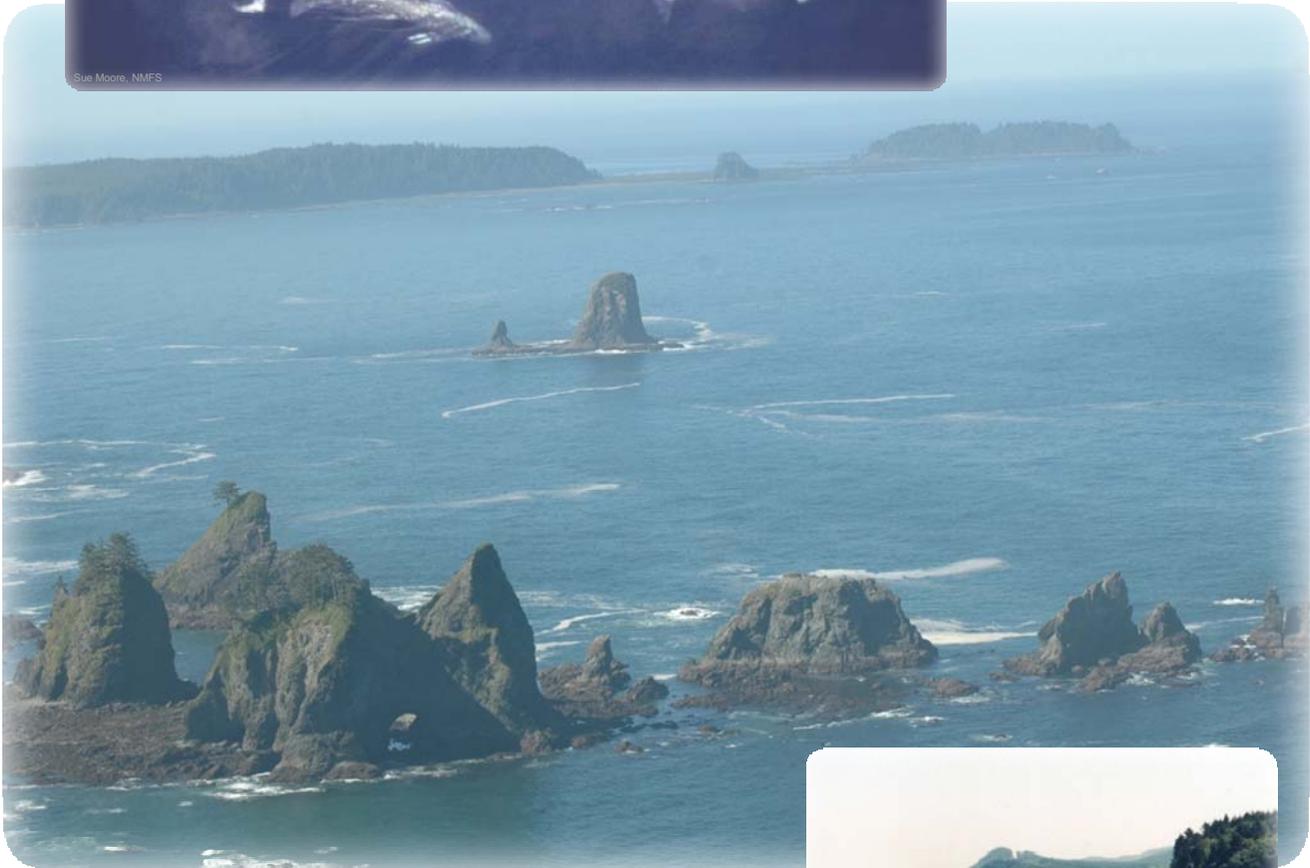


Draft Environmental Impact Statement for Proposed Authorization of the Makah Whale Hunt



**United States Department of Commerce
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service, Northwest Region

May 2008





Executive Summary

EXECUTIVE SUMMARY

The action considered in this draft environmental impact statement (DEIS) concerns the Makah Indian Tribe's February 2005 request to resume limited hunting of eastern North Pacific (ENP) gray whales (*Eschrichtius robustus*) in the coastal portion of the Tribe's usual and accustomed fishing grounds (U&A), off the coast of Washington State, for ceremonial and subsistence purposes. The Tribe's proposed action stems from the 1855 Treaty of Neah Bay, which expressly secures the Makah Tribe's right to hunt whales. To exercise that right, the Makah Tribe is seeking authorization from the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) under the Marine Mammal Protection Act and the Whaling Convention Act.

This DEIS, prepared pursuant to the National Environmental Policy Act (42 USC 4321 et seq.), considers various alternatives to the Tribe's proposed action. To develop the full range of action alternatives, NMFS considered the principal components associated with a hunt, including: the time when whale hunting would occur; the area where whale hunting would occur; the annual and five-year limits on the number of whales harvested, struck, and struck and lost; cessation of whale hunting if a predetermined number of identified whales (i.e., included in a photographic catalog of whales from the Pacific Coast Feeding Aggregation area) were harvested; and the method of hunting. The resultant alternatives are:

- Alternative 1, the No-action Alternative, wherein NMFS would not authorize a Makah gray whale hunt.
- Alternative 2, the Proposed Action Alternative, would allow harvest of four gray whales per year on average (with a maximum of five in any one year) and up to 20 whales in a 5-year period. Hunting would be allowed in the Tribe's U&A outside the Strait of Juan de Fuca from December 1 to May 31. Hunting would not be allowed within 200 yards of

1 Tatoosh Island and White Rock. The number of whales that could be struck would be
2 limited to no more than seven in any calendar year and no more than 35 over the 5-year
3 period, while the number of whales struck and lost would be limited to three annually and
4 15 over the 5-year period. The maximum number of whales struck in any year would be
5 seven, and the maximum number struck and lost would be three.

6 • Alternative 3 includes the same area for the hunt as Alternative 2, but would eliminate
7 timing and other restrictions on killing and landing identified whales.

8 • Alternative 4 would have the same conditions as Alternative 2, except that it would also
9 prohibit vessels associated with any Makah hunt (including Makah vessels and associated
10 protest, media, and law enforcement vessels) from entering the 200-yard exclusionary
11 zone that the United States Fish and Wildlife Service has established around all rocks or
12 islands comprising the Washington Islands National Wildlife Refuges.

13 • Alternative 5 would include the same hunting area as Alternative 2, but would differ by
14 eliminating timing restrictions and the restrictions on landing identified whales, as well as
15 imposing additional restrictions on the total number of whales harvested, struck, and
16 struck and lost.

17 • Alternative 6 is the same as Alternative 3, except that the Tribe could hunt throughout its
18 entire U&A, including the Strait of Juan de Fuca. Similar to Alternatives 3 to 5, there would
19 be no timing restrictions or harvest limitations specifically for identified whales.

20 NMFS developed these alternatives with input from NMFS staff, the Makah Tribe, the
21 cooperating agency (i.e., Bureau of Indian Affairs), and oral and written comments from the
22 public. This DEIS addresses a number of resources identified for review during both internal and
23 public scoping, including: water quality, marine habitat and species, ENP gray whales, other
24 wildlife species, economics, environmental justice, social environment, cultural resources,
25 ceremonial and subsistence resources, noise, aesthetics, transportation, public services, public
26 safety, and human health.

27 This DEIS provides an important opportunity for the public to formally comment on the Tribe's
28 proposal and the various alternatives. NMFS will address public comments in the final version of
29 the EIS. These comments, in conjunction with considerations described in this DEIS, will provide
30 key information to assist NMFS with its final decision on the Tribe's request.

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List of Acronyms and Abbreviations

ABL	allowable bycatch level
BIA	Bureau of Indian Affairs
C	Celsius
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cm	centimeters
CZMA	Coastal Zone Management Act
dB	decibal
DDT	dichloro-diphenyl-trichloroethane
DNA	deoxyribonucleic acid
dw	dry weight
EA	Environmental Assessment
Ecology	Washington Department of Ecology
EEZ	exclusive economic zone
EIS	Environmental Impact Statement
ENP	eastern North Pacific
EPA	U.S. Environmental protection Agency
ESA	Endangered Species Act
ESU	evolutionarily significant unit
F	Fahrenheit
FERC	Federal Energy Regulatory Commission
FONSI	Finding of No Significant Impact
FR	Federal Register
FWS	U.S. Fish and Wildlife Service
g	gram
Hz	hertz
ICRW	International Convention for the Regulation of Whaling
IU	international units
IUCN	International Union for Conservation of Nature
IWC	International Whaling Commission

K	carrying capacity
kg	kilogram
Makah or Tribe	Makah Indian Tribe
MEZ	moving exclusionary zone
mg	milligram
ml	milliliter
MMC	Marine Mammal Commission
MMPA	Marine Mammal Protection Act
MNPL	maximum net productivity level
MSA	Magnuson-Stevens Act
MSY	maximum sustainable yield
mtDNA	mitochondrial DNA
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NMML	National Marine Mammal Laboratory
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
OCNMS	Olympic Coast National Marine Sanctuary
ORSVI survey area	Oregon-Southern Vancouver Island survey area
OSP	optimum sustainable population
PBR	potential biological removal
PCBs	polychlorinated biphenyls
PCDD	polychlorinated dibenzodioxin
PCDF	polychlorinated dibenzofuran
PCFA survey area	Pacific Coast Feeding Aggregation survey area
PFMC	Pacific Fishery Management Council
pH	potential of Hydrogen (acidity or alkalinity)
PL	public law
RCW	revised code of Washington
RNA	regulated navigation area
ROD	Record of Decision
Sanctuary	Olympic Coast National Marine Sanctuary
TCDD	tetrachlorodibenzodioxin

TCDF	tetrachlorodibenzofuran
Treaty	1855 Treaty of Neah Bay
U&A	Usual and Accustomed fishing grounds
U.S.C.	United States Code
ug	microgram
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
WCA	Whaling Convention Act
WDFW	Washington Department of Fish and Wildlife
ww	wet weight

Glossary

.50 and .577 caliber rifle = High-powered rifles designed to shoot a bullet of diameter 0.5 inches or 0.577 inches, respectively.

Aboriginal subsistence whaling = As defined in regulations implementing the Whaling Convention Act, aboriginal subsistence whaling refers to whaling authorized by paragraph 13 of the Schedule annexed to and constituting a part of the Convention (i.e., International Convention for the Regulation of Whaling). The Schedule does not otherwise define aboriginal subsistence whaling, but the International Whaling Commission adopted the following definition of subsistence use by consensus at its 2004 annual meeting: (1) The personal consumption of whale products for food, fuel, shelter, clothing, tools, or transportation by participants in the whale harvest; (2) The barter, trade, or sharing of whale products in their harvested form with relatives of the participants in the harvest, with others in the local community or with persons in locations other than the local community with whom local residents share familial, social, cultural, or economic ties. A generalized currency is involved in this barter and tra[d]e, but the predominant portion of the products from each whale are ordinarily directly consumed or utilized in their harvested form within the local community; (3) The making and selling of handicraft articles from whale products, when the whale is harvested for the purposes defined in (1) and (2) above. General principles governing aboriginal subsistence whaling are contained in the Schedule.

Aboriginal subsistence whaling quota = Number of whales that may be taken by a Native American whaling organization for subsistence uses.

Adaptive management plan = A management approach wherein a plan is changed and improved in response to lessons learned during plan implementation.

Alaska Eskimos/Alaska Natives = A group of native people living in the Arctic coastal regions of Alaska.

Algal bloom = A rapid and often visible increase in the population of (usually) phytoplankton algae in an aquatic system.

Allowable Bycatch Level (ABL) = As defined in the Makah Tribe's waiver request, the number of whales from the Pacific Coast Feeding Aggregation that may be taken incidental to a hunt directed at the migratory portion of the Eastern North Pacific stock of gray whales. The ABL is calculated using the Marine Mammal Protection Act's potential biological removal approach but the minimum population estimate is calculated from the number of previously seen whales in the Oregon-Southern Vancouver Island survey area.

Ancestral villages = A settlement that has been inhabited for many generations.

Ancient canoe runs = Sub- and inter-tidal areas where it is possible to see old pathways perpendicular to the shoreline that were cleared of boulders and cobbles to allow canoes to reach shore without being damaged.

Baleen whale = A whale of the Suborder Mysticeti whose members have comb-like baleen plates (instead of teeth) which enable them to filter food from the water. As defined by the June 2007 Schedule to the International Convention for the Regulation of Whaling, baleen whale means any whale which has baleen or whale bone in the mouth (i.e. any whale other than a toothed whale).

Benthic = Living on the bottom of the ocean.

Benthos = The collection of organisms living on the bottom of the ocean.

Bequians = Inhabitants of Bequia, the second largest of the thirty-two islands and cays that make up the island state of St. Vincent & the Grenadines.

Bilateral agreement = An agreement between two countries detailing their mutual understanding, policies, and obligations on a particular matter.

Bunker fuel = A common and often low grade fuel used to power cargo ships.

Bureau of Indian Affairs = A United States agency within the Department of the Interior charged with the administration and management of land held in trust by the United States for American Indians, Indian tribes and Alaska Natives. In addition, the Bureau of Indian Affairs provides education services to approximately 48,000 Indians.

Calf (whale) = As defined by regulations implementing the Whaling Convention Act, a calf is any whale less than 1 year old or having milk in its stomach.

Cervical and cranial thoracic regions = Relating to the neck (cervical) or skull (cranial) in the chest (thoracic) region of a whale.

Cetacean = Refers to an animal belonging to the order Cetacea, which includes sea mammals such as whales and dolphins.

Chase boat = According to the Makah waiver application, a powered boat that assists in the whale hunt by staying in close proximity to the whaling crew in the canoe and towing a harvested whale to shore. In the Makah proposal each chase boat would be manned by a pilot, diver, rifleman, backup harpooner, and at least one other crew member, and would be equipped with a navigation system capable of fixing the vessel's position on the water.

Chukotka natives = Aboriginal people located in the far northeast of the Russian Federation.

Coastal Zone Management Act (CZMA) = A United States law that regulates development in coastal areas.

Code of Federal Regulations (CFR) = The United States government's codification of the general and permanent rules and regulations (sometimes called administrative law) published in the Federal Register by the executive departments and agencies of the United States Federal Government. The CFR is published by the Office of the Federal Register, an agency of the National Archives and Records Administration.

Contracting Government = A country/government party to the International Convention for the Regulation of Whaling.

Cooperative agreement = As defined by regulations implementing the Whaling Convention Act, a cooperative agreement is a written agreement between the National Oceanic and Atmospheric Administration and a Native American whaling organization for the cooperative management of aboriginal subsistence whaling operations.

Council on Environmental Quality (CEQ) = A division of the White House established as part of the National Environmental Policy Act of 1969. The CEQ issues an annual report to the President of the United States on the state of the environment; coordinates United States environmental efforts and works closely with agencies and other White House offices in the development of environmental and energy policies and initiatives; oversees federal agency implementation of the environmental impact assessment process; and acts as a referee when agencies disagree over the adequacy of such assessments.

Cultural Anthropology Panel = A group of experts in cultural anthropology convened by the International Whaling Commission in 1979 to discuss the Alaska Eskimo bowhead hunts.

Darting gun = A hand thrown device consisting of a barrel (to hold an explosive projectile) that is attached to a wooden shaft equipped with a toggle-point harpoon. The barrel contains a trigger rod that ignites a propellant or 'pusher' charge which fires the explosive projectile into the whale's body.

Decibels = A unit of measurement for sounds, in particular the loudness of sounds.

Delegates = Members of delegations, headed by commissioners, representing member nations that are party to the International Whaling Commission.

Deoxyribonucleic acid (DNA) = A large, double-stranded, helical molecule found in the nucleus of cells that carries the genetic code for an organism.

Dispatch = To kill a whale that has been struck.

Diver = According to the Makah waiver application, a member of the whaling crew whose duties include diving into the water from the chase boat to attempt to sew a whale's mouth shut to

prevent the whale from sinking after it has been struck by the harpooner and shot by the rifleman.

Drift whale = A whale that dies naturally or as a result of some human activity other than a directed hunt (for example, entanglement in fishing gear).

Ecotourism = Tourism that focuses on the natural ecological attributes of an area (e.g., whale-watching) and their preservation.

Ecotype = A subgroup of a species that is differentiated from other subgroups by distinct adaptations to a particular habitat.

Eight-gauge shoulder gun = A shoulder-mounted firearm with a long, smooth-bore barrel capable of shooting a 0.835-inch projectile.

Endangered species = As defined in the Endangered Species Act, an endangered species means any species which is in danger of extinction throughout all or a significant portion of its range.

Endangered Species Act (ESA) = A United States law that provides for the conservation of endangered and threatened species of fish, wildlife, and plants.

Endangered species list = The List of Endangered and Threatened Wildlife (50 CFR 17.11), and the List of Endangered and Threatened Plants (50 CFR 17.12) name all species of mammals, birds, reptiles, amphibians, fishes, insects, plants, and other creatures that have been determined by the National Marine Fisheries Service or the United States Fish and Wildlife Service to be in the greatest need of Federal protection. Once listed, a species receives the full range of protections available under the Endangered Species Act, including prohibitions on killing, harming or otherwise taking a species.

Environmental Assessment (EA) = In the context of National Environmental Policy Act, an EA is a concise public document that analyzes the environmental impacts of a proposed Federal action and provides sufficient evidence to determine the level of significance of the impacts. The EA includes a brief analysis of the environmental impacts of the proposed action and its alternatives, and results in one of two determinations: (1) an Environmental Impact Statement is required; or (2) a Finding of No Significant Impact.

Environmental Impact Statement (EIS) = A detailed written statement required by the National Environmental Policy Act and prepared by a federal agency. The EIS is used by decisionmakers to take environmental consequences into account. It describes a proposed action, the need for the action, alternatives considered, the affected environment, the environmental impacts of the proposed action, and other reasonable alternatives to the proposed action. An EIS is prepared in two stages: a draft and a final.

Environmental Protection Agency (EPA) = A United States agency responsible for protecting human health and the environment.

Eskimos = See Alaska Eskimos.

Evolutionarily significant unit (ESU) = A concept the National Marine Fisheries Service uses to identify distinct population segments of Pacific salmon under the Endangered Species Act. An ESU is a population or group of populations of Pacific salmon that (1) is substantially reproductively isolated from other populations and (2) contributes substantially to the evolutionary legacy of the biological species.

Exclusive economic zone (EEZ) = A coastal zone under national jurisdiction (up to 200-nautical miles wide) declared under the provisions of the 1982 United Nations Convention of the Law of the Sea, within which the United States has the rights over the use and exploration of marine resources. The United States EEZ in the northern portion of the Makah Usual and Accustomed fishing grounds is much narrower than 200 nautical miles due to the international boundary with Canada.

Federal Register = The United States government's daily publication of federal agency regulations and documents, including presidential proclamations, executive orders, and documents that must be published per acts of Congress.

Finding of No Significant Impact (FONSI) = A short National Environmental Policy Act document that presents the reasons why an action will not have a significant impact on the quality of the human environment and, therefore, will not require preparation of an Environmental Impact Statement. A Finding of No Significant Impact must be supported by the Environmental Assessment.

First Nation = A term referring to the aboriginal people located in what is now Canada.

Flense = To strip the blubber or skin from a dead whale.

Floats = Air-filled buoys attached by ropes to a struck or dead whale using a harpoon with a toggle point head. The floats keep the whale on the water surface so that it can be towed to shore for butchering.

Harassment = As defined in regulations implementing the Marine Mammal Protection Act, harassment means any act of pursuit, torment, or annoyance which: (1) has the potential to injure a marine mammal or marine mammal stock in the wild; or (2) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering. In the case of a military readiness activity or a scientific research activity conducted by or on behalf of the Federal Government, the term harassment means (1) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild; or (2) 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.

Harpooner = According to the Makah waiver application, a member of the whaling crew whose duties include throwing a long spear-like harpoon at a whale in order to embed a steel barb and its accompanying line and floats into the animal. A backup harpooner accompanies a separate crew on the tribal chase boat.

Harvest = To kill and land a whale.

Haulout = A site where seals, sea lions, and other marine mammals climb out of the water to rest on land.

Hertz = A measurement of vibration or frequency expressed in cycles per second. One hertz equals one cycle per second.

Humane = As defined in regulations implementing the Marine Mammal Protection Act, the term humane refers to that method of taking which involves the least possible degree of pain and suffering practicable to the mammal involved.

Identified whale = A whale photographed in the Pacific Coast Feeding Aggregation and Oregon-Southern Vancouver Island survey areas in a prior summer feeding period and identifiable in the National Marine Mammal Laboratory's photographic identification catalog.

Indian Civil Rights Act = A United States law that prohibits Indian tribal governments from enacting or enforcing laws that violate certain individual rights. It was adopted by the United States Congress to ensure that tribal governments respect basic rights of Indians and non-Indians.

International Convention for the Regulation of Whaling (ICRW) = An international treaty (also referred to as the "Convention") signed in 1946 designed to "provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry." A focus of the treaty was the establishment of the International Whaling Commission. There are presently 79 member nations to the ICRW, including the United States.

International Whaling Commission (IWC) = A body of commissioners charged with carrying out the provisions of the ICRW.

IWC aboriginal subsistence whaling = See Aboriginal subsistence whaling

IWC Commercial Whaling Moratorium = A moratorium on all commercial whaling approved by the International Whaling Commission in 1982 which effectively expanded the 1937 ban on commercial harvest of gray whales and right whales to all large whale species.

IWC Scientific Committee = A part of the International Whaling Commission (IWC), this group consists of approximately 200 of the world's leading whale biologists who provide advice

on the status of whale stocks. The IWC Scientific Committee meets annually in the two weeks immediately preceding the main International Whaling Commission meeting. It may also call special meetings as needed to address particular subjects during the year.

Land/Landing = As defined by regulations implementing the Whaling Convention Act, landing means bringing a whale or any parts thereof onto the ice or land in the course of whaling operations.

Landfill = A place where solid waste (garbage) is disposed between layers of dirt.

Level A harassment = As defined in regulations implementing the Marine Mammal Protection Act, Level A harassment means any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild. In the case of a military readiness activity or a scientific research activity conducted by or on behalf of the Federal Government, the term Level A harassment means any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild.

Level B harassment = As defined in regulations implementing the Marine Mammal Protection Act, Level B harassment means any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering. In the case of a military readiness activity or a scientific research activity conducted by or on behalf of the Federal Government, the term Level B harassment means 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.

Local aboriginal consumption = A phrase defined by the 1981 *Ad Hoc* Technical Working Group (but not formally adopted by the International Whaling Commission) to mean traditional uses of whale products by local aboriginal, indigenous or native communities in meeting their nutritional, subsistence and cultural requirements. The term includes trade in items which are by-products of subsistence catches.

Lose = As defined by the June 2007 Schedule to the International Convention for the Regulation of Whaling, lose means to either strike or take but not to land. ('Take' has a distinct meaning in the Marine Mammal Protection Act and International Convention for the Regulation of Whaling.)

Maa-Nulth First Nations = The Maa-nulth First Nations comprise five First Nations from Vancouver Island. They include: Huu-ay-aht First Nations, Ka:'yu:'k't'h'/Che:k'tles7et'h First Nations, Toquaht Nation, Uchucklesaht Tribe, and the Ucluelet First Nation. Maa-nulth means "villages along the coast" in the Nuu-chah-nulth language. These villages/territories are located on the west coast of Vancouver Island surrounding Barkley Sound and Kyuquot Sound.

Makah Tribal Council = The governing body of the Makah Tribe. In three cooperative agreements with the Makah Tribe (in 1996, 1997, and 2001) the National Oceanic and Atmospheric Administration recognized the Makah Tribal Council as a Native American whaling organization and allowed the Council to issue permits to whaling captains in compliance with the cooperative agreements and Whaling Convention Act regulations.

Makah Whaling Commission = Members of the Makah Tribe that serve to review whaling crew qualifications, identify whaling crew and vessel participation, and provide other hunt restrictions and recommendations. The Makah Tribal Council would issue the permit to a whaling captain before any hunt, based on recommendations from the Makah Whaling Commission.

Maktak = Whale skin and layer of blubber used for food.

Magnuson Stevens Act (MSA) = Also known as the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. A United States law that is the governing authority for all fishery management activities that occur in federal waters within the United States 200 nautical mile limit, or Exclusive Economic Zone. The recent reauthorization mandates the use of annual catch limits and accountability measures to end overfishing, provides for widespread market-based fishery management through limited access programs, and calls for increased international cooperation.

Marine Mammal Commission (MMC) = An independent agency of the United States Government, established under Title II of the Marine Mammal Protection Act. The MMC was created to provide independent oversight of the marine mammal conservation policies and programs being carried out by the federal regulatory agencies. The MMC is charged with developing, reviewing, and making recommendations on domestic and international actions and policies of all federal agencies with respect to marine mammal protection and conservation and with carrying out a research program.

Marine Mammal Protection Act (MMPA) = A United States law that prohibits, with certain exceptions, the take of marine mammals in United States waters and by United States citizens on the high seas, and the importation of marine mammals and marine mammal products into the United States

Maximum Net Productivity Level (MNPL) = A population level related to maximum net productivity, a rate of change defined in the National Marine Fisheries Service's Marine Mammal Protection Act regulations as the greatest net annual increment in population numbers or biomass resulting from additions to the population due to reproduction and/or growth less losses due to natural mortality.

Mitochondrial deoxyribonucleic acid (mtDNA) = DNA that is found in the mitochondria of cells. Unlike nuclear DNA, mtDNA is only inherited through the mother.

Moratorium = See IWC Commercial Whaling Moratorium

Moving Exclusion Zone (MEZ) = As defined in United States Coast Guard regulations, the MEZ is a vessel-based buffer within the Regulated Navigation Area designed to promote the safety of the whaling crew and other persons/watercraft operating in the vicinity of the whaling crew. The MEZ includes the column of water from the surface to the seabed with a radius of 500 yards centered on the Makah whale hunt vessel. Unless otherwise authorized by the Coast Guard, no person or vessel may enter the active MEZ except for an authorized Makah whale hunt and certain authorized media pool vessels.

National Environmental Policy Act (NEPA) = A United States law declaring that it is the continuing policy of the Federal government to use all practicable means to create and maintain conditions under which people and nature can exist in productive harmony and fulfill the social, economic, and other needs of present and future generations of Americans. NEPA provides a mandate and a framework for Federal agencies to consider all reasonably foreseeable environmental effects of their proposed actions and to involve and inform the public in the decisionmaking process.

National Marine Fisheries Service (NMFS) = A United States agency within the National Oceanic and Atmospheric Administration and under the Department of Commerce charged with the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems.

National Oceanic and Atmospheric Administration (NOAA) = A scientific agency of the United States Department of Commerce focused on the conditions of the oceans and the atmosphere. NOAA warns of dangerous weather, charts seas and skies, guides the use and protection of ocean and coastal resources, and conducts research to improve understanding and stewardship of the environment. NOAA manages 13 National Marine Sanctuaries, including the Olympic Coast National Marine Sanctuary.

NOAA Office of International Affairs = An office within the National Oceanic and Atmospheric Administration that develops, coordinates, and promotes United States international policies in NOAA-related matters such as ecosystem-based management, climate change, earth observation, and weather forecasting.

Native American whaling organization = As defined by Whaling Convention Act regulations, an entity recognized by NMFS (e.g., the Makah Tribe) as representing and governing the relevant Native American whalers for the purposes of cooperative management of aboriginal subsistence whaling.

Non-binding resolution = A written motion adopted by a deliberative body (e.g., the United States Congress) that does not progress into a law but instead serves to formally express an opinion.

Observer = According to the Makah waiver application, a member of the Makah Department of Fisheries Management whose duties include observing the hunt and photographing any whale landed.

Occipital condyle = Skull bones located at the back and lower part of the cranium near the attachment of the spinal column.

Olympic Coast National Marine Sanctuary (OCNMS) = One of 13 marine sanctuaries in the United States administered by NOAA. It was designated as the first National Marine Sanctuary in the Pacific Northwest in 1994 and encompasses 3,310 square miles off of Washington State's Olympic Peninsula, extending 135 miles along the Washington Coast from about Cape Flattery to the mouth of the Copalis River.

Olympic National Park = A large national park located on Washington's Olympic Peninsula and managed by the United States National Park Service. Originally designated as the Olympic National Monument in 1909, it was re-designated a National Park in 1938 and became a World Heritage Site in 1981.

Optimum sustainable population (OSP) = As defined by regulations implementing the Marine Mammal Protection Act, the term optimum sustainable population means, with respect to any population stock, the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.

Oregon to Southern Vancouver Island (ORSVI) = An area surveyed for whales within the Pacific Coast Feeding Aggregation survey area and encompassing coastal marine waters from Oregon to southern Vancouver Island, B.C.

Pacific Coast Feeding Aggregation (PCFA) survey area = A coastal marine survey area from northern California to northern Vancouver Island, B.C, used by some foraging gray whales during the summer.

Pacific Fishery Management Council (PFMC) = One of eight regional fishery management councils established by the Magnuson Fishery Conservation and Management Act of 1976 for the purpose of managing fisheries from 3-200 miles offshore of the United States of America coastline. The PFMC is responsible for fisheries off the coasts of California, Oregon, and Washington.

Pelagic = Of or in the upper layers of the open ocean.

Penthrite = Pentaerythritol tetranitrate or PETN. An odorless white crystalline solid used as a powerful explosive. Employed in whale hunting as a "penthrite grenade" discharged from a harpoon cannon.

Petroglyph = An ancient picture or inscription drawn or carved into a rock.

Pilot = According to the Makah waiver application, a member of the whaling crew whose duties include navigating the chase boat.

Plenary session = That portion of the annual International Whaling Commission meeting during which the full body of commissioners (or their deputy/alternate) debate and vote on proposals, resolutions, and motions before the International Whaling Commission.

Plenary power = Complete and unlimited power.

Pods = Small groups of marine mammals, especially whales.

Polychlorinated biphenyls (PCBs) = A class of toxic organic compounds known to accumulate in animal tissue. PCBs were primarily used as cooling and insulating fluids for industrial transformers and capacitors prior to being banned in the United States in the 1970s.

Potential Biological Removal Level (PBR) = As defined by regulations implementing the Marine Mammal Protection Act, the term PBR level means the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population level. The PBR level is the product of the following factors: (1) The minimum population estimate of the stock; (2) One-half the maximum theoretical or estimated net productivity rate of the stock at a small population size; (3) A recovery factor of between 0.1 and 1.0.

Precedential effects = The effects of an action that would set a precedent for similar actions in the future.

Pupping = To give birth to pup seals or sea lions.

Record of Decision (ROD) = A National Environmental Policy Act document signed by the agency decisionmaker following the completion of an EIS. The ROD contains the decisions, alternatives considered, environmentally preferable alternative(s), factors considered in the agency's decisions, mitigation measures to be implemented; it also indicates whether all practicable means to avoid or minimize environmental harm have been adopted.

Recruitment = The process of adding individual whales to a population, group or area (usually by reproduction but also by migration).

Regulated navigation area (RNA) = As defined in United States Coast Guard regulations, the RNA is a marine zone the United States Coast Guard established within which the Makah whaling crew can activate a MEZ. The RNA promotes the safety of the whaling crew and other persons/watercraft operating in the vicinity of the whaling crew.

Regional Administrator = A National Marine Fisheries Service official who, among other duties, has been delegated authority to make the initial waiver determination under the Marine Mammal Protection Act on the Makah application.

Rifleman = According to the Makah waiver application, a member of the whaling crew whose duties include shooting a harpooned whale using a high-powered rifle.

Rookeries = Sites where seals and sea lions congregate on shore to mate and give birth.

Russian Federation = A federation of independent states in northeastern Europe and northern Asia; formerly the Soviet Union.

Safety officer = According to the Makah waiver application, a member of the whaling crew whose duties include determining when the rifleman or whaler can discharge their weapon.

Salvage = To collect and utilize a dead, unclaimed whale.

Schedule = A document maintained by the International Whaling Convention that governs the conduct of whaling throughout the world. The measures described in the Schedule, among other things, provide for the protection of certain species; designate specified areas as whale sanctuaries in which commercial whaling may not occur if it were to resume; set limits on the numbers and size of whales which may be taken; prescribe open and closed seasons and areas for whaling; and prohibit the capture of suckling calves and female whales accompanied by calves. The compilation of catch reports and other statistical and biological records is also required. The most recent Schedule was amended by the Commission at the 59th Annual Meeting in Anchorage, Alaska, May 28 - 31, 2007.

Scoping = An open process agencies must conduct under the National Environmental Policy Act to determine the range and significance of the issues to be analyzed in depth in an Environmental Impact Statement.

Seabird breeding colonies = Sites at which seabirds congregate to breed (e.g., the numerous islands, rocks, and cliffs along the Washington coast).

Shrapnel = Fragments from an exploded projectile such as a bullet or bomb.

Stinker = As defined by regulations implementing the Whaling Convention Act, stinker refers to a dead, unclaimed whale found upon a beach, stranded in shallow water, or floating at sea.

Stinky whale = Whales that have a strong chemical smell and claimed to be inedible.

Stock = As defined by regulations implementing the Marine Mammal Protection Act, the term stock (or population stock) means a group of marine mammals of the same species or smaller taxa in a common spatial arrangement, that interbreed when mature.

Strike/Struck = As defined by the June 2007 Schedule to the International Convention for the Regulation of Whaling, strike means to penetrate with a weapon used for whaling.

Subsistence catches = A phrase defined by the 1981 *Ad Hoc* Technical Working Group (but not formally adopted by the International Whaling Convention) to mean catches of whales by aboriginal subsistence whaling operations.

Take = As defined by the June 2007 Schedule to the International Convention for the Regulation of Whaling, take means to flag, buoy or make fast to a whale catcher. As defined by the Marine Mammal Protection Act, take means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.

Threatened species = As defined in the Endangered Species Act, a threatened species means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Toggle point = A specialized metal point that helps keep a harpoon from slipping out of a struck whale by means of a metal barb that actuates upon penetrating the whale's skin.

Transfer station = A site used to temporarily store refuse prior to transporting it to the end point of disposal or treatment (e.g., a landfill).

Treaty of Neah Bay = The United States government and the Makah Tribe entered into the Treaty of Neah Bay on January 31, 1855. In addition to reserving the right of taking fish at all usual and accustomed grounds and stations, Article IV of the treaty secured the rights of whaling or sealing. The Treaty of Neah Bay is the only treaty between the United States and an Indian tribe that expressly provides for the right to hunt whales.

United States Coast Guard (USCG) = A branch of the United States Department of Homeland Security involved in maritime law, mariner assistance, and search and rescue in America's coasts, ports, and inland waterways as well as international waters with security and economic interests to the United States.

United States Fish and Wildlife Service (FWS) = A bureau within the United States Department of the Interior responsible for enforcing federal wildlife laws, protecting threatened and endangered species, managing migratory birds, restoring nationally significant fisheries, conserving and restoring wildlife habitat such as wetlands, and helping foreign governments with their international conservation efforts. The FWS manages 520 National Wildlife Refuges, including the Washington Islands National Wildlife Refuges.

Usual and accustomed fishing grounds (U&A) = Areas in Washington where tribes have secured treaty rights to fish. The 1855 Treaty of Neah Bay secured these rights (including whaling and sealing rights) for the Makah tribe, and the tribe's U&A fishing grounds were adjudicated in *United States v. Washington*, 626 F.Supp. 1405, 1467 (W.D. Wash. 1985). The boundaries of this U&A include United States waters in the western Strait of Juan de Fuca as

well as open ocean areas of the Washington coast north of 48° 02' 15" latitude and east of 125° 44' 00" longitude.

Washington Islands National Wildlife Refuges = A complex of three National Wildlife Refuges (Flattery Rocks, Quillayute Needles, and Copalis) spanning over 100 miles of Washington's Pacific Coast. Refuge habitat consists of approximately 870 coastal rocks and reefs managed by the United States Fish and Wildlife Service primarily to protect seabird nesting.

Wasteful manner = As defined by regulations implementing the Whaling Convention Act, wasteful manner means a method of whaling that is not likely to result in the landing of a struck whale or that does not include all reasonable efforts to retrieve the whale.

Whale catcher = As defined by the Whaling Convention Act, a whale catcher is a vessel used for the purpose of hunting, killing, taking, towing, holding onto, or scouting for whales. The Makah tribe proposes to employ two types of whale catchers – a paddle-powered canoe(s) and a motorized chase boat.

Whaling captain = As defined by regulations implementing the Whaling Convention Act, a whaling captain or captain means any Native American who is authorized by a Native American whaling organization to be in charge of a vessel and whaling crew.

Whaling Convention Act (WCA) = A United States law that provides the framework for meeting United States obligations arising from the 1946 International Convention for the Regulation of Whaling. It provides for a United States Commissioner to the International Whaling Commission and authorizes the Secretary of State to present objections to that Commission's regulations. It establishes as unlawful whaling, transporting whales or selling whales, in violation of the Convention regulations. It sets up a whaling licensing framework, with fines and imprisonment for violations. Enforcement is primarily the responsibility of the Secretary of Commerce.

Whaling crew = As defined by regulations implementing the Whaling Convention Act, a whaling crew means those Native Americans under the control of a captain. A Makah whaling crew consists of eight Makah tribal members; one serving as captain and the rest as a harpooner and paddlers.