

Potential food safety and security issues during emergency responses in Alaska:

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Introduction:

Questions about the safety and availability of subsistence, commercial and recreational food sources are likely to arise after any significant spill in Alaska. Real, potential, and perceived contamination of food sources can have substantial impacts on commercial and recreational fishing and subsistence use of these resources. In Alaska, affected resources may include fish, shellfish, marine mammals, land mammals, birds, eggs, and plants. Impacts to subsistence uses are not limited to food consumption, as hunting, gathering, processing and sharing of wild resources are also the cultural and economic foundation of many Alaska communities. Other uses of these wild resources may also include making of arts and crafts and medicines¹.

In addition, closing fisheries as a result of an oil spill can result in wide-spread public concerns, seafood market disruptions, and economic impacts. Furthermore, use of certain response alternatives such as dispersants may raise additional questions and concerns.

On-Scene Coordinators (OSCs) have authority to protect human health, natural resources and the environment from spills of oil and hazardous substances. Broadly speaking, that authority extends to protecting human health by reducing the risk of eating tainted or contaminated food. However, there are often additional considerations, such as maintaining a high level of public confidence that no contaminated seafood is reaching the table or marketplace. OSCs are acutely aware that the public's view of Alaskan seafoods may be affected during an oil spill and they recognize the harm that a tarnished reputation would have on the economic viability and livelihood of large and small communities.

Despite the importance of these issues, the Alaska Regional Response Team (ARRT) currently lacks guidance for OSCs regarding food safety during pollution responses. In late 2014, the ARRT assembled a small working group of RRT members to evaluate and outline topics and issues to be included in a future policy document. Such a document would be developed by the Alaska RRT and its partners to provide guidance for USCG and EPA On-Scene Coordinators and the member agencies of the Alaska RRT.

¹ Subsistence is defined by federal law as "the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools or transportation; for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption; and for the customary trade, barter or sharing for personal or family consumption."

Proposed Policy Elements:

The team recommends the following topics be considered as part of an AKRRT food safety plan and potential guidance document:

- Investigation and summary of the current status of food safety guidelines following oil spills in Alaska, including existing authorities available to FOSCs.
- Review of other RRT's policies and guidance on food safety, guidance issued by other countries, and the published literature.
- Identification of experts, both in Alaska and elsewhere that could contribute to development of future guidelines.
- Agency-by-agency summary of relevant authorities, laws, regulations, jurisdictions and assets to support food monitoring, including inland and terrestrial spills.
- Consideration of the AKRRT dispersant policy and its implications for food safety, real or perceived;
- Development of a flowchart/decision tree for FOSCs illustrating timelines and the sequence of events during a spill response with respect to food safety monitoring;
- Summary of funding issues and existing authorities/gaps related to food safety management, testing, sampling, and other necessary monitoring.
- Consideration of both short-term and long-term food safety issues. Who is responsible for any long-term subsistence food monitoring? RP and/or NRDA roles?
- Safety and wholesomeness of oiled and rehabilitated wildlife
- Legacy aspects of food safety (cultural losses, traditional knowledge, etc.)
- Discussion of different audiences and concerns (processors, buyers, native Alaskans, rural Alaskans, fishermen, consumers, aquaculture growers, sport recreational guides, general tourism, etc.)
- Hazmat incidents and food safety issues (is this a phase 2 issue?)

Potential outline of a Food Security and Safety document and/or potential factsheets:

Executive Summary

- Summary of potential oil spill impacts on food resources (animals and plants)
- Summary of potential oil spill impacts on fishing, aquaculture, and seafood processing activities
- Summary of potential oil spill impacts on cultural and subsistence activities
- Reducing potential impacts from the response itself
- Costs, compensation and NRDA

Introduction and Scope of issue

- Importance of commercial seafood harvests, subsistence, personal use and recreational harvests, and aquaculture in Alaska
 - Marine, anadromous, and freshwater fish
 - Shellfish
 - Marine mammals
 - Terrestrial animals
 - Birds and eggs
 - Marine, intertidal and terrestrial plants
 - Potential agricultural impacts from terrestrial accidents or contaminated groundwater

Summary Guidance for FOOSC's, focusing on unique Alaska issues. Examples include:

- Magnitude/importance of the commercial catch
- Economic importance of the sport-fishing industry
- The very high consumption rates wild foods by Alaska residents (particularly Alaska natives)

Unique aspects of subsistence harvest of wild foods which include:

- Food availability in rural Alaska and cost and dietary implications of alternatives (like store-bought foods)
- Cultural issues including process of harvesting and preparing traditional foods, sharing of the harvest, ceremonial uses
- Nutritional benefits of wild foods.
- Medicinal uses of wild foods
- Impacts to customary trade (including barter and exchange)
- Use of harvested resources for traditional arts/crafts

Definitions and terminology (complete list to be compiled after document is written)

- Tainting
- Exposure
- Uptake
- Depuration

- Body Burden
- Bioaccumulation
- Bioconcentration
- Contamination
- Adulteration
- Food Security
- Subsistence Use

Experience from previous spills in Alaska and elsewhere

- EVOS, Prince William Sound
- Selendang Ayu, Unalaska
- Kuroshima, Unalaska
- Glacier Bay, Cook Inlet
- North Cape, Rhode Island
- New Carissa, Oregon
- Deepwater Horizon, Gulf of Mexico
- Land spill example?
- Lessons-learned and issues from concerns over chronic contamination of food resources (landfills, hazmat sites, abandoned mines, FUDS, etc.)

Oil and Food Safety Science

- Oil types and risk of contamination
- Contamination pathways (e.g., baitfish or foodweb contamination)
- Vulnerability of varying species
- Depuration of contamination
- Other

Response Countermeasures and Food Safety

- Dispersants
- Shoreline cleaners
- In-situ burning
- Herding agents
- Bioremediation products
- Other

Key agencies, jurisdictions and authorities with respect to food safety

- Federal
- State
- Tribal
- Native Corporation?
- International
- Agency points of contact and potential experts
- Notification procedures

Response actions and alternatives

- When should harvests be restricted or closed?
- Who has the authority to restrict or close?
- Procedures for closing and reopening fisheries
- Subsistence use on federal conservation unit lands.
- Alternatives to formal closings.
 - advisories, inspections, gear restrictions, vessel routing
- Action levels

Public outreach and communications.

- Perception of harm, market concerns and economic and social consequences
- Public health concerns
- Market concerns.
- Risk communication and messaging to the public
- Subsistence harvest communications

Overview of sampling and analytical methods

- Sample collection and handling
- Summary of field and laboratory protocols to test and monitor food safety.
- Sensory procedures for closing and opening fisheries or issuing advisories
- Data interpretation and health risk calculations

Harvest issues

- Gear and harvest method issues (e.g., water intakes for crab live wells)
- Processing issues
- Oiled nets and equipment
- Disposal of potentially tainted or contaminated catch/harvests
- Lightering/dumping of catch (oiled or not) during salvage operations
- Consumption of oiled and released wildlife

Funding and compensation

- Funding food safety during response
- Role of NPFC
- NRDA and third party claims for losses

Key literature