

Environmental Program

Native Village of Kotzebue

The Native Village of Kotzebue is the tribal government for the Iñupiaq people of Kotzebue, Alaska. Located on the coast in northwest Alaska, 30 miles north of the Arctic Circle, Kotzebue often hosts research teams eager to study the region's ecology. For years, researchers lacked accountability to the local people; they did not consider them as equal partners in research and rarely credited the Indigenous knowledge shared. In the late 1990s, the Village government launched its Environmental Program to advance science-based research, driven by tribal priorities and rooted in long-held Iñupiaq values. Through this approach, the tribe is now a full research partner in the majority of projects concerning its land and waters, benefiting its citizens, and producing Best Available Science through the integration of Indigenous knowledge with western science.

TRIBAL CONCERNS IGNORED

The Native Village of Kotzebue's tribal government serves 3,300 tribal citizens living in Kotzebue and in the surrounding Qikiqtaġruṅmiut (people of Kotzebue) homeland. The community is located on the Kotzebue Sound, a bay of the Chukchi Sea, and is accessible only by air or water. The community of Kotzebue is a regional center and has a long history as a trading hub for nearby settlements. As they have for thousands of years, tribal citizens depend on the area's fish, marine mammals, wildlife, berries, and plants for their cultural, nutritional, and spiritual needs.

Researchers investigating everything from archaeology to marine mammals have long used Kotzebue as a base for operations. For years, their practices were problematic—rarely would they contact the tribe to discuss the purpose or scope of their activities. Some researchers would invite community members to participate in projects without providing adequate compensation. Others would fail to give credit to tribal citizens who provided key information or played significant roles in

research projects. Once researchers left the community, most would not inform the tribe of their progress or results, even though their findings were of interest and relevant to the tribal citizens and wholly, or in part, based on local Indigenous knowledge.

Policymaking by outside governments' raised another set of concerns. State and federal policies related to the Kotzebue Sound were made without adequate tribal consultation. In addition, conservation strategies did not accommodate traditional uses and practices, interfering with subsistence activities and alienating the tribe.

By the late 1990s, concerns about new threats to the vitality of the Sound—including, shipping activity, oil exploration, and climate change—rose to the fore. The need to address researchers' and governments' problematic practices, and to protect the tribe's natural resources, had become a priority for the Village. The tribal council resolved to take action.

HONORING NATIONS

ENVIRONMENTAL LEADERSHIP

In 1997, the Native Village of Kotzebue used funding from the US Environmental Protection Agency's Indian General Assistance Program to initiate an environmental presence, which has developed into a robust Environmental Program with the mission of increasing the tribe's influence over regional environmental policy.

In order to ground its work in tribal priorities, the Environmental Program's first action was to conduct a tribal citizen survey. The dominant theme emerging from survey responses was the need to preserve the health of Kotzebue Sound. More specific community concerns emerged relating to improving water quality, reducing contaminants, and protecting marine life. Guided by this feedback, the Program developed a Tribal Environmental Action Plan, which is updated as new concerns and priorities arise.

The tribe regularly publicizes its activities and progress through presentations at local gatherings, community newsletters, and even through posters designed to hang on doors in fish camps. The Program also actively informs universities, federal and state agencies, and non-governmental organizations of its environmental priorities and uses the Action Plan to guide and coordinate their efforts in the region.

A second key aspect of the tribe's Environmental Program is a research protocol that governs scientific activity in the region. This protocol, adopted by Tribal Ordinance in 1999, requires all third-party researchers to submit a formal request to the Native Village of Kotzebue before undertaking projects that use tribal resources or is conducted with tribal citizens. The tribe reviews all proposed research efforts to





assess the value and relevance to tribal priorities and provides feedback to the researchers. For projects meeting the approval of the tribe, the Environmental Program works collaboratively with the researchers to identify opportunities for tribal citizen involvement. Importantly, the protocol stipulates that the data and research conclusions be shared in non-technical language with the tribe and ensures that tribal citizens are properly credited for their contributions in all published materials, including peer-reviewed journals.

Since the launch of the Environmental Program, the tribe has participated in more than 30 major research and environmental projects with a wide range of partners.

A core team of tribal citizens work on most projects and over 120 community members have participated in research efforts. The Program has secured over \$4.7 million in external funding through awards and grants. Research participation has become a significant economic force in the community, supplementing the income of elders and other tribal citizens. Most importantly, the Environmental Program has caused a paradigm shift by promoting an Indigenous-western science collaborative approach to research, thereby making it standard practice for university researchers, federal agencies, the state of Alaska, and companies to work with the Village on environmental issues and scientific research.

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RECOGNIZING INDIGENOUS KNOWLEDGE

The Native Village of Kotzebue has taken a significant leadership role in resource management. The Environmental Action Plan has proven to be a particularly powerful tool for creating valuable partnerships for addressing issues of importance to the tribe. As a result, the Environmental Program is involved in a wide variety of initiatives, from working with the local government to reducing sewage discharge into Kotzebue Sound to coordinating the cleanup of an open dump site. The program also worked with the state of Alaska to make seal oil safe from foodborne pathogens so that this well-loved traditional food staple can be served to elders in Medicare/Medicaid-certified care facilities. The tribe also uses its Action Plan to leverage funding for its environmental priorities from government agencies and major multinationals. For example, the Environmental Program received a National Park Service grant to document elders' observations about environmental changes, which contributed to the 2005 Arctic Climate Impact Assessment and support from the Selawik National Wildlife Refuge to monitor the health of the Western Arctic Caribou Herd. Similarly, when Shell Oil Company launched a research funding program in parallel with its exploration work in the Chukchi Sea, the tribe responded quickly with the implementation of a number of Kotzebue Sound ecological and physical research projects from its Plan-based wish list. In other words, the Environmental Program helps the tribe identify relevant projects, recruits willing partners, and secures funding—giving it real choice over the environmental research conducted on its waters and lands.

The Environmental Program has also changed the way its citizens' Indigenous knowledge is recognized in scientific research. Indigenous knowledge is now a key component of all the research carried out and the tribal citizens holding this knowledge are formally acknowledged and compensated for the expertise they contribute. Before the tribe put its research protocol in place, project investigators had a tendency to dismiss Indigenous knowledge as anecdotal and unreliable. Yet as the tribe's Environmental Director points out, tribal citizens' unique perspectives provide "more depth, nuance, and cultural relevance, resulting in otherwise unobtainable research findings." In one noteworthy example, the tribe collaborated



with the Alaska Department of Fish and Game and the National Marine Mammal Lab to better understand the habitat use and seasonal movement of ringed and bearded seals. This ten-year project broke new ground by permitting tribal citizen researchers to undertake fieldwork in the absence of a supervising scientist. This resulted in the first ever successful capture, satellite tagging, and release of bearded seals. Many of the research results reinforce environmental observations made by tribal citizens, ensuring that Indigenous knowledge is transmitted to scientists and to younger generations. Commenting on the seal behavior research program, two of the elders involved noted that the project's conclusions on site fidelity

“proved what we knew. The seals always go back to where they were born.” The tribe's research protocol underlines the prominent and credible role of tribal citizens by requiring that these knowledge keepers be recognized as equal partners.

Guided by the Action Plan and research expertise, the tribe is in a strong position to advocate for its interests with federal agencies, the state of Alaska, and multinational corporations. The tribe monitors development and management proposals from other entities and actively participates in inter-governmental initiatives such as the Kotzebue Sound Fish and Game Advisory Committee. Former Tribal Chairman Pete Schaeffer explains, “Banging mukluks on the table didn't get us anywhere. Now we have a voice and respect.” The Environmental Director works closely with regulators to adjust wildlife management plans to accommodate tribal needs and resolve conflicts. For example, the tribe successfully pushed for a tribal citizen musk-oxen hunt on federal land and for rule changes to permit the use of snowmobiles for caribou, wolf, and wolverine hunting. Through their ongoing cooperation with the tribe, researchers and policy makers increasingly appreciate that Indigenous knowledge is a crucial element in obtaining and documenting the Best Available Science for species conservation and resource management. Once research results are published in peer-reviewed journals, tribal wisdom becomes part of the scientific record, which is then used as evidence to issue permits, determine mitigation requirements, and make future policy decisions. Traditional values are integrated into the process of shaping environmental protection measures in the region, leading to more informed strategies and better actions.



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LESSONS

Tribal citizens have managed the land and resources in the Kotzebue Sound area since time immemorial. Through its Environmental Program, the Native Village of Kotzebue works in partnership with other governments to address important concerns using tribal perspectives and experience. The community enriches research results by cooperating with scientists from all over the world. As the tribe combines ancient knowledge with new technology and the latest scientific research methods, it is reasserting its ability to preserve the natural environment and the Qikiqtagruṃmiut way of life.



When a tribe exercises authority over environmental research, it helps ensure that its natural resources are managed in ways that align with tribal values and that tribal priorities are addressed in research plans.



Training community members to conduct world-class research can support the tribal economy and solidify the nation's leadership on a host of policy and regulatory issues.



When Indigenous knowledge is recognized as valid and credible evidence, it informs both better decisions and better policy making, while building bridges between western managers and tribal citizens.