

ID #	Comment or Question	Final Response
1	We believe in rapid and robust oil spill response, and thus urge you to conduct more thorough analysis of dispersant use and impacts as well as consider additional safeguards.	Analysis of dispersant use and impacts is an ongoing endeavor that has been part of the dispersant policy-making process from its inception. Public comments about the overall Dispersant Use Plan for Alaska (Annex F, Appendix 1 of the Unified Plan) were sought from September through December 2013 and were incorporated into the final plan, which was signed on January 27, 2016. The comment period ending on January 9, 2017 solely sought public input to identify and delineate avoidance areas.
2	NMFS recommends that Habitat Areas of Particular Concern (HAPC) be considered as avoidance areas in the Alaska Dispersant Use Plan. The following HAPC areas are located (wholly or in part) within the preapproval area: Alaska Seamount Habitat Protection Areas, Bowers Ridge Habitat Conservation Zone, Gulf of Alaska Slope Habitat Conservation Areas, and some Skate Nursery Areas.	HAPCs were recommended as avoidance areas because the water column and the benthos could be impacted. Most HAPCs in the Preauthorization Area are landward of the 1,000-meter isobath and, therefore, already designated as avoidance areas where the case-by-case dispersant use authorization process would be used. Portions of certain HAPCs are seaward of the 1,000-meter isobath and were also designated as avoidance areas, except for seamounts, which are discreet features that are generally over 1,000 meters deep. There are no data to suggest the water columns above Alaska seamounts are uniquely productive. Given the depth and currents of surrounding waters, dispersant applications over seamounts would not likely impact the deep-sea habitat on seamounts themselves, so they were not recommended as avoidance areas.
3	Designate all Subarea Contingency Plan areas not just the Cook Inlet and Prince William Sound Subarea's. Seldovia Village Tribe opposes the use of dispersants of any kind in these areas. We have not seen a dispersant that works well in our colder waters or in CI conditions. Most seem to just sink the oil down to only be washed ashore in large cakes that still contaminate all they touch. The way the currents flow in the PWS and CI Meeting subarea's any oil or even oil acted upon by dispersants would come into CI Meeting and all its bays contaminating subsistence resources. Red lines on a map does not mean that water doesn't move passed those lines as some would have you think.	The Seldovia Village Tribe's opposition to dispersant use is noted. However, numerous scientific studies have shown dispersants to be effective in cold water (Belore et al., 2009; McFarlin et al., 2014; Steffek, 2015). Chemically dispersing an oil slick more than 24 nm offshore would likely reduce the amount of shoreline impacts that could potentially occur from oil spilled at sea. The Environmental Unit within the Unified Command would consider habitat and subsistence resources as primary factors when evaluating whether dispersants would be the best tool to use on a case-by-case basis.
4	See attachment for full comments. Cook Inlet RCAC recommends that dispersant use in the heads of Stevenson, Chiniak, and Barnabus troughs and nearby banks be avoided from mid-April through the end of September. The uncertainties of dispersing oil into high standing stocks of plankton (both phyto- and zoo-plankton) should preclude the assumption that a dispersed plume would be "transient." If dispersed oil is incorporated into the very base of the food chain, it would not be transient and has the potential to transfer risk throughout the food-web over a longer period of time. As well, the dispersed oil droplets can also interact with the high biomass of plankton and any suspended sediments, mucus, and associated microbes to potentially be transferred through the water column to the benthic environment, as well as being transported towards shore. If so, especially in shallower areas such as the Albatross and Portlock Banks, the marine oil snow could be a mechanism for introducing surface-dispersed oil to Essential Fish Habitat and benthic foodwebs.	The Dispersant Use Avoidance Area Technical Committee (Technical Committee) acknowledges the unique hydrodynamic patterns, nutrient flow, and enhanced productivity associated with these banks and troughs. The designation of avoidance areas landward of the 1,000-meter isobath includes these features, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and the potential to form marine snow would be factors to consider when making case-by-case decisions.
5	An area extending approximately 50 miles from the northern boundary of the Cook Inlet Subarea should be designated as Avoidance Areas for Dispersants. The Knik Tribe is opposed to the use of dispersants in the avoidance areas due to environmental impacts, impacts on human health and impacts on subsistence resources, and due to the failure of dispersants in the past such as the Exxon Valdez Oil Spill. ARRT and the NOAA, Coast Guard and DOI should open doors for tribes to contract via Section 17 Federal Corporations for spill response.	We note the Knik Tribe's opposition to using dispersants in avoidance areas. The Technical Committee, comprised of natural resource trustee agencies, identified all waters landward of the 1,000-meter isobath for avoidance area designation (See Attachment A). Additionally, habitat and subsistence resources are primary factors that the Environmental Unit (within the Unified Command) would consider when evaluating if dispersants would be an appropriate tool to use on a case-by-case basis. Contracting issues are outside the scope of the process to identify avoidance areas.
6	I'm writing on behalf of Cook Inletkeeper's more than 2500 members and supporters in Southcentral Alaska to endorse the comments submitted by the Prince William Sound Regional Citizens Advisory Council on the ARRT's Dispersant Preauthorization Plan.	Cook Inletkeeper's endorsement is noted.
7	Our comments focus on a discussion of the oceanography in the areas of Prince William Sound, Cook Inlet, and Kodiak Subareas, as well as a discussion on the significance of seamounts, continental slope areas, troughs, canyons, and banks. Attached to these comments are the Areas to be Avoided Public Input Forms for 17 areas in these three subareas.	Please see individual responses to specific recommendations below.
8	Hinchinbrook Canyon: Major glacial canyon formed during the last ice age. Provide routes for transport of nutrients to and from coastal waters, and migratory routes for many aquatic species. Several studies have shown migration of forage fish species and nutrients to and from PWS depend on a number of physical factors, particularly the volume of freshwater inputs. At times, the ecological health of PWS is tightly coupled to Central Gulf of Alaska (CGOA). At other times, it behaves as a more independent system. Hinchinbrook Canyon is an important conduit for exchange of both nutrients and critical species between PWS, the continental shelf, and the abyssal plain.	The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Hinchinbrook Canyon. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity would be considered when making case-by-case decisions.
9	Montague Trough: Major glacial canyon formed during the last ice age. Provide routes for transport of nutrients to and from coastal waters and migratory routes for many aquatic species. Several studies have shown migration of forage fish species and nutrients to and from Prince William Sound depend on a number of physical factors, particularly the volume of freshwater input. At times, the ecological health of PWS is tightly coupled to CGOA. At other times, it behaves as a more independent system. Montague Trough is an important conduits for exchange of both nutrients and critical species between PWS, the continental shelf, and the abyssal plain.	The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Montague Trough. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity would be considered when making case-by-case decisions.
10	Continental Shelf Break and Slope (PWS Subarea): The continental slope and shelf break are critical habitat. They are central to making the CGOA one of the most productive marine ecosystems in the world. This is where nutrients being carried north along the abyssal plain are first subject to topographic steering toward the surface.	The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with the continental shelf break and slope. The designation of avoidance areas landward of the 1,000-meter isobath largely includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity would be considered when making case-by-case decisions.
11	Gulf of Alaska Seamount Province (Giacomini & Quinn): Seamounts in the northern Pacific have been shown to be locations of major nutrient up-welling and concomitant elevation of primary and secondary productivity. This in turn leads to high abundance of various forage fishes and productive commercial fishing grounds. Fairly recent data logger-based studies have shown extensive winter utilization of these rich foraging areas by black legged kittiwakes during the winter. These seamounts may be important seasonal foraging areas for other seabirds, especially Alcids, and possibly marine mammals. Several research groups have extensive use of off-shelf areas for foraging. The forage fish concentrations are known to attract high seasonal concentrations of seabirds, pinnipeds, and a variety of cetaceans.	The Technical Committee was briefed by subject matter experts about the oceanography surrounding seamounts in the Gulf of Alaska. A peer-reviewed paper analyzed the literature surrounding seamounts around the world (Rowden et al. 2010), but there Alaska's seamounts haven't been characterized as thoroughly (Hughs, 1981; Raymore, 1982; Hoff & Stevens, 2005). Unlike many well-studied seamounts, Alaska's seamounts (and associated currents) do not reach the photic zone. Yet, evidence suggests they are stepping stones for migration, and the benthos supports seasonally high species richness and abundance. Data showed the maximum mixing zone for dispersed oil would be 150 meters or less, well above the top of Alaska's seamounts. Settling rates for marine snow are estimated at 1 cm to 1 m per day, depending on the type of substance being deposited. Given horizontal water currents and dynamic weather conditions, dispersed oil would be transported away from application sites before any portion settles to the sea floor. Therefore, surface waters directly above seamounts were not selected as avoidance areas.
12	Resurrection Trough: Ocean banks are often rich fishing grounds due to upwelling of a tidal influx of nutrients: rich commercial fishing grounds especially for halibut, Pacific cod and Alaska pollock. The highest primary production measured by the SeaWiFS data was above the troughs and banks of the continental shelf in the northern part of the Kodiak Subarea. Eulachon are spread widely along the continental shelf, including several off shore areas of significance. Both in "summer" and in "winter," the consumption of prey by marine birds over continental shelf waters was much greater than that over the basin of GOA. These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.	The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Resurrection Trough. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.
13	Amatuli Trough: Both the banks and troughs throughout the Kodiak Subarea support major commercial and subsistence fisheries (Mundy 2005). Juvenile fish and forage fish species in turn are necessary for the health of numerous fish eating sea bird and marine mammal species (NAS 2003, Mundy 2004, Mundy 2010). These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.	The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Amatuli Trough. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.
14	Portlock Bank: Ocean banks are often rich fishing grounds due to upwelling of a tidal influx of nutrients. One of the highest productivity banks: these have a long history as rich commercial fishing grounds, especially for halibut, Pacific cod and Alaska pollock. The highest primary production measured by the SeaWiFS data was above the troughs and banks of the continental shelf in the northern part of the Kodiak Subarea. Drifters used to depict trajectories show a tendency to congregate over Portlock Bank as would nutrients and less motile larval and prey species. These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.	The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Portlock Bank. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.

15	<p>Continental Shelf Break and Slope (Cook Inlet Subarea): The continental slope and shelf break are critical habitat. They are central to making the CGOA one of the most productive marine ecosystems in the world. This is where nutrients being carried north along the abyssal plain are first subject to topographic steering toward the surface. Different oceanographic teams favor the following mechanisms for the mixing of this nutrient-rich water onto the shelf, but all agree on the critical nature of this process.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with the continental shelf break and slope. The designation of avoidance areas landward of the 1,000-meter isobath largely includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity would be considered when making case-by-case decisions.</p>
16	<p>Stevenson Trough: Both the banks and troughs throughout the Kodiak Subarea support major commercial and subsistence fisheries (Mundy 2005). Juvenile fish and forage fish species in turn are necessary for the health of numerous fish eating sea bird and marine mammal species (NAS 2003, Mundy 2004, Mundy 2010). These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Stevenson Trough. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.</p>
17	<p>North Albatross Bank: Like Portlock Bank, North Albatross Bank is relatively shallow, fairly flat, very nutrient rich bank between Stevenson Trough and Chiniak Trough. It is the richest Banks near Kodiak City. These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with North Albatross Bank. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.</p>
18	<p>Chiniak Trough: Both the banks and troughs throughout the Kodiak Subarea support major commercial and subsistence fisheries (Mundy 2005). Juvenile fish and forage fish species in turn are necessary for the health of numerous fish eating sea bird and marine mammal species (NAS 2003, Mundy 2004, Mundy 2010). These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Chiniak Trough. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.</p>
19	<p>Barnabus Trough: Both the banks and troughs throughout the Kodiak Subarea support major commercial and subsistence fisheries (Mundy 2005). Juvenile fish and forage fish species in turn are necessary for the health of numerous fish eating sea bird and marine mammal species (NAS 2003, Mundy 2004, Mundy 2010). These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Barnabus Trough. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.</p>
20	<p>Middle Albatross Bank: Middle Albatross Bank is relatively shallow, fairly flat, very nutrient rich bank between Chiniak Trough and Barnabus Trough. It is narrower and closer to shore than North Albatross Bank so less of it is in the preauthorized area. Both the banks and troughs throughout the Kodiak Subarea support major commercial and subsistence fisheries (Mundy 2005). Juvenile fish and forage fish species in turn are necessary for the health of numerous fish eating sea bird and marine mammal species (NAS 2003, Mundy 2004, Mundy 2010). These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with Middle Albatross Bank. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.</p>
21	<p>South Albatross Bank: South Albatross Bank is the southern terminus of the greater Albatross Banks. It is south of Barnabus Trough and north of the Trinity Islands. It is the ecologically the least important of the Banks in the preauthorized area. Both the banks and troughs throughout the Kodiak Subarea support major commercial and subsistence fisheries (Mundy 2005). Juvenile fish and forage fish species in turn are necessary for the health of numerous fish eating sea bird and marine mammal species (NAS 2003, Mundy 2004, Mundy 2010). These highly productive areas are important for many human uses of the abundant living resources, including commercial fishing, a plethora of recreational uses, and traditional and customary uses of the Alaska Natives of the area. They also provide habitat and food sources for endangered cetaceans and pinnipeds.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with South Albatross Bank. The designation of avoidance areas landward of the 1,000-meter isobath includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity and cultural significance would be considered when making case-by-case decisions.</p>
22	<p>Continental Shelf Break and Slope (Kodiak Subarea): The continental slope and shelf break are critical habitat. They are central to making the CGOA one of the most productive marine ecosystems in the world. This is where nutrients being carried north along the abyssal plain are first subject to topographic steering toward the surface. Different oceanographic teams favor the following mechanisms for the mixing of this nutrient-rich water onto the shelf, but all agree on the critical nature of this process.</p>	<p>The Technical Committee acknowledges the unique hydrodynamic patterns, nutrient flow, and productivity correlated with the continental shelf break and slope. The designation of avoidance areas landward of the 1,000-meter isobath largely includes this feature, which would be subject to the case-by-case dispersant use authorization process. Ecological productivity would be considered when making case-by-case decisions.</p>
23	<p>Patton Seamount Province: Seamounts in the northern Pacific have been shown to be locations of major nutrient up-welling and concomitant elevation of primary and secondary productivity. This in turn leads to high abundance of various forage fishes and productive commercial fishing grounds. Fairly recent data logger-based studies have extensive winter utilization of these rich foraging areas by black legged kittiwakes during the winter. These seamounts may be important seasonal foraging areas for other seabirds, especially Alcids, and possibly marine mammals. Several research groups have extensive use of off-shelf areas for foraging. The forage fish concentrations are known to attract high seasonal concentrations seabirds, pinnipeds, and a variety of cetaceans.</p>	<p>The Technical Committee was briefed by subject matter experts about the oceanography surrounding seamounts in the Gulf of Alaska. A peer-reviewed paper analyzed the literature surrounding seamounts around the world (Rowden et al. 2010), but Alaska's seamounts haven't been characterized as thoroughly (Hughs, 1981; Raymore, 1982; Hoff & Stevens, 2005). Unlike many well-studied seamounts, Alaska's seamounts (and associated currents) do not reach the photic zone. Yet, evidence suggests they are stepping stones for migration, and the benthos supports seasonally high species richness and abundance.</p> <p>Data showed the maximum mixing zone for dispersed oil would be 150 meters or less, well above the top of Alaska's seamounts. Settling rates for marine snow are estimated at 1 cm to 1 m per day, depending on the type of substance being deposited. Given horizontal water currents and dynamic weather conditions, dispersed oil would be transported away from application sites before any portion settles to the sea floor. Therefore, surface waters directly above seamounts were not selected as avoidance areas.</p>
24	<p>Avoid Designated Essential Fish Habitats. Consult with [IPHC] and other subject matter experts.</p>	<p>The Technical Committee considered Essential Fish Habitat (EFH) when identifying avoidance areas. Under the Magnuson-Stevens Act, federal agencies must consult with the National Marine Fisheries Service (NMFS) regarding any action that may adversely affect EFH. A subset of EFH, known as Habitat Areas of Particular Concern (HAPC), exists within the Preauthorization Area (https://alaskafisheries.noaa.gov/habitat/hapc). HAPCs highlight specific habitat areas with extremely important ecological functions and/or areas that are especially vulnerable to human-induced degradation. The Technical Committee received input from subject matter experts on the importance of designating these areas as avoidance areas. Although they did not contact the IPHC, they did consult with commercial fishing experts at NMFS to better understand the location and timing of fisheries. HAPCs, with the exception of seamounts, were designated as avoidance areas.</p>
25	<p>I would suggest that you examine the coastal current flow and "gyers" which extend inshore into the bays on the east side of Kodiak: as well as Alaska Peninsula and Aleutians, and Aleutian passes. Waters "off shore" flow into the near shore bays and passes. A blanket distance off shore for Kodiak, Alaska Peninsula and the Aleutians will not guarantee biological integrity of near shore habitat. Recommend you check NOAA biological and oceanographic reports. There was an excellent series of oceanographic "gyers" completed off Kodiak in the 1970's "Outer Continental Shelf" (OCS). NOAA has completed other extensive work since then. There is a considerable flow inshore from the south flowing coastal current. Thanks for the opportunity to comment.</p>	<p>The Technical Committee consulted with a physical oceanographer to learn more about the potential for transport of dispersed oil by currents within the Preauthorization Area. The committee agreed that a blanket distance from shore does not adequately address biologically important areas that could be impacted by dispersant use. Thus, the furthest seaward boundary (either 24 nm offshore or the 1,000-m isobath) was determined to be more consistently protective and was designated as the dividing line to separate the case-by-case authorization process from the preauthorization process.</p>
26	<p>The migration corridors for the baleen whales and the feeding areas for the albatross should be Avoidance Areas.</p>	<p>These locations were identified during the Endangered Species Act (ESA) Section 7 consultation on the Unified Plan and have been designated as avoidance areas where dispersant use would be evaluated according to the case-by-case authorization process. Per the U.S. Fish and Wildlife Service's (USFWS) Biological Opinion, concentration areas for short-tailed albatross within the Preauthorization Area were designated as avoidance areas. Likewise, the NMFS's Biological Opinion designated North Pacific right whale critical habitat and a 20-mile buffer around these areas as avoidance areas. In addition, North Pacific right whale Biologically Important Areas were designated as avoidance areas.</p>
27	<p>The avoidance areas should be seasonally adjusted so the use of dispersants would not occur when the gametes, eggs and larval stages are present.</p>	<p>Avoidance areas were identified to minimize impacts where high concentrations of sensitive early life stages, such as gametes, embryos, and larvae, are likely to be seasonally present. The Environmental Unit would provide input to the Federal On-Scene Coordinator (FOSC), including seasonal factors such as presence and abundance of sensitive life stages, during the dispersant use decision-making process. The Unified Command would evaluate potential trade offs using a net environmental benefit approach or other methodology prior to dispersant use.</p>

28	The critical habitat areas currently designated for the albatross should be extended an additional 40 miles to provide additional buffers for the critical habitat and that the Preauthorized Area encompasses migration and feeding areas for other whales.	Specific locations were identified during the ESA Section 7 consultations on the Unified Plan and have been designated as avoidance areas where dispersant use would be evaluated according to the case-by-case authorization process. Per the USFWS Biological Opinion, concentration areas for short-tailed albatross within the Preauthorization Area were designated as avoidance areas, based on satellite-tracked albatross locations. Likewise, the NMFS Biological Opinion designated North Pacific right whale critical habitat and a 20-mile buffer around these areas as avoidance areas. In addition, North Pacific right whale Biologically Important Areas were designated as avoidance areas. The USFWS and NMFS consider these areas to be protective of these listed species.
29	The contiguous zone should be extended out to include the Kodiak whale habitat and extend into the Bristol Bay whale habitat. The Avoidance Areas should also include the migratory routes.	North Pacific right whale critical habitat was considered during the ESA Section 7 consultation on the Unified Plan and has been designated as avoidance areas where dispersant use would be evaluated according to the case-by-case authorization process. The NMFS Biological Opinion designated North Pacific right whale critical habitat and a 20-mile buffer around these areas as avoidance areas. In addition, North Pacific right whale Biologically Important Areas were designated as avoidance areas. The Biological Opinion and Biologically Important Areas designation process included an analysis on migratory routes and other important life history areas, not all of which were designated as avoidance areas.
30	The focus of the Committee should be to recommend Avoidance Areas where there are juvenile and larval fish in the upper level of the water column.	Avoidance areas were identified to minimize impacts to high concentrations of sensitive early life stages, such as juvenile and larval fish. Essential Fish Habitat for these life stages are typically found shoreward of the shelf break and have been designated as avoidance areas where dispersant use would be evaluated according to the case-by-case authorization process.
31	The preauthorization areas are inconsistent with the protection of endangered species and sensitive areas that Alaskans are entitled to. All preauthorization zones should be suspended until they have provided Alaskans equal protection in the mechanical recovery and including areas of lightering, firefighting and salvage to prevent the oil from spilling.	An ESA Section 7 consultation was conducted on the Unified Plan and completed in May 2015. Avoidance areas were designated based on the results of this consultation. Furthermore, additional avoidance areas were established to minimize potential impacts to other sensitive habitats, species, and life stages.
32	The preauthorization areas and designation of avoidance areas should be suspended until a study is completed to establish the consequences of driving the light end compounds into the water and if this outweighs the benefit of adding dispersants to the water.	Smaller chain compounds tend to dissolve into the water column or volatilize (weather) more readily and rapidly than larger compounds, regardless of whether dispersants are used. Lighter, volatile compounds quickly dissipate, so it is unlikely the Unified Command would be capable of applying dispersants when high concentrations of lighter compounds are still present.
33	The Native Village of Tatitlik supports maintaining dispersants as a response option in the event of another catastrophic oil spill in the offshore preauthorized zone. It supports the designation of Avoidance Areas by the stakeholders and resource agencies. The tribal government insists on consultation prior to the use of dispersants within or in the vicinity of PWS.	The U.S. Coast Guard (USCG) conducted government-to-government tribal consultation in accordance with Executive Order 13175 during the development of the Dispersant Use Plan for Alaska. The establishment of Dispersant Avoidance Areas Sections within appropriate subarea contingency plans was directed by the Dispersant Use Plan for Alaska and is, therefore, covered under that same consultation. Also, avoidance areas will be maintained by subarea committees that are open to membership by federally-recognized tribes. In addition to government-to-government tribal consultation, the USCG, U.S. Environmental Protection Agency (EPA), and Alaska Department of Environmental Conservation (ADEC) conducted additional community outreach in Valdez, Kenai, Kodiak, and Unalaska, along with a booth at the Bureau of Indian Affairs Providers Conference in Anchorage, to provide the opportunity for additional public comment by federally-recognized tribes prior to the identification of avoidance areas. Further, the Dispersant Use Plan for Alaska requires notification to a representative for each appropriate federally-recognized tribe if the FOSC decides to authorize the use of dispersants in the Preauthorization Area. The plan also requires notification to, and a request for input from, federally-recognized tribes during the authorization process for dispersant use in an avoidance area or Undesignated Area.
34	How long have dispersants been used for spills and how often they are used?	Dispersants have been routinely used in some countries since the 1960s. A recent report by the Oil Spill Intelligence Report indicates that 36 out of 149 countries rely on dispersants as their primary response option; another 62 consider it a secondary option. There have been over 213 instances of dispersant use over the last four decades around the world, with less than 30 instances in North America.
35	Are there any studies that look at what happens if dispersed oil encounters sediment or sand?	There have been numerous studies about what happens when dispersed oil encounters sediment or sand, including studies of transport and fate, chemical characterization, and toxicity. Furthermore, workshops have been held to evaluate the state of the science. The following are a few relevant citations, though this is not a comprehensive list: 1) Gong, Y., et al. (2014). "A review of oil, dispersed oil and sediment interactions in the aquatic environment: Influence on the fate, transport and remediation of oil spills." Marine Pollution Bulletin 79(1-2): 16-33. 2) Lee, K. (2002). "Oil-particle interactions in aquatic environments: Influence on the transport, fate, effect and remediation of oil spills." Spill Science & Technology Bulletin 8(1): 3-8. 3) Page, C. A., et al. (2000). "Behavior of a chemically-dispersed oil and a whole oil on a near shore environment." Water Research 34(9): 2507-2516. 4) Daly, K. L., et al. (2016). "Assessing the impacts of oil-associated marine snow formation and sedimentation during and after the Deepwater Horizon oil spill." Anthropocene 13: 18-33.
36	Is mechanical recovery possible for oil that has had dispersants applied and has resurfaced?	The Bureau of Safety and Environmental Enforcement conducted controlled studies at OHMSETT in September 2016 and found mechanical recovery of partially dispersed oil was impaired, but still possible. The degree of impairment has not yet been quantified, and results have not yet been published. Preliminary results are available in ISCO 567 Newsletter, pages 8 & 9 (http://spillcontrol.org/2013-02-05-11-11-41/2013-02-05-11-26-54).
37	How do responders know if the dispersants will be effective in replacing the other response strategies?	The goal is not to replace, but to supplement mechanical recovery when/if it becomes insufficient, impractical, or otherwise infeasible. Prior to authorizing a full-scale application of dispersants during an oil spill, the FOSC must conduct a field test application. Efficacy monitoring would be conducted and analyzed on a daily basis to determine whether dispersant applications would continue, be postponed, or cease and whether any modifications would need to be made.
38	What are the operating temperatures at which the dispersants are effective and are they affected by the seasonality in cold climates?	Low to medium viscosity oil (less than 1,000 to 2,000 centipoise) are readily dispersible in seawater at freezing temperatures as long as the oil remains fluid. Corexit 9500 was specifically shown to be over 70% effective on Alaska North Slope/Cook Inlet crude at water temperatures between 26-32°F.
39	With the temporarily increased concentration of hydrocarbons in the water column after the use of dispersants, how many parts per million (ppm) would be present, how long would they persist and what depths would they would be present?	Concentrations of Total Petroleum Hydrocarbons would vary based on a number of factors, such as the chemical characteristics of the oil and environmental conditions. Dispersed oil concentrations of approximately 100 ppm would likely occur in the top 1 meter from the surface within seconds of the application. Dispersed oil concentrations would begin to diminish to about 1-100 ppm in 2-3 meters from the surface within minutes to an hour after application, typically falling to approximately 1 ppm within five hours due to dispersion, diffusion, dilution, and microbial metabolism. Dispersed oil concentrations continue to diminish to less than 1 ppm in the upper 5-10 meters of the water column within several hours of the application.
40	How does dispersed oil travel in the water column?	Dispersed oil droplets become entrained in the water column at depths generally ranging from 1-10 meters, though extreme mixing and poorly stratified water can allow mixing to greater depths. Within the water column, dispersed oil droplets move vertically and horizontally based on the currents. Dispersed oil that forms oil-mineral aggregates, binds with sediment, or becomes incorporated into biological material (e.g., marine snow) can behave differently and may undergo sedimentation.
41	Is the dispersed oil more available to affect sensitive resources?	Chemically dispersing oil increases the concentration of oil in the water column and the bioavailability of oil chemicals to organisms in the water column. Elevated concentrations of dispersed oil in the water column would generally affect resources in the top 10 meters, and the concentrations would decrease rapidly due to dilution. Some pelagic species or life stages may be more impacted by chemically dispersed oil than undispersed oil. However, chemically dispersing oil reduces the presence of surface slicks, which may reduce exposure in organisms that live or breathe at the water surface. It may also prevent oil from reaching nearshore and shoreline areas, thereby reducing exposure to resources in those areas.
42	Are the microbes that digest the oil well-distributed throughout Alaska waters?	Yes, microbes that digest oil are considered to be ubiquitous, both horizontally and vertically, in the water column. With sufficient nutrients and the addition of a food source (oil), they would reproduce exponentially until a limiting factor is reached (food, oxygen, nutrients, etc.). Then their population would decline to baseline levels as food/nutrient availability diminishes.
43	How valid are the studies and tests of dispersants for use in Alaska waters?	Dispersants have been tested under environmental conditions that are relevant to Alaska waters and shown to be effective in cold temperatures. Furthermore, dispersants have been used and shown to be effective in northern regions with conditions similar to Alaska waters, for example in Norway. The scientific studies that influence dispersant use policies and decisions have been vetted through the scientific review process, including peer review and additional scrutiny by the scientific and emergency response communities.
44	The findings in the study cited for cold water dispersant testing should be discounted due to the study being manipulated during testing.	Multiple published studies were used to draw conclusions about dispersant efficacy in cold water conditions. There is no evidence or reason to suspect manipulation of OHMSETT's experimental protocol, which was discussed during public meetings.
45	The use of dispersants early in a response would place the lighter compounds of the oil into the water column that would typically dissipate. These compounds are more toxic than the polycyclic aromatic hydrocarbons.	Smaller chain compounds tend to dissolve into the water column or volatilize (weather) more readily and rapidly than larger compounds, regardless of whether dispersants are used. Lighter, volatile compounds quickly dissipate, so it is unlikely the Unified Command would be capable of applying dispersants when high concentrations of lighter compounds are still present. The lighter compounds may be more acutely toxic than polycyclic aromatic hydrocarbons (PAH), but PAHs are more persistent and exhibit certain types of toxicity at low concentrations (such as developmental toxicity in fish embryos at low ppb doses).

<p>46 The studies cited did not consider the possible presence of a freshwater lens from the Alaska Coastal Current. The presence of the freshwater would further limit the dispersant effectiveness.</p>	<p>A trial application for efficacy testing would be carried out prior to a full-scale dispersant application. If oceanographic conditions, such as low salinity, are not conducive to dispersant use, no further applications would be carried out. Additionally, long-term monitoring in the Gulf of Alaska have recorded monthly mean surface salinity profile ranges from 25-32 mg/L at the surface, which is within the range for effective use of dispersants.</p>
<p>47 There is a lack of consideration on the effects of dispersants on cetaceans that may mistake dispersed oil as food or consume affected organisms. The ingestion would bio-accumulate toxins within these species.</p>	<p>Operationally, the Dispersant Use Plan for Alaska contains mitigation measures to lessen the risk of impacts to cetaceans, including spotter planes and buffer zones to avoid whales during application. Environmental trade-offs of dispersant use, including direct and indirect impacts to cetaceans, would be analyzed on an incident-specific basis to determine which response methods are most appropriate. Potential effects of dispersants on cetaceans, their prey, and critical habitat were analyzed in the NMFS Biological Opinion from the ESA Section 7 consultation on the Unified Plan. To learn more about the environmental trade-offs of dispersant use and possible effects to cetaceans, review the NMFS Biological Opinion here: https://alaskafisheries.noaa.gov/sites/default/files/Alaska%20Unified%20Plan%20BIOP%20515_15.pdf.</p>
<p>48 The presentations on the policy and science of the dispersants is appreciated, but dispersant use is still somewhat of an experiment, especially in Alaska. There is considerably more knowledge in warm-water and not enough in cold-water environments.</p>	<p>Potential effects of dispersants on cetaceans, their prey, and critical habitat were analyzed in the NMFS Biological Opinion from the ESA Section 7 consultation on the Unified Plan. To learn more about the environmental trade-offs of dispersant use and possible effects to cetaceans, review the NMFS Biological Opinion here: https://alaskafisheries.noaa.gov/sites/default/files/Alaska%20Unified%20Plan%20BIOP%20515_15.pdf.</p>
<p>49 There would be significant movement of dispersed oil into the migration routes and sensitive areas and the effectiveness of dispersants would be limited due to the fresh water lens associated with the Alaska Coastal Current.</p>	<p>Avoidance areas were identified to minimize impacts to migratory species and their habitats, such as birds, marine mammals, and fish. Regarding the potential influence of salinity on dispersant effectiveness, a trial application for efficacy testing would be carried out prior to a full-scale dispersant application. If oceanographic conditions, such as low salinity, are not conducive to dispersant use, no further applications would be carried out. Additionally, long-term monitoring in the Gulf of Alaska have recorded monthly mean surface salinity profile ranges from 25-32 mg/L at the surface, which is within the range for effective use of dispersants.</p>
<p>50 Were impacts of bioaccumulation considered in developing the ESA consultation and are the reports available?</p>	<p>Exposures to dispersed oil contaminants via the food chain were considered. The Biological Opinions developed by the USFWS and NMFS are available here: https://alaskafisheries.noaa.gov/protectedresources/esa/section7/akunifiedplanbiop051515.pdf and http://www.fws.gov/alaska/fisheries/endangered/pdf/2011-0036%20Unified%20Plan%20Consultation_27Feb2014_FINAL.pdf.</p>
<p>51 Do dispersants drive all the oil into the water column, even the more toxic lighter elements, which then places biota at a higher risk of being damaged or impacted?</p>	<p>Effective dispersant application facilitates the dispersion of oil droplets into the water column, but all response strategies pose environmental trade-offs. Dispersant use may temporarily increase oil exposure to organisms in the water column, while reducing exposure to surface dwelling organisms. Although lighter compounds are more acutely toxic, they tend to dissolve into the water column or evaporate (weather) more readily and rapidly than larger compounds, regardless of whether dispersants are used. Lighter, volatile compounds quickly dissipate, so it is unlikely the Unified Command would be capable of applying dispersants when high concentrations of lighter compounds are still present.</p>
<p>52 It was pointed out that in certain conditions dispersants may be 30% effective. This leaves oil remaining on the surface and dispersed oil in the water column. Is that making a meaningful difference in protecting the environment?</p>	<p>The effectiveness of using chemical dispersion would need to be tested on an incident-specific basis to account for specific environmental conditions, oil properties, and weathering. Effectiveness testing would be required by the FOSC prior to authorization of a full-scale dispersant application in the Preauthorization Area. When considering whether dispersant use is protective of the resources and habitats at risk, trade-offs associated with reducing surface oil by dispersing it into the water column would be evaluated. Regarding the statement about dispersant effectiveness, controlled studies at OHMSETT showed 72.7% effectiveness of Corexit 9500 on Alaska North Slope/Cook Inlet blended crude after only 20 minutes, so a conservative estimate of 30% effectiveness was offered in the presentations for comparison with mechanical response, which might only yield 10% recovery under optimal conditions.</p>
<p>53 There is remaining oil from the Exxon Valdez spill under the gravel on many beaches. How long would this oil continue to be there before it breaks up?</p>	<p>The Exxon Valdez Oil Spill Trustee Council has funded studies on lingering oil. The most recent study, published in 2016, discussed this topic in great detail and can be accessed at http://www.evostc.state.ak.us/Universal/Documents/Publications/04-05-16_March_2016_LO_Update.pdf.</p>
<p>54 The consultation with tribal governments was inadequate in this and all other contingency planning efforts.</p>	<p>The USCG conducted government-to-government tribal consultation in accordance with Executive Order 13175 during the development of the Dispersant Use Plan for Alaska. The establishment of Dispersant Avoidance Areas Sections within appropriate subarea contingency plans was directed by the Dispersant Use Plan for Alaska and is, therefore, covered under that same consultation. Also, avoidance areas will be maintained by subarea committees that are open to membership by federally-recognized tribes. In addition to government-to-government tribal consultation, the USCG, EPA, and ADEC conducted additional community outreach in Valdez, Kenai, Kodiak, and Unalaska, along with a booth at the Bureau of Indian Affairs Providers Conference in Anchorage, to provide the opportunity for additional public comment by federally-recognized tribes prior to the identification of avoidance areas. Further, the Dispersant Use Plan for Alaska requires notification to a representative for each appropriate federally-recognized tribe if the FOSC decides to authorize the use of dispersants in the Preauthorization Area. The plan also requires notification to and a request for input from federally-recognized tribes during the authorization process for dispersant use in an avoidance area or Undesignated Area.</p>
<p>55 What are the regulations for facilities that are required to have dispersant capabilities?</p>	<p>The Preauthorization Area ensures the USCG can require certain vessel and facility response plan holders in Alaska to maintain a minimum dispersant use capability. Regulations for facilities required to have dispersant capabilities can be found in the USCG August 31, 2009, rulemaking, 33 CFR Parts 154 and 155 "Vessel and Facility Response Plans for Oil: 2003 Removal Equipment Requirements and Alternative Technology Revisions: Final Rule."</p>
<p>56 There are ongoing changes in habitat and resource concentration occurring in the area, particularly with the herring and herring fisheries. How often would the Avoidance Areas be evaluated so that changes may be made if necessary?</p>	<p>Avoidance areas within the Preauthorization Area are included in a Dispersant Avoidance Areas Section within each applicable subarea contingency plan. These subarea contingency plans are updated on a five-year basis unless critical updates require more timely, out-of-cycle changes. During each update, agency planners request community input and then post a draft of the update for public comment. Feedback to improve these plans is always welcome and can be submitted to: decsparrplanning@alaska.gov. Please write "**** Subarea Contingency Plan Feedback ****" in your subject line to ensure your comments can be queried and prioritized by agency planning staff.</p>
<p>57 Was the Steller sea lion considered in the ESA consultation?</p>	<p>Steller sea lions were considered in the Biological Opinion developed by the NMFS for the ESA Section 7 consultation on the Unified Plan, which is available at https://alaskafisheries.noaa.gov/sites/default/files/Alaska%20Unified%20Plan%20BIOP%20515_15.pdf.</p>
<p>58 Responsible parties are required to have the ability to begin mobilize dispersant capabilities within 8 hours and be able to deploy within 96 hours. Due to the geographic remoteness of the area, how do the contingency plans account for the transit times and logistical considerations to be able to meet this requirement?</p>	<p>33 CFR 154.1045 (i) (1) states, "Dispersant response resources must be capable of commencing dispersant-application operations at the site of a discharge within 7 hours of the decision by the Federal On-Scene Coordinator to use dispersants." All dispersant applications (including field tests) would include effectiveness monitoring as outlined in the Special Monitoring of Applied Response Technologies (SMART) Tier 1, Tier 2, and Tier 3 protocols. In the event it is not possible (e.g., due to logistical, weather, and/or sea conditions as confirmed or determined by the FOSC) to conduct SMART Tier 2 and Tier 3 monitoring in the Preauthorization Area, the request for dispersant use or continued use would be considered via the case-by-case authorization process. The only exception would be incidents where vessels serving as SMART Tier 2 and 3 monitoring platforms are unable to travel within 7 hours to a spill site. In those cases, an initial field test would be conducted using SMART Tier 1 monitoring. Prior to the FOSC authorizing any full-scale dispersant application, a second field test would be conducted within 24 hours following the FOSC's decision to use dispersants or as soon as possible thereafter. The second field test would include SMART Tier 1, 2, and 3 monitoring.</p>
<p>59 Would the transport of oil produced in the arctic impact the Dispersant Use Plan?</p>	<p>All Alaska waters are covered under the Dispersant Use Plan for Alaska. There are two processes for dispersant use authorization, one for the Preauthorization Area and another case-by-case process for Undesignated Areas (waters outside the Preauthorization Area) and avoidance areas within the Preauthorization Area, which are published in appropriate subarea contingency plans. The boundaries of the Preauthorization Area were based on the location of common shipping routes followed by crude oil vessels regulated under the USCG August 31, 2009, rulemaking, 33 CFR Parts 154 and 155 "Vessel and Facility Response Plans for Oil: 2003 Removal Equipment Requirements and Alternative Technology Revisions: Final Rule." During future contingency plan updates, changes in common shipping routes followed by crude oil vessels could initiate updates to the Preauthorization Area.</p>
<p>60 The report "Prince William Sound Dispersants Monitoring Protocol: Implementation and Enhancement of SMART Monitoring" should be adopted into the Appendix F of the Unified Plan. This report has additional suggestions on monitoring dispersant use both pre and post spill and will increase the level of protection to the environment.</p>	<p>This process was specifically focused on identifying avoidance areas for dispersant use within the Preauthorization Area in Alaska. This comment will be passed on to the co-chairs of the Alaska Regional Response Team, which is responsible for updating the Unified Plan.</p>

	<p>The National Environmental Policy Act should be a part of this process and there should be analysis of the various scenarios to establish the "no" application option.</p>	<p>Act (NEPA) requirements is to ensure government agencies have considered impacts to the environment during their decision making process. When multiple federal agencies are involved, it is incumbent on the lead agency to determine what extent of compliance is sufficient. US Coast Guard was deemed lead federal agency and, therefore, was responsible for NEPA review. However, NEPA is only applicable to federal actions in the territorial sea (i.e., waters up to 12 nautical miles from shore). The federal action under consideration was development of the 2016 Dispersant Use Plan for Alaska (Unified Plan, Annex F, Appendix 1). This plan includes preauthorization areas for dispersant use, but only beyond 24 nautical miles offshore. Thus, NEPA does not apply to this federal action. Nevertheless, the Coast Guard gave careful consideration to potential impacts of the plan on the environment and communities. To that end, it consulted with the US Fish and Wildlife Service as well as the National Marine Fisheries Service regarding potential impacts and mitigation measures dispersants may have on marine mammals and endangered species (to ensure compliance with the Marine Mammal Protection Act and Endangered Species Act), as well as Essential Fish Habitat Analysis.</p> <p>When this new policy was being drafted, an ARRT-based interagency policy development team ensured extensive public outreach -- including tribal consultations -- in five hub locations within subareas affected by the change. Public comments were sought at these hub area events and through the State of Alaska's public comment process. All public (and tribal) comments were considered during the process. Once this new policy was implemented (January 2016), US Coast Guard Federal On-Scene Coordinators (FOSCs) were directed by the ARRT to lead development of dispersant avoidance areas within each subarea of the new dispersant preauthorization zone. This phase also conducted public outreach at several hub communities, sought public input at the subarea level, and underwent the state's public comment process. This input was considered and strongly influenced dispersant avoidance areas.</p> <p>The 2016 Dispersant Use Plan for Alaska covers policy for US Coast Guard oil or hazardous substance removal, which are exempt by NEPA Categorical Exclusion (22) (CATEX). Given</p>
61	<p>A report has noted that if opportunity for mechanical recovery is diminished, so too is the ability to use dispersants. Both methods would be affected by adverse conditions.</p>	<p>Certain conditions favor one response strategy over another. Mechanical recovery is more effective in calm water, whereas successful dispersant use requires a certain amount of mixing (wind/wave) energy. Dispersants may be applied in a broader range of environmental conditions, such as high winds and rough seas, than mechanical recovery. Adverse conditions may prevent both response options from being safely and effectively used.</p>
62	<p>In Alaska, SERVS is the only oil spill response organization that is certified to conduct open ocean recovery operations and they limit their operations in adverse conditions. The US Coast Guard is failing to abide by its own regulations for ensuring that response assets are tailored to meet local conditions and they have policies for alternative compliance that essentially guts OPA 90.</p>	<p>The USCG expects and enforces the highest degree of response capability practicable within the national planning standards, but understands the difficulties associated with improving response capabilities in certain remote areas, particularly in Alaska. Pursuant to 33 C.F.R. part 155, vessel owner/operators are required to prepare Vessel Response Plans (VRP) with Geographic Specific Appendices for each Captain of the Port Zone in which a vessel intends to operate. VRPs cover an extensive list of planning requirements for oil and hazardous substance clean-up, including salvage and marine firefighting capabilities. The intention of alternative planning criteria is to identify and address resource gaps until private industry response resources are sufficiently built up in remote areas to meet the national planning standards. The USCG considers alternatives to be temporary and not a replacement for the national planning criteria. The USCG believes that over time, the resources will increase to a point where alternative planning criteria will not be needed.</p>
63	<p>The Western Alaska COTP zone is too large and there is a lack of accountability by the USCG and the ARRT to comply with OPA 90.</p>	<p>The Western Alaska Captain of the Port Zone is defined in Federal Regulation 33 CFR 3.85-15. There is a defined process for petitions for rulemaking under 33 CFR 1.05-20. This section encourages public participation in the rulemaking process and provides specific guidance for petitioners to submit requests directly to the Executive Secretary of the Marine Safety and Security Council.</p>
64	<p>Would there be any information regarding these Avoidance Areas in the Subareas Contingency Plans (SCP)?</p>	<p>Avoidance areas within the Preauthorization Area are included in the Dispersant Avoidance Areas Section within each applicable subarea contingency plan.</p>
65	<p>How will the proposed changes to the subarea boundaries affect the designation of the areas and the updates of the plans?</p>	<p>Avoidance areas are particular geographic areas that are described and will be maintained and updated within appropriate subarea or area contingency plans, regardless of the number of future plans or geographic boundaries for plans that may come into existence.</p>
66	<p>If there were exclusion zone established would these be included in the SCP or in the Unified Plan and how often would these be updated?</p>	<p>There are no exclusion zones defined in the Dispersant Use Plan for Alaska. Instead, avoidance areas can be identified within the Preauthorization Area. An avoidance area requires the FOSC to use the case-by-case authorization process. Avoidance areas within the Preauthorization Area are included in a Dispersant Avoidance Areas Section within each applicable subarea contingency plan. Individual subarea contingency plans are updated on a five-year basis unless critical updates require more timely, out-of-cycle changes. During each update, agency planners request community input and then post a draft of the update for public comment. Feedback to improve these plans is always welcome and can be submitted to: decsparplanning@alaska.gov. Please write "**** Subarea Contingency Plan Feedback ****" in your subject line to ensure your comments can be queried and prioritized by agency planning staff.</p>
67	<p>The reduction of the number of subareas from ten to four will combine vastly different environments and Native tribes into a single plan. This will not be effective and it is particularly offensive to the Native groups.</p>	<p>Avoidance areas are particular geographic areas that are described and will be maintained and updated within appropriate subarea or area contingency plans, regardless of the number of future plans or geographic boundaries for plans that may come into existence. In any future planning structure, the USCG remains committed to working with federally-recognized tribes to update contingency plans.</p>
68	<p>This is policy for all of Alaska for the Dispersant Policy, where is the consideration for Southeast and other locations in Alaska?</p>	<p>This process was specifically focused on identifying avoidance areas for dispersant use within the Preauthorization Area, which intersects five subareas including Prince William Sound, Cook Inlet, Kodiak, Bristol Bay, and Aleutian Islands. Since Southeast and other parts of Alaska are not located in the Preauthorization Area, dispersant use decisions would be made on a case-by-case basis in those areas.</p>
69	<p>Will the comments be publicly available?</p>	<p>Yes, the comments and responses will be summarized in a table and posted online at http://dec.alaska.gov/spar/PPR/dispersant.htm for public review.</p>
70	<p>After the comments are submitted and the process is moved to the Technical Committee, would that be the final opportunity for input regarding dispersant use in the SCP?</p>	<p>Dispersant Avoidance Areas Sections underwent additional public review between October 20 – December 1, 2017. Avoidance areas in the Preauthorization Area are included in these sections within each applicable subarea contingency plan. Individual subarea contingency plans are updated on a five-year basis unless critical updates require more timely, out-of-cycle changes. During each update, agency planners will again request community input and then post a draft of the update for public comment. Feedback to improve these plans is always welcome and can be submitted to: decsparplanning@alaska.gov. Please write "**** Subarea Contingency Plan Feedback ****" in your subject line to ensure your comments can be queried and prioritized by agency planning staff.</p>
71	<p>Can the current comment period be extended? Some people and organizations may not have adequate time to get comments due to holidays approaching and the limited time frame?</p>	<p>Unfortunately, we were not able to extend the comment period for this effort to identify avoidance areas for dispersant use within the Preauthorization Area. However, additional feedback can be submitted at any time. Contingency planning is an inclusive process that is designed to consider all feedback and suggestions from interested agencies, stakeholders, and tribes. Avoidance areas are maintained in subarea contingency plans, and comments to improve these plans can be submitted to: decsparplanning@alaska.gov. Please write "**** Subarea Contingency Plan Feedback ****" in your subject line to ensure your comments can be queried and prioritized by agency planning staff.</p>
72	<p>Once the stakeholders weigh-in on the avoidance areas how will that information be disseminated and reported to responders?</p>	<p>The comments and responses will be summarized in a table and posted online for public review at http://dec.alaska.gov/spar/PPR/dispersant.htm.</p>
73	<p>There was not enough discussion of the resources that exist in the Preauthorized Area. There was no discussion of Essential Fish Habitat areas or fisheries that may be located in the area and there was no discussion of fish habitat that may occur in the top 30 meters in the water column. The users of this area are vessels that are transiting and vessels that are commercial fishing. There was no discussion or information provided on these subjects.</p>	<p>The Technical Committee evaluated resources that exist in the Preauthorization Area, including Essential Fish Habitat and fisheries data, and used this information to identify avoidance areas.</p>
74	<p>The concerns of the tribes have not been fully addressed in the plan. The person inquired about the outreach to the tribes to include them in this effort and other planning processes.</p>	<p>The USCG conducted government-to-government tribal consultation in accordance with Executive Order 13175 during the development of the Dispersant Use Plan for Alaska. The establishment of Dispersant Avoidance Areas Sections within appropriate subarea contingency plans was directed by the Dispersant Use Plan for Alaska and is, therefore, covered under that same consultation. Also, avoidance areas will be maintained by subarea committees that are open to membership by federally-recognized tribes. In addition to government-to-government tribal consultation, the USCG, EPA, and ADEC conducted additional community outreach in Valdez, Kenai, Kodiak, and Umataska, along with a booth at the Bureau of Indian Affairs Providers Conference in Anchorage, to provide the opportunity for additional public comment by federally-recognized tribes prior to the identification of avoidance areas. Further, the Dispersant Use Plan for Alaska requires notification to a representative for each appropriate federally-recognized tribe if the FOSC decides to authorize the use of dispersants in the Preauthorization Area. The plan also requires notification to, and a request for input from, federally-recognized tribes during the authorization process for dispersant use in an avoidance area or Undesignated Area.</p>
75	<p>Will maps and information be available that will indicate the resources, such as fishing areas, and other sensitive areas offshore and is the public responsible for providing this information?</p>	<p>Resources agencies, subject matter experts, and the public provided information on sensitive resources and habitats, including fisheries. This information was used to identify avoidance areas, which were incorporated into contingency plans for subareas transected by the Preauthorization Area. Subarea contingency plans are available online at http://dec.alaska.gov/spar/PPR/plan.htm. Maps of designated avoidance areas are available on the Arctic Environmental Response Management Application (ERMA) at https://erma.noaa.gov/arctic/erma.html#x=-155.93506&y=70.48769&z=5&layers=11201+9333+10076+9370+11103+11198+11102.</p>

77	The Prince William Sound RCAC has a request for proposal out to solicit help for them to provide good information and comments on this issue. The January 9th deadline is a tight turn around to get this information. It will also be difficult to get meaningful input from the RCAC's stakeholders and membership with the limited time period. It will be an extremely difficult time frame to go through the process and give the best information to the committee. Extending the comment period it would be helpful for everybody.	Comments will be accepted at any time. Contingency planning is an inclusive process that is designed to consider all feedback and suggestions from interested agencies, stakeholder groups, and tribes. Comments received after January 9, 2017, were considered in the final decision-making process, but sooner was better to allow the Technical Committee time to deliberate the comments in order to meet policy deadlines. The public comment period was not extended, but additional feedback can be submitted and is always welcome. However, both RCACs provided extensive comments by the deadline that significantly informed the Technical Committee's decision-making process to identify avoidance areas.
78	What is the process of determining dispersant use for the remainder of Alaska?	Dispersant use in the rest of Alaska outside the Preauthorization Area (i.e., Undesignated Areas) would be considered using the case-by-case authorization process found in the Dispersant Use Plan for Alaska in Annex F, Appendix I, of the Unified Plan.
79	When would be the next opportunity to comment on the avoidance areas after January 9th?	Comments will be accepted at any time. Contingency planning is an inclusive process that is designed to consider all feedback and suggestions from interested agencies, stakeholders, and tribes. Comments received after January 9, 2017, were considered in the final decision-making process, but sooner was better to allow the Technical Committee time to deliberate the comments in order to meet policy deadlines. Avoidance areas within the Preauthorization Area are included in a Dispersant Avoidance Areas Section within each applicable subarea contingency plan. Individual subarea contingency plans are updated on a five-year basis unless critical updates require more timely, out-of-cycle changes. During each update, agency planners request community input and then post a draft of the update for public comment. Feedback to improve these plans is always welcome and can be submitted to: decsparrplanning@alaska.gov . Please write "Subarea Contingency Plan Feedback" in your subject line to ensure your comments can be queried and prioritized by agency planning staff.
80	Where would dispersants be stored and how would the dispersants be mobilized out to the region in a timely manner?	The Preauthorization Area ensures the USCG can require certain vessel and facility response plan holders in Alaska to maintain a minimum dispersant use capability. Regulations for vessels and facilities required to have dispersant capabilities can be found in the USCG August 31, 2009, rulemaking, 33 CFR Parts 154 and 155 "Vessel and Facility Response Plans for Oil: 2003 Removal Equipment Requirements and Alternative Technology Revisions: Final Rule."
81	With the preferred response option being mechanical recovery, that focus may interfere with the limited window of opportunity for maximum effectiveness from the use of dispersants. He suggested that the order could be switched and dispersants considered first and ruled out prior to mechanical recovery.	In the Dispersant Use Plan for Alaska, the following policies shall be followed whenever dispersant use is considered and/or authorized: <ul style="list-style-type: none"> • The primary method for cleaning up oil will be mechanical removal. • The use of dispersants may provide an alternative response tool when mechanical recovery and/or in-situ burning, alone or in combination, are infeasible, ineffective, or insufficient. • Dispersant delivery in a mechanical recovery area will not displace or interfere with mechanical or other response operations.
82	Sunlight enhances photo-toxicity of the oil and dispersant. Although there are safety concerns, will any consideration be given to deployments during low sunlight times such as at or near twilight to mitigate this problem?	The Unified Command, in consultation with the Operations Section and Safety Officer(s), would have the last say regarding safety concerns on an incident-specific basis. Limiting dispersant application to twilight hours would provide a very short operational window, effectively eliminating dispersant use as a potential countermeasure. Additionally, any fish and wildlife in the area would be difficult to observe during twilight hours. Therefore, it is unlikely twilight-only operations would be selected as a viable response strategy.
83	Since the sensitivity of organisms to dispersants is more critical during certain life stages, does the FOSC and the SOSC have personnel on staff that can advise them as to presence of organisms in a given area during these critical times?	The Dispersant Use Plan for Alaska requires the National Oceanic and Atmospheric Administration's (NOAA) Scientific Support Coordinator and a wide range of technical specialists within the Environmental Unit to coordinate with the Operations Section of the Unified Command prior to dispersant use in the Preauthorization Area. Together, they provide supporting information to complete the "Dispersant Use Request" form, the "Incident-Specific Resources and Resource Use at Risk" form, and the "FOSC Dispersant Authorization Checklist" form, which guides the FOSC's decision to potentially authorize widespread dispersant use. Completion of these forms in consultation with natural resource experts provides a thorough evaluation of the environmental risks and trade-offs of chemical dispersion vs. other response options.
84	The USCG refuses to give Alaskans equal protection because they place response assets in the cities where the Captain of the Port (COTP) is located and not where they are actually needed.	The USCG positions its available response assets to be as effective as possible in service to the citizens of Alaska. While limited in its range of surface assets in the winter months, the USCG surges surface resources north into the Arctic in the summer as the ice recedes to serve those communities. Aviation resources remain available throughout the State of Alaska throughout the year.
85	What would happen in an incident command if the permitting or evaluating agencies involved did not agree on the use of dispersants during a spill?	The decision-making process to authorize dispersants outside the Preauthorization Area, or when decisions are contested, would be documented in the Dispersant Use Plan for Alaska's "Dispersant Use Authorization Document" (Tab 1, Part 5). Consultation with the U.S. Departments of the Interior and Commerce and concurrence from the EPA and State of Alaska would be recorded in this document. However, the final decision on dispersant use belongs to the FOSC.
86	The discussion regarding the policy and decision making procedures is helpful, but is there more specific information on the conditions that the decision makers would be looking for if they were considering the use of dispersants?	The Dispersant Use Plan for Alaska includes considerations of the conditions for dispersant use in Section 2.2, found here: http://dec.alaska.gov/spar/PPR/plans/uc/Annex%20F%20Appendix1(Jan%2016).pdf
87	The Dispersant Use Plan, Annex F of the Unified Plan, authorizes the use of chemical dispersants without adequate environmental analysis that will protect wildlife, human health, and subsistence uses.	The Dispersant Use Plan for Alaska requires the NOAA Scientific Support Coordinator and a wide range of technical specialists within the Environmental Unit to coordinate with the Operations Section of the Unified Command prior to dispersant use in the Preauthorization Area. Together, they provide supporting information to complete the "Dispersant Use Request" form, the "Incident-Specific Resources and Resource Use at Risk" form, and the "FOSC Dispersant Authorization Checklist" form, which guides the FOSC's decision to potentially authorize widespread dispersant use. Completion of these forms in consultation with natural resource and health experts provides a thorough evaluation of the environmental risks and trade-offs of chemical dispersion vs. other response options. Biological Opinions on the Unified Plan were also completed by USFWS and NMFS and are available online (https://dec.alaska.gov/spar/ppr/dispersant.htm).
88	There are significant data gaps about the use of dispersants for responding to oil spills in cold-waters, in icy waters, and in low-salinity waters... The lack of scientific data that is useful to inform dispersant use in Alaska is a significant concern... Our primary recommendation is to obtain the science needed to make a scientifically sound decision about the use, amounts, and locations of dispersant use.	Dispersants have been tested under environmental conditions that are relevant to Alaska waters and shown to be effective in cold temperatures and some ice conditions. Dispersants have been used and shown to be effective in northern regions with conditions similar to Alaska waters, for example in Norway. The scientific studies that influence dispersant use policies and decisions have been vetted through the scientific review process, including peer review and additional scrutiny by the scientific and emergency response communities. Furthermore, an efficacy test would be carried out prior to a full-scale dispersant application. If oceanographic conditions, such as low salinity, are not conducive to dispersant use, no further applications would be carried out.
89	Many [Threatened and Endangered Species (TES)] have designated critical habitat in areas covered by the Unified Plan... or occur in the preauthorized areas and thus are likely to be impacted by the use of preauthorized chemical dispersants.	The Dispersant Use Plan for Alaska notes (on p. F-7) that several avoidance areas within the Preauthorization Area were created as a result of ESA Section 7 consultation with the USFWS and NMFS. These avoidance areas account for the highest concentrations of short-tailed albatross and North Pacific right whale critical habitat, as well as a 20-mile buffer outside of critical habitat. The only additional TES critical habitat that overlaps with the Preauthorization Area is designated Steller sea lion critical habitat. Steller sea lion critical habitat is currently under review for revision following the delisting of the eastern Distinct Population Segment of Steller sea lion. NMFS may provide recommendations about Preauthorization Area overlap with future critical habitat designations. Wildlife observations from spotter aircraft would further reduce the likelihood of TES being impacted by dispersant use.
90	A number of [TES] occur in preauthorized areas and thus are likely to be impacted by the use of preauthorized chemical dispersants... North Pacific right whales are the most endangered large whale on the planet. Recent population estimates put the species at only 25 individuals. North Pacific right whales have designated critical habitat in and adjacent to the pre-approval area.	The Dispersant Use Plan for Alaska notes (on p. F-7) that several avoidance areas within the Preauthorization Area were created as a result of ESA Section 7 consultation on the Unified Plan with the USFWS and NMFS. Critical habitat for the North Pacific right whale was considered during this consultation and has been designated, with a 20-mile buffer, as avoidance areas where dispersant use would be evaluated according to the case-by-case authorization process. In addition, North Pacific right whale Biologically Important Areas were also designated as avoidance areas.
91	A number of [TES] occur in preauthorized areas and thus are likely to be impacted by the use of preauthorized chemical dispersants... Cook Inlet belugas are critically endangered and one of the most endangered whale species in the world. Despite a cessation of subsistence hunting in 1999, the population of Cook Inlet beluga whales has not rebounded.	Designated critical habitat for Cook Inlet beluga whales occurs north of Cape Douglas and Gore Point and does not overlap with the Preauthorization Area. Cook Inlet belugas are not expected to occur in the Preauthorization Area. Dispersant decisions within Cook Inlet proper would follow the case-by-case authorization process.
92	A number of [TES] occur in preauthorized areas and thus are likely to be impacted by the use of preauthorized chemical dispersants... The critical habitat for Steller sea lions and southwest Alaska sea otters is in the nearshore areas of the Aleutian Islands chain.	The Preauthorization Area begins 24 nm offshore and does not include critical habitat in nearshore waters for the southwest Alaska Distinct Population Segment (DPS) of the Northern sea otter in the Aleutians. Steller sea lion critical habitat is currently under review for revision following the delisting of the eastern DPS of Steller sea lion. NMFS may provide recommendations to the Alaska Regional Response Team about Preauthorization Area overlap with future critical habitat designations.
93	A number of [TES] occur in preauthorized areas and thus are likely to be impacted by the use of preauthorized chemical dispersants... Polar bear critical habitat occurs along the north coast of Alaska. These critical habitat areas are of special concern, and given the lack of information on dispersant effects it is difficult to rely on the Service's Biological Opinions to adequately safeguard these areas.	The Preauthorization Area begins 24 nm offshore in southcentral and southwestern Alaska, which excludes critical habitat for polar bears occupying Alaska's north coast. Polar bears are not expected to occur within the Preauthorization Area.

94	The Plan should guarantee not to increase the harm to North Pacific right whales, polar bears, and Cook Inlet belugas: their critical habitat; and their prey.	The Unified Plan is a decision-making document that calls for the inclusion of NMFS and USFWS ESA Section 7 biologists and species experts to help inform the Unified Command during response decisions. These biologists would use the best available information to provide recommendations and mitigation measures to the Unified Command. Moreover, the ESA sets reasonable standards by requiring federal agencies to avoid impacting threatened and endangered species and their critical habitat, when possible, and to mitigate impacts when avoidance is not possible.
95	Both the short-term and long-term impacts of dispersants on marine life have not been adequately tested... Our primary recommendation is to obtain the science needed to make a scientifically sound decision about the use, amounts, and locations of dispersant use... More information must be obtained now for the undesignated areas, or at a minimum, a plan and funding should be prescribed to gather necessary information, rather than await Case-by-Case requests.	We agree that more science on the impacts of dispersant use would be beneficial, and we are encouraged by numerous recent and ongoing studies. Additionally, resource agency representatives in the Environmental Unit of the Unified Command strive to remain current on relevant science regarding the effectiveness and impacts of dispersants so that response decisions can be based on the best available information.
96	Species can be affected by dispersants through a number of pathways. For example, many whales feed by skimming plankton, small fish, and squid from the surface. This feeding mechanism puts them at risk of ingesting dispersants and dispersed oil, as well as food contaminated with these chemicals. In addition, whales must surface to breathe, and in doing so can breathe in fumes from or ingest dispersants and dispersed oil.	It is true that species can be affected by dispersed oil through a number of pathways, including ingestion, inhalation, and trophic transfer. The same is true of undispersed oil, though the species at risk and pathways may be different. The use of dispersants may change which species are exposed and the relative importance of different exposure routes.
97	: Birds diving into the water to feed may be exposed through direct contact with dispersants and dispersed oil...	Diving birds face known risks of exposure to undispersed oil at the water surface through direct contact, ingestion, and/or inhalation. Undispersed oil can also have direct physical and toxicological effects and can interfere with the water repellency of bird plumage, resulting in hypothermia and death. Preliminary research has shown that exposure to chemical dispersants and dispersed oil also can disrupt feather structure. This can result in penetration of water and/or oil to the skin, leading to hypothermia and potential loss of buoyancy. More research is needed to test the working assumption that dispersant use mitigates the risks of oil exposure to birds. Moreover, offshore use of dispersants in areas where birds are absent could be beneficial by reducing surface oil concentrations before oil approaches nearshore and coastal areas with greater bird abundance.
98	Dispersants and dispersed oil in the water column are of equal concern. Dispersed oil has been shown to be toxic to fish at all life stages.	Dispersants alone are generally much less toxic than dispersed oil. Dispersants may increase the bioavailability of oil constituents to organisms in the water column, but they do not have a synergistic effect on oil toxicity. Oil, whether chemically or mechanically dispersed, can be toxic to fish, especially the early life stages.
99	Plan itself acknowledges that more information is necessary to understand the effectiveness and impacts of dispersants in Alaska. Accordingly, you should obtain this information before preauthorizing dispersant use or starting a Case-by-Case authorization process.	We agree that more science on the impacts of dispersant use would be beneficial, and we are encouraged by numerous recent and ongoing studies. Additionally, resource agency representatives in the Environmental Unit of the Unified Command strive to remain current on relevant science regarding the effectiveness and impacts of dispersants so that response decisions can be based on the best available information. There is a need to balance uncertainties with timely decision-making in the face of existing threats and the urgency of the moment.
100	There is no information on the impacts of dispersants and dispersant-oil mixture on Alaska's wildlife. It is undeniable that there are significant data gaps about dispersant use, and the efficacy and ecological toxicity of dispersant must be known prior to authorizing their use... The lack of scientific data that is useful to inform dispersant use in Alaska is a significant concern.	It is impractical to halt contingency planning efforts until all data gaps have been resolved, but the Unified Command strives to use the best available information to inform decision-making. There is a growing body of knowledge regarding the efficacy and effects of dispersants and dispersed oil, including in conditions that are characteristic of Alaska waters. Furthermore, <i>in situ</i> observation of efficacy during a test application is required by the Dispersant Use Plan for Alaska. The toxicity of dispersants and dispersed oil has been assessed in a number of Alaskan species, though most are fish or invertebrates.
101	Studies showed that dispersant use did not increase bacterial growth and may have inhibited it, thus leaving oil in the water.	Numerous studies have concluded that chemically dispersing oil increases biodegradation rates. Although Kleindienst et al. 2015 concluded that "dispersants can exert a negative effect on microbial hydrocarbon degradation rates," these results are in contrast to the majority of scientific publications on the subject. This warrants further investigation and replication before their conclusions become the prevailing viewpoint within the scientific community.
102	At this point, we support rapid and robust mechanical removal of oil, as well as measures to prevent oil spills in the first place.	We agree, and the Dispersant Use Plan for Alaska states, "Dispersant delivery in a mechanical recovery area will not displace or interfere with mechanical or other response operations."
103	For both preauthorized areas and undesignated areas, there should be additional time-area restrictions to avoid sensitive marine habitats.	Avoidance areas were developed to minimize potential impacts to fish, wildlife, and their habitats. Furthermore, the Unified Plan requires agency biologists and species experts to inform the Unified Command during response decisions. These biologists use the best available information, including seasonality, to recommend mitigation measures to the Unified Command.
104	There should be restrictions for use in specified water conditions. The Plan acknowledges that dispersants are ineffective in cold and low-saline waters. Accordingly, the Plan should specify at which temperatures and salinity conditions the use of dispersants is not preauthorized.	Page F-17 in the Dispersant Use Plan for Alaska states, "dispersant effectiveness will be affected by ambient water temperatures, with more complete dispersion in warmer waters. It is important to consider the oil's pour point (temperature at which a substance becomes semi-solid and loses its flow characteristics) in relation to the water temperature which may impact the dispersibility of the oil (e.g., Alaska North Slope crude oil has a pour point of -19° Celsius or -2.2° Fahrenheit)." Since the Dispersant Use Plan for Alaska was developed, studies have been published quantifying dispersant effectiveness (including Corexit 9500) on Alaska crude oils at surface water temperatures as low as 26°F. Page F-17 states dispersants are effective at salinities above 15 parts per thousand, but recent studies have shown their effectiveness at salinities as low as 10 parts per thousand. Finally, an efficacy test would be carried out prior to a full-scale dispersant application. If oceanographic conditions, such as low salinity, are not conducive to dispersant use, no further applications would be carried out.
105	The plan should further consider avoiding areas that the Fisheries Service has identified as critical habitat or biologically important areas for marine mammals, or at least imposing additional precautionary measures in these areas.	The Dispersant Use Plan for Alaska notes (on p. F-7) that several avoidance areas within the Preauthorization Area were created as a result of ESA Section 7 consultation with the NMFS. These avoidance areas account for North Pacific right whale critical habitat, as well as a 20-mile buffer outside of critical habitat. In addition, North Pacific right whale Biologically Important Areas were designated as avoidance areas. The only additional threatened and endangered species critical habitat that overlaps with the Preauthorization Area is designated Steller sea lion critical habitat. Steller sea lion critical habitat is currently under review for revision following the delisting of the eastern Distinct Population Segment of Steller sea lion.
106	The Fisheries Service has also identified biologically important areas for marine mammals... There are 36 of these areas in marine waters off Alaska... These areas must be taken into consideration as avoidance areas.	The Dispersant Use Plan for Alaska notes on page F-7 that several avoidance areas within the Preauthorization Area were created as a result of ESA Section 7 consultation with the NMFS. These avoidance areas account for North Pacific right whale critical habitat, as well as a 20-mile buffer outside of critical habitat. In addition, North Pacific right whale Biologically Important Areas were designated as avoidance areas because the species is critically endangered.
107	The Dispersant Use Plan should prohibit the use of dispersants in the Arctic Ocean... Dispersants are ineffective in cold waters.	The Preauthorization Area does not occur in the Arctic Ocean where dispersant use decisions would follow the case-by-case authorization process. Dispersants have been tested under environmental conditions that are relevant to Alaska waters and shown to be effective in temperatures as cold as 26°F.
108	With the recent withdrawal of federal waters oil and gas leasing in the Arctic, this is a perfect time to study the efficacy and toxicity of dispersants before there is any need to authorize it.	We agree that more studies on the efficacy and toxicity of dispersants would be beneficial, and we are encouraged by numerous recent and ongoing studies. When responding to an oil spill, the Unified Command strives to use the best available information to balance uncertainties with timely decision-making.
109	The Case-by-Case process of testing efficacy of a dispersant before broad application is insufficient because the testing is focused on efficacy and is insufficient to evaluate toxicity.	The Special Monitoring of Applied Response Technologies (SMART) monitoring guidelines were designed to inform the Unified Command whether dispersants are effectively dispersing crude oil. It is generally not feasible to carry out relevant toxicity testing in time frames that are conducive to dispersant use decision-making. Therefore, dispersant use decisions would be made based on best available information about environmental trade-offs.
110	Studies ² ... showed that the Corexit 9500A dispersant used in [the Deepwater Horizon] response was toxic. Studies found a wide range of negative human health effects including: immunotoxicity, cytotoxicity, cardiovascular and pulmonary effects, and neurotoxicity.	The referenced study (Laffon et al., 2016) does not address dispersant toxicity. It only reviewed effects from crude oil on human health. Direct exposure to high concentrations of dispersants may cause human health impacts, including eye irritation and respiratory and dermal symptoms, as described in McGowan et al., 2017. However, the levels found in food, water, and air after environmental applications have not been shown to be harmful to human health.
111	The environmental justice impacts of dispersant use should be disclosed and addressed in the plan.	Oil spill response countermeasure decisions are highly dependent on the unique circumstances involved in each case. Therefore, the policies and processes for decision-making were developed to take into account a host of factors, including potential impacts on communities and human uses of natural resources, as well as possible environmental justice implications. Decisions on oil spill countermeasures are made by the Unified Command consisting of federal, state, local, and responsible party representatives. Tribes, non-governmental organizations, and other stakeholders are integral to the decision-making process, and their participation is encouraged during response activities as well as during the contingency planning process. The Dispersant Use Plan for Alaska requires rigorous evaluation of potential trade-offs prior to authorizing the use of dispersants and requires continued efficacy monitoring.
112	The Plan acknowledges that subsistence uses will be impacted by the dispersant use plan.	This comment mischaracterizes the impact statement on page F-17 of the Dispersant Use Plan for Alaska, which states, "Subsistence resources may be impacted by oil or dispersed oil" (emphasis added). Impacts to subsistence use would be assessed on an incident-specific basis when determining which response tactics to use.

113 We recommend further consultation with tribes about the impact of the Dispersant Use Plan on subsistence use.

The USCG conducted government-to-government tribal consultation in accordance with Executive Order 13175 during the development of the Dispersant Use Plan for Alaska. The establishment of Dispersant Avoidance Areas Sections within appropriate subarea contingency plans was directed by the Dispersant Use Plan for Alaska and is, therefore, covered under that same consultation. Also, avoidance areas will be maintained by subarea committees that are open to membership by federally-recognized tribes. In addition to government-to-government tribal consultation, the USCG, EPA, and ADEC conducted additional community outreach in Valdez, Kenai, Kodiak, and Unalaska, along with a booth at the Bureau of Indian Affairs Providers Conference in Anchorage, to provide the opportunity for additional public comment by federally-recognized tribes prior to the identification of avoidance areas. Further, the Dispersant Use Plan for Alaska requires notification to a representative for each appropriate federally-recognized tribe if the FOSC decides to authorize the use of dispersants in the Preauthorization Area. The plan also requires notification to, and a request for input from, federally-recognized tribes during the authorization process for dispersant use in an avoidance area or Undesignated Area.

114 Consultation with co-management groups, established under the Marine Mammal Protection Act, was insufficient, so preauthorization should not be implemented.

The Preauthorization Area was established by the Alaska Regional Response Team in the 2016 Dispersant Use Plan for Alaska. As directed by this plan, this current initiative focused on establishing avoidance areas within the Preauthorization Area, which are included in a Dispersant Avoidance Areas Section within each applicable subarea contingency plan. Both policies included extensive consultation with resource trustee agencies, such as the NOAA, NMFS, USFWS, ADEC, and Alaska Department of Fish & Game. Extensive public and stakeholder outreach efforts were conducted, including widely publicized opportunities to provide public comments. The USCG also conducted government-to-government tribal consultation in accordance with Executive Order 13175 during the development of the Dispersant Use Plan for Alaska. While consultation between the USCG and co-management groups is not required, the USCG believes that these outreach efforts and consultations provided notification to co-management group members. Avoidance area designations within applicable subarea contingency plans will be maintained by subarea committees that are open to membership by co-management agencies. Individual subarea contingency plans are updated on a five-year basis unless critical updates require more timely, out-of-cycle changes. Feedback to improve these plans is always welcome and can be submitted to: decsparplanning@alaska.gov. Please write **** Subarea Contingency Plan Feedback **** in your subject line to ensure your comments can be queried and prioritized by agency planning staff.

Kleindienst S., Seidel M, Ziervogel K, Grim S, Loftis K, Harrison S, Malkin S, Perkins M, Field J, Sogin M, Dittmar T, Passow U, Medeiros P, and Joye S. 2015. Chemical dispersants can suppress the activity of natural oil-degrading microorganisms. PNAS. Vol. 112 (48), pp 1490-14905
Laffon B, Pasaro E, & Valdiglesias V. 2016. Effects of exposure to oil spills on human health: Updated review, Journal of Toxicology and Environmental Health, Part B, 19:3-4, 105-128.
McGowan C, Kwok R, Engel L, Stenzel M, Stewart P, and Sandler D. 2017. Respiratory, Dermal, and Eye Irritation Symptoms Associated with Corexit EC9527A/EC9500A following the Deepwater Horizon Oil Spill: Findings from the GULF STUDY. Environmental Health Perspectives. Vol 125(9), pp 09715-1-09715-7.