansive view of the need for consultation in line with the 1984 Policy’s directive to consider tribal interests whenever EPA takes an action that ‘may affect’ tribal interests.”¹⁰⁷ Another example may be found with NOAA, which is currently revising its consultation procedures. The draft procedures put out for public comment in the summer of 2013 include several paragraphs on Traditional Ecological Knowledge (TEK), including how to incorporate it into NOAA decisionmaking.¹⁰⁸ How effectively these new consultation policies do address the concerns of Alaska Natives raised in the IAM Report remains to be seen, as does the question of whether the agencies will be able to build on the principles expressed in the IAM Report (covered incompletely here) and translate them into improved practices on the ground.

The 2013 National Arctic Strategy (NAS) issued by the White House addresses Alaska Native concerns from a slightly different tack, suggesting fewer practical steps than does the IAM Report. It does indicate that a guiding principle is to “Make Decisions Using the Best Available Information—Across all lines of effort, decisions need to be based on the most current science and traditional knowledge.”¹⁰⁹ However, regarding consultation, the NAS simply refers back to the 2000 Executive Order No. 13175 on Consultation and Coordination With Indian Tribal Governments, discussed above, noting that it

emphasizes trust, respect, and shared responsibility. It articulates that tribal governments have a unique legal relationship with the United States and requires Federal departments and agencies to provide for meaningful and timely input by tribal officials in development of regula-

tory policies that have tribal implications. This guiding principle is also consistent with the Alaska Federation of Natives Guidelines for Research.¹¹⁰

Similarly, the USCG Arctic Strategy appears to add little new regarding consultation, also referring to Executive Order No. 13175, and noting that the USCG “will consult and engage with federally recognized tribes in accordance” with it.¹¹¹ However, the Strategy continues: “The unique and valuable relationship established with tribal entities builds mutual trust and improves mission readiness.”¹¹² In the same section, the USCG Strategy states:

Native Alaskans, industry, and other Arctic stakeholders have untapped knowledge and resources that can help close information and operational gaps while minimizing risk. Regular information exchanges with Arctic stakeholders will take place both formally and ad hoc within the parameters of current laws and regulations.¹¹³

This approach seems to give less special acknowledgement to TEK than does the IAM Report.

One area in which the USCG Arctic Strategy does appear to add to the discussion and, indeed, seems to respond directly to the IAM Report, is in how it approaches the “whole-of-government” concept introduced in that Report. The first of the IAM Report’s guiding principles for carrying out integrated Arctic management is “whole-of-government coordination to improve efficiency and operational certainty.”¹¹⁴ The USCG strategy provides content to what “whole-of-government” means by juxtaposing three paragraphs in its explanation of how it will “Support a National Approach for the Arctic.” The first paragraph is the one referring to Executive Order No. 13175, just quoted, regarding tribal consultation.¹¹⁵ This is followed immediately with the following two bullet points:

- The Coast Guard will seek whole-of-government solutions that create efficiencies, eliminate redundancies, and contribute to improving stewardship of resources.
- The Coast Guard will lead and participate in national-level planning and exercises that include federal, state, tribal, local, and nongovernmental partners in order to test preparedness and adaptability. This inclusive approach will identify overlap in organizational roles, responsibilities, authorities, and resources.¹¹⁶

The USCG also proposed an Arctic Policy Board internal to its home agency, Homeland Security. The board “could also conduct studies, inquiries, and fact-finding investigations in consultation with individuals and groups

105. Clement et al., *supra* note 13, at §3.7, Federal Government. (“Early consultations, outreach, and input to governments and stakeholders in Alaska will promote more effective, holistic decision-making and advance the integration of cultural, ecological, and economic perspectives.”)

106. See sources at *supra* note 57.

107. EPA POLICY ON CONSULTATION AND COORDINATION WITH INDIAN TRIBES, *supra* note 57, at 2.

108. Draft NOAA Procedures for Government to Government Consultation With Federally Recognized Indian Tribes, 78 Fed. Reg. 37795 (June 4, 2013), available at <https://www.federalregister.gov/articles/2013/06/24/2013-15011/draft-noaa-procedures-for-government-to-government-consultation-with-federally-recognized-indian>

NOAA’s scientific and resource management responsibilities can be greatly enriched through the incorporation of TEK. It may take NOAA scientists years to validate what local indigenous peoples know about their environment. TEK can be shared through the consultation process, as well as through less formal collaboration. These interactions can help NOAA staff identify tribal individuals who hold TEK, as well as the opportunities to ask whether and how TEK may be shared.

109. THE WHITE HOUSE, NATIONAL STRATEGY FOR THE ARCTIC REGION n.2 (May 2013), available at http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf. “Traditional knowledge refers to a body of evolving practical knowledge based on observations and personal experience of indigenous communities over an extensive, multigenerational time period.”

110. *Id.* at 11.

111. THE WHITE HOUSE, *supra* note 109.

112. U.S. COAST GUARD, ARCTIC STRATEGY 32 (May 2013), available at http://www.uscg.mil/seniorleadership/DOCS/CG_Arctic_Strategy.pdf.

113. *Id.* at 31.

114. Clement et al., *supra* note 13, at 3.

115. U.S. COAST GUARD, *supra* note 112, at 32.

116. *Id.*

in the private sector and/or with state, tribal, and local government jurisdictions among others.”¹¹⁷ This juxtaposition leaves room to draw connections between whole-of-government and increased Alaska Native participation in decisionmaking. However, none of the 2013 Arctic Strategy and policy documents discussed in this section explicitly addresses whether “whole-of-government” can encompass the “government-to-government” consultation doctrine that has developed in part out of the trust relationship that the federal government acknowledges with respect to Native Americans and Alaska Natives.¹¹⁸

Finally, in response to its June 2013 call for stakeholders to identify issues for the upcoming rulemaking on Alaska-specific OCSLA regulations, DOI received several comments related to Alaska Native input to regulatory decisions.¹¹⁹ Some of those comments are noted above, i.e., that the current OCSLA regulations regarding local government participation are not strong enough.¹²⁰ Comments were received from the Arctic Slope Regional Corporation, the Native Village of Kotzebue IRA, and the Northwest Arctic Bureau, as well as from other stakeholder groups.¹²¹

III. The Legislative, Regulatory and Land Claims Framework for the Canadian Beaufort Sea Continental Shelf

A. The Canadian Oil and Gas Operations Act and Other Legislation

In Canada, the federal government is responsible for offshore oil and gas development in the Arctic. In independent but complementary roles, Aboriginal Affairs and Northern Development Canada, also known as the Department of Indian and Northern Affairs (DIAND), administers the rights to oil exploration,¹²² and the National Energy Board (NEB) authorizes drilling on the OCS.¹²³ Because this Article focuses on the Beaufort Sea, it does not address arrangements in Nunavut, looking instead at the Inuvialuit Settlement Region (ISR), which covers the Canadian waters of the Beaufort.¹²⁴ Interactions of the federal regulatory process with co-management and environmental review boards established under the Inuvialuit Settlement Agreement (ISA) are detailed below, after a brief introduction to the key pieces of legislation for offshore oil and gas development in the region.

The Northern Oil and Gas Directorate of DIAND bears primary responsibility for administering the Canada Petroleum Resources Act (CPRA)¹²⁵ in the Northwest Territories (NWT). CPRA regulations apply to on- and offshore areas in the ISR. The first step in issuing and managing oil and gas interests involves a call for nominations of lands to be included in a bid. At this stage, “it is the practice of DIAND to consult with the Inuvialuit, other northerners, and the government of the Northwest Territories.”¹²⁶ Requirements arising from any relevant land claims agreements are specified in the call for bids.¹²⁷

The Canada Oil and Gas Operations Act (COGOA)¹²⁸ and its regulations also apply to Arctic offshore oil and gas development.¹²⁹ The Canada Oil and Gas Drilling and Production (COGDP) regulations that entered into force in December 2009 are just one set of regulations implementing the COGOA.¹³⁰ During promulgation, information on the COGDP Regulations was provided to “potentially interested Aboriginal groups in the Frontier areas,” and meetings were held with interested Aboriginal groups, Aboriginal land claim organizations, and co-management boards in the Northwest Territories.¹³¹ The information provided stated that “[o]n a project-by-project basis, potential impacts on land use and resources would continue to be identified during the application approvals process, which would include any environmental assessment requirement. These requirements would not change with the proposal” to amend the regulations.¹³²

The original Canada Environmental Assessment Act (CEAA) (2009)¹³³ entered into force in 1995, after the 1984 IFA and IFA implementing legislation, thus requiring coordination and consultation on all IFA environmental requirements. “The IFA was explicit (IFA, s. 11(32)) that nothing would restrict the power of the Government to carry out environmental impact assessment and review under the laws and policies of Canada.”¹³⁴ Coming into effect almost one decade after the IFA, the CEAA of 2009 set “requirements for Environmental Screening and Review that must be met in addition to the requirements under section 11 of the IFA.”¹³⁵ Under the Stephen Harper government, the CEAA was amended effective in 2012.¹³⁶

The new CEAA 2012 has been described as “an unjustified and ill-conceived rollback of federal environmental law” that “greatly expands ministerial discretion.”¹³⁷

117. *Id.*

118. *See, e.g., supra* note 109 and accompanying text.

119. As noted above, that draft rule is anticipated for December 2013.

120. Letter from Mayor Reggie Joulé, *supra* note 77.

121. U.S. DOI, *supra* note 17.

122. Sandy Carpenter et al., *Oil and Gas Development in Western Canada in the New Millennium: The Changing Legal Framework in the Northwest Territories, the Yukon, and Offshore British Columbia*, 39:1 ALBERTA L. REV. (2001).

123. While the same rules apply across the Canadian Arctic, this Article focuses on rules applicable to the Beaufort Sea. The Yukon’s oil and gas powers under the Yukon Act generally do not include the offshore, so are not discussed further here.

124. *See supra* note 3.

125. R.S.C. 1985, c. 36 (2d Supp.).

126. Carpenter et al., *supra* note 122, at 7.

127. THE REGULATORY ROADMAPS PROJECT, *supra* note 28, at 21-24, ¶ 1-9.

128. R.S.C. 1985, c. 0-7.

129. The Canada Oil and Gas Operations Act, Canada Gazette Part II, Vol. 143, No. 25 (2009), 2306.

130. Others include the Canada Oil and Gas Installations (COGI) regulations, SOR 96/118.

131. Canada Oil and Gas Operations Act Drilling and Production Regulations, Canada Gazette Part II, Vol. 143, No. 25 (2009), 2345.

132. *Id.*

133. S.C. 1992, c. 37 [hereafter CEAA 2009].

134. THE REGULATORY ROADMAPS PROJECT, *supra* note 28.

135. *Id.*

136. CEAA 2012, *supra* note 24.

137. *See, e.g.,* Canadian Environmental Law Association, Canadian Environmental Assessment Act, <http://www.cela.ca/collections/justice/>

In a direct if crude measure of that expanded discretion, CEEA 2012 contains only one reference to land claims agreements, down from four in the 2009 version of the Act.¹³⁸ The 2012 reference is a simple jurisdictional definition; the CEEA 2009 references to the environmental effects on land claim agreement lands are removed.¹³⁹ They had provided that in cases involving land claims territory, when the responsible authority had not deemed that an environmental assessment was necessary, the Minister of the Environment could refer the matter to a mediator or a review panel for an assessment of the environmental effects of the project on those lands, when the minister “was of the opinion that the project may cause significant adverse environmental effects on land claims lands.”¹⁴⁰

Another piece of legislation relevant to involving the Inuvialuit in resource decisions is the Canada Oceans Act.¹⁴¹ The Act requires the Minister of Fisheries and Oceans to collaborate “with affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies established under land claims agreements,” as well as other government ministries and bodies, to develop “plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters and marine waters that form part of Canada or in which Canada has sovereign rights under international law.”¹⁴²

B. *The Inuvialuit Land Claims Agreement: Environmental Screening, Co-Management, and Consultation*

The IFA establishes environmental impact screening and review structures that provide for Inuvialuit involvement in offshore oil and gas development decisions, notwithstanding that the Inuvialuit ceded all offshore shelf rights in the ISR under the IFA.¹⁴³ The submarine areas of the ISR are federal Crown lands, to which the Crown holds surface and sub-surface rights.

IFA §11 establishes an Environmental Impact Screening Committee (EISC) and an Environmental Impact Review Board (EIRB). Both the EISC and the EIRB, like co-management structures established under the IFA, are comprised of equal numbers of Canadian and Inuvialuit

appointees, plus a representative from the Yukon and/or Northwest Territory.¹⁴⁴ Development in the ISR is subject to environmental impact screening by the EISC in several instances, including if the Inuvialuit request it.¹⁴⁵ In June 2012, following the NEB Arctic Offshore Drilling Review, the EISC issued Environmental Impact Screening Guidelines, which specify that a project description should reflect “Demonstrated community engagement, a list of issues and concerns identified during the engagement, and how the development design and implementation is addressing the issues and concerns identified.”¹⁴⁶

In some cases, the EISC may send a proposed development to the EIRB for review.¹⁴⁷ In its final report on the Arctic Offshore Drilling Review the NEB stated: “We must see the decision and recommendations from the [Inuvialuit EIRB] before we make our regulatory decision.”¹⁴⁸ Unlike the land claims agreement at issue in the *Little Salmon/Carmacks First Nation* case,¹⁴⁹ the IFA does not define consultation. In discussing that case, Huntington et al. argue that a land claim’s “environmental assessment process may not effectively devolve the [Government of Canada] of its duty to consult in a settled land claim area.”¹⁵⁰ Thus, the case in effect adds consultation as a separate tool to the Inuvialuit and other land claims environmental review boards in the appropriate circumstances.

Under IFA definitions, “Development” includes “[a]ny commercial or industrial undertaking, including support and transportation facilities related to the extraction of non-renewable resources from the Beaufort Sea, other than commercial wildlife harvesting.”¹⁵¹ In addition, IFA §7.(82) calls for an area-specific land use planning group for the ISR and mandates that native and Inuvialuit participation shall be equal to government participation. In 1987, the Inuvialuit Game Council, a co-management mechanism also established under the IFA, gave DIAND

144. IFA, *supra* note 27, §§11.(3), 11.(18).

145. Under IFA §11.(1).

The developments subject to environmental impact screening include:

- (a) developments described in subsection 13(7);
- (b) developments in the Yukon North Slope region described in section 12;
- (c) developments in the Inuvialuit Settlement Region in respect of which the Inuvialuit request environmental impact screening; and
- (d) [certain areas where “the traditional harvest of the Dene/Metis may be adversely affected”].

146. ENVIRONMENTAL IMPACT SCREENING COMMITTEE, ENVIRONMENTAL IMPACT SCREENING GUIDELINES §12.0, Community Engagement and Consultation (June 29, 2012), available at http://www.screeningcommittee.ca/pdf/eisc_guidelines.pdf.

147. IFA, *supra* note 27, §11.(16):

If, in the opinion of the Screening Committee [a governmental review process] referred to in subsection (15) does not or will not adequately encompass the assessment and review function, or if the review body declines to carry out such functions, the proposal shall be referred to the Review Board for a public review.

148. NEB, *THE PAST IS ALWAYS PRESENT*, *supra* note 6, at 19.

149. *Salmon/Little Carmacks*, *supra* note 23.

150. See Huntington et al., *supra* note 30, at 40.

151. IFA, *supra* note 27, at §2.(a) Under IFA §11.(2), “Except for screening and review for the purposes of wildlife compensation, the process described in this section applies only to onshore development.”

canadian-environmental-assessment-act (“This new law, which is now in force, applies to a much smaller set of projects, greatly expands Ministerial discretion, and considerably narrows the nature and scope of federal environmental assessment obligations.”).

138. CEEA 2009, *supra* note 133, §12(5)(c) (Definition of Jurisdiction—Responsible Authority); §40(1)(d) (Definition of Jurisdiction—Review Panels); §48 (Transboundary and Related Environmental Effects); §48(1)(c) (Environmental effects of projects carried out on lands of federal interest); §48(2)(b) Environmental effects of projects carried out on reserve lands, etc.).

139. CEEA 2012, *supra* note 24, §2(e) (“[jurisdiction means] any body that is established under a land claims agreement referred to in section 35 of the Constitution Act, 1982 and that has powers, duties or functions in relation to an assessment of the environmental effects of a designated project”).

140. See CEEA 2009, *supra* note 133, §§48(1)(c) and 48(2)(b).

141. Canada Oceans Act, S.C. 1996, c. 31.

142. *Id.* §31; see also Preamble and §§29, 32, 33.

143. IFA, *supra* note 27.

formal notice “that all developments in the ISR offshore on Crown lands within the ISR shall be submitted for Screening to the EISC.”¹⁵²

In the past, the co-management councils created by the IFA have provided grounds for support or non-support of a development. For example, in 2001, based on the Beaufort Sea Beluga Management Plan and pending “further work on Marine Protected Area Planning . . . the Inuvialuit Game Council [IGC] and Inuvialuit Regional Corporation [IRC] adopted an interim position opposing hydrocarbon exploration or development within Beluga Management Zone 1a,” which covered 1,716 km² in the Mackenzie Bay, Kendall Island, and Kugmallit Bay areas.¹⁵³ However, oil and gas permitting procedures do not appear designed to address requests received independently of the standard statutory leasing process, such as that of the IRC for a delay in the issuance of exploration licenses pending an NEB review of offshore drilling in the Arctic following the *Deepwater Horizon* incident.¹⁵⁴ As will be seen, however, the Filing Requirements¹⁵⁵ issued in connection with the NEB Arctic Drilling Review address other aspects of Inuvialuit involvement.

This brief sketch of environmental, co-management, and land planning boards allows a general conclusion that the broad Canadian co-management framework allows more structured and formal opportunities for the boards to address specific oil and gas projects than does the consultation and public comment framework in the United States. In addition to §11 Environmental Impact Screening requirements for certain onshore development projects introduced in Part I, above, the IFA provides:

Every proposed development of consequence to the Inuvialuit Settlement Region that is likely to cause a negative environmental impact shall be screened by the Screening Committee to determine whether the development could have a significant negative impact on present or future wildlife harvesting.¹⁵⁶

The IFA co-management arrangements have had slightly longer to mature than those in the United States, given the establishment of the IFA in 1984. In the United States, most co-management agreements are relatively more recent, born of federal legislative amendments in the 1990s and subsequent agency responses in the 2000s.¹⁵⁷

C. Canada Policy and Strategy Documents and Other Changes, 2010-2013

From 2010 to 2013, the most readily identifiable reflection of commitment to consult with Canadian Inuit on offshore development projects in the Arctic was the NEB Arctic Offshore Drilling Review. The Review process itself and the final report issued in 2011 indicate the Board’s understanding of the need for sustained engagement with the Inuit communities that stand to be affected by such development.¹⁵⁸ At least one study submitted to Review stated the need to improve such consultation.¹⁵⁹ However, the final report contains no recommendations as such, on any subject it covered, and cannot be viewed as an action document in and of itself. The NEB concludes the report with the general statement that, in light of lessons learned in the review: “We will pursue opportunities to strengthen our regulatory framework in support of future Board decisions on Arctic offshore drilling.”¹⁶⁰ It refers to the NEB Filing Requirements for Offshore Drilling in the Canadian Arctic, published simultaneously with the Final Report¹⁶¹ as the first improvement to the regulatory process to result from the Review.¹⁶²

Several provisions of 2011 Filing Requirements Chapter 2, on Environmental Assessment, have the potential, at least on paper, to strengthen the Inuvialuit voice in Beaufort Sea offshore oil and gas decisions: §2.1 Project Location; and, under §2.2. Proposed Description Content for Purpose of the EA, Unique Arctic Environment,¹⁶³ Consultation,¹⁶⁴ and Socio-economic Effects.¹⁶⁵ Outlining the information that the developer’s Project Description must contain, §§2.1 and 2.2 are just some of the provisions that “specify the information that the Board will need to assess future applications for drilling in the Arctic offshore” and are developed based on input received in the Arctic Offshore Drilling Review.¹⁶⁶ The section on consultation is not limited to engagement with aboriginal citizens but applies to any group potentially affected by a proposed development.¹⁶⁷

152. THE REGULATORY ROADMAPS PROJECT, *supra* note 28, at 9-2.

153. *Id.* at 12-7.

154. See, e.g., DIAND, Results of the 2009-2010 Call for Bids: Beaufort Sea/Mackenzie Delta, Aug. 4, 2010, available at <http://www.ainc-inac.gc.ca/nth/og/rm/ti/bsm/bsm10/index-eng.asp>; Inuvialuit Regional Corporation Press Release on Offshore Drilling, May 19, 2010, available at <http://www.itk.ca/media-centre/media-releases/national-inuit-leader-says-canada-should-invoke-temporary-moratorium-off>.

155. NEB FILING REQUIREMENTS, *supra* note 21.

156. IFA, *supra* note 27, at §13.7.

157. Swanson et al. discuss U.S. co-management in detail elsewhere in this issue of *ELR*.

158. Huntington et al., *supra* note 30, at 41. The authors say of the Arctic Offshore Drilling Review process, it “demonstrated a focused commitment on the part of the NEB to consult and engage with IFA institutions, the broader Inuvialuit public, and northern residents.”

159. LOUIE PORTA & NICHOLAS BANKES, BECOMING ARCTIC-READY: POLICY RECOMMENDATIONS FOR REFORMING CANADA’S APPROACH TO LICENSING AND REGULATING OFFSHORE OIL AND GAS IN THE ARCTIC 5 (2001), available at http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting_ocean_life/PewOilGasReport_web.pdf (“The government does not provide meaningful consultation with Inuit about decisions made during the call for nominations phase.”).

160. NEB, THE PAST IS ALWAYS PRESENT, *supra* note 6, at 54.

161. NEB FILING REQUIREMENTS, *supra* note 21.

162. *Id.*

163. *Id.* at 2.2.1, addressing, e.g., sensitivity, migration, and calving seasons of marine and terrestrial mammals.

164. *Id.* at 2.2.2. The developer designs and must justify the consultation structure and protocol for each project, updating it throughout the project.

165. *Id.* at 2.2.3, which references requirements in the CEAA and the ISA, including the need to address cumulative effects.

166. NEB FILING REQUIREMENTS, *supra* note 21, at 2.

167. A background on the Filing Requirements is available in Gwich’in, Innuinnaqtun, Inuvialuktun, and Inuktitut. See <https://www.neb-one>.

Imperial Oil is anticipated to be the first to submit an application to the NEB for operations the Beaufort Sea since the 2011 Filing Requirements were published. In December 2011, Imperial presented a Preliminary Information Package to the Inuvialuit Game Council.¹⁶⁸ However, as of July 2013, it had not yet submitted a Project Description to the NEB.

As discussed above, the new Canadian Environmental Assessment Act¹⁶⁹ is largely considered to have weakened environmental protections. It remains to be seen whether the environmental provisions of the NEB Filing Requirements for the Arctic will offset those changes.

The NEB's Draft Financial Viability and Financial Responsibility Guidelines,¹⁷⁰ posted in May 2013 for public comment, address concerns that are more than Inuvialuit-specific, and relevant to any party potentially affected by offshore oil and gas activity.¹⁷¹ For example, the draft provides: "The Applicant should provide the Board with an estimated cost for environmental clean-up under the worst case scenario as well as a rationale for how those costs were derived."¹⁷² However, as the draft points out, the IFA also contains requirements for financial liability, and both the IFA and the COGOA impose absolute liability on the operator.¹⁷³

IV. Conclusion

This Article set out to determine whether, in 2013, the Inuit on either side of the U.S.-Canada Beaufort Sea maritime boundary do or do not have better tools for taking more meaningful part in decisions relating to offshore oil and gas development in the Arctic than they did three years ago in the wake of the 2010 Macondo/Deepwater Horizon explosion and spill. The answer is a qualified yes. Officials in both countries have taken incremental but non-systematic steps that modestly improve Inuit involvement in the respective regulatory processes for Arctic offshore oil and gas activities.

Almost all of these steps can be seen as responding at least indirectly to the fatal Macondo/Deepwater Horizon accident in the Gulf of Mexico. In the United States, those responses were at times subsumed in a notably increased momentum from the federal government in 2013 to articulate Arctic policy in formal documents, such as the Integrated Arctic Management Report, the OSTP/IARPC Five-Year Arctic Research Plan, and the Arctic Strategy

documents from the White House and the USCG. That momentum was driven by preparations for the May 2013 Ministerial Meeting of the Arctic Council, by legislative mandate, and by Executive Order to address pressures to streamline the regulatory framework for offshore oil and gas activity in Alaska.¹⁷⁴ The Five-Year Research Plan stands out for how its research priorities and concrete steps involve Alaska Natives in research planning and traditional and local environmental knowledge in the research projects themselves. A question that remains unresolved, but also offers potential for strengthening Alaska Native voices in offshore oil and gas planning, is how the "whole-of-government" principle that guides the Integrated Arctic Management Report relates to the "government-to-government" principle set forth in many agency policies on consulting with Alaska Natives.

In Canada, most of the relevant improvements resulted from the NEB Arctic Offshore Drilling Review, as issued in the Filing Requirements in December 2011. The Review process itself reflected a commitment to engage in a serious manner with the communities in Canada's Arctic through some 40 meetings across the north and a week-long Roundtable in Inuvik.¹⁷⁵ The 2011 Filing Requirements provide more specifics than had existed previously on what developers must include in their Project Descriptions with regard to consultation, socioeconomic benefits to northern communities, and the unique Arctic environment and its marine mammals. The Filing Requirements also underline the key role of the IFA in environmental screening of proposed offshore activity. None of these requirements has yet been tested. One indicator of their success will be whether they prove to offset the weakening of the environmental review process in the amended CEEA of 2012.

This Article has also demonstrated how the incremental steps that strengthen Inuit involvement in offshore oil and gas planning in both countries are necessarily shaped and limited by their respective constitutional, judicial, and legislative histories of Inuit-federal relations. The top-down, piecemeal approach that the U.S. federal government has taken to consultation and trust obligations vis-à-vis Native Americans and Alaska Natives is repeated in these most recent developments for Arctic offshore oil and gas activity. By contrast, the recent changes in Canada can draw upon the more structured, agreement-based relationship between the government of Canada and its aboriginal citizens, as reflected in the IFA. Both systems will benefit from continuing to learn from each other, an effort to which this Article has attempted to make a modest contribution.

[gc.ca/ll-eng/livelink.exe?func=ll&objId=773372&objAction=browse](http://www.gc.ca/ll-eng/livelink.exe?func=ll&objId=773372&objAction=browse).

168. See Preliminary Information Package—Imperial Oil (Dec. 2012), available at http://www.imperialoil.ca/Canada-English/Files/PIP_Beaufort_Sea_Explor_JV_with_Cover.pdf.

169. CEEA 2012, *supra* note 24.

170. NEB, DRAFT FINANCIAL VIABILITY AND FINANCIAL RESPONSIBILITY GUIDELINES, *supra* note 22.

171. The draft is open for public comment and available in Inuktitut and Inuinnaqtun, at <http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/rgltnsndglnsprsnttthrc/cndldngsprntsc/fnncvlbtyrpsnbltygdln/drftfnncvlbtyrpsnbltygdln-eng.html>.

172. NEB, DRAFT FINANCIAL VIABILITY AND FINANCIAL RESPONSIBILITY GUIDELINES, *supra* note 22, at §3.B.b.

173. *Id.* at n.3 and accompanying discussion.

174. For example, the OSTP IARPC Five-Year Arctic Research Plan, *supra* note 14, is a direct result of requirements in the Arctic Research Policy Act, Pub. L. No. 98-373 (July 31, 1984), amended as Pub. L. No. 101-609 (Nov. 16, 1990), at §102(b)(4).

175. NEB, THE PAST IS ALWAYS PRESENT, *supra* note 6, at 9.

Collaborative Decisionmaking in the Arctic Under the Marine Mammal Protection Act and a Proposal for Enhanced Support From the Federal Government

by Christopher G. Winter

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Summary

The Alaska Native communities of the American Arctic rely upon their ancient subsistence practices for their food security, the continuation of their cultural traditions, and their physical and spiritual well-being. Industry interest in offshore resources will inevitably lead to potential conflicts with the historic subsistence uses of Alaska Natives. In order to resolve those conflicts, the federal government and stakeholders must bring to the table a clear understanding of the legal context as well as the unique community-led dispute resolution processes that have developed within that setting.

The Alaska Native communities who have lived in the Arctic since time immemorial now find themselves in the middle of an historic debate about their culture, their economy, and their traditional subsistence way of life. For thousands of years, to provide food for their families and to carry on their cultural traditions, the Native people who live on the North Slope of Alaska have hunted marine mammals in the Arctic Ocean using traditional means. These same subsistence hunting grounds, and the Arctic Ocean more broadly, including the Beaufort and Chukchi Seas, are predicted to hold billions of barrels of oil and trillions of cubic feet of natural gas.¹

With a rapidly warming climate, a shrinking summer ice pack and rising oil prices, a chaotic rush to open the American Arctic to oil and gas development has marked the past decade. Millions of acres of the Beaufort and Chukchi Seas were leased to multinational oil companies in a very short period of time, and industry pressed to begin exploration in the Arctic well before the federal government had a fully developed regulatory system in place that was prepared to cope with the dramatic increase in industrial activity. The debate during this time period has to a great extent focused on how to protect the traditional subsistence uses of Alaska Natives from the potential adverse impacts of industrial offshore activity and whether the federal government will implement an ecosystem-based management regime. And the outcome of that debate, which is still very much in question, will have a profound affect on the people who live in the Arctic.

To this point in time, the oil and gas industry has faced a number of significant logistical challenges that have limited its ability to conduct operations in the Arctic despite the fact that the Administration made a policy decision to promote development in the region. Lawsuits led by Alaska Native organizations resulted in injunctions against the first round of drilling proposals.² Once the courts and the federal agencies cleared the way for drilling to commence, industry experienced a number of well-publicized setbacks resulting from the practical challenges of operating in harsh Arctic conditions. Over the last decade, not

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1. The U.S. Geological Service estimates that the Alaskan Arctic holds 29.96 billion barrels of undiscovered oil and 221,397 billion cubic feet of undiscovered natural gas. U.S. Geological Survey, CIRCUM-ARCTIC RESOURCE APPRAISAL: ESTIMATES OF UNDISCOVERED OIL AND GAS NORTH OF THE ARCTIC CIRCLE (2008) (USGS Fact Sheet 2008-3049) (providing mean estimated undiscovered, technically recoverable, oil and gas resources).
2. See, e.g., *Alaska Wilderness League v. Kempthorne*, 548 F.3d 815 (9th Cir. 2008), *withdrawn* by 559 F.3d 916 (9th Cir. 2009), *dismissed as moot* 57 F.3d 859 (9th Cir. 2009) (granting stay against 2007 offshore drilling proposal in the Beaufort Sea); *In re Shell Gulf of Mexico, Inc., Shell Offshore, Inc.*, 15 E.A.D. ___, 2010 WL 5478647 (EAB 2010) (remanding to Region 10 of EPA two Outer Continental Shelf Clean Air Act permits).

a single well has been completed on the outer continental shelf under the most recent round of lease sales.

Looking forward, there is little question that the oil and gas industry will continue to look to the American Arctic as a potentially profitable new frontier. Industry interest in offshore resources will inevitably lead to potential conflicts with the historic subsistence uses of Alaska Natives. In order to resolve those conflicts, the federal government and stakeholders must bring to the table a clear understanding of the legal context as well as the unique community-led dispute resolution processes that have developed within that setting. These tools are already at hand.

In amending the Marine Mammal Protection Act (MMPA)³ in 1983, the U.S. Congress put in place a dominant use regime, granting a protected status and heightened protections to the subsistence use of marine mammals by Alaska Natives. Congress was also explicit that the “primary objective” for management of marine mammals is to “maintain the health and stability of the marine ecosystem.”⁴ For the past 25 years, local co-management organizations led by Native hunters and the Alaska Eskimo Whaling Commission (AEWC) have worked in collaboration with the oil industry to develop conflict-avoidance practices and mitigation measures that have proven successful in allowing certain industrial activity to move forward while still protecting subsistence uses and habitat for marine mammals. Those agreements have been negotiated on an annual basis and are memorialized in the AEWC’s Open Water Season Conflict Avoidance Agreement (CAA).⁵ It is this structure—a strong statutory framework combined with a collaborative and adaptive conflict avoidance process led by the local impacted communities—that holds the greatest promise for management of the Arctic moving forward.

This Article argues that to realize this promise, the federal government, and in particular the National Marine Fisheries Service (NMFS), must continue to improve upon its leadership in implementing the dominant use paradigm of the MMPA by better incorporating the conflict-avoidance process into government decisionmaking. By taking concrete steps that support the stakeholder-led conflict-avoidance agreement process, NMFS can facilitate the development of adaptable mitigation measures tailored to a changing environment and increasing industrial activity while also building greater certainty into the process for

both industry and the impacted communities. By doing so, the federal government will faithfully implement the will of Congress, as expressed in the MMPA, while pursuing the Administration’s policy decision to allow for the exploitation of fossil fuels in the Beaufort and Chukchi Seas.

Part I of this Article describes the background and history of the dominant use regime established by the MMPA and, in particular, the protected status granted to the subsistence use of marine mammals by Alaska Natives. Part I also describes how NMFS has implemented these statutory directives through the applicable regulations. In Part II, this Article describes briefly how these provisions have been applied in the Arctic over the past decade and how NMFS has incorporated the CAA into its decisionmaking under the MMPA. Part III then sets forth practical recommendations for how NMFS and the federal government can improve upon its implementation of the MMPA and suggests that by adopting these fairly modest recommendations the federal government can facilitate a much more collaborative approach to managing the Arctic, and, in the process, can greatly increase the likelihood that the outcomes will adhere to the will of Congress while also meeting the interests of the impacted Alaska Native communities, the oil industry, and the American people.

I. The Dominant Use Paradigm of the MMPA

A. The Statutory Structure

The MMPA, both its plain language and its history, reflects an intentional effort on the part of Congress to protect the subsistence practices of Alaska Natives and to facilitate ecosystem-based management in the context of offshore industrial activity.⁶ As contrasted with other resource-based statutory regimes, the MMPA clearly grants a priority status and heightened protections to a single use of Alaska’s marine waters, namely the subsistence practices of Alaska Natives. Congress used a variety of tools to implement this dominant use paradigm, which include a specific exemption for Alaska Natives from the otherwise broadly applicable moratorium on the taking of marine mammals, a co-management structure, and spe-

3. 16 U.S.C. §§1361-1421h, ELR STAT. MMPA §§2-410.

4. 16 U.S.C. §1361(6).

5. In this issue of *ELR*, Jessica Lefevre provides an historical overview of the CAA process and its use today, as well as an overview of the bowhead whale subsistence practices of Alaska Natives and the ways in which potential adverse effects of offshore oil and gas activities are mitigated through the CAA process. See Jessica Lefevre, *A Pioneering Effort in the Design of Process and Law Supporting Integrated Arctic Ocean Management*, 43 ELR 10893 (Oct. 2013).

6. “Dominant use” has been described as a law in which the legislature has provided to an agency an explicit mandate to prioritize one use above others. See, e.g., John Eagle, *Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity*, 16 DUKE ENVTL. L. & POL’Y F. 143, 148 n.23 (2006). For a discussion of the evolution of the dominant use paradigm in American natural resources law, see Jan G. Laitos & John A. Carver Jr., *The Multiple Use to Dominant Use Paradigm Shift in Natural Resources Management*, 24 J. LAND RESOURCES & ENVTL. L. 221 (2004). See also Jan G. Laitos & Thomas A. Carr, *The Transformation on Public Lands*, 26 ECOLOGY L.Q. 140, 207 (1999) (noting examples of modern dominant use natural resources statutes).

cific statutory standards that apply to the authorization of offshore industrial activities.⁷

At the outset, it is important to note the explicit statements of congressional findings and policy set forth in the MMPA, which reflect an intentional focus on ecosystem-based management. First, Congress stated that species and population stocks should be managed to maintain the role of marine mammals as a “significant functioning element in the ecosystem of which they are a part”⁸ Congress further recognized that ecosystem-based management of marine mammals requires more than a narrow focus on populations, but must necessarily extend to the protection of the important habitat elements relied upon by the species. “In particular, efforts should be made to protect essential habitats, including rookeries, mating grounds, and areas of similar significance for each species of marine mammal from the adverse effect of man’s actions.”⁹ The statutory findings conclude by setting forth the primary objective for management of marine mammals: “to maintain the health and stability of the marine ecosystem.”¹⁰

To achieve these policy objectives, and to reverse the decline in marine mammal populations, Congress implemented an immediate moratorium on the taking of marine mammals.¹¹ At the same time, however, Congress also wrote into law an explicit “exemption” from this moratorium for the subsistence activities of Alaska Natives.¹² Congress also included a backstop provision, delegating to the Secretary of the National Oceanic and Atmospheric Administration (NOAA) the authority to issue regulations proscribing the time, location, and other means of subsistence uses upon a finding, with advance public notice and an opportunity for hearing, that a species or stock is depleted.¹³ So long as the subsistence use of marine mammals is conducted in a sustainable manner, the general prohibitions of the statute do not apply, and Congress narrowly circumscribed the authority of the Secretary to regulate subsistence uses.

The statute also reflects a unique structure in which Congress authorized Alaska Natives to participate directly in the management of the subsistence use of marine mammals in partnership with the federal government.¹⁴ In MMPA §119, Congress issued a broad grant of authority to the Secretary to enter into co-management agreements with Alaska Native organizations to “conserve marine mammals and provide co-management of subsistence uses

by Alaska Natives.”¹⁵ NOAA has entered into a series of co-management agreements with Native organizations, which, among other roles, provides for the incorporation of traditional knowledge into management decisions affecting marine mammals and subsistence uses.¹⁶

The final key component of the dominant use regime implemented by Congress is the incidental take provisions that govern industrial operations in the Arctic. In contrast with the exemption to the moratorium granted to subsistence uses, Congress also implemented certain exceptions that could be authorized by NOAA only under specific conditions. One of those exceptions—known as the “small take” exception—is for the “incidental, but not intentional, taking” by citizens engaged in a specified activity other than commercial fishing.¹⁷ The Secretary may issue an authorization to take “small numbers” of marine mammals only if finding, after notice and an opportunity for comment, that the proposed activity will not have an “unmitigable adverse impact” on the availability of marine mammals for the subsistence uses by Alaska Natives.¹⁸ The Secretary must also find that the proposed incidental taking will have no more than a “negligible impact on” the species or stock.¹⁹ The statutory regime implemented by Congress therefore sets forth a clear hierarchy among potentially competing uses for marine resources, with subsistence uses granted special protections under the law.

B. The History of the Subsistence Protections in the MMPA

Beginning with the passage of the original statute in 1972, Congress has built upon and reaffirmed this dominant use structure numerous times over the intervening 40 years. The original statute passed in 1972 included the exemption from the generally applicable moratorium for subsistence

7. For an argument in favor of utilizing dominant-use zones in marine spatial planning, see James N. Sanchirico et al., *Comprehensive Planning, Dominant-Use Zones, and User Rights: A New Era in Ocean Governance*, 86 BULL. MARINE SCIENTISTS No. 2 (2010).

8. 16 U.S.C. §1361(2).

9. *Id.*

10. 16 U.S.C. §1361(6).

11. 16 U.S.C. §1371(a). “Take” is defined broadly to include “harass, hunt, capture or kill, or attempt to harass, hunt, capture or kill any marine mammal.” 16 U.S.C. §1362(13).

12. 16 U.S.C. §1371(b) (stating that the “provisions of this chapter shall not apply with respect to the taking of any marine mammal by any Indian, Aleut or Eskimo, who resides in Alaska and who dwells on the coast of the North Pacific Ocean or the Arctic Ocean. . .”).

13. *Id.*

14. 16 U.S.C. §1388.

15. 16 U.S.C. §1388(a).

16. Information on co-management under the MMPA and the co-management agreements can be found at National Marine Fisheries Service, Alaska Regional Office, Co-Management of Marine Mammals in Alaska, available at <http://alaskafisheries.noaa.gov/protectedresources/comanagement.htm>. The AEWG operates under a cooperative agreement with NOAA pursuant to §112 of the MMPA. 16 U.S.C. §1382. The NOAA-AEWG Cooperative Agreement predates the 1994 passage of §119. Under the framework of its §112 agreement, AEWG regulates the subsistence harvest of bowhead whales, implements and enforces the international quotas established by the International Whaling Commission, and collects data on the landed and struck whales. The Cooperative Agreement also includes a consultation provision, whereby NOAA agrees that it shall consult with the AEWG on any activities undertaken by the federal government that may affect the bowhead whale or subsistence uses. See Cooperative Agreement Between the National Oceanic and Atmospheric Administration and the Alaska Eskimo Whaling Commission as amended 2008 at ¶ 8.

17. 16 U.S.C. §1371(a)(5)(A)(i), (D)(i). The statute includes two separate incidental take provisions, one that governs incidental take for a period of not more than one year (Subsection D), and the other that governs for incidental take for a period of up to five years (Subsection A). Incidental take under Subsection A must be issued by regulation. NMFS has further clarified in its regulations when these two subsections apply. Incidental taking that results from commercial fishing operations is governed by 16 U.S.C. §1371(a)(2).

18. 16 U.S.C. §1371(a)(5)(A)(i)(I), (D)(i)(I).

19. 16 U.S.C. §1371(a)(5)(A)(i)(I), (D)(i)(II).

uses by Alaska Natives.²⁰ The original Act also authorized the Secretary to issue regulations and permits governing the incidental take of marine mammals; however, there were no statutory criteria in place that explicitly conditioned the issuance of permits upon a finding that the proposed activities would protect subsistence uses.²¹

In 1981, Congress amended the Act and implemented a more fully developed delegation of permitting authority to the Secretary.²² Congress created the “small take” authorization and explicitly conditioned the issuance of permits upon a finding that the taking would have a “negligible impact on such species or stock and its habitat, and on the availability of such species or stock for taking for subsistence uses. . . .”²³

In passing these amendments, Congress was keenly aware of the potential conflicts between offshore oil and gas operations and the subsistence practices of Alaska Natives and narrowly channeled the discretion of the Secretary by implementing specific standards protecting not only the species themselves, but also the protected subsistence practices of Alaska Natives. The federal government started offshore leasing in the Beaufort Sea in 1979,²⁴ and Congress knew full well that the provisions in the 1981 Amendment would govern offshore activity in the Arctic. The U.S. House of Representatives Report that accompanied the 1981 Amendments discussed the intent of the new incidental take provisions and stated that the proposed activities must be “narrowly identified” and that “it would not be appropriate for the Secretary to specify an activity as broad and diverse as outer continental shelf oil and gas development.”²⁵ The “small take” program was therefore crafted at approximately the same time as oil and gas activity commenced in the Arctic, and from the beginning, Congress intended to ensure that those industrial activities would not disrupt the prior existing subsistence uses.

Congress again reaffirmed the dominant use structure of the MMPA in 1986, when it amended the statute to include the “no unmitigable adverse impact” standard for small take authorizations.²⁶ Again, these amendments were made in the context of active industrial operations in the Arctic, as the federal government had held additional lease sales in the Beaufort Sea in 1982 and 1984

in which more than 9.5 million acres of the Beaufort Sea were offered to industry.²⁷

Finally, in 1994, Congress again amended the MMPA and reinforced the key protections for subsistence uses that apply to small take authorizations.²⁸ Congress at this time implemented the one-year small take authorization and applied the same “no unmitigable adverse impact” standard for protection of subsistence uses.²⁹ The legislative history reflects Congress’ direction to the agency that an authorization “may only be granted if” the agency determines that the proposed activity “will not cause an unmitigable adverse impact on the availability of animals in such stock for taking for subsistence purposes.”³⁰ The sponsors also stated their intention that “the Secretary will encourage extensive consultation between affected parties on appropriate monitoring, reporting and mitigation measures in granting authorizations under this paragraph.”³¹

Moreover, Congress strengthened those protections by implementing a peer review process for industry monitoring plans, a proposal that was spearheaded by local hunters and western scientists who had experience testing the reliability of traditional knowledge using the techniques of western science.³² The peer review process provides a venue in which scientists, regulators, and stakeholders, including subsistence hunters, can review and assess in a neutral setting the monitoring and mitigation measures proposed by industry, based upon the information gained from both traditional knowledge and western science.

Finally, Congress further strengthened the protections granted to subsistence users by adding a new section shifting the traditional burden of proof in judicial actions challenging agency decisions. The burden of proof applies to any “determination of depletion . . . or finding regarding unmitigable adverse impacts” under the statute and it requires the Secretary to demonstrate that the finding “is supported by substantial evidence on the basis of the record as a whole.”³³ The legislative history further reflects the intent of Congress to place on the Secretary the obligation “to demonstrate in each case that [the subsistence protection standard] has been met.”³⁴ Moreover, the heightened burden of proof is only applicable “in an action brought by one or more Alaska Native organizations representing persons to which” the MMPA’s subsistence exemption applies.³⁵

20. Marine Mammal Protection Act of 1972, Pub. L. No. 92-522, §101(b), 86 Stat. 1027 (1972). In 1971, one year before passage of the MMPA, Congress authorized the Alaska Native Claims Settlement Act (ANCSA), which largely extinguished aboriginal hunting and fishing rights. Alaska Native Claims Settlement Act, Pub. L. No. 92-203, 85 Stat. 688. §4(b) of ANCSA provides that all “aboriginal titles, if any, and claims of aboriginal title in Alaska based on use and occupancy . . . both inland and offshore . . . are hereby extinguished.” *Id.* §4(b).

21. Pub. L. No. 92-522, §§103-104.

22. Act to Improve the Marine Mammal Protection Act, Pub. L. No. 97-58, 95 Stat. 979 (1981).

23. *Id.* §2.

24. See Bureau of Land Management, BEAUFORT SEA FINAL ENVIRONMENTAL IMPACT, ALASKA OUTER CONTINENTAL SHELF OFFICE, FEDERAL/STATE OIL & GAS LEASE SALE (1979).

25. H.R. REP. NO. 97-228, §2, reprinted in 1981 U.S.C.C.A.N. 1458.

26. Act to Amend Certain Provisions of the Law Regarding Fisheries of the United States, Pub. L. No. 99-659, §411(a)(2), 100 Stat. 3706 (1986).

27. Bureau of Ocean Energy Management, ALASKA OCS REGION, LEASE SALES (Sept. 1, 2011), available at http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Leasing/Alaska%20Region%20Lease%20Sales%20To%20Date.pdf.

28. Marine Mammal Protection Act Amendments of 1994, Pub. L. No. 103-238, 108 Stat. 532 (Apr. 30, 1994).

29. *Id.* §4(a)(5).

30. 140 CONG. REC. S3288, S3294 (1994).

31. *Id.*

32. Pub. L. No. 103-238, §4(b); see also Lefevre, *supra* note 5.

33. 16 U.S.C. §1371(b).

34. 140 CONG. REC. at S3294.

35. 16 U.S.C. §1371(b). In the absence this unique statutory provisions, Alaska Natives who seek judicial review of an agency decision regarding impacts to subsistence activities would carry the burden to demonstrate under the Administrative Procedure Act, 5 U.S.C. §706(2), that the action is “arbitrary,

Taken together, these amendments, placed in the proper context of the first Arctic lease sale and then progressing through a time of increasing activity in the Beaufort Sea, demonstrate that Congress not only reaffirmed the priority status and protections granted to subsistence uses but, in fact, clarified and strengthened those protections over a period of more than 20 years. What first started out as an exemption for subsistence uses from the moratorium on taking developed into a specific statutory standard that applies to every small take authorization issued for industrial activity that could impact a species or stock used for subsistence purposes. In 1994, Congress then built upon that structure by creating an additional peer review process for monitoring plans and strengthened the protections by articulating a specific burden of proof that applied to the government when issuing findings on impacts to subsistence uses.

Throughout this history, Congress was consistent in establishing a clear hierarchy of uses in the marine waters that are critical to food security in northern Alaska. The marine mammal subsistence harvest that existed since time immemorial, and which provided the foundation of the culture and social structure of this region, were granted a priority and protected status.

This statutory structure and its history are critical in assessing how best to regulate offshore industrial activity moving forward. In contrast to other statutes that reflect a less defined “multiple use” objective and which grant to the federal government much more discretion in determining precisely how to balance those uses, the MMPA reflects a deliberate decision to protect subsistence practices in Alaskan marine waters and allows for industrial activity to take place if and only if the food security and traditional uses of Alaska Natives are protected. The burden rests on the federal government to show that these protective standards have been met prior to authorizing industrial activities. Industry is a visitor to the far North, while the people who live there have been granted by Congress certain important rights, including cooperative agreements and the co-management structure and the protections for subsistence uses that apply to small take authorizations. These policy decisions reflect the reality that Alaska Natives and the Inupiat people have utilized and managed the resource since time immemorial and that industry, while an important stakeholder, is a visitor.

C. History of NMFS Regulations

The history of regulatory development under the MMPA largely reflects the dominant use structure of the statute and the long history of cooperative dispute resolution processes led by the local subsistence communities. Starting as early as 1989, the regulations implemented by NMFS parallel and build upon the strong statutory protections implemented by Congress. In addition, and from the beginning,

capricious, an abuse of discretion, or otherwise not in accordance with law.”
Id. §706(2)(A).

NMFS has encouraged industry to work collaboratively with the affected communities of the Arctic, consistent with congressional intent under the MMPA.

In 1989, NMFS published a final rule that put into place what is still the controlling definition for “unmitigable adverse impact.”³⁶

“Unmitigable adverse impact” means an impact resulting from the specified activity (1) that is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by (i) causing the marine mammals to abandon or avoid hunting areas, (ii) directly displacing subsistence users, or (iii) placing physical barriers between the marine mammals and the subsistence hunters; and (2) that cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.³⁷

The concept of mitigation under this definition is particularly important, because it is narrowly defined by reference to the availability of marine mammals for subsistence uses. Mitigation measures must protect the actual subsistence practices, as opposed, for instance, to providing an alternative supply of food. NMFS was explicit in issuing this initial regulatory definition that “[m]itigation measures are intended to ensure the availability of enough animals to meet subsistence needs. . . .”³⁸ NMFS was also explicit that those specific measures must be included in the specific regulations and letters of authorization governing industrial activities.³⁹ Consistent with the statute, NMFS implemented strong protections for subsistence uses in Alaska.

Early on in the process of developing implementing regulations, NMFS recommended that offshore operators and federal agencies engage with the local affected subsistence users in developing appropriate mitigation measures. As NMFS stated in the preamble to the 1989 final rule:

Those conducting the specified activity, the involved Federal agencies, and the affected subsistence users are encouraged to meet and develop mutually agreeable conditions which satisfy the operation, scientific or other needs of the activity and the requirements of the subsistence users.⁴⁰

In response to a specific comment regarding coordination with subsistence users, NMFS reiterated that industry should be working directly with the impacted community to identify appropriate mitigation. “Such coordination could be effective in identifying and achieving consensus regarding subsistence mitigation measures to be incorporated into specific regulations.” NMFS concluded by stating it not only “encourages” but also “as appropriate will participate in, such cooperative ventures.”⁴¹ NMFS even went so far as to include in the regulation specific language stating that the “applicant and those conducting

36. 54 Fed. Reg. 40338 (Sept. 29, 1989).

37. *Id.* at 40347-48 (originally codified at 50 C.F.R. §18.27(c)).

38. *Id.* at 40345.

39. *Id.*

40. *Id.* at 40344.

41. *Id.*

the specified activity and the affected subsistence users are encouraged to develop mutually agreeable mitigating measures that will meet the needs of subsistence users.⁴² And again, these statements all need to be understood within the history and context of the AEW's CAA, which by 1989 had already been in place for four years.⁴³ From the beginning, NMFS therefore intended that strong substantive standards would help to stimulate collaborative discussions on mitigation.

Following the 1994 statutory amendments, NMFS undertook a new round of rulemaking in 1995, which focused primarily on developing regulations for the expedited process of issuing single-year small take authorizations.⁴⁴ Consistent with Congress' reaffirmation and expansion of the protections for subsistence uses in the statute, NMFS designed and implemented new provisions that were intended to provide additional safeguards for subsistence users. Those new provisions include requirements for the scientific peer review of applicant's monitoring plans and the submission that was coined a "plan of cooperation" if the activity may affect subsistence uses.⁴⁵

The requirement that applicants prepare a plan of cooperation (POC) reflected the operational reality that the AEW and offshore operators had already been collaborating on these issues through the CAA process. The way in which NMFS incorporated that requirement into the regulations, however, has created substantial confusion in the past several years and has effectively undermined efforts by the oil industry and local communities to collaborate on meaningful mitigation measures, as will be discussed.

NMFS originally proposed in the draft rule to require that operators submit with their application a *completed* POC that "identifies what measures have been taken and will be taken to minimize any adverse effects on the availability of marine mammals for subsistence uses."⁴⁶ The final POC submitted with the application would have included a specific description of the "measures the applicant has taken and will take to ensure that proposed activities will not interfere with subsistence whaling or sealing. . . ."⁴⁷ The POC would have also included statements that the operator met with affected communities and how it would continue this communication to avoid and resolve potential conflicts.⁴⁸

The original draft rule reflected the intent of Congress that NMFS would take the lead on providing incentives for offshore operators to consult directly with local stakeholders in developing plans for "monitoring, reporting and mitigation measures," as had been taking place prior to the 1994 Amendments pursuant to the CAA process. Since that time, however, NMFS has struggled over the course of various Administrations in determining precisely how to

incorporate this collaborative process into the agency's regulatory functions. At times, NMFS has focused on whether it can mandate that a company *sign* a CAA, as opposed to merely requiring collaborative discussions before the application is submitted, whether or not those discussions lead to an agreement.⁴⁹

The regulation as it reads now states that a POC is optional; the "applicant must submit *either* a plan of cooperation *or* information that identifies what measures have been taken and/or will be taken to minimize any adverse effects" to subsistence uses.⁵⁰ A POC, if submitted, must include a "statement that the applicant has *notified* and provided the subsistence community with a *draft plan of cooperation*" and then "a schedule for meeting with the affected subsistence communities to discuss proposed activities and to resolve potential conflicts. . . ."⁵¹ The plan must also include a description of the measures that the applicant has taken or will take to avoid interference and then plans for future meeting with subsistence communities.⁵²

The weakened POC provisions in the final rule have functionally undermined the collaborative process between offshore operators and the local affected communities. The regulation sets up an unworkable sequence in which the deadline for the applicant to submit a final POC to the agency is the same as the deadline for submitting a draft POC to the community. By the time the affected community has a chance to even review the proposed mitigation measures, industry has already developed its proposal, it has likely communicated closely with the agency, and it has crafted its application, which NMFS will then have to process according to a compressed time line for a one-year small-take authorization. Industry may therefore fully formulate its project before ever taking input from the local affected community through the POC process, as opposed to working with the community at the front end to shape the project to meet local needs. Under the regulations, the affected community is then left with little more than the traditional opportunity for public notice and comment, which is often ineffective for building consensus around complex projects.

As a result, the POC requirement has been implemented inconsistently and with questionable results. Just as one example, in 2013, offshore operators were taking inconsistent approaches in how they sequenced the preparation of the POC and their application to NMFS. In the first case, the operator submitted its POC to NMFS before notification of the proposed Incidental Harassment Authorization (IHA) was published in the *Federal Register*.⁵³ In the second case, the operator provided a "draft" POC along with its application.⁵⁴ Although NMFS did not address the differ-

42. *Id.* at 40349 (codified at 50 C.F.R. §18.27(d)(1)(v) and 228.4(a)(9)).

43. Lefevre, *supra* note 5.

44. 60 Fed. Reg. 28379 (May 31, 1995) (proposed rule).

45. *Id.* at 28380.

46. 60 Fed. Reg. at 28384.

47. *Id.*

48. *Id.*

49. See, e.g., NATIONAL MARINE FISHERIES SERVICE, EFFECTS OF OIL AND GAS ACTIVITIES IN THE ARCTIC OCEAN, SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT at 2-22 (Mar. 2013) (stating that "[n]either NMFS nor BOEM can require agreements between third parties").

50. 61 Fed. Reg. at 15888 (emphasis added).

51. *Id.* (emphasis added).

52. *Id.*

53. 78 Fed. Reg. 35508, 35517 (June 12, 2013).

54. 78 Fed. Reg. 35851 (June 14, 2013).

ences in the published *Federal Register* notices, the agency appears to have treated both approaches as consistent with the regulations.

The original draft rule was intended to and would have provided certainty for operators to participate in the CAA process by requiring collaborative discussion to have taken place before an application was submitted to NMFS. Indeed, that was the very purpose behind the 1994 revisions to the MMPA. And yet, the current POC regulations have effectively undermined the collaborative CAA discussions by creating an overlapping, weakened, and uncertain process that creates confusion and not clarity. Congress never intended to have multiple collaborative discussions taking place side-by-side. NMFS was charged with supporting the CAA process and not recreating the wheel.

II. NMFS' Recent Approach to Incorporating a Collaborative Stakeholder Conflict Avoidance Process Into Agency Decisions Under the MMPA

Although the CAA process was in place prior to the legislative creation of the one-year small-take program, NMFS has never established a clear policy on what weight, if any, the agency will give to an agreement between industry and the subsistence community. Industry, in particular, has a substantial interest in knowing to what extent the agency will adopt the substantive mitigation measures from the CAA into the permit and what analysis the agency must undertake prior to making that determination. If an applicant knows that NMFS will use the CAA in a consistent way in support of the permitting process, the company is much more likely to invest the time and money necessary to engage in the process year-after-year. Conversely, if a company knows that the outcome of the permitting process is more uncertain in the absence of a collaboratively agreed agreement, that too will provide an incentive for industry to participate.

The community also needs certainty in understanding how the CAA will be used by NMFS. For one, the community needs to know that if it invests the time and resources needed to engage directly with the companies, the agency will incorporate into the regulatory decision making these agreements in the IHAs themselves. The community also benefits by having one focal outlet for participating in a collaborative discussion about how to mitigate offshore activities. This will help to alleviate the confusion and burden of trying to understand and participate in overlapping and duplicative public comment processes that are run by the Bureau of Ocean Energy Management, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service under a wide variety of federal environmental laws. And, if NMFS succeeds in fostering an effective collaborative model, it can achieve significant savings of government

resources while producing a result that is much more likely to be supported by the affected subsistence users.

Those outcomes, however, all hinge upon NMFS articulating in a clear and consistent way its policy for incorporating the outcome of a community-based collaborative process into the agency's regulatory decisionmaking. To date, NMFS has not done so, instead making many important policy decisions on an ad hoc basis in the context of individual applications for an IHA or when preparing National Environmental Policy Act⁵⁵ documents.

For a period of time several years ago, shortly after the most recent round of lease sales, NMFS was fairly consistent in its treatment of the CAA, either requiring full implementation of the CAA in the IHA itself, and/or using the terms of the CAA to support its finding of no unmitigable adverse impacts required by statute. For example, in 2006, Shell Offshore, Inc. agreed on a CAA that set forth mitigation measures for Shell's proposed seismic operations. In the IHA, under §6.a.vi., entitled Mitigation, NMFS required Shell to "operate in full compliance with the agreed upon Conflict Avoidance Agreement."⁵⁶ Section 11 of the IHA then included a separate clause requiring that the CAA "must be implemented."⁵⁷ There was never any question at that time that NMFS could simply cross reference the CAA and thereby incorporate the agreed-upon mitigation measures into the requirements of the federal permit.

NMFS also based its statutory finding explicitly upon the existence of the CAA and its mitigation measures. When issuing the IHA to Shell, NMFS stated that the "CAA provides NMFS with information to make a determination that the activity will not have an unmitigable adverse impact on the subsistence use of marine mammals."⁵⁸ Similarly, in the same year, when NMFS issued an IHA to BP for the Northstar facility, NMFS stated that a "signed CAA indicates to NMFS that, while there might be impacts to the subsistence hunt by Northstar, they do not rise to the level of having unmitigable adverse impacts."⁵⁹ The CAA therefore provided the factual predicate for the agency's required statutory determination under the MMPA.

The next year, Shell applied for separate IHAs for its drilling and seismic operations before it had signed the CAA. NMFS again stated at that time that an agreement on the CAA would support the agency's statutory finding under the MMPA. NMFS reaffirmed that "a signed CAA assists NMFS in making a determination that the activity will not have an unmitigable adverse impact on the subsistence uses of marine mammals. . . ."⁶⁰ NMFS also dis-

55. 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

56. NATIONAL MARINE FISHERIES SERVICE, INCIDENTAL HARASSMENT AUTHORIZATION, ISSUED TO SHELL OFFSHORE, INC. AND WESTERNGECO, INC. (July 5, 2006) (on file with author).

57. *Id.*

58. 71 Fed. Reg. 50027, 50043-44 (Aug. 24, 2006).

59. 71 Fed. Reg. 11314, 11318 (Mar. 7, 2006).

60. 72 Fed. Reg. 31553, 31561 (June 7, 2007); see also 72 Fed. Reg. 17864, 17873 (Apr. 10, 2007) (NMFS stating that if the "mitigation measures contained in the CAA are agreed upon by the involved parties . . . NMFS proposes to issue an IHA to [Shell]").

cussed what could happen in the absence of an agreement, stating that if one or both parties fail to sign the CAA that the agency “may require that the IHA contain additional mitigation measures” in order to reach a decision on the statutory standard.⁶¹

Starting in 2010, however, NMFS began to make a series of statements that appeared to call into question how the agency intended to incorporate the CAA into its decisionmaking process moving forward. In that year, an offshore operator applied for an IHA and informed NMFS that it would not sign the CAA. Relying on the earlier statements noted above, the AEWC stated to NMFS “that the CAA has historically formed the basis for NMFS’ statutorily required determination of no unmitigable adverse impacts to subsistence activities. . . .”⁶² NMFS responded by stating that this “is incorrect.”⁶³ NMFS also stated that “Federal laws do not require consultation with the native coastal communities until after offshore exploration and development plans have been finalized, permitted, and authorized,” which implies that the POC is optional and, as discussed above, can simply be provided to local subsistence users in draft form when the final application is submitted to NMFS.⁶⁴

The very next year, in its 2011 draft Environmental Impact Statement for Oil and Gas Activities in the Arctic, NMFS stated again that an agreement with the local impacted community can provide the necessary record in support of the agency’s statutory findings.

Input from the impacted bowhead whale subsistence communities indicates that they have historically found that the CAA process, through its highly interactive aspects, has effectively resulted in the development and implementation of measures that will ensure no unmitigable adverse impact. Based on this, for many years, NMFS generally assumed, with some associated analysis, that if a company and the AEWC signed a CAA (which typically contained the components of a POC), then it was possible for a company to conduct their activity without having an unmitigable adverse impact on the subsistence hunt.⁶⁵

In 2012, however, NMFS made another round of statements that conflicted with its earlier treatment of the CAA. When issuing an IHA to Shell Offshore, Inc. for its proposed offshore drilling program, NMFS stated that it “has no role in the development or execution of the” CAA.⁶⁶ This statement contrasts markedly with the agency’s position in 1989 that it would “participate in, such cooperative ventures” as appropriate.⁶⁷ NMFS historically encouraged offshore operators to engage in the CAA process and took

steps to facilitate that process, which is far different from playing “no role” in the discussions.

NMFS went even further, however, and also stated that it would not be able to “enforce the provisions of CAAs because the Federal government is not a party to the agreements.”⁶⁸ This position is particularly problematic, because in the past, NMFS has simply required compliance with the CAA as a condition of the IHA, demonstrating how it can adopt the CAA into the IHA so that is indeed federally enforceable. It is a simple and straightforward matter for NMFS to require compliance with a previously agreed-upon CAA as a specific condition in the IHA. By doing so, NMFS supports the CAA process by ensuring that the agreed-upon mitigation measures are adopted by the agency as binding requirements, which builds certainty into the process for both the oil companies and local community.

In sum, the agency’s approach to how it will utilize the CAA process has changed over time on an ad hoc basis. Starting shortly after the most recent round of lease sales, NMFS explicitly required compliance with the CAA as a term and condition of the IHA, rendering the agreement federally enforceable.⁶⁹ NMFS also relied upon the CAA as its basis for issuing the IHA and finding that the statutory criteria relating to subsistence had been met. In more recent years, however, NMFS has made conflicting statements, suggesting it cannot make the CAA an enforceable requirement of an IHA and also calling into question what role a signed CAA will play in the analysis required by the statute. This shifting landscape undercuts the efficacy of the collaborative process, because neither the oil industry nor the local affected community knows how the agency will utilize the outcomes of the collaborative process, which creates uncertainty and provides a disincentive for stakeholders to participate in the process.

III. Improving NMFS Support of the CAA Process

The Arctic is changing quickly, and all the stakeholders, including the oil and gas industry and the communities who live in the Arctic, will look to the federal government for leadership in regulating human activity in the face of great uncertainty. With potentially significant reserves of oil and gas, a warming climate, and reductions in the extent of sea ice, interest in Arctic resources will not abate in the near future. The dialogue over the future of the Arctic will continue to involve great scientific uncertainty, potential conflicts between local traditional food gathering practices and new industrial activity, and substantial social and economic interests. The federal government, and

61. *Id.*

62. 75 Fed. Reg. 49710, 49729 (Aug. 13, 2010).

63. *Id.*

64. *Id.*

65. NATIONAL MARINE FISHERIES SERVICE, DRAFT ENVIRONMENTAL IMPACT STATEMENT, EFFECTS OF OIL AND GAS ACTIVITIES IN THE ARCTIC OCEAN at ES-33 (2011).

66. 77 Fed. Reg. 27322, 27335 (May 9, 2012).

67. 54 Fed. Reg. 40344.

68. *Id.* at 27335.

69. This discussion is not intended to be a comprehensive survey of the agency’s statements regarding the CAA process, and certainly there are other examples that could be discussed as to how NMFS discussed the CAA vis-à-vis the IHA program. The point here is only that NMFS has yet to articulate a clear policy and that the statements made in the context of individual permit decisions have often lacked consistency from year to year.

in particular NMFS, faces a great challenge in determining how to manage competing uses in the Arctic as we look to the future.⁷⁰ While the environmental and social context is evolving, the statutory protections of the MMPA for the subsistence activities for Alaska Native have been in place for decades.

Given the environmental, social, and legal context, it is incumbent upon NMFS to implement the statute and the regulatory program in a way that facilitates participation by the local stakeholder community. The agency is being asked here to perform concurrently numerous functions, including regulator and a unique type of facilitator, which presents unusual challenges for its staff.⁷¹ It should therefore come as no surprise that certain changes need to be made to the process, even after many years of experience. It is worth repeating that the sponsors of the 1994 Amendments to the MMPA intended for the agency to play an expanded role beyond that of just a top-down regulator, stating that the Secretary “will encourage extensive consultation between affected parties. . . .”⁷² In a rapidly changing context, the agency must continue to adjust to the evolving dynamics inherent in managing a complex ecosystem and a diverse set of stakeholders.

The CAA is therefore a critical tool—the best one available—in promoting collaborative management efforts in the Arctic. The agency and the stakeholders have a rich, 25-year history of successes (and challenges) from which to draw. In its recent report, the Interagency Working Group specifically highlighted the CAA as one of the most promising approaches for integrating the “needs of ecosystems, economies, and cultures. . . .”⁷³ The Marine Mammal Commission has also called on NMFS to facilitate the development of more comprehensive conflict-avoidance processes that address the concerns of other subsistence user groups.⁷⁴ This collaborative model, managed and implemented by the local stakeholder community, must be a key component of the management regime moving forward.

NMFS will therefore continue to wrestle with the question of how to integrate the CAA, and stakeholder-based management decisionmaking more broadly, into the work of the agency. The rest of this Article offers constructive suggestions for how federal government can better support the CAA process with the objective of implementing the MMPA and the Administration’s policy decisions on management of the Arctic in a way that is true to con-

gressional intent and most likely to reduce conflict and to promote collaboration.

A. *Up-Front and Collaborative Discussions With the Impacted Communities*

NMFS can make great strides toward stability and consistency in the program by clarifying that industry must engage with the local community in a cooperative manner before submitting an application for a small-take authorization. As discussed above, the draft 1995 regulations required the applicant to submit a final POC that detailed what steps that company had already taken to meet with the local community and what mitigation measures resulted from those discussions.⁷⁵ The final rule, however, weakened those requirements and instead left it up to the applicant to decide whether to submit voluntarily a POC. As an alternative, an applicant can now simply submit a list of mitigation measures without ever having presented those to the local community for review and input.

The existing regulations therefore allow a company to bypass the local community altogether, and even when a POC is prepared, a company only needs to provide a draft POC to the community by the time the final application for an IHA is submitted to the agency. These rules of engagement create too much confusion and uncertainty as to whether a collaborative process is required by law and/or expected by the agency. With a clear set of ground rules in place, both industry and the local stakeholders community will know that conflict avoidance discussions will occur each year regarding all industrial operations proposed in the Arctic. That structure will allow the stakeholders and the agency to invest the resources necessary in further developing and institutionalizing long-term collaborative processes.⁷⁶

B. *The CAA and the POC*

The POC process, which is established by MMPA regulation, has created additional confusion, because it has in recent years been carried out by industry separate and apart from the CAA. Combined with questions as to when and in what form a POC must be presented to the community and to NMFS, these overlapping processes leave the community and industry without clear direction from the agency on what is expected and how the collaborative process should be structured. The community has also, in the past, raised serious concerns about whether the POC process is effective at producing meaningful mitigation and substantive agreements on proposed industry operations.

NMFS can address the confusion and uncertainty by simply clarifying, either by regulation or otherwise, that submitting a signed CAA with a co-management organization satisfies the regulatory requirement to provide a POC

70. The federal government recently released a report that discusses the challenges inherent in managing the Arctic during a time of great change and uncertainty. See INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY PRODUCTION AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC—A REPORT TO THE PRESIDENT (2013).

71. See, e.g., Steven L. Yaffee & Julia M. Wondolleck, *Collaborative Ecosystem Planning Processes in the United States: Evolution and Changes*, 31 ENVIRONMENTS—A JOURNAL OF INTERDISCIPLINARY STUDIES 2 (2003).

72. See *supra* note 28.

73. INTERAGENCY WORKING GROUP, *supra* note 70, at 41.

74. See, e.g., 77 Fed. Reg. 27284, 27296 (May 9, 2012).

75. *Id.*

76. This may require a minor amendment to the MMPA regulations akin to the original draft language that was published in 1994.

in conjunction with an application for a small-take authorization. The CAA process as it currently exists addresses potential conflicts with the subsistence hunt of bowhead whales, but many stakeholders have called for industry to enter into similar agreements with other subsistence user groups. In any event, the bowhead hunt is more often than not the focal point for industry when planning offshore activities. Industry may have to rely upon the CAA for the bowhead hunt, while still employing the POC process for other subsistence activities. But, by clarifying that an agreement with a co-management organization meets the regulatory requirement for a POC, NMFS can facilitate the existing CAA process while providing an incentive for the development of similar collaborative processes that involve other subsistence user groups.

C. *Timing of CAA Discussions and NMFS' Public Notice-and-Comment Process*

The one-year small-take authorizations place NMFS and industry in the difficult position of proposing, reviewing, and permitting complex operations under tight time lines. The need for peer review of industry monitoring plans, required by statute, further complicates the time lines. In past years, with a rapidly increasing number of industry proposals, the agency has struggled to manage the workload while still providing adequate time to accept and then respond to public comments before industry operations commence in the Arctic. The CAA process, if managed and synchronized with the agency's schedule and industry's annual plan for operations, can reduce the agency's workload while providing regularity to the yearly process of reviewing applications for small-take authorizations.

The key to sequencing the timing is to recognize that the local communities structure their yearly schedule based upon their subsistence activities. By April, people who live on the North Slope are preparing for the spring and summer harvests and are engaged in a host of other subsistence-based activities, which prevents them from engaging with industry and other stakeholders in what can be a time-consuming process of collaboration.

It is therefore of the utmost importance for industry to participate with the co-management organization in collaborative discussions as early as possible in advance of the spring season. For the AEW, the CAA negotiations typically begin in December with a meeting between the AEW's Board of Commissioners and offshore operators planning work for the following open-water season. Discussions of planned operations and potential mitigation measures are ongoing through the first of the year, and culminate in February at a meeting in Barrow. The annual CAA meeting is hosted by the AEW and attended by representatives of the AEW's member villages, the North Slope Borough, offshore operators, and others with an interest in the proceedings. At this meeting, the AEW's Board of Commissioners and village representatives review industry proposals and make recommendations, where

needed, for appropriate mitigation measures to avoid conflicts with the subsistence hunt of bowhead whales.

Shortly after that meeting, industry should be in a position to represent that the companies completed their consultations and signed the CAA (or decided to proceed in the absence of an agreement). NMFS must then work to publish the notice for the proposed IHA, allow for meaningful public comment, and respond to comments before industry operations commence, which often occurs by the middle of July.

Although these time frames are tight, they are workable for all parties, and, if institutionalized, will become more manageable over time. NMFS can help to guide this process by establishing and articulating clear expectations for the timing and sequence of activities. The stakeholder discussion must occur first and be completed with enough time remaining for the agency to conduct its review before operations commence. Once NMFS provides clear expectations as to when it must receive from industry a completed application and an agreement with a co-management organization, all stakeholders will be able to plan for a consistent schedule year-after-year.

D. *Mitigation Measures to Support the Agency's Finding of No Unmitigable Adverse Impact to Subsistence Activities*

The collaborative process offers to NMFS the substantial benefit of potentially reducing the workload of the agency by producing an agreement between the local impacted community and industry as to the appropriate mitigation measures. This agreement saves NMFS the resources necessary to make this determination on its own, which is potentially time-consuming, contentious, and subject to appeal. The company and the local community can, in effect, deliver to the agency a project that has already been vetted and approved by the local interests that are protected under the statute.

Historically, NMFS has cited to a signed CAA as an indication that the project will not have an unmitigable adverse impact on protected subsistence activities. These determinations, however, have been made on a project-by-project basis without any clear articulation of how the agency will use the collaborative agreements in its analysis of industry proposals. By articulating a clear policy on this issue, NMFS will provide additional incentive for industry and the local community to participate in the existing CAA process and to initiate new collaborative discussions addressing other subsistence user groups.

E. *Terms and Conditions of the Small-Take Authorizations*

The final step in the process is for NMFS to incorporate the specific mitigation measures developed between industry and the subsistence users into the terms and conditions of the IHA or letter of authorization. Doing so serves a

number of purposes, but perhaps most importantly, it provides assurance to industry that companies will not be subject to overlapping and potentially inconsistent obligations. It also provides assurances to the local community that agreements and promises made by industry will be federally enforceable.

At different times, NMFS has appeared to express different perspectives on whether it is able to enforce agreements on mitigation measures that result from a collaborative, community-based dialogue. While NMFS cannot do so directly, there is nothing in the statute or the regulations that prohibit the agency from simply cross-referencing the CAA and requiring that the applicants who have a signed agreement comply with its terms and conditions. The agency did just this in 2006 when issuing an IHA for seismic activities.

NMFS also has options other than a straightforward cross-reference that it can employ. One alternative would be for the agency, with the assistance of the community and the company, to identify the specific sections of the agreement that set forth the applicable mitigation measures and to cross-reference only those sections of the agreement in the terms and conditions of the IHA. A final alternative would be to simply take verbatim the applicable language, to state in the public notice that this language comes from the collaborative agreement, and to then include that language in the IHA itself. Whichever direction the agency chooses, by simply clarifying how it intends to move forward, it can create certainty for the stakeholders.

IV. Conclusion

The current situation in the American Arctic presents a unique opportunity to assess how a community-based

collaborative decisionmaking model can operate within a regulatory program to resolve potential conflicts over ecosystem management and resource use. The dominant use paradigm of the MMPA provides a strong legal structure that supports the development and operation of co-management organizations that are equipped to represent a local impacted community and that provides an incentive for industry to participate in a collaborative process. The changing conditions in the Arctic and industry's interest in the region will continue to test the ability of a collaborative process to produce consensus-based results that provide systematic protections for the ecosystem while addressing social and economic interests in development. Because the CAA has been in place for 25 years, there are few other examples, if any, where the federal government has a better opportunity to support community-based decisionmaking.

This process, however, deserves a fair shot at working. NMFS is in the position to set the ground rules for how the process is structured and how the outcomes are used by the agency in making decisions under the MMPA. With a few modest and intentional changes to agency policy and/or regulation, NMFS has an opportunity over the next short period of time to improve upon the federal government's support for this collaborative model. The recommendations set forth here are all consistent with past agency practice, can be implemented by the agency without the need for additional statutory authorities, and will greatly improve how the community-based process is coordinated with the agency's regulatory operations. With those changes in place, the ultimate success of this unique collaborative model will rest upon its own merit and the efforts of the stakeholders who stand to benefit from the process.

RECENT DEVELOPMENTS

In the Congress

“In the Congress” entries cover activities reported in the *Congressional Record* from August 1, 2013, through August 31, 2013. Entries are arranged by bill number, with Senate bills listed first. “In the Congress” covers all environment-related bills that are introduced, reported out of committee, passed by either house, or signed by the president. “In the Congress” also covers all environmental treaties ratified by the Senate. This material is updated monthly. For archived materials, visit <http://elr.info/legislative/congressional-update/archive>.

Chamber Action

H.R. 267 (energy), which would improve hydropower, was passed by the Senate. 159 Cong. Rec. S6257 (daily ed. Aug. 1, 2013).

H.R. 678 (energy), which authorizes all Bureau of Reclamation conduit facilities for hydropower development under federal reclamation law, was passed by the Senate. 159 Cong. Rec. S6257 (daily ed. Aug. 1, 2013).

Bills Introduced

S. 1419 (Wyden, D-Or.) (energy) would promote research, development, and demonstration of marine and hydrokinetic renewable energy technologies. 159 Cong. Rec. S6206 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Natural Resources.

S. 1428 (Bennet, D-Colo.) (natural resources) would amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to provide for wildfire mitigation grants. 159 Cong. Rec. S6206 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Homeland Security and Governmental Affairs.

S. 1430 (Risch, R-Idaho) (natural resources) would authorize the continued use of certain water diversions located on National Forest System land in the Frank Church-River of No Return Wilderness and the Selway-Bitterroot Wil-

derness in the state of Idaho. 159 Cong. Rec. S6206 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Natural Resources.

S. 1432 (Hirono, D-Haw.) (natural resources) would direct the Secretary of the Interior to study the suitability and feasibility of designating portions of the Ka'u Coast in the state of Hawaii as a unit of the National Park System. 159 Cong. Rec. S6206 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Natural Resources.

S. 1441 (Bennet, D-Colo.) (water) would amend the Internal Revenue Code of 1986 to facilitate water leasing and water transfers to promote conservation and efficiency. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Finance.

S. 1443 (Udall, D-Colo.) (waste) would facilitate the remediation of abandoned hard-rock mines. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Environment and Public Works.

S. 1447 (Udall, D-N.M.) (water) would make technical corrections to certain Native American water rights settlements in the state of New Mexico. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Indian Affairs.

S. 1448 (Cantwell, D-Wash.) (energy) would provide for equitable compensation to the Spokane Tribe of Indians of the Spokane Reservation for the use of tribal land for the production of hy-

dropower by the Grand Coulee Dam. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Indian Affairs.

S. 1451 (Feinstein, D-Cal.) (natural resources) would provide for environmental restoration activities and forest management activities in the Lake Tahoe Basin, and amend Title 18 of the U.S. Code to prohibit the importation or shipment of quagga mussels. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Environment and Public Works.

S. 1463 (Boxer, D-Cal.) (wildlife) would amend the Lacey Act to prohibit importation, exportation, transportation, sale, receipt, acquisition, and purchase in interstate or foreign commerce, or in a manner substantially affecting interstate or foreign commerce, of any live animal of any prohibited wildlife species. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Environment and Public Works.

S. 1466 (Kirk, R-Ill.) (governance) would establish a regulatory review process for rules that the Administrator of EPA plans to propose. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Environment and Public Works.

S. 1470 (Kaine, D-Va.) (water) would amend the Federal Water Pollution Control Act with respect to the guidelines for specification of certain disposal sites for dredged or fill material. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to

the Committee on Environment and Public Works.

S. 1479 (Lee, R-Utah) (natural resources) would address the threat presented by the risk of wildfire on National Forest System land and public land managed by BLM by requiring the Secretary of Agriculture and the Secretary of the Interior to expedite forest management projects relating to hazardous fuels reduction, forest health, and economic development. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Natural Resources.

S. 1480 (Schumer, D-N.Y.) (natural resources) would amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to provide assistance for condominiums and housing cooperatives damaged by a major disaster. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Homeland Security and Governmental Affairs.

S. 1482 (Hoeven, R-N.D.) (governance) would provide for standards and requirements relating to certain guidelines and regulations relating to health and the environment. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Natural Resources.

S. 1483 (Cantwell, D-Wash.) (water) would amend the OPA to establish the Federal Oil Spill Research Committee and amend the Federal Water Pollution Control Act to include in a response plan certain planned and demonstrated investments in research relating to discharges of oil and to modify the dates by which a response plan must be updated. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Commerce, Science, and Transportation.

S. 1484 (Reid, D-Nev.) (land use) would provide for an exchange of land between the Secretary of Agriculture and the Sabine River Authority of Texas. 159 Cong. Rec. S6207 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Agriculture, Nutrition, and Forestry.

H.R. 2901 (Blumenauer, D-Or.) (water) would strengthen implementation of the Senator Paul Simon Water for the Poor Act of 2005 by improving the capacity of the U.S. government to implement, leverage, and monitor and evaluate programs to provide first-time or improved access to safe drinking water, sanitation, and hygiene. 159 Cong. Rec. H5341 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Foreign Affairs.

H.R. 2916 (Shuster, R-Pa.) (governance) would require congressional review of certain rules promulgated by EPA. 159 Cong. Rec. H5342 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Commerce.

H.R. 2935 (Fortenberry, R-Neb.) (governance) would establish more efficient and effective policies and processes for departments and agencies engaged in or providing support to international conservation. 159 Cong. Rec. H5342 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Foreign Affairs.

H.R. 2937 (Hurt, R-Va.) (water) would amend the Federal Water Pollution Control Act with respect to the guidelines for specification of certain disposal sites for dredged or fill material. 159 Cong. Rec. H5343 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Transportation and Infrastructure.

H.R. 2948 (Matheson, D-Utah) (governance) would require analyses of the cumulative and incremental impacts of certain rules and actions of EPA. 159 Cong. Rec. H5343 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Energy and Commerce.

H.R. 2954 (Miller, R-Mich.) (land use) would authorize Escambia County, Florida, to convey certain property that was formerly part of Santa Rosa Island National Monument and that was conveyed to Escambia County subject to restrictions on use and reconveyance. 159 Cong. Rec. H5343 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Natural Resources.

H.R. 2956 (Murphy, D-Fla.) (energy) would eliminate oil tax credits and subsidies to reduce the national debt. 159 Cong. Rec. H5343 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Ways and Means.

H.R. 2962 (Payne, D-N.J.) (energy) would provide for an independent assessment of the future resilience and reliability of the nation's electric power transmission and distribution system. 159 Cong. Rec. H5344 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Homeland Security.

H.R. 2970 (Tipton, R-Colo.) (waste) would facilitate the remediation of abandoned hard-rock mines. 159 Cong. Rec. H5344 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Transportation and Infrastructure.

H.R. 2973 (Tonko, D-N.Y.) (water) would authorize the Secretary of the Interior to carry out projects and conduct research on water resources in the Hudson-Mohawk River Basin, and to establish a Hudson-Mohawk River Basin Commission. 159 Cong. Rec. H5344 (daily ed. Aug. 1, 2013). The bill was referred to the Committee on Natural Resources.

H.R. 2983 (Schakowsky, D-Ill.) (water) would amend the SDWA to require testing of underground sources of drinking water in connection with hydraulic fracturing operations. 159 Cong. Rec. H5396 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Energy and Commerce.

H.R. 3006 (Calvert, R-Cal.) (land use) would authorize a land exchange involving the acquisition of private land adjacent to the Cibola National Wildlife Refuge in Arizona for inclusion in the refuge in exchange for certain BLM lands in Riverside County, California. 159 Cong. Rec. H5397 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Natural Resources.

H.R. 3008 (Capps, D-Cal.) (land use) would convey a small parcel of National Forest System land in Los Padres National Forest in California. 159 Cong. Rec. H5397 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Natural Resources.

H.R. 3017 (Cook, R-Cal.) (energy) would amend the Internal Revenue Code of 1986 to extend the energy credit for certain property under construction. 159 Cong. Rec. H5397 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Ways and Means.

H.R. 3022 (Fortenberry, R-Neb.) (land use) would amend the National Trails System Act to include national discovery trails, and designate the American Discovery Trail. 159 Cong. Rec. H5397 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Natural Resources.

H.R. 3023 (Gardner, R-Colo.) (water) would amend the Internal Revenue Code of 1986 to facilitate water leasing and water transfers to promote conservation and efficiency. 159 Cong. Rec. H5397 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Ways and Means.

H.R. 3033 (Latta, R-Ohio) (energy) would expand access to domestic energy resources. 159 Cong. Rec. H5398 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Natural Resources.

H.R. 3042 (Murphy, R-Pa.) (climate change) would prohibit the use of the social cost of carbon in any regulatory impact analysis until a federal law is enacted authorizing such use. 159 Cong. Rec. H5398 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Oversight and Government Reform.

H.R. 3044 (Nunnelee, R-Miss.) (land use) would approve the transfer of Yellow Creek Port properties in Iuka, Mississippi. 159 Cong. Rec. H5398 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Transportation and Infrastructure.

H.R. 3051 (Sanford, R-S.C.) (energy) would extend state jurisdiction over

submerged lands and allow states to grant oil and natural gas leases in the extended area. 159 Cong. Rec. H5398 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Judiciary.

H.R. 3057 (Tonko, D-N.Y.) (energy) would amend the Internal Revenue Code of 1986 to modify the credit for qualified fuel cell motor vehicles and allow the credit for certain off-highway vehicles. 159 Cong. Rec. H5399 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Ways and Means.

H.R. 3063 (Wittman, R-Va.) (wild-life) would amend the Magnuson-Stevens Fishery Conservation and Management Act to require the Secretary of Commerce to develop a plan to conduct stock assessments for all stocks of fish for which a fishery management plan is in effect under that Act. 159 Cong. Rec. H5399 (daily ed. Aug. 2, 2013). The bill was referred to the Committee on Natural Resources.

In the Courts

These entries summarize recent cases under the following categories: Air, Energy, Governance, Natural Resources, Waste, Water, and Wildlife. The entries are arranged alphabetically by case name within each category. This material is updated monthly. For archived materials, visit <http://elr.info/articles/news-analysis/cases-update/archive>.

AIR

Alaska Wilderness League v. United States Environmental Protection Agency, No. 12-71506, 43 ELR 20193 (9th Cir. Aug. 15, 2013). The Ninth Circuit upheld the dismissal of an environmental group's challenge to a CAA permit that allows an oil company to conduct "pollutant emitting activities" associated with a drilling vessel in the Beaufort Sea off Alaska's North Slope.

Bell v. Cheswick Generating Station, No. 12-4216, 43 ELR 20195 (3d Cir. Aug. 20, 2013). The Third Circuit held that the CAA does not preempt state law tort claims brought by private property owners against a source of pollution located within the state.

Doe Run Resources Corp. v. Environmental Protection Agency, No. 12-1345, 43 ELR 20189 (D.C. Cir. Aug. 12, 2013). The D.C. Circuit denied petitions challenging EPA's revised NESHAPs for primary lead processing operations.

National Ass'n of Clean Water Agencies v. Environmental Protection Agency, No. 11-1311, 43 ELR 20191 (D.C. Cir. Aug. 20, 2013). The D.C. Circuit remanded EPA's "maximum achievable control technology" standards for sewage sludge incinerators under CAA §129.

United States v. EME Homer City Generation, L.P., Nos. 11-4406 et al., 43 ELR 20194 (3d Cir. Aug. 21, 2013). The Third Circuit affirmed a lower court decision dismissing the U.S. government's lawsuit against the current and former owners of a coal-fired power plant in Indiana County, Pennsylvania, for alleged CAA violations that took place 15-20 years earlier.

ENERGY

Banks v. Heineman, No. S-12-723, 43 ELR 20175 (Neb. Aug. 2, 2013). The Supreme Court of Nebraska held that a 2010 state law that changed the manner in which wind energy generation facilities in Nebraska are taxed is constitutional.

Entergy Nuclear Vermont Yankee LLC v. Shumlin, Nos. 12-707-cv (L), 12-791-cv (XAP), 43 ELR 20201 (2d Cir. Aug. 14, 2013). The Second Circuit upheld a lower court's permanent injunction barring the state of Vermont from bringing an enforcement action, or taking other action, to compel the Vermont Yankee nuclear power plant to shut down after its license expires on March 21, 2012, if it fails to obtain legislative approval to continue operations pursuant to state law.

La Cuna de Aztlan Sacred Sites Protection Circle Advisory Committee v. United States Department of Interior, No. 11-cv-00400, 43 ELR 20200 (C.D. Cal. Aug. 16, 2013). A district court dismissed groups' lawsuit challenging BLM's approval of a 370-megawatt utility-scale solar power plant currently under construction in the Mojave Desert.

GOVERNANCE

Landmark Legal Foundation v. EPA, No. 12-1726, 43 ELR 20199 (D.D.C. Aug. 14, 2013). A district court held that a nonprofit law firm may conduct limited discovery in connection with its FOIA request for records regarding any EPA rule or regulation for which public notice has not been made, but which was contemplated or under consideration for public notice, between January 1, 2012, and August 17, 2012.

Powell v. Tosh, No. 5:09-CV-00121, 43 ELR 20186 (W.D. Ky. Aug. 2, 2013). A district court decertified a class of Kentucky residents who filed nuisance claims against a neighboring hog farm.

NATURAL RESOURCES

Montana Wilderness Ass'n v. Connell, Nos. 11-35818, -35821, 43 ELR 20173 (9th Cir. July 31, 2013). The Ninth Circuit held that BLM's resource management plan for the Upper Missouri River Breaks National Monument complied with NEPA and the Federal Land Policy and Management Act, but violated the National Historic Preservation Act.

Soda Mountain Wilderness Council v. Bureau of Land Management, No. 12-35844, 43 ELR 20176 (9th Cir. July 30, 2013). The Ninth Circuit, in an unpublished opinion, affirmed in part and reversed in part a lower court decision denying an environmental group's motion to preliminarily enjoin a BLM-approved timber sale.

WASTE

In re Aiken County, No. 1101271, 43 ELR 20190 (D.C. Cir. Aug. 13, 2013). The D.C. Circuit ordered NRC to resume processing of DOE's pending license application to store nuclear waste at Yucca Mountain.

Bernstein v. Bankert, Nos. 11-1501, -1523, 43 ELR 20185 (7th Cir. July 31, 2013). The Seventh Circuit held that the trustees of a fund established to finance and oversee the cleanup of a contaminated site near Zionsville, Indiana, may go forward with their lawsuit under CERCLA to recover cleanup costs from the former owners of the site.

Century Surety Co. v. DeLoach, No. 13-12-00072, 43 ELR 20184 (Tex. Ct.

App. Aug. 1, 2013). A Texas appellate court held that an insurance company has a duty to defend its insured in underlying lawsuits stemming from a sinkhole formed by the insured's waste disposal well operations.

Litgo New Jersey, Inc. v. New Jersey Department of Environmental Protection, Nos. 12-1288, -1418, 43 ELR 20188 (3d Cir. Aug. 6, 2013). The Third Circuit, in a case involving a contaminated site in New Jersey, affirmed in part and reversed in part a lower court decision finding the former owner of the site liable to the current owner under CERCLA, but not RCRA.

Phillips 66 Pipeline LLC v. Rogers Cartage Co., No. 11-cv-497, 43 ELR 20187 (S.D. Ill. Aug. 13, 2013). A district court held that a cartage company that leased a parcel of land in the 1960s may be held liable for response costs the property owner incurred at the site under CERCLA as an operator, transporter, or arranger, but not as an owner.

Shell Gulf of Mexico, Inc. v. Center for Biological Diversity, Inc., Nos. 3:12-CV-00048, -00010, 43 ELR 20182 (D. Alaska Aug. 5, 2013). A district court upheld DOI's approval of oil spill response plans an oil company submitted for drilling operations in the Chukchi and Beaufort Seas.

Sierra Club v. Solano, County of, Nos. A130682 et al., 43 ELR 20181 (Cal. Ct. App. 1st Dist. July 31, 2013). A California appellate court held that a newly enacted state law that prohibits counties from restricting or limiting the importation of solid waste into a privately owned facility in the county based on the waste's place of origin preempts a voter-approved 1984 initiative measure that severely restricts the amount of solid waste that can be imported into the county.

Trinity Industries, Inc. v. Chicago Bridge & Iron Co., No. 12-2059, 43 ELR 20198 (3d Cir. Aug. 20, 2013). The Third Circuit held that a PRP that

entered into a consent decree resolving its state-law liability with the commonwealth of Pennsylvania in connection with contamination at an industrial facility may seek contribution under CERCLA from a second PRP.

Vogenthaler v. Maryland Square LLC, Nos. 10-17520e et al., 43 ELR 20177 (9th Cir. July 26, 2013). The Ninth Circuit affirmed in part and reversed in part a lower court decision granting summary judgment in favor of homeowners and the Nevada Division of Environmental Protection in a CERCLA and RCRA case involving soil and groundwater contamination under a Las Vegas shopping center.

WATER

Hawkes Co. v. United States Army Corps of Engineers, No. 13-107, 43 ELR 20183 (D. Minn. Aug. 1, 2013). A district court dismissed a landowner's lawsuit challenging the U.S. Army Corps of Engineers' jurisdictional determination for property that contains peat.

Lemire v. State, No. 87703-3, 43 ELR 20196 (Sup. Ct. Wash. Aug. 15, 2013). The Supreme Court of Washington upheld an administrative order the state environmental agency issued to a farmer, directing him to take several steps to curb pollution of a creek that runs through his property.

National Ass'n of Home Builders v. United States Environmental Protection Agency, No. 13-0078, 43 ELR 20179 (D.D.C. July 26, 2013). A district court dismissed a homebuilder association's lawsuit against EPA and the U.S. Army Corps of Engineers challenging their determination that portions of the Santa Cruz River are traditional navigable waters under the CWA.

Natural Resources Defense Council, Inc. v. California Department of Public Health, No. RG12-643520, 43 ELR 20174 (Sup. Ct. Cal. July 26, 2013). A California court held that the California Department of Public Health must

adopt a final primary drinking water standard for hexavalent chromium.

Natural Resources Defense Council v. Los Angeles, County of, No. 10-56017, 43 ELR 20180 (9th Cir. Aug. 8, 2013). The Ninth Circuit, on remand from the U.S. Supreme Court, held that pollution exceedances detected at monitoring stations in Los Angeles County were sufficient to establish the county's liability for NPDES permit violations under the CWA.

Southern Appalachian Mountain Stewards v. A&P Coal Corp., No. 2:12CV00009, 43 ELR 20178 (W.D. Va. July 22, 2013). A district court held that a mining company is liable under the CWA for the unpermitted discharge of selenium at one of its surface mines.

Wisconsin Resources Protection Council v. Flambeau Mining Co., No. 12-2969, 43 ELR 20197 (7th Cir. Aug. 15, 2013). The Seventh Circuit reversed a lower court decision finding a Wisconsin mine operator liable under the CWA for discharging copper into navigable waters without a permit.

WILDLIFE

Conservation Force v. Jewell, No. 11-5316, 43 ELR 20192 (D.C. Cir. Aug. 20, 2013). The D.C. Circuit denied petitions to downlist the straight-horned markhor, a subspecies of wild goat found in Pakistan, from endangered to threatened.

Pyramid Lake Paiute Tribe of Indians v. Nevada, Nos. 11-16470 et al., 43 ELR 20172 (9th Cir. July 30, 2013). The Ninth Circuit affirmed a lower court decision vacating the Nevada state engineer's approval of the state wildlife agency's application to transfer water rights from agricultural land in the Newlands Reclamation Project to the Carson Lake and Pasture, a wetlands-containing wildlife refuge, in order to sustain habitat.

In the Federal Agencies

These entries cover the period August 1, 2013, through August 31, 2013. Citations are to the *Federal Register* (FR). Entries below are organized by Final Rules, Proposed Rules, and Notices. Within each section, entries are further subdivided by the subject matter area, with entries listed chronologically. This material is updated monthly. For archived material, visit <http://elr.info/daily-update/archives>.

FINAL RULES

AIR

EPA designated as nonattainment those areas that do not meet the 2010 primary sulfur dioxide NAAQS, which requires them to undertake certain planning and pollution control activities. 78 FR 47191 (8/5/13).

EPA finalized cellulosic biofuel volume and annual standards for cellulosic biofuel, biomass-based diesel, advanced biofuel, and renewable fuels that apply to all motor vehicle gasoline and diesel produced or imported in the year 2013. 78 FR 49793 (8/15/13).

EPA and the National Highway Traffic Safety Administration withdrew certain elements of the heavy-duty engine and vehicle and nonroad technical amendments of June 17, 2013, due to adverse comment. 78 FR 49963 (8/16/13).

EPA added trans 1-chloro-3,3,3-trifluoroprop-1-ene (also known as Solstice™ 1233zd(E)) to the list of compounds excluded from the definition of volatile organic compounds on the basis that this compound makes a negligible contribution to tropospheric ozone formation. 78 FR 53029 (8/28/13).

SIP Approvals: Alaska (carbon monoxide limited maintenance plan for the Fairbanks area) 78 FR 48611 (8/9/13). Arkansas (interstate transport requirements) 78 FR 53269 (8/29/13). California (new source review rules for agricultural sources in the San Joaquin Valley unified air pollution control district) 78 FR 46504 (8/1/13); (sulfur oxide emissions for the Antelope Valley air quality air management district and volatile organic compound emissions for the Ventura County air pollution

control district) 78 FR 49925 (8/16/13); (contingency measure requirements for the San Joaquin Valley) 78 FR 53038 (8/28/13); (nitrogen oxide emissions for the Placer County air pollution control district) 78 FR 53249 (8/29/13); (construction and modification permitting rules for the Sacramento metropolitan air quality management district) 78 FR 53270 (8/29/13); (volatile organic compound emissions from adhesives and sealants) 78 FR 53680 (8/30/13). Colorado (carbon monoxide NAAQS) 78 FR 46521 (8/1/13); (carbon monoxide NAAQS for the Greeley area) 78 FR 46816 (8/2/13). Florida (regional haze program) 78 FR 53250 (8/29/13). Iowa (update of air pollution rules for Polk County) 78 FR 52857 (8/27/13). Michigan (redesignation to attainment of the 1997 annual and 2006 24-hr. NAAQS for the Detroit-Ann Arbor nonattainment area and related proposals) 78 FR 53272 (8/29/13). Missouri (transportation conformity requirements) 78 FR 53247 (8/29/13). Nevada (extension of regional haze compliance date) 78 FR 53033 (8/28/13). Ohio (redesignation to attainment of the 1997 annual fine particulate matter NAAQS for the Parkersburg-Marietta and Wheeling, West Virginia-Ohio nonattainment areas and related actions) 78 FR 53275 (8/29/13). Oregon (infrastructure requirements for particulate matter and ozone NAAQS) 78 FR 46514 (8/1/13). Pennsylvania (update to materials incorporated by reference) 78 FR 46516 (8/1/13); (updated motor vehicle emissions budgets for the Lancaster maintenance area) 78 FR 48323 (8/8/13). Tennessee (PSD-related infrastructure requirements) 78 FR 48806 (8/12/13). Texas (maintenance plan for Victoria County) 78 FR 48318 (8/8/13). Wisconsin (exempting certain sources of air pollution from construction permit requirements) 78 FR 46520 (8/1/13). Wyoming (general conformity requirements) 78 FR 49685 (8/15/13).

SIP Disapprovals: Arizona (partial disapproval of regional haze program) 78 FR 48326 (8/8/13). Montana (infrastructure submissions regarding state boards) 78 FR 47572 (8/6/13). Utah (interstate transport submission) 78 FR 48615 (8/9/13).

TOXIC SUBSTANCES

EPA promulgated significant new use rules under TSCA for 53 chemical substances that were the subject of premanufacture notices. 78 FR 48051 (8/7/13).

WASTE

EPA amended its rules to allow use of American Society for Testing and Materials International's standards and practices when conducting inquiries under CERCLA. 78 FR 49690 (8/15/13).

WILDLIFE

FWS determined endangered status under the ESA for Gierisch mallow, a plant species found in Arizona and Utah. 78 FR 49149 (8/13/13).

FWS designated approximately 12,822 acres in Arizona and Utah as critical habitat for Gierisch mallow under the ESA. 78 FR 49165 (8/13/13).

FWS determined endangered status for the Austin blind salamander and threatened status for the Jollyville Plateau salamander under the ESA throughout their ranges. 78 FR 51277 (8/20/13).

FWS designated approximately 4,331 acres as critical habitat for the Jollyville Plateau salamander under the ESA and approximately 120 acres as critical

habitat for the Austin blind salamander, all in Travis and Williamson Counties, Texas. 78 FR 51327 (8/20/13).

FWS designated approximately 122.5 river miles in Kentucky and West Virginia as critical habitat for the diamond darter under the ESA. 78 FR 52363 (8/22/13).

FWS and NOAA-Fisheries finalized a revision to their regulations pertaining to economic impact analyses conducted for designations of critical habitat under the ESA. 78 FR 53058 (8/28/13).

PROPOSED RULES

AIR

SIP Proposals: Alaska (carbon monoxide limited maintenance plan for the Fairbanks area) 78 FR 48638 (8/9/13). Arizona (particulate matter emissions for Maricopa County) 78 FR 52485 (8/23/13). California (sulfur oxide emissions for the Antelope Valley air quality air management district and volatile organic compound emissions for the Ventura County air pollution control district) 78 FR 49992 (8/16/13); (contingency measure requirements for the San Joaquin Valley) 78 FR 53113 (8/28/13); (volatile organic compound emissions from adhesives and sealants) 78 FR 53711 (8/30/13). Colorado (carbon monoxide NAAQS) 78 FR 46552 (8/1/13); (carbon monoxide NAAQS for the Greeley area) 78 FR 46861 (8/2/13). Connecticut (visible and particulate matter emissions) 78 FR 49701 (8/15/13). Delaware (infrastructure requirements) 78 FR 49409 (8/14/13); (infrastructure requirements for the 8-hour ozone NAAQS) 78 FR 53709 (8/30/13). Idaho (state board requirements) 78 FR 46549 (8/1/13). Illinois (redesignation to attainment of the 1997 annual fine particulate matter NAAQS for the Chicago nonattainment area and related submissions) 78 FR 48103 (8/7/13). Indiana (infrastructure, PSD, and state board requirements) 78 FR 50360 (8/19/13). Iowa (update of air pollution rules for Polk County) 78 FR 52893 (8/27/13).

Maine (exemption from nitrogen oxide emissions control requirements and adjustment of new source review permitting requirements) 78 FR 47253 (8/5/13). Massachusetts (stationary sources of volatile organic compounds and nitrogen oxides) 78 FR 46552 (8/1/13). Michigan (rescission to avoid differing nonattainment rules) 78 FR 50369 (8/19/13). Missouri (transportation conformity requirements). 78 FR 53386 (8/29/13). New Mexico (PSD permitting program) 78 FR 52473 (8/23/13). Ohio (redesignation to attainment of the 1997 annual and 2006 24-hour fine particulate matter NAAQS for the Canton-Massillon nonattainment area and related submissions) 78 FR 48087 (8/7/13); (redesignation to attainment of the 1997 annual fine particulate matter NAAQS for the Columbus nonattainment area and related revisions). 78 FR 52733 (8/26/13). Oklahoma (regional haze and interstate transport revisions and withdrawal of federal implementation plan) 78 FR 51686 (8/21/13). Pennsylvania (updated motor vehicle emissions budgets for the Lancaster maintenance area) 78 FR 48373 (8/8/13); (attainment of the 2006 24-hour fine particulate matter NAAQS and motor vehicle emission budgets for the Pittsburgh-Beaver Valley nonattainment area) 78 FR 49403 (8/14/13). Tennessee (definition of "modification" in the Knox County regulations) 78 FR 49990 (8/16/13). Texas (maintenance plan for Victoria County). 78 FR 48373 (8/8/13). Utah (partial approval of revisions to Administrative Code and related rules) 78 FR 49400 (8/14/13); (partial approval of infrastructure and PSD submissions) 78 FR 52477 (8/23/13). Washington (limited maintenance plan for the Thurston County area and related regulatory updates) 78 FR 47259 (8/5/13).

ENERGY

The Bureau of Safety and Environmental Enforcement proposed to amend and update the regulations regarding oil and natural gas production on the outer continental shelf. 78 FR 52239 (8/22/13).

WASTE

EPA proposed to amend its rules to allow use of American Society for Testing and Materials International's standards and practices when conducting inquiries under CERCLA. 78 FR 49714 (8/15/13).

WATER

EPA Region 6 proposed to approve revisions to Louisiana's public water system supervision program. 78 FR 47697 (8/6/13).

WILDLIFE

FWS proposed to designate approximately 2,011 acres in northeastern California and northwestern Nevada as critical habitat for Webber's ivesia, a flowering plant in the rose family, under the ESA. 78 FR 46862 (8/2/13).

FWS proposed to designate critical habitat for Short's bladderpod, whorled sunflower, and fleshy-fruit gladdess under the ESA. 78 FR 47059 (8/2/13).

FWS proposed to list Short's bladderpod, whorled sunflower, and fleshy-fruit gladdess as endangered under the ESA. 78 FR 47109 (8/2/13).

FWS proposed to list the sharpnose and smalleye shiners from Texas as endangered under the ESA. 78 FR 47582 (8/6/13).

FWS proposed to list Graham's and White River beardtongues, two flowering plants, as threatened throughout their ranges under the ESA. 78 FR 47590 (8/6/13).

FWS proposed to designate approximately 1,002 river kilometers in Texas as critical habitat for the sharpnose and smalleye shiners under the ESA. 78 FR 47612 (8/6/13).

NOAA-Fisheries proposed to designate approximately 1,184.75 square miles of marine habitat in Puget Sound, Washington, as critical habitat for canary and bocaccio rockfish under the ESA and approximately 574.75 square miles of marine habitat for yelloweye rock-

fish, also in Puget Sound. 78 FR 47635 (8/6/13).

FWS proposed to designate approximately 14,914 acres as critical habitat for Graham's beardtongue under the ESA and approximately 14,914 acres for White River beardtongue, all in Colorado. 78 FR 47831 (8/6/13).

FWS proposed to designate approximately 8,283 acres as critical habitat for the Florida leafwing butterfly under the ESA and approximately 9,261 acres as critical habitat for the Bartram's scrub-hairstreak butterfly, all in Miami-Dade and Monroe Counties, Florida. 78 FR 49831 (8/15/13).

FWS proposed to list the Florida leafwing and Bartram's scrub-hairstreak butterflies as endangered under the ESA. 78 FR 49878 (8/15/13).

NOAA-Fisheries proposed to amend the regulations implementing the Harbor Porpoise Take Reduction Plan by eliminating the consequence closure strategy enacted in 2010. 78 FR 52753 (8/26/13).

FWS proposed to designate approximately 68,192 acres and 23.54 river miles in Oregon and Washington as critical habitat for the Oregon spotted frog under the ESA. 78 FR 53537 (8/29/13).

FWS proposed to list the Oregon spotted frog as threatened under the ESA. 78 FR 53581 (8/29/13).

NOTICES

AIR

EPA entered into a proposed consent decree in *Sierra Club v. Jackson*, No.1:12-cv-01237-ESH (D.D.C.), that establishes deadlines for the Agency to take final action on SIP submittals for nonattainment areas in Michigan and New Jersey. 78 FR 48161 (8/7/13).

EPA entered into a proposed settling agreement with a communications company to resolve CAA permit violations at 66 facilities in five states, CWA

spill prevention violations at facilities in two states, and various EPCRA violations at 78 facilities across the United States. 78 FR 49512 (8/14/13).

EPA entered into a proposed consent decree in *Bahr v. McCarthy*, No. 2:13-cv-00872 SMM (D. Ariz.), that establishes deadlines for the Agency to take action on a federal implementation plan. 78 FR 53143 (8/28/13).

CLIMATE CHANGE

USDA announced the availability of and seeks comment on a report containing methods for quantifying entity-scale greenhouse gas emissions and removals from the agriculture and forestry sectors. 78 FR 52898 (8/27/13).

TOXIC SUBSTANCES

The president issued Executive Order No. 13650 establishing the Chemical Facility Safety and Security Working Group to improve chemical risk management at all levels of government and the private sector. 78 FR 48029 (8/7/13).

EPA announced its reasons for denying a TSCA §21 petition that would have prohibited the use of hydrofluorosilicic acid as a water fluoridation agent. 78 FR 48845 (8/12/13).

WASTE

EPA entered into a proposed administrative settlement under CERCLA that requires the settling party to pay \$1,630,764, plus interest, in U.S. response costs incurred at the American Lead and Zinc Mill Superfund site near Ouray, Colorado. 78 FR 46948 (8/2/13).

EPA entered into a settlement agreement under CERCLA concerning the Ore Knob Mine Superfund site in Laurel Springs, North Carolina, that addresses U.S. costs incurred in conducting a fund lead removal. 78 FR 47317 (8/5/13).

EPA entered into a proposed administrative settlement that reaches a com-

promise with a settling CERCLA defendant over past and projected future oversight costs concerning the Carter Carburetor Superfund site in St. Louis, Missouri. 78 FR 48434 (8/8/13).

EPA entered into a proposed settlement under CERCLA that requires the settling party to pay \$175,000.00 in response costs incurred at the MassDOT Route 1 Right-of-Way Superfund site in Chelsea, Massachusetts, to pay 15% of any additional future response costs, and to provide reasonable access to the site to conduct related response actions. 78 FR 48868 (8/12/13).

EPA entered into a proposed administrative settlement agreement under CERCLA that requires the settling party to pay \$15,000 in U.S. response costs incurred at the Central Chemical Superfund site in Hagerstown, Maryland. 78 FR 52766 (8/26/13).

EPA entered into a proposed administrative settlement agreement under CERCLA that requires the settling party to pay \$2,500 in U.S. response costs incurred at the Central Chemical Superfund site in Hagerstown, Maryland. 78 FR 52767 (8/26/13).

WATER

EPA announced the availability of the 2011 Annual Effluent Guidelines Review Report and the Preliminary 2012 Effluent Guidelines Program Plan and seeks public comment. 78 FR 48159 (8/7/13).

EPA announced the availability of the final national recommended ambient water quality criteria for the protection of aquatic life from the effects of ammonia in freshwater. 78 FR 52192 (8/22/13).

WILDLIFE

FWS announced a 12-month finding on a petition to list the Soldier Meadow cinquefoil as endangered or threatened under the ESA; the agency found that listing is no longer warranted, however, listing Webber's ivesia as threatened was also proposed. 78 FR 46889 (8/2/13).

NOAA-Fisheries announced a 12-month finding on a petition to delist the Southern Resident killer whale distinct population segment under the ESA; the agency found that delisting is not warranted. 78 FR 47277 (8/5/13).

FWS announced a 12-month finding on a petition to list the rattlesnake-master borer moth as endangered or threatened under the ESA; the agency found that listing the species is warranted but precluded by higher priority actions. 78 FR 49422 (8/14/13).

NOAA-Fisheries announced a 90-day finding on a petition to identify and delist the North Pacific population of the humpback whale as a distinct population segment under the ESA; the agency found that the action may be warranted and initiated a status review. 78 FR 53391 (8/29/13).

DOJ NOTICES OF SETTLEMENT

United States v. Delta Fuels, Inc., No. 3:13-CV-00455 (N.D. Ohio July 31, 2013). Settling CWA, EPCRA, and OPA defendants responsible for the spill of 103,000 gallons of gasoline at their bulk petroleum storage and distribution facility in Toledo, Ohio, must pay the United States \$1,747,500, plus interest, in reimbursement; must pay \$582,500, plus interest, in civil penalties; and must conduct extensive injunctive relief to ensure environmental compliance. 78 FR 47411 (8/5/13).

United States v. Bentley Prince Street, Inc., No. 13-cv-05455-CBM-JC (C.D. Cal. July 29, 2013). A settling CERCLA defendant responsible for violations at the San Gabriel Valley Superfund site in Los Angeles County, California, must pay \$15,000 in U.S. response costs. 78 FR 48192 (8/7/13).

United States v. Wilmer, No. 11-cv-02244-RM-MJW (D. Colo. Aug. 1, 2013). A settling CERCLA defendant responsible for violations at the Cherokee Street Print Shop Wastes Superfund site in Denver, Colorado, must pay \$600 in U.S. response costs. 78 FR 48192 (8/7/13).

United States v. Chevron U.S.A. Inc., No. 2:13-cv-00721-EJF (D. Utah July 31, 2013). A settling CAA defendant responsible for violations at a petroleum refinery in Salt Lake City, Utah, must pay a \$384,000 civil penalty, including interest, and must install pollution controls to mitigate the harm caused by excess nitrogen oxide emissions. 78 FR 48462 (8/8/13).

United States v. E.I. duPont de Nemours & Co., No. 1:13-cv-00810-WMS (W.D.N.Y. Aug. 7, 2013). A settling CAA and EPCRA defendant responsible for violations at its facility in Tonawanda, New York, must pay a \$440,000 civil penalty and must perform certain injunctive relief. 78 FR 49289 (8/13/13).

United States v. Riccelli Enterprises, Inc., No. 5:13-cv-916 (GLS/DEP) (N.D.N.Y. Aug. 5, 2013). Settling CWA defendants that discharged pollutants into waters of the United States without a permit must pay a civil penalty and must restore and monitor the impacted areas. 78 FR 50110 (8/16/13).

United States v. Tacoma, Port of, No. 11-cv-05253-RJB (W.D. Wash. Aug. 5, 2013). Settling CWA defendants that discharged pollutants into waters of the United States without a permit must pay a civil penalty, must restore the impacted areas, and must perform mitigation. 78 FR 50111 (8/16/13).

United States v. BP Exploration & Oil Co., No. 2:96 CV 095 RL (N.D. Ind.

Aug. 14, 2013). Under a proposed ninth amendment to a consent decree, a settling CAA defendant responsible for violations at a petroleum refinery in Texas City, Texas, must pay \$950,000 in civil penalties; all other obligations will be transferred to another company who must perform injunctive relief to correct and to resolve the violations. 78 FR 50446 (8/19/13).

United States v. Lombard, No. 13-cv-02214 (PJS/SER) (D. Minn. Aug. 15, 2013). Settling Park System Resource Protection Act defendants responsible for unauthorized cutting of trees on NPS land in the Saint Croix National Scenic Riverway in Minnesota must pay a \$20,000 penalty for park system resource damages, assessment costs, and response costs and must provide NPS with access to their property for restoration purposes. 78 FR 52786 (8/26/13).

United States v. AK Steel Corp., No. 03-CV-00122-HRW (E.D. Ky. Aug. 21, 2013). A settling CAA defendant responsible for violations at its coke production facilities in Ashland, Kentucky, must pay a \$1,625,000 civil penalty to the United States and a \$25,000 civil penalty to Kentucky and must perform two supplemental environmental projects to reduce the emission of particulates at a cost of \$2 million. 78 FR 52971 (8/27/13).

United States v. Big West Oil, LLC, No. 1:13-cv-00121-BCW (D. Utah Aug. 23, 2013). A settling CAA defendant responsible for violations at its petroleum refinery in North Salt Lake, Utah, must pay a \$157,500 civil penalty to the United States and \$17,500 to Utah, must perform a \$253,000 supplemental environmental project to detect hydrofluoric acid levels, and must perform several other improvements and controls for leak detection. 78 FR 53479 (8/29/13).

In the State Agencies

The entries below cover state regulatory developments during the month of August 2013. The entries are arranged by state, and within each section, entries are further subdivided by subject matter. For material previously reported, visit <http://elr.info/administrative/state-updates/archive>.

ARKANSAS

AIR

The Pollution Control and Ecology Commission amended Regulation 19, State Implementation Plan for Air Pollution Control. Changes took effect July 27, 2013. *See* <http://www.sos.arkansas.gov/rulesRegs/Arkansas%20Register/2013/july13/0713.pdf> (p. 6).

TOXIC SUBSTANCES

The Pollution Control and Ecology Commission amended Regulation 25, Lead-Based Paint Activities. Changes took effect July 27, 2013. *See* <http://www.sos.arkansas.gov/rulesRegs/Arkansas%20Register/2013/july13/0713.pdf> (p. 6).

WASTE

The Pollution Control and Ecology Commission amended Regulation 30, Remedial Action Trust Fund/Hazardous Substances Site Priority List. Changes took effect July 20, 2013. *See* <http://www.sos.arkansas.gov/rulesRegs/Arkansas%20Register/2013/july13/0713.pdf> (p. 6).

CALIFORNIA

TOXIC SUBSTANCES

The Office of Environmental Health Hazard Assessment adopted a new reference exposure level for 1,3-butadiene. *See* <http://www.oal.ca.gov/res/docs/pdf/notice/30z-2013.pdf> (p. 1097).

DISTRICT OF COLUMBIA

TOXIC SUBSTANCES

The Department of the Environment amended 20 D.C. MUN. REGS. §§8 & 33 and 22 D.C. MUN. REGS. §B73. Changes add a new chapter, Regulation of Lead-Based Paint Activities, and alter the Childhood Lead Poisoning Prevention Program to conform to state and nationwide best practices. *See* <http://www.dcregs.dc.gov/Gateway/NoticeHome.aspx?noticeid=4480350>, <http://www.dcregs.dc.gov/Gateway/NoticeHome.aspx?noticeid=4463472>, and <http://www.dcregs.dc.gov/Gateway/NoticeHome.aspx?noticeid=4463569>.

ILLINOIS

AIR

The Pollution Control Board amended 35 ILL. ADMIN. CODE §243, Air Quality Standards. Changes incorporate amendments to federal rules and add corrections. The rulemaking took effect July 29, 2013. *See* http://www.cyberdriveillinois.com/departments/index/register/register_volume37_issue32.pdf (pp. 12882-921).

INDIANA

WASTE

The Department of Environmental Management added 329 IND. ADMIN. CODE 3.1, concerning temporary storage and management of spent lead acid

batteries. The rule provides requirements for the management of temporarily stored spent lead acid batteries, including transportation and storage by retailers, wholesalers, manufacturers, auto salvage yards, and other salvage facilities and reclamation facilities, to prevent releases of contaminants into the environment. The rule also regulates the intermittent storage of partially reclaimed spent lead acid batteries. The rulemaking took effect August 15, 2013. *See* <http://www.in.gov/legislative/iac/20130814-IR-329090365FRA.xml.html>.

KANSAS

WASTE

The Department of Health and Environment amended KAN. ADMIN. REGS. §28.29, relating to land spreading of drilling waste. Changes allow land spreading with the approval of the Kansas Corporation Commission. *See* http://www.kssos.org/pubs/register%5C2013%5CVol_32_No_31_August_1_2013_p_929-948.pdf (pp. 938-39).

LOUISIANA

WATER

The Department of Environmental Quality amended LA. ADMIN. CODE §43:XIX.118, Hydraulic Fracture Stimulation Operations. Changes implement legislation requiring operators to report the type and volume of hydraulic fracturing fluid within 20 days after completion. *See* <http://www.doa.la.gov/osr/reg/1307/1307.pdf> (pp. 1824-25).

MAINE

AIR

The Department of Environmental Protection added 06-096 ME. CODE REGS. Ch. 162, Control for Fiberglass Boat Manufacturing Materials. The rule would limit volatile organic compound emissions during the manufacture and repair of fiberglass boats. The rule took effect July 30, 2013. *See* <http://www.maine.gov/sos/cec/rules/notices/2013/080713.html>.

LAND USE

The Land Use Planning Commission amended 04-061 ME. CODE REGS. Ch. 10, Land Use Districts and Standards (Allowable Lot Coverage). Changes would increase the allowable lot coverage in certain development subdistricts. The amendment took effect August 5, 2013. *See* <http://www.maine.gov/sos/cec/rules/notices/2013/080713.html>.

MARYLAND

AIR

The Department of the Environment amended MD. CODE REGS. 26.11.02, Permits, Approvals, and Registration. Changes raise the annual base fee for large air pollution sources from \$200 to \$5,000 for sources requiring a Title V permit and from \$200 to \$500-1,000 for sources requiring a State Permit to Operate. In addition, changes clarify how fees are applied. Amendments took effect August 19, 2013. *See* <http://www.dsd.state.md.us/mdregister/4016.pdf> (p. 1345).

MASSACHUSETTS

CLIMATE CHANGE

The Department of Environmental Protection amended 310 MASS. CODE

REGS. §700, Amendments of Definitions and Applicability to Incorporate EPA's Tailoring Rule for Greenhouse Gases. Changes add definitions in Appendix C for carbon dioxide equivalent, greenhouse gas, and greenhouse gas mass basis. *See* <http://www.mass.gov/eea/agencies/massdep/air/regulations/310-cmr-7-00-air-pollution-control-regulation.html#3>.

MINNESOTA

WILDLIFE

The Department of Natural Resources amended MINN. R. 6134 to revise the list of endangered, threatened, and special concern species. *See* http://www.comm.media.state.mn.us/bookstore/stateregister/38_07.pdf (pp. 217-19).

MONTANA

WASTE

The Department of Environmental Quality amended MONT. ADMIN. R. 17.50.301, pertaining to the state solid waste management and resource recovery plan. Changes incorporate the 2012 plan. *See* <http://sos.mt.gov/arm/Register/archives/MAR2013/MAR13-15.pdf> (pp. 1439-41).

NEVADA

ENERGY

The Office of Energy proposed to amend NEV. ADMIN. CODE §701. Changes alter the definition of "construction of the facility." *See* <http://www.leg.state.nv.us/register/2013Register/R065-13I.pdf>.

NEW HAMPSHIRE

WATER

The Department of Environmental Services amended Env-Wq 305, Standards for Pretreatment of Industrial Wastewater. Changes would readopt the rules with revisions to sections relating to infectious waste and municipal sewer use ordinances. The amendments took effect August 1, 2013. *See* <http://www.gencourt.state.nh.us/rules/register/2013/august-8-13.pdf> (p. 20).

NEW MEXICO

AIR

The Environmental Improvement Board proposed to amend N.M. ADMIN. CODE §20.2, Conformity of General Federal Action to the State Implementation Plan. Changes would revise New Mexico's SIP. There will be a public hearing October 8, 2013. *See* <http://www.nmcpr.state.nm.us/nmregister/xxiv/xxiv14/EIBnotice.htm>.

TENNESSEE

WASTE

The Environment and Conservation Agency amended TENN. ADMIN. CODE §§0400.12.01, Hazardous Waste Management. Changes allow state regulations to maintain consistency with federal rules. The rulemaking takes effect November 5, 2013. *See* http://www.tn.gov/sos/rules_filings/08-09-13.pdf.

TEXAS

AIR

The Commission on Environmental Quality amended 30 TEX. ADMIN. CODE §113, Standards of Performance

for Hazardous Air Pollutants and for Designated Facilities and Pollutants. Changes incorporate changes to federal regulations. *See* <http://www.sos.state.tx.us/texreg/pdf/backview/0816/0816is.pdf> (pp. 5309-11).

ENERGY

The Commission on Environmental Quality amended 30 TEX. ADMIN. CODE §106.359, Permits by Rule. Changes add a permit to authorize emissions from planned maintenance, startup, and shutdown activities and facilities at oil and gas-handling and production facilities. *See* <http://www.sos.state.tx.us/texreg/pdf/backview/0816/0816is.pdf> (pp. 5271-308).

VIRGINIA

AIR

The Department of Environmental Quality proposed to amend 9 VA. ADMIN. CODE §5.91, Regulations for the

Control of Motor Vehicle Emissions in the Northern Virginia Area. Amendments would conform vehicle inspection regulations to state law. Changes took effect August 28, 2013. *See* <http://register.dls.virginia.gov/details.aspx?id=3691>.

The Air Pollution Control Board amended 9 VA. ADMIN. CODE §5.20, General Provisions, & .40, Existing Stationary Sources. Amendments adopt revised EPA regulations by reference. Changes took effect August 28, 2013. *See* <http://register.dls.virginia.gov/details.aspx?id=3688> and <http://register.dls.virginia.gov/details.aspx?id=3689>.

ENERGY

The Department of Environmental Quality amended 9 VA. ADMIN. CODE §15.70, Small Renewable Energy Projects. The rule implements 2009 state legislation requiring the department to develop a permit for renewable energy projects smaller than 20 megawatts. Changes took effect August 28, 2013. *See* <http://register.dls.virginia.gov/details.aspx?id=3692>.

WATER

The State Water Control Board amended 9 VA. ADMIN. CODE §§25.20, 25.31, & 25.32, Fees for Permits and Certificates. Changes affect Water Division permit application fees and biosolids land applications. Changes took effect September 1, 2013. *See* <http://register.dls.virginia.gov/details.aspx?id=3697>, <http://register.dls.virginia.gov/details.aspx?id=3698>, and <http://register.dls.virginia.gov/details.aspx?id=3699>.

WEST VIRGINIA

AIR

The Department of Environmental Protection amended W. VA. ADMIN. CODE §45, pertaining to air quality standards. *See* <http://apps.sos.wv.gov/adlaw/csr/ruleview.aspx?document=9080> and <http://apps.sos.wv.gov/adlaw/csr/ruleview.aspx?document=8695>.

RECENT JOURNAL LITERATURE

“Recent Journal Literature” lists recently published law review and other legal periodical articles. Within subject-matter categories, entries are listed alphabetically by author or title. Articles are listed first, followed by comments, notes, symposia, surveys, and bibliographies.

Air

Kendall, Keith, *Carbon Taxes and the WTO: A Carbon Charge Without Trade Concerns?*, 29 ARIZ. J. INT’L & COMP. L. 49 (2012).

Climate Change

Coplan, Karl S., *Climate Change, Political Truth, and the Marketplace of Ideas*, 2012 UTAH L. REV. 545 (2012).

Cucchi, Daniel S., *Quantifying an Uncertain Future: The Demands of the California Environmental Quality Act and the Challenge of Climate Change Analysis*, 43 MCGEORGE L. REV. 1065 (2012).

Thaler, Jeffrey, *Fiddling as the World Floods and Burns: How Climate Change Urgently Requires a Paradigm Shift in the Permitting of Renewable Energy Projects*, 42 ENVTL. L. 1101 (2012).

Energy

Blumm, Michael C. & Andrew B. Erickson, *Dam Removal in the Pacific Northwest: Lessons for the Nation*, 42 ENVTL. L. 1043 (2012).

Eichner, Andrew W., *More Precious Than Gold: Limited Access to Rare Elements and Implications for Clean Energy in the United States*, 2012 U. ILL. J.L. TECH. & POL’Y 257 (2012).

Freilich, Robert H. & Neil M. Popowitz, *Oil and Gas Fracking: State and Federal Regulation Does Not Preempt Needed Local Government Regulation—Examining the Santa Fe Oil and Gas Plan and Ordinance as a Model*, 44 URB. LAW. 533 (2012).

Keller, Kaleb, *LEEDing in the Wrong Direction: Addressing Concerns With Today’s Green Building Policy*, 85 S. CAL. L. REV. 1377 (2012).

Kleeger, Jeffrey, *Kelo’s Influence on Keystone Pipeline Asks “Where’s the Public Purpose?”*, 44 URB. LAW. 719 (2012).

Konopacky, Jamie, *Refueling Biofuel Legislation: Incorporating Social Sustainability Principles to Protect Land Rights*, 30 WIS. INT’L L.J. 401 (2012).

Michel, Eric, *Discrimination in the Marcellus Shale: The Dormant Commerce Clause and Hydraulic Fracturing Waste Disposal*, 88 CHI.-KENT L. REV. 213 (2012).

Nolon, John R. & Victoria Polidoro, *Hydrofracking: Disturbances Both Geological and Political: Who Decides?*, 44 URB. LAW. 507 (2012).

Peat, Daniel, *The Perfect FIT: Lessons for Renewable Energy Subsidies in the World Trade Organization*, 1 LSU J. ENERGY L. & RESOURCES 43 (2012).

Proctor, Jason A., *The Legality of Drilling Sideways: Horizontal Drilling and Its Future in West Virginia*, 115 W. VA. L. REV. 491 (2012).

Ruhl, J.B., *Harmonizing Commercial Wind Power and the Endangered Species Act Through Administrative Reform*, 65 VAND. L. REV. 1769 (2012).

Sassman, Wyatt, *The Grass Is Always Greener: Keystone XL, Transboundary Harms, and Guidelines for Cooperative Environmental-Impact Assessment*, 45 VAND. J. TRANSNAT’L L. 1489 (2012).

Tanus, Trisna, *Oil Development in ANWR: The Precautionary Principle Is Compatible With the Fish and Wildlife Service’s Statutory Mandate*, 2 WASH. J. ENVTL. L. & POL’Y 330 (2012).

Willers, Heidi, *Grounding the Cape Wind Project: How the FAA Played Into the Hands of Wind Farm Opponents and What We Can Learn From It*, 77 J. AIR L. & COM. 605 (2012).

Symposium, *Fourth Annual Energy Law Symposium*, 19 TEX. WESLEYAN L. REV. 1 (2012).

Symposium, *Hydrofracking: Exploring the Legal Issues in the Context of Politics, Science, and the Economy*, 19 BUFF. ENVTL. L.J. 1 (2011-2012).

Symposium, *Supply and Demand: Barriers to a New Energy Future*, 65 VAND. L. REV. 1447 (2012).

Governance

Alexander, S. Rheagan, *Tribal Consultation for Large-Scale Projects: The National Historic Preservation Act and Regulatory Review*, 32 PACE L. REV. 895 (2012).

Baker, Betsy, *From the Gulf of Mexico to the Beaufort Sea: Inuit Involvement in Offshore Oil and Gas Decisions in Alaska and the Western Canadian Arctic*, 43 ELR 10925 (Oct. 2013).

Boyle, Alan, *Human Rights and the Environment: Where Next?*, 23 EUR. J. INT’L L. 613 (2012).

Eichbaum, William M., *Arctic Stewardship: The Evolution of a New Model for International Governance*, 43 ELR 10863 (Oct. 2013).

Gullo, Benedict S., *The Illegal Discharge of Oil on the High Seas: The U.S. Coast Guard’s Ongoing Battle Against Vessel Polluters and a New Approach Toward Establishing Environmental Compliance*, 209 MIL. L. REV. 122 (2011).

- Rønholt, Kirsten, *Where the Wild Things Were: A Chance to Keep Alaska's Challenge of the Roadless Rule Out of the Supreme Court*, 29 ALASKA L. REV. 237 (2012).
- Stotts, Jim, *The Inuit Future: Food Security, Economic Development, and U.S. Arctic Policy*, 43 ELR 10869 (Oct. 2013).
- Swanson, Greta et al., *Understanding the Government-to-Government Consultation Framework for Agency Activities That Affect Marine Natural Resources in the U.S. Arctic*, 43 ELR 10872 (Oct. 2013).
- Symposium, *Sackett v. U.S. Environmental Protection Agency*, 42 ENVTL. L. 991 (2012).

Land Use

- Adam, Kevin C., *Shooting the Messenger: A Common-Sense Analysis of State "Ag-Gag" Legislation Under the First Amendment*, 45 SUFFOLK U. L. REV. 1129 (2012).
- Bush, Brittan J., *A New Regionalist Perspective on Land Use and Environment*, 56 HOW. L.J. 207 (2012).
- Fox, Sarah, *CERCLA, Institutional Controls, and the Legacy of Urban Industrial Use*, 42 ENVTL. L. 1211 (2012).
- Hughes, Layla et al., *Arctic Marine Subsistence Use Mapping: Tools for Communities*, 43 ELR 10909 (Oct. 2013).
- Lane, Eric L., *Building the Global Green Patent Highway: A Proposal for International Harmonization of Green Technology Fast Track Programs*, 27 BERKELEY TECH. L.J. 1119 (2012).

Natural Resources

- Blumm, Michael C. & Keith Mosman, *The Overlooked Role of the National Environmental Policy Act in Protecting the Western Environment: NEPA in the Ninth Circuit*, 2 WASH. J. ENVTL. L. & POL'Y 193 (2012).
- Coleman, Mele N., *A Critical Discussion of Critical Habitat Designations: Is Compliance With the National Environmental Policy Act Required?*, 42 ENVTL. L. 1339 (2012).
- Lawry, Charles A. et al., *Redefining Beauty: Negotiating Consumption and Conservation of Natural Environments*, 33 HAMLINE J. PUB. L. & POL'Y 363 (2012).
- Regele, Adam, *Forest Offsets and AB32: Ensuring Flexible Mechanisms Are Firm*, 19 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 163 (2013).

Toxic Substances

- Leiterman, Barbara, *Could You Repeat That Please? Forty-Five Years of Pesticide Experiments on People*, 19 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 195 (2013).

Waste

- Korb, Blake, *Holding Our Breath: Waiting for the Federal Government to Recognize Coal Ash as a Hazardous Waste*, 45 J. MARSHALL L. REV. 1177 (2012).

Water

- Bonells, Marcela, *Private Nature Reserves: An Innovative Wetland Protection Mechanism to Fill in the Gaps Left by the SWANCC and Rapanos Rulings*, 36 ENVIRONS 1 (2012).
- Houck, Oliver A., *Louisiana v. Lee and the Battle of Lake Pontchartrain*, 26 TUL. ENVTL. L.J. 1 (2012).
- Langridge, Ruth, *Drought and Groundwater: Legal Hurdles to Establishing Groundwater Drought Reserves in California*, 36 ENVIRONS 91 (2012).
- Lefevre, Jessica S., *A Pioneering Effort in the Design of Process and Law Supporting Integrated Arctic Ocean Management*, 43 ELR 10893 (Oct. 2013).
- Proelss, Alexander & Chang Hong, *Ocean Upwelling and International Law*, 43 OCEAN DEV. & INT'L L. 371 (2012).
- Robison, Jason A. & Douglas S. Kenney, *Equity and the Colorado River Compact*, 42 ENVTL. L. 1157 (2012).
- Symposium, *Coastal Land Loss in the Gulf Coast and Beyond*, 73 LA. L. REV. 1 (2012).

Wildlife

- Winter, Christopher G., *Collaborative Decisionmaking in the Arctic Under the Marine Mammal Protection Act and a Proposal for Enhanced Support From the Federal Government*, 43 ELR 10938 (Oct. 2013).

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By Lawrence R. Liebesman and Rafe Petersen

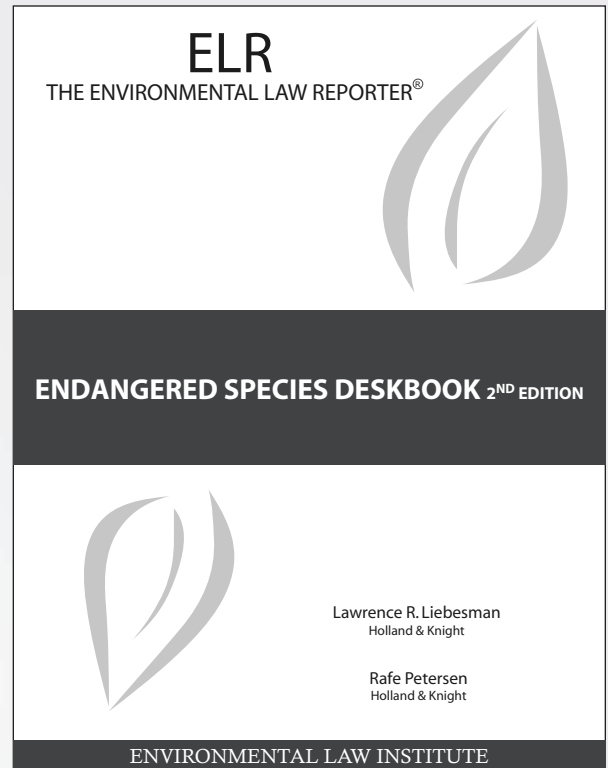
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Lawrence R. Liebesman, partner with the law firm of Holland & Knight, has more than thirty years experience as an environmental attorney and litigator. He is a frequent author and lecturer on environmental topics and has participated in landmark Supreme Court cases under the Clean Water and Endangered Species Acts. **Rafe Petersen**, also a partner with Holland & Knight, primarily practices in the area of environmental compliance and litigation, with an emphasis on the Clean Water Act, the Endangered Species Act, the National Environmental Policy Act and resource issues.



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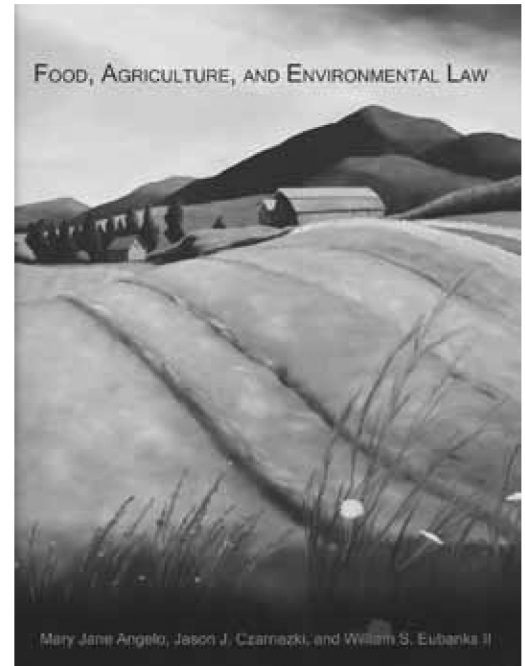
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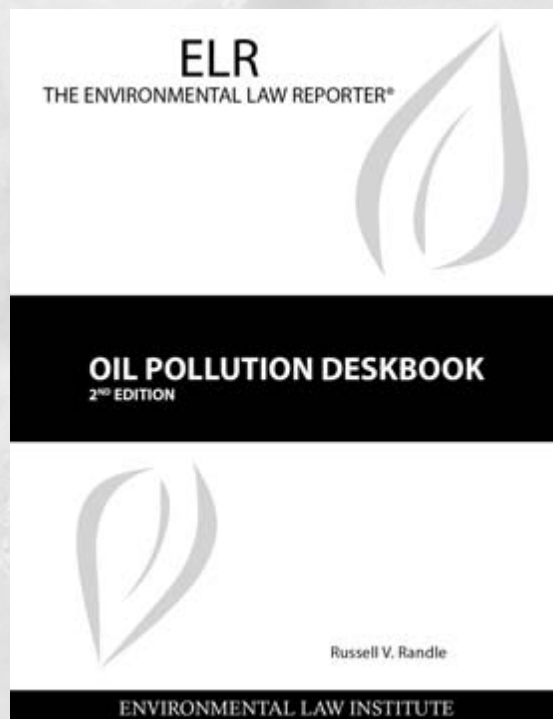
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About the Author

Russell V. Randle has practiced, published, and taught about most aspects of environmental law since 1981, during which time he has served as chair of Patton Boggs LLP's environmental group, Year-in-Review Vice-Chair of the American Bar Association's (ABA's) Superfund Committee (part of the ABA's Section on Environment, Energy, and Resources), and author of numerous articles on environmental issues, including several about the 2010 *Deepwater Horizon* disaster. Russ graduated from Princeton University, magna cum laude, in 1977; from Yale Law School in 1980, where he was an editor on the Yale Law Journal; and clerked for U.S. District Judge John H. Pratt (1980-81).



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