

# **Nelson Lagoon GRS Project**

**April 27, 2004  
10:00 AM to Noon  
2<sup>th</sup> Floor USGS Conference Room  
USFW  
Tutor Road  
Anchorage, AK 99501  
(907) 271-1467**

## **Purpose of Meeting:**

To review the Geographic Response Strategy (GRS) process with fish and wildlife professionals and discuss the specific resources to be protected at Nelson Lagoon. It is important for spill planners/responders to understand the habitat and biology of the wildlife to be protected and it is important for wildlife professionals to understand the limitations of spill response technology in protecting wildlife.

The outcomes for this meeting should be a list of resources to be protected at this site and an understanding of the best spill response tactics to protect them. The scope of the GRS site should also be defined.

Attendees: USFW, Nuka Research, Village of Nelson Lagoon

## **Agenda**

<b>10:00 am</b>	<b>Welcome, Opening Comments and Introductions .....</b> Ellen Lance, USFW
	<b>Review of Project Objectives and Scope of Work.....</b> Tim Robertson, Nuka Research
	<b>Review of Wildlife Resources at Risk (Location, Habitat, Habits).....</b> attendees
	<b>Review of Spill Risks and Environmental Factors at Nelson Lagoon .....</b> attendees
	<b>Review of Spill Response Tactics used in GRS.....</b> Tim Robertson
	<b>Discuss Spatial and Temporal Scope of Nelson Lagoon GRS Site.....</b> attendees
	<b>Review Project Timeline.....</b> Tim Robertson
	<b>Identification of Action Items .....</b> Tim Robertson
<b>12:00 pm</b>	<b>Adjourn</b>

## **Workgroup Website:**

<http://www.state.ak.us/dec/spar/perp/grs/ai/home.htm>

Contact person for additional information: Tim Robertson, [Tim@nukaresearch.com](mailto:Tim@nukaresearch.com), 907 234-7821

# Development of a Geographic Response Strategy for Nelson Lagoon, Alaska

## **A. Statement of Purpose:**

Nelson Lagoon Native Corporation proposes to develop a Geographic Response Strategy (GRS) for Nelson Lagoon, Alaska Peninsula, Alaska. A GRS is a site-specific response plan, tailored to protect sensitive areas when threatened by an oil spill. The Nelson Lagoon Village Council has recently been involved in a section 7 consultation with the U.S. Fish and Wildlife Service (Service), Denali Commission and Bureau of Indian Affairs (BIA), regarding the proposed upgrades and expansion of the bulk fuel facility in the village of Nelson Lagoon. Nelson Lagoon has been designated as Critical Habitat for the threatened Steller's eider (*Polysticta stelleri*) under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq: 87 stat 884, as amended) (Act). Here, the species molts, stages, and winters in the rich, shallow waters. To minimize the risk to the species resulting from nearshore development, the Service has determined that the development of a GRS is necessary in order to meet the requirements set forth in Section 7(a)2 of the Act.

## **B. Problem/Needs Statement:**

The village of Nelson Lagoon is located on a narrow spit of land between the lagoon for which it is named and the Bering Sea. At only 16 feet above sea level, the village, which was incorporated in 1962, is primarily a fishing and subsistence community. Currently the 83 residents comprise the mostly seasonal population, but growth projections suggest the community will increase by approximately 20% in the next 10 years. Nelson Lagoon was historically an Unangan summer fish camp. A salmon saltery, which attracted Scandinavian fisherman, was operated from 1906 to 1917. In 1965, a school was build and the community began to be occupied year round. The local community is governed by the Nelson Lagoon Tribal Council, and most of the land in the immediate area is owned by the Nelson Lagoon Native Corporation. Recent improvements to the village, such as reconstruction of water storage facility and upgrades to the bulk fuel facility will facilitate projected growth including an Aleutian Pribilof Island Community Development Association (APICDA) multi-species sea food processor and a dry dock lift on the city dock.

Nelson Lagoon is one of the most important staging, molting, and wintering habitats for the threatened Steller's eider. Steller's eiders numbering 50,000 individuals have been observed molting and wintering in the sheltered waters of the Lagoon. It is believed that at least one half of the federally protected Alaskan breeding population of Steller's eiders use Nelson Lagoon at some time during the fall-winter-spring period. Steller's eiders, as well as thousands of shorebirds and other waterfowl species such as emperor geese stage within the ice free waters of Nelson Lagoon in spring on their way to breeding grounds to the north and east. Beginning in July, Steller's eiders gather in Nelson Lagoon by the thousands to molt. During the molt, the eiders are flightless and require highly nutritious foods such as blue mussels (*Mytilus edulus*) to provide the calories needed to survive the energy demanding process of replacing feathers. Steller's eiders again congregate in Nelson Lagoon in the fall, where they either remain in the Nelson Lagoon area for the winter or move on to other wintering areas.

A GRS is a widely accepted spill response measure, used when oil or other toxins are released into the environment. The GRS provides a location specific, stepwise guide with tactical measures for operators of vessels and local response crews. Tied to the Coast Guard's Subarea Plan, the GRS identifies critical fish and wildlife habitat areas, and provides strategies to protect those areas under various contaminants and environmental conditions scenarios. A GRS is developed by one or more oil spill response experts. Required equipment and supplies, manpower and transportation needs are specified in a GRS, and tactical measures are validated then practiced regularly by response personnel. These steps assure that, in the event of a contaminant spill, a plan is in place to activate personnel and quickly contain and clean up the toxins.

GRS's have been developed for Southcentral and Southeast Subareas: Cook Inlet, Prince William Sound and Glacier Bay. Nelson Lagoon is within the Aleutians Subarea. To date there have been no GRS's developed in this subarea, however, it has been given top priority for the next area to focus on. Because Nelson Lagoon is among the most sensitive and critical habitats for Steller's eiders and many other waterfowl species, and because the probability of contamination in the lagoon will increase with further development of the village of Nelson Lagoon, we believe that GRS development for this area is essential. While the best way to avoid water contamination is to prevent spills from occurring in the first place, preparedness for unfortunate accidents that to some degree are reasonably certain to occur is a conservative approach to protecting valuable fish and wildlife habitat.

The Service concluded in their Biological Opinion on the Effects of the Upgrade and Expansion of the Bulk Fuel Facility at Nelson Lagoon on the threatened Steller's eider that the expansion of the bulk fuel facility, and the subsequent development of a multi-species seafood processing plant, is likely adversely affect Steller's eiders. The Service believes that increasing boating activity in Nelson Lagoon will increase the probability of both large acute and smaller chronic oil spills. Reasonable and Prudent Measures, described in the Biological Opinion, specify that protection of Steller's eiders and their habitat must be assured. The non-discretionary Terms and Conditions put forth by the Service specify that a GRS must be developed for the Nelson Lagoon area.

**C. Goals and Objectives:**

**Goals --**The goal of development of a GRS for Nelson Lagoon is to provide strategies for the protection of critical fish and wildlife habitat that will aid first responders in the event of an oil spill in Nelson Lagoon.

**Objectives --**The objectives of GRS development for Nelson Lagoon are to: 1) identify critical fish and wildlife habitat within Nelson Lagoon, 2) develop tactical response strategies to protect critical fish and wildlife habitat given different spill and weather scenarios, 3) validate response tactics, 4) document strategies following standard GRS reporting format, and 5) include the GRS as a supplement to the Aleutians Subarea Contingency Plan. The development of this GRS does not relieve the plan holder of their obligations under state or federal regulatory requirements, however, it may be referenced by the plan holder to meet federal and state requirements to protect sensitive areas.

**D. Methodology:**

- 1) The development of a GRS must be undertaken by a spill response professional. The contracted spill response expert will conduct a preliminary site assessment by acquiring all available information on climatic, hydrologic, and anthropogenic patterns for Nelson Lagoon. Avenues of oil spill risk will be determined through interviews with local fishermen, and fuel delivery and seafood processing companies that service Nelson Lagoon. Aerial photographs, to be used for site evaluation and tactical response development, will be taken by the contracted expert.
- 2) Critical and sensitive fish and wildlife habitat is identified through consultation with federal and state resource management agencies and local individuals. Critical and sensitive areas include but are not limited to the following: designated Critical Habitat under the ESA, areas of sea otter concentrations, waterfowl and shorebird areas, anadromous fish streams, subsistence harvest areas, seabird colonies, intertidal spawning areas, cultural/archaeological sites, and commercial fishing areas.
- 3) Tactical strategies are developed for various spill and weather scenarios. They are designed to be flexible and modifiable to fit the prevailing conditions at the time of any event. Strategies identify site access, staging areas, local conditions that might affect oil spill response strategies, and type and amount of equipment necessary to protect identified sensitive sites.
- 4) Tactical strategies are reviewed by federal and state entities responsible for spill response plans (Alaska Department of Environmental Conservation, U.S. Coast Guard, National Oceanic and Atmospheric Administration, and the Service), and by the public.
- 5) Once tactical strategies are outlined, recommendations will be made to the Denali Commission for purchase of oil spill response supplies, as described in the Conceptual Design Report for the Nelson Lagoon Fuel Facility.
- 6) Once draft tactical strategies are approved, and oil spill response equipment and supplies are purchased, the strategies are tested through a drill. The GRS is then modified to incorporate lessons learned during the drill. First responders during the drill and any future response activity must be familiar with oil spill response tactics and must hold a current HAZWOPER certification. Moreover, if hazing is identified in the GRS as a tactical measure to be used to protect wildlife species, hazing certification will be required.
- 7) Once adopted, the GRS will be submitted to Alaska Department of Environmental Conservation for inclusion into the Aleutians Subarea Contingency Plan. Reproduction of the GRS will follow the document format requirements for the Cook Inlet Geographic Response Strategy. The document will be printed on 11" x 17" double-sided pages. Copies for use in the field will be laminated. The map will be printed in color.

The GRS consists of two parts: 1) a graphic showing a map (topographic or nautical chart, with a scale of at least one inch to the mile (1:63,360)), deployment diagram (symbols on the map show boom placement, generic strategy

type, unique strategy identification, staging areas, aids to navigation, buildings and access roads), a photo of the site, and implementation notes; and 2) a table giving the location description, response strategy, implementation instructions, response resources, staging area, site access, permit requirements, resources being protected, and special considerations. The GRS will contain or reference the following information:

- 1) spill response contacts,
- 2) scope,
- 3) site description,
- 4) reference maps,
- 5) general protection/collection strategies,
- 6) shoreline information,
- 7) sensitive resource descriptions,
- 8) logistic information.

**E. Resources Required:** GRS development and site testing will include the following procedures and processes: 1) gather resources and information, 2) develop base map, 3) meet with response personnel, 4) develop draft tactics, 5) conduct a site survey, 6) prepare and publish draft document, 7) conduct 24 hour HAZWOPER training for local responders, and 8) site test with local responders.

**1. Budget:**

<b>Task/Category</b>	<b>GRS Development and Publication</b>	<b>Training and GRS Site Testing</b>	<b>Totals</b>
Personnel	\$4,500.00	\$3,000.00	\$7,500.00
Travel	\$1,500.00	\$2,500.00	\$4,000.00
Supplies	\$1,500.00	\$500.00	\$2,000.00
Air Charter	\$1,400.00	\$1,400.00	\$2,800.00
Vessel Charter	0	\$3,000.00	\$3,000.00
<b>Totals</b>	<b>\$8,900.00</b>	<b>\$10,400.00</b>	<b>\$19,300.00</b>

**F. Monitoring Plan:**

To monitor the progress of the GRS development, Butch Gunderson, Vice President of the Nelson Lagoon Village Council, will work closely with the contracted oil spill expert throughout the process, and will establish landmark due dates for each phase of GRS development. GRS development typically requires 6 months to completion; the development phase requires 2 months, the review phase requires 2 months, the training and site-testing phase requires 1-month, and the GRS production/implementation phase requires 1-month. Due dates, for the completion of each phase, will be established and agreed upon in the contract.

**G. Evaluation Plan:**

Performance evaluations shall be made by Butch Gunderson, Vice-President of the Nelson Lagoon Village Council, at the completion of each phase as specified in the monitoring plan: 1) development phase, 2) review phase, 3) training and site-testing phase, and 4) production/implementation phase. Expectations for the completion of each phase shall be clearly articulated in the contract with the oil spill expert