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THE (EN)TANGLED WEB THEY WEAVE:
STAKEHOLDER PERCEPTIONS OF THE LARGE WHALE
TAKE REDUCTION PLAN PROCESS

BY
KIMBERLY P. OHNEMUS

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
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IN
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MASTER OF ARTS THESIS

OF

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2020

Abstract

Negotiated rulemaking is a decision-making process that has been integrated into U.S. regulatory processes within the last three decades. Amendments to the Marine Mammal Protection Act in 1994 mandated the creation of Take Reduction Teams, stakeholder committees that use negotiated rulemaking to develop regulations to reduce marine mammal interactions with commercial fishing operations. The largest and least successful of these teams is the Atlantic Large Whale Take Reduction Team (ALWTRT), which is tasked with developing regulatory measures to protect the highly endangered North Atlantic right whale, as well as other large whale species. This study used semi-structured interviews with members of the ALWTRT to gain insight into the aspects of the take reduction process that limit the team's ability to reach consensus and limit stakeholder satisfaction. While some aspects of the process are effective at promoting agreement, respondents revealed many factors that make consensus agreements difficult and the overall process unrewarding. Results suggest that the malaise that negotiated rulemaking was intended to remedy is still prevalent and that legislative action may be required to create more collaborative, legitimate and successful participatory process.

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Introduction

The year 2017 was a particularly bad year for the North Atlantic right whale (*Eubalaena glacialis*), which is already considered to be one of the most critically endangered whale species in the world. Due to ongoing conservation efforts, the species had recovered in past decades with populations growing from 236 individuals in 1996 to roughly 460 in 2016 (Warring 2018). In 2017 alone, seventeen North Atlantic right whales, herein referred to as right whales, were confirmed dead in the Northern Atlantic. This spike in mortality led the National Oceanographic and Atmospheric Administration (NOAA) to declare an “unusual mortality event” for the species (NOAA Fisheries 2019). Increased mortality was seen as a significant blow to ongoing right whale conservation efforts, particularly once it was shown that the majority of the deaths were linked to anthropomorphic activities such as commercial fishing. The unusual mortality event, tied with declining right whale birth rates, led environmental groups and conservation biologists to call for stricter regulation of fixed-gear fisheries as mandated by the Marine Mammal Protection Act.

The Marine Mammal Protection Act of 1972 (MMPA) (16 U.S.C. 1361) was passed by the Nixon Administration in order to address increasing public and scientific concerns about the effects human activities had on the health of marine mammal populations. The Act placed a moratorium on all marine mammal products while also outlawing any intentional or incidental taking of marine mammals from their natural environment. In the MMPA, a “take” is defined as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal” (16 U.S.C. 1361

§003(18a)). Entanglement of marine mammals in fishing gear, while incidental is considered a form of harassment and is categorized as a take under these definitions.

To address growing concerns over incidental entanglements in fishing gear, amendments made to the MMPA in 1994 included mandates for establishing stock assessments and calculating the Potential Biological Removal (PBR) level for threatened marine mammal stocks (16 U.S.C. 1361 §118). Amendments also required the development of take reduction plans for the vulnerable species that interact with fisheries that pose a high-risk of entanglement. The short-term goal of the take reduction plans is to reduce incidental mortality and injury to below PBR within six months of enactment. Long-term goals are to reduce mortality to insignificant levels approaching zero within five years of implementation, while accounting for the economics of the fisheries affected (16 U.S.C. 1361 §118 f(2)). The regulatory aspects of these plans are discussed and agreed upon by stakeholder groups known as Take Reduction Teams (TRTs) and implemented by NOAA fisheries.

Take reduction teams use negotiated rulemaking, a decision-making framework that has been integrated into executive rulemaking processes in the United States over the past three decades. The goal of successful negotiated rulemaking is for a group of stakeholder representatives to reach consensus on a proposed rule. The use of negotiated rulemaking in government decision-making in the U.S. was proposed by Harter (1982) as a method of involving affected interest groups in the rule-making process. Harter (1982) believed this would remedy the costly and time-consuming problems that plagued more traditional rulemaking practices. The success and promise of negotiated rulemaking,

while it has been implemented by various government agencies, continues to be debated by theorists and researchers (Coglianese 1996, Innes 2004, Leach 2006).

This study focuses on the consensus-based decision making process of the largest TRT, The Atlantic Large Whale Take Reduction Team (ALWTRT) which was convened in 1996 with the purpose of designing a plan to reduce the incidental taking of humpback, fin, Minke and right whales by the North Atlantic trap/pot and gillnet fisheries. The ALWTRT currently has over 60 members representing seven stakeholder interest groups. Despite having over 20 years of negotiated rulemaking experience, the team has never reached consensus on a Take Reduction Plan.

Following the Unusual Mortality Event of 2017, lawsuits were filed against the Department of Commerce and NMFS by various environmental organizations for failure to comply with the MMPA and the Endangered Species Act. They state that current regulations do not meet the standards set forth in the legislation and that stricter regulations must be implemented (*CBD v Ross* 2018). The TRT set out to redesign the Atlantic Large Whale Take Reduction Plan in April 2019, with a full TRT meeting held from April 23rd-26th 2019. The overall objective of the meeting was to reach consensus on regulations that will decrease whale mortality and serious injury by 60-80% (Coogan 2019). At the end of the four-day meeting, the ALWTRT came the closest it ever has to a consensus agreement, with all but one member agreeing to a proposed suite of regulations. Initially, this was seen as a success for the team and the agency, but the team's persistent inability to successfully reach agreement raises questions about the structure of the process and the factors that inhibit stakeholder agreements.

In the face of increasing mortality and the likelihood that stricter regulations will have to be implemented, it is imperative to understand the barriers preventing the team from reaching consensus. Identifying such barriers may lead to development of solutions that promote successful negotiation and implementation of rules that incorporate stakeholder views. This study seeks to understand the aspects of the TRT process that both promote and hinder the team's ability to reach consensus and influence participants' overall satisfaction with the process and their role as team members.

Background

Negotiated Rulemaking and Participatory Processes

In recent decades, public involvement in environmental management and decision making has become commonplace in natural resource conservation and management protocols. While levels of citizen involvement can vary, public involvement is typically encouraged as a more democratic alternative to traditional regulatory practices because it allows all citizens impacted by management decisions the opportunity to influence the decision-making process (Leach 2006; Arnstein 1969). Involving stakeholders in the decision making process can decrease hostility between stakeholder groups and increase the likelihood of agreement and compliance with regulations designed to protect natural resources (e.g., Wells & Whiting 1995; Harter 1982). In short, public participation can increase the overall legitimacy of a regulatory action.

In environmental management, a well-designed participatory process allows an array of various stakeholders the opportunity to work together to design regulations that meet conservation goals without sacrificing social values or economic well-being (Fiorino 1990, Harter 1982). Successful participatory processes provide stakeholders the opportunity to learn from one another, to exchange information and develop creative management strategies to achieve ecological goals (Dalton 2006, Rowe and Frewer 2000, Webler and Tuler 2002). Wondolleck and Yaffee (2017) conclude that a successful participatory process is composed of two parts, which they refer to as the “bricks” and the “mortar” of the process. The first part--the bricks--is composed of the procedural framework provided by governing agencies that help to create a fair, consistent and inclusive process. The second aspect of successful management processes is more

abstract, and is made up of factors such the interpersonal relationships, effective communication and a shared sense of purpose amongst team members. The importance of these and other intangible aspects in participatory processes not only lead to effective management, but have been shown to increase participant satisfaction with an overall process and its outcomes (Dalton 2005, Rowe and Frewer 2000, Webler et al. 1995).

In the early 1980s, theorists proposed integrating negotiated rulemaking into executive rulemaking processes. Negotiated rulemaking, also known as regulatory negotiation, is a type of participatory process in which representatives of various interest groups work with a government agency to develop the text of a proposed rule (Environmental Protection Agency, Accessed March 10th 2019). The goal of negotiated rulemaking is often for the committee to reach consensus on a proposed rule. While consensus is often viewed as unanimous agreement, the US government defines consensus as an agreement that is seen as “good enough” so that all participants are willing to support it (EPA accessed March 10th 2019). Consensus-based negotiation is appealing because it allows multiple interest groups to design regulations that incorporate the values and concerns of all stakeholders involved (Harter 1982). According to early proponents, involving non-agency individuals that will be affected by an agency’s decisions is an efficient way to “cure” the issues associated with traditional rule-making such as high cost, time and overall dissatisfaction (e.g. Harter, 1982, Susskind and McMahon 1985).

In 1982 the Administrative Conference of the United States (ACUS) published a recommended procedure for negotiated rulemaking, arguing that such a process would “result in an improved process and better rules” (ACUS 1982). In the recommendation,

the authors highlight conditions under which negotiated rulemaking is likely to succeed, which is discussed further in Harter's (1982) seminal article "Negotiating Regulations: A Cure for the Malaise?". Susskind and McMahon (1985) elaborate on Harter's theories and the ideas of other negotiated rulemaking theorists by developing a set of eight hypothesized conditions that, if met, will result in a successful negotiation and rulemaking process (Susskind and McMahon 1985). These preconditions for success are listed in Table 1 and elaborated on in Appendix I.

Table 1 Preconditions for successful negotiation, as described by Susskind and McMahon (1985)

<u>Precondition</u>	<u>Description</u>
There are no better alternatives to a negotiated agreement	Negotiations must produce an outcome that is as acceptable or better than outcomes resulting from other pursuable methods
Relative power must be balanced	There must be no imbalance of power between participating parties. Groups must be interdependent
Negotiating group cannot be too large	Fifteen parties (or represented groups) considered the "rough limit" for effective negotiation
Issues must be readily apparent	Participants must agree on what the problem is and ready to address that problem
Deeply-held beliefs cannot be in conflict	If values are incontrovertible, there is no room for compromise or collaborative problem solving
Integrative bargaining must be possible	There must be at least 2 issues "on the table" for parties to maximize their interests by trading or bundling issues
Existence of a deadline	Deadline is necessary to reach a negotiated agreement, otherwise agreement will be delayed or not reached
Established methods of implementation	Methods in place for implementation of final ruling must be understood and acceptable to all

When done correctly, negotiated rulemaking is attractive to participants and government agencies because it is seen as a better alternative to the time consuming and costly traditional methods of influencing agency decision making such as through litigation and congressional interference. By inserting themselves directly into the decision-making process, stakeholders can have a direct hand in discussing, designing and even writing rules while reserving the right to walk away and block consensus if they are unsatisfied (Susskind and McMahon 1985). This process will not only increase the likelihood of compliance with resulting regulation, but can increase the fairness of the process by giving all participants equal ability to support or block decisions (Innes & Booher 1999). Such equality creates an even playing field where political and economic power dynamics that may exist between groups is leveled, so long as the groups are discouraged from acting unilaterally. Overtime, a successful negotiating process should improve communication between stakeholders and decrease the likelihood that participants will go outside of the process to achieve their individual goals (Harter 1982).

Because the benefits of consensus-based rulemaking seemed promising, U.S. agencies began experimenting with the model in the mid 1980s. The United States Congress encouraged the integration of consensus-based negotiation by passing the Negotiated Rulemaking Act of 1990 (Coglianese 1996). The policies set forth in this act were later incorporated into the Administrative Procedures Act (APA), giving federal agencies the ability to implement negotiated rulemaking and establish a rulemaking committee “if the agency determines that the use of negotiated rulemaking procedure is in the public interest” (5 USC § 563). Since then, many United States agencies have

adopted the model in their own rule-making processes. When the Marine Mammal Protection Act (MMPA) was reauthorized in 1994 it mandated that consensus-based negotiation be used in designing new regulations targeted at protecting marine mammals in U.S. waters.

Marine Mammal Protection Act and Take Reduction Teams

The Marine Mammal Protection Act of 1972 (16 U.S.C. 1361) was passed by the Nixon Administration in order to address increasing public and scientific concerns about the effects human activities have on the health of marine mammal populations. The Act placed a moratorium on all marine mammal products while also outlawing any intentional or incidental taking of marine mammals from their natural environment. In the act, a “take” is defined as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal” (16 U.S.C. 1361 §003(18a)). Entanglement of marine mammals in fishing gear, while incidental is considered a form of harassment and categorized as a take under these definitions. This incidental take of marine mammals in fishing operations-- also known as bycatch-- is a major source of mortality for marine mammal species in U.S. waters and globally (Read et al 2006).

To address growing concerns over incidental entanglements in fishing gear, amendments made to the MMPA in 1994 included mandates for establishing stock assessments and calculating the Potential Biological Removal (PBR) level for threatened marine mammal stocks (16 U.S.C. 1361 §118). Amendments also required the development of Take Reduction Plans (TRPs) for the vulnerable species that interact with fisheries that pose a high-risk of entanglement. The short-term goal of the TRPs is to

reduce incidental mortality and injury to below PBR within six months of enactment. Long-term goals are to reduce mortality to insignificant levels approaching zero within five years of implementation, while accounting for the economics of the fisheries affected (16 U.S.C. 1361 §118 f(2)). These plans, implemented by NOAA Fisheries, are based on recommendations decided through negotiated rulemaking by appointed teams, known as take reduction teams (TRTs).

TRTs, as outlined by Section 118 of the MMPA, are composed of stakeholders that represent various interest groups. These groups include state and federal regulators, the fishing industry and conservation groups (16 U.S.C. 1361 §118 f(6c)). Team members are “invited to serve on the behalf of a particular constituency to represent that constituency’s views throughout the take reduction process” (NOAA: TRT Protocols 2014). Appointed by NOAA’s Assistant Administrator for Fisheries, members are selected because they are “leaders in their area of expertise, have technical and professional knowledge and effectively represent their group of constituents” (TRT Protocols 2014). When a team member resigns from the team, NMFS administrators collaborate with existing team members in similar groups to find a replacement that is suitable and able to contribute meaningfully to team discussions.

Like most examples of negotiated rulemaking, decisions of the TRTs are consensus-driven and, if consensus is not reached within the time frame mandated by NOAA, NMFS coordinators must move forward and develop a plan that may or may not include the original input from team members. While this may seem to contradict the purpose of consensus-based decision making, the policy ensures that a plan will be implemented within the time frames mandated by the MMPA. Today there are seven

active TRTs around the United States with various target species and fisheries (Table 2).

This study focuses on the consensus-based negotiations of the Atlantic Large Whale Take Reduction team, the largest active TRT.

Table 2 List of Active TRTs and their target species

<u>Team Name</u>	<u>Year Convened*</u>	<u>Major Species*</u>
Atlantic Large Whale	1996	Humpback whale Fin whale NA Right whale Minke Whale
Pacific Offshore Cetacean	1996	Beaked whale Pilot whale Sperm whale Humpback whale Common dolphin Right whale dolphin
Harbor Porpoise	1997	Gulf of Maine Harbor Porpoise
Bottlenose Dolphin	2001	Bottlenose dolphin and subspecies
Pelagic Long-Line	2005	Pilot whale Risso's Dolphin
Atlantic Trawl Gear	2006	Pilot whale White-sided dolphin Common dolphin
False Killer Whale	2010	False Killer Whales and subspecies

*Information provided by McDonald et al. 2016 and NMFS

The Atlantic Large Whale Take Reduction Team

The Atlantic Large Whale Take Reduction Team (ALWTRT) was created in 1996 with the purpose of designing a plan to reduce the incidental taking of humpback, fin and

right whales by the North Atlantic trap/pot and gillnet fisheries. The team of 37 representatives met during the initial six-month draft planning period in August of 1996. During its initial plan development period, the team agreed on many measurements, but was unable to reach universal consensus on a take reduction plan (Marine Mammal Commission 1997). Following protocol, after the six-month deliberation period, NMFS submitted a proposed and later interim final rule that disregarded many of the agreed-upon recommendations made by the take reduction team (Young 2001). Although over 23 years have passed since the team's formation, it has yet to reach consensus despite the Atlantic Large Whale Take Reduction plan being amended 28 times since its initial publication (Figure 1). Common regulations that have been enacted following TRT deliberation include the use of weak rope and weak links--which break at certain levels of force, reducing entanglement risk-- as well as dynamic area management (DAM) and seasonal area management (SAM) programs which close areas to fishing during period of large whale activity (NMFS 2005).

Figure 1. Timeline of Major ALWTRT regulatory action, Courtesy of Asaro (2019)

In a 2015 study on the efficacy of the Take Reduction Planning process, the Atlantic Large Whale Take Reduction plan was found to be one of the least effective of all the TRTs in reducing bycatch to below PBR levels (McDonald et. al 2015). McDonald and Ringling-Gallagher (2015) found, through structured surveys of team members, that only 46% of ALWTRT members surveyed were satisfied with the Take Reduction Plan that was implemented, although 95% believed the negotiation process was fair overall. The entire team typically meets in person once annually, with working groups and conference calls held between annual meetings. As of June 2018 the ALWTRT had 61 team members representing various stakeholder interests (Table 3). The majority of the team is composed of fishing industry representatives and managers.

Stakeholder Group	# of Members
Trap/Pot Fishery	18
Gillnet Fishery	5*
Conservation	6
Academic	9
State Managers	14
Federal Managers	5
Fishery Management	4
Total	61

Table 3. Current ALWTRT size and interest-group distribution, courtesy of Asaro (2019)

The most controversial species that the ALWTRT is tasked with developing regulations to protect is the North Atlantic right whale. Hunted to near extinction prior to the whaling protection acts of 1935, the population was estimated to be around 100 individuals by the middle of the 20th century. By the time the take reduction team was convened in 1996 the population hovered around 230 individuals. Due to conservation efforts and early take reduction measures, the population has grown since the beginning of the 21st century and today has grown to approximately 460 individuals (Waring et al. 2016). Unfortunately, the same feeding and migratory characteristics that made these whales the “right” whales to hunt are the same characteristics that make them susceptible to entanglement in commercial fishing gear. Right whale entanglements in fixed fishing gear, such as trap pots and gillnet, are extremely common and are a major source of injury and mortality for these animals. Knowlton et al. (2012) estimates that up to 83% of right whales have become entangled in fishing gear at some point in their lifetime. While

a single entanglement has a less than 2% risk of being immediately fatal, recurring or long-term gear interactions decrease an individual's quality of life and shorten its lifespan. For this reason, NMFS has implemented regulations--proposed and negotiated by TRT members--to reduce entanglement risk such as time/area closures and mandatory use of sinking ground line in trap-pot fisheries. Despite initial successes increased right whale mortality, particularly in 2017 and 2018, illustrated the need for continued efforts to eliminate or extremely limit the risks faced by these animals.

Unusual Mortality Event and 2018 Lawsuit

Despite showing signs of slow recovery at the start of the 21st century, right whale populations began to decline after 2010. In the following years, a combination of increased mortality and a decrease in reproductive rates, compounded by a skewed sex ratio, led to slow but noticeable decline in population (Pettis et al 2018). That population decline reached crisis levels in 2017 when, in a single year, 17 individual right whales were found dead in the North Atlantic, leading NOAA to declare an "Unusual Mortality Event" (NOAA). An Unusual Mortality Event (UME), according to the MMPA refers to mortality events that are "unexpected; involves a significant die-off of any marine populations; and demands immediate response" (16 U.S.C. 1421h §410 5(A-C)). In addition to the 17 stranded whales discovered in 2017 an additional 13 whales were found dead between 2018 and 2019, bringing the total mortality for the UME to 30 individuals. Of the 30 deaths, 21 were discovered in Canadian waters while nine were found in US waters. Necropsies performed on some of the individuals are pending and largely inconclusive, but preliminary findings indicate causes of death linked to human

interaction such as fishing gear entanglement and ship strikes. The UME was a blow to the ongoing conservation efforts and the early success of regulatory actions made through the Atlantic Large Whale Take Reduction Plan. Many conservation groups, fed up with the lack of progress being made to better protect the species, decided to take legal action against the National Marine Fisheries Service in order to force better protective measures.

In January of 2018, a lawsuit was filed in the United States District Court of the District of Columbia against the National Marine Fisheries Service and US Secretary of Commerce, Wilbur Ross. The lawsuit alleged that actions taken by the agency did not comply with three major pieces of US legislation: the Marine Mammal Protection Act, the Endangered Species Act (ESA) and the Administrative Procedures Act (APA) (Center for Biological Diversity v. Ross 2018). The agency, according to the claim, had violated these statutes in regards to its management and protection of the North Atlantic right whales. The groups bringing this lawsuit to court included the Center for Biological Diversity, the Defenders of Wildlife and the Humane Society of the United States. All three of these plaintiffs are currently represented on the ALWTRT and play a role in developing take reduction measures.

In the official complaint, the plaintiffs claim that the Biological Opinion produced by NMFS in 2014 makes an unlawful jeopardy analysis--which describes the risk posted to a protected species--of the effects of the American Lobster industry on the wellbeing of right whales. The biological opinion, in the eyes of the plaintiffs, was not based on the best available science and “because of these fatal flaws, NMFS cannot rely on the biological opinion to meet its substantive duties under Section Seven the ESA” (CBD v. Ross 2018 para.7). Through publishing this intent to sue, these organizations

hoped to put pressure on NMFS to take more serious action to address the threat that fixed-gear fishing has on right whale welfare and to take action to significantly reduce entanglement risk within the whale's natural range. This legal action, coupled with an increase in public concern is what led the agency to convene the ALWTRT for two meetings in 2018 and 2019 with intent to develop regulations to reduce entanglement risk in fixed-gear fisheries.

2019 TRT Meeting and Aftermath

The threat of legal action from NGOs-- including TRT members--incentivized NMFS to convene the ALWTRT to develop regulations that would lead to significant risk reduction that would reduce mortality of right whales to under PBR, which by 2018 was determined to be less than one individual. While the team typically meets once annually, the severity of the situation drove NMFS to convene the team twice in one year, in October of 2018 and again April of 2019. Goals of the October meeting--in which 44 team members were in attendance--were for team members to develop and present proposed solutions that decrease the risk and severity of whale entanglement (NMFS 2018). These proposals were then refined over the course of various conference calls between working groups prior to the April 2019 meeting.

The complete TRT met in Providence, Rhode Island on April 23rd-26th 2019 (April meeting) to discuss and deliberate potential solutions and develop recommendations that NMFS could use to guide the rulemaking it planned to initiate in May of 2019. NMFS, at the start of the four-day meeting, established a clear goal for the team to “develop consensus recommendations on a suite of measures expected to achieve

a 60-80% reduction in mortalities and serious injuries in North Atlantic Right Whales in Northeast trap/pot commercial fisheries” (NMFS 2019 p.1). On Day 3 of the meeting, Sam Rauch, NOAA fisheries Deputy Assistant Administrator for Regulatory Programs highlighted the importance of consensus by reminding the team that, if consensus is not reached, NMFS must continue onward with a plan to meet the conservation goal that may not include stakeholder recommendations. In order to encourage consensus and drive deliberations NMFS debuted a decision-making tool at the April meeting that allowed team-members the ability to measure how effective potential solutions would be at reducing entanglement risk (Appendix VI).

After four days of negotiation, the team had developed a package of recommendations that they felt would reduce entanglement risk to a level that would be acceptable to NMFS. The recommendations included state-by-state measures that would reduce risk through reducing vertical lines and mandated use of weak rope with lower breaking strengths. Prior to taking the consensus-vote members of the team voiced their concerns over the proposed recommendations, which were highlighted in the meeting’s key outcomes. Representatives from the State of Maine Lobster Industry announced that, although initially supportive of the recommendations, they reserved the right to converse with their industry regarding proposed regulations, essentially reserving the right to change their minds. At the time of voting all but one participant voted in support of the proposed regulations--the closest the team has ever come to reaching consensus. Despite not being unanimous, this near consensus was seen as a victory for NMFS and at the meeting’s close many team members spoke optimistically about the team’s progress in developing measures to reduce right whale mortality (NMFS 2019).

Ultimately, the Maine Lobstermen's Association (MLA) did change its mind and in August of 2019 the Association officially withdrew its consent agreement. In a letter to the agency, Patrice McCarron, a team member and director of the MLA claimed that the goals imposed by NOAA were arbitrary and the data used to support the decisions made by the team was flawed. The MLA called for the agency to revisit the data used to make regulatory decisions and conduct new analysis of the risk reduction targets. Once the data are analyzed and published, the MLA suggests that NMFS reconvene the ALWTRT which can then make new recommendations based on what the MLA believes will be more accurate risk assessment data.

Despite the withdrawal of the MLA's consent, NMFS moved forward with rulemaking and in August of 2019 held scoping meetings to gather public commentary on potential proposed regulations. The agency noted that while the proposed regulations are not completely identical to those agreed on by the TRT, they share similar intentions to reduce vertical lines and breaking strength of commercial fishing gear. NMFS also noted that proposed regulations will likely include time/area closures, regulations not agreed upon by the TRT but believed to be necessary to reach the agency's goal (Asaro 2019). A draft proposed rule is scheduled for publication in early 2020.

Purpose of Research

When the legislation that laid the foundation for the creation of the r take reduction teams was created, consensus-based negotiated rulemaking was viewed as an effective, inclusive and progressive approach to environmental decision-making. The take reduction planning process has been well established for more than 2 decades, with

different teams having various levels of regulatory and ecological success. The Atlantic Large Whale Take Reduction Team is the largest team with one of the most daunting tasks: to design regulations that will save a species from the brink of extinction without damaging one of the most lucrative fisheries in the United States. Despite over 20 years of negotiated rulemaking experience, the ALWTRT has yet to reach consensus on proposed recommendations. The fact that such a large, diverse team responsible for such a tremendous task has never reached consensus may not be surprising to many, but there has been little research done to explore the specific factors that prevent the team from reaching consensus. The purpose of this research is to better understand what factors prevent the team from reaching consensus and the sources of participant dissatisfaction with the process.

Methodology

This study relies on a social constructionist approach to qualitative research. The advantage of this approach is that it allows the researcher to understand the multiple social constructions of meaning and knowledge in which participants help to construct reality with the researcher through interviews and observation (Robson 2011 p. 24). In this study, interviews with ALWTRT members were used to create a picture of the TRT process based on subjective views of the individuals directly involved in that process. This methodology is useful because it provided first-hand accounts of issues that the team faces when attempting to reach consensus. While previous studies on take reduction teams, like those conducted by McDonald (2015 and 2016), have attempted to quantify team-member satisfaction through structured surveys, this study relies on qualitative information in order to provide a richer account of TRT members' views of the process and the outcomes.

Sampling and Recruitment

The current ALWTRT is composed of over 60 full-time members representing a variety of stakeholder groups (Table 3). Potential participants were selected using purposive and quota sampling, in which a sample is built in order to satisfy the specific needs of a research project (Robson 2011). This sampling approach allowed for flexibility in selecting participants from the various stakeholder groups so that each group could be represented in the study, providing a more thorough review of the process. Care was taken to select participants with varying levels of experience serving on the team that

would be able to provide a comprehensive look at the process so that an accurate reflection of team structure and relationships can be provided. While sampling was purposive, measures were taken to include participants of diverse gender, age and background.

Selected participants were contacted via email using a script (**Appendix II**). Follow up emails were sent if individuals did not respond after one week. Interviews with those participants were scheduled either by email or over the phone.

Interview Process

Interviews were held either in-person at a location of the participants choosing or over the phone for participants that were unable or unwilling to meet in person. Every participant in this study provided informed consent to be interviewed and/or recorded digitally (**Appendix IIIa and Appendix IIIb**).

Interviews were semi-structured, which provides flexibility in the types of questions which can be asked, allowing the flow of conversation to evolve naturally. This approach is advantageous because it allows for a more detailed and unique response from participants (Robson 2011 p280). The researcher had a list of interview questions which helped to guide the conversation and encourage discussion about topics related to the research topics (**Appendix IV**). Questions pertained to attitudes and perceptions of the process itself, which is designed and facilitated by NMFS, and the relationships among team members. Questions also asked about the participants' experiences at the April 2019 meeting, and how this particular meeting and its outcomes compared to earlier TRT meetings.

The author's participation in multiple stakeholder meetings informed the analysis of the ALWTRT process. Participation included attending the third day of the ALWTRT's April meeting, as well as attending two NOAA-organized scoping hearings held in August of 2019. The purpose of scoping meetings was to gauge public opinion on proposed draft rules that were based on the April 2019 near-consensus agreements. Scoping meetings included members of the public as well as many TRT members who were able to provide feedback on the agency's proposed draft rule.

Data analysis

Interviews in which participants consented to be recorded were recorded with a digital recording device and interviews were later transcribed. Interviews in which consent was not given for recording were summarized using hand-written notes after the interview had taken place. Once transcribed or summarized, interviews were coded using NVivo 12 software. Coding is a method of condensing data, allowing the researcher to combine data with similar themes or meanings helping the researcher to make sense of the data collected (Miles et al. 2014). Coding also allows for deeper reflection on the meanings and connections presented in the data.

This study used Descriptive Coding in which data with similar themes were given labels, or coded, using short words or phrases (Saldaña 2013). Data were coded in a two-step process. In the first step, preliminary codes were developed based on the eight preconditions for success put forth by Harter (1982) and expanded on by Susskind and McMahon (1985)(Appendix V). Other themes that emerged from the data related to perceptions of the consensus-based decision making process were also coded. In the second step, preliminary codes were combined and recoded according to factors

influencing the success of the consensus process and participants' overall satisfaction with the process.

Results and Discussion

Overview

The Atlantic Large Whale Take Reduction Team is currently composed of 61 team members representing seven different interest groups. The trap/pot industry represents the largest percentage of participants, with 18 active members. A total of 11 team members agreed to participate in this study, with each major interest group represented (Table 4). Of the study participants, the majority had over 15 years of experience as members of the team, with three participants having served on the team since its inception in 1997. Only three participants had 5 years or less experience as members of the TRT. Sex ratio among participants was fairly even, with six female participants and five male participants. Interviews lasted approximately one hour each with some interviews lasting as long as two hours with occasional interruptions.

Table 4 Interest group representation on ALWTRT and in study

Stakeholder Group	Number of Members on ALWTRT	Number of Participants in Study
Trap/Pot Fishery	18	2
Gillnet Fishery	5	1
Conservation	6	2
Academic	9	1
State Manager	14	2
Federal Managers	5	2
Fishery Management	4	1
Total	61	11

Participants identified various factors that they believe help to promote consensus and lead to overall satisfaction with the process as well as factors that negatively influence the process. Each of these factors will be described below.

Factors that Positively Influence Consensus and Satisfaction

Coordination

A majority of respondents indicated their support for the current NMFS team that is tasked with coordinating and overseeing the ALWTRT and its process. Of the 13 interviews, seven participants mentioned the current NOAA staff and all spoke positively about the two coordinators who have been tasked with managing the team since 2018. Multiple participants also noted the difficulty of the coordinator job and commended their ability to be effective leaders despite the difficulty of their position.

There were a multitude of explanations for why the current coordination staff was viewed as an asset to the TRT process. Stakeholders cited the team's communication skills and consistent messaging as key reasoning behind their effectiveness. They are efficient at keeping team members informed and on the same page and seem dedicated to making the process work in a way that satisfies all participants. The effective communication skills of the NOAA staff and their commitment to the process have garnered respect from the stakeholder participants and have helped to create a positive working relationship between team members and the agency. This is promising for the future of the TRT, as Chess and Purcell (1999) found that the quality of relationships between government agencies and citizen participants can significantly impact the stakeholder processes. Processes in which participants had positive, rewarding working

relationships with the agency tend to be viewed more favorably by those involved and are believed to produce better, more effective policy.

Sufficient, clear and consistent communication from the agency also improves the transparency of the process and levels the playing field amongst stakeholders, key factors for success in negotiated rulemaking highlighted by Harter (1982) and Susskind and McMahon (1985). Interview respondents from all interest groups agreed that the current coordination team is extremely accessible and willing to assist team members and answer questions at all stages in the process. In doing so, the NOAA staff create a fair environment for stakeholders as they enter into the process.

Fairness is considered an important method for measuring the effectiveness of a participatory process, and effective coordination on the part of the agency can increase the fairness of a rulemaking process. Access to information needed to make decisions is key to developing a fair participatory process. Considering that the full ALWTRT meets in person infrequently—at least once annually—the coordinating staff is responsible for disseminating knowledge to team members for the majority of the year (Webler 1995, Wondalleck and Yaffee 2017). That the TRT participants believe that information by the agency is relayed in a way that is consistent and clear increases fairness and the overall legitimacy of the process in the eyes of the team members.

While team members felt that the current coordinating staff was doing a great job, a few participants hypothesized that their effectiveness was linked to their relative newness to this particular TRT process. This opinion was particularly common among stakeholders that have been active on the team for many years. Respondents appreciated the energy that the new coordinators were bringing to the table, but---based on their

experiences with staff turnover in the past--hinted that this renewed energy and positive attitude may be short-lived. They relate the inevitable decline of this energy and optimism to the difficult job the coordinators have when it comes to managing the process, as one team member explained:

“Being [a part of] the NMFS team that works on the large whale TRT, you just get beat up a lot. You have to have really thick skin and you have to have a really positive attitude and over time, that erodes.” [Federal Representative]

Other participants echoed this idea, implying that the current NOAA staff is simply not defeated by the process yet, and that eventually they will tire of, as one respondent referred to it, “running against a brick wall.” The pessimism that many team members felt about the inevitable erosion of this positive working relationship reveals the general uneasiness that the stakeholders feel about the future of the process and the overall effectiveness of the team.

Facilitation

There was universal support for and approval of the third-party facilitators that currently oversee the ALWTRT process. All 11 respondents expressed positive opinions about the facilitators that NMFS currently employs to oversee this Take Reduction Team. Two long-term team members, who both also serve on multiple TRTs, stated that these particular facilitators were the most effective they had ever worked with. Other team members viewed the facilitators as essential for reaching agreement with one conservationist stating “If anyone can get consensus out of a team, it’s these guys”.

For all Take Reduction Plan processes, NMFS provides third-party facilitators tasked with assisting the team and the agency throughout the decision-making process (TRT Protocols 2014). The facilitators work closely with the coordination staff, but are

separate, non-agency participants. The facilitation team assists in organizing Team meetings and producing Key Outcome Memorandums at the end of each team meeting. Susskind and McMahon (1985) highlight that such facilitation is important to ensure effective communication among large groups. Skilled facilitation can allow groups, such as the ALWTRT, to function with more than the 15 parties Harter considers the maximum size for successful negotiated rulemaking (Susskind and McMahon 1985). Interview respondents highlighted that skills and overall experience are what make facilitators effective or ineffective at managing Take Reduction Teams.

With such a large team to manage, participants believe that the current facilitators keep the conversation moving in a way that is both inclusive and productive. One participant praised the facilitators for being intuitive and knowing how to best steer the discussion to meet the needs of the participants. Because the same facilitation team has worked on the ALWTRT for many years, they've had the opportunity to get to know members of the team well and can use this to their advantage during deliberations. Current facilitators also promote inclusion by acknowledging the personalities and roles of the various team members and encouraging participation from all parties. Once a proposed package of regulations begins to form, they make sure that members of each interest group has the opportunity to voice their opinions or concerns before any decision-making takes place. Respondents across all interest groups respected their dedication to maintaining a fair and inclusive decision-making process.

Similar to the effective communication demonstrated by NOAA's coordinating team, the ability of the facilitators to bring everyone into the discussion increases the overall fairness of the process. The facilitators encourage all team members to participate,

but are also aware of which team members are well-respected and influential. This promotes a fair process in which a balance is struck between allowing everyone to participate freely and giving more visibility to certain speakers based on their experience (Webler et al. 1995). In striking this balance, the facilitators for the ALWTRT are stepping above and beyond the role of a facilitator which Webler defines as “merely keep the group on its agenda and enforce rules for interaction” (Webler et al. 1995 p.23).

That’s not to say that these facilitators do not also perform these duties and perform them well. Facilitators work closely with the agency to develop an agenda and are responsible for maintaining and promoting respectful interactions between team members. Interview participants largely believed that the current facilitators did an effective job of adhering to the agenda without compromising discussion.

Other respondents respected the current facilitation team because they felt that the facilitators are effective at building a sense of trust and camaraderie between themselves and the members of the team. One participant explained that the facilitators would often interact with team members at after-hours receptions in order to build better working relationships among the team. By interacting with the team in a more casual manner, facilitators are able to get to know the team members on a more personal level, which allows them to better serve the team when negotiations resume.

While the facilitators were found to be approachable and trustworthy, participants noted they were not afraid to be firm, particularly when they demanded cross-caucusing between interest groups. This emphasis on cross-caucusing appeared to be a major factor in the near-consensus agreements at the April 2019 meeting. According to one respondent, the ability of the facilitators to “herd cats,” and get members of different

interest groups in a room together ultimately helped to produce more meaningful dialogues throughout the course of the meeting.

By succeeding in their professional role while establishing positive working relationships, the facilitators of the ALWTRT begin to make the transition from being facilitators to mediators. While facilitators are tasked with overseeing negotiations and promoting interaction at the negotiating table, mediators embed themselves further within the process by building and managing relationships amongst participants outside of scheduled meetings (Elliot 1999). In the case of the ALWTRT, the size and scope of the team, coupled with sensitive and controversial discussion topics can create the potential for disputes and conflict amongst participants. By encouraging inter-group discussion and maintaining good relationships with participants, facilitators are able to help team members to overcome differences and find a meaningful common ground from which to develop solutions.

Working Groups

The majority of stakeholders interviewed agreed that working groups--breakout committees in which topics can be discussed away from the decision-making table-- were important aspects of the process that facilitated productive discussion and promoted agreement. Working groups can either be single-group working groups composed of like-minded participants or multi-group working groups that include team members from various interest groups. It's important to note that no formal decision making happens within these breakout committees. Instead, working groups create a space where team members are free to discuss options and potential solutions amongst themselves. These topics may eventually be considered when the entire team is reconvened at the decision-

making table. Both single and multi-group working groups are therefore essential to the overall decision-making process.

Breakout groups are crucial to developing and discussing regulations and both types of working groups can be held in either a formal or informal setting (Figure 2). Formal working groups are defined as those that are organized and coordinated by the agency either during TRT meetings or at scheduled points throughout the year. This includes multi-group and single-group working groups that are organized at TRT meetings by the facilitators and meet during scheduled portions of the larger meeting. Informal working groups can also be composed of single-interest or multi-interest groups but are not organized or mandated by the agency. This includes groups of team members that agree to meet throughout the year or after-hours during the week-long TRT meetings.

	<u>Formal</u> Organized by Agency	<u>Informal</u> Organized by Team Members
<u>Single Group</u> Composed of like-minded groups and interests	<ul style="list-style-type: none"> • Held during team meetings • Can be requested by participants at any time 	<ul style="list-style-type: none"> • Held outside of regular meeting times • Can include outside parties
<u>Multi-Group</u> Includes participants from multiple interest groups	<ul style="list-style-type: none"> • Held during meeting times or at scheduled points throughout the year • Agency chooses participants • Voluntary 	<ul style="list-style-type: none"> • Held outside of regular meeting times • Can include outside parties • Voluntary

Figure 2 Type of working groups on the ALWTRT

In addition to allowing team members to deliberate and develop take reduction options on a smaller scale, working groups help to promote fairness and inclusion in the process as the one team member explains,

“[Working groups] really help to focus the conversation. The thing about having a group that's 60 people is that not everybody is going to get a chance to weigh in equally

and ask questions and really consider things...plus there people who get really nervous and don't want to talk into the microphone with 60 people at the table and 40 people around the outside of the room you know? So they may be more willing to participate if it's in a small group.” [Federal representative]

Both formal and informal working groups are useful in this regard by providing team members with a space where they can voice their comments and concerns away from the pressure of the full Take Reduction Team.

Single-Group working groups

Single group caucusing occurs both formally, within the TRT process, and informally as interest groups meet with like-minded caucuses both inside and outside scheduled meeting periods. These single-interest groups can consist of a single industry (all trap-pot fisheries), like-minded participants (such as conservationists and academics) or a single state (Maine representatives), but do not include TRT members from outside that particular subset of the team. When these types of meetings occur outside of the TRT process, they can include other groups that share a similar interest but are not represented on the team. For example, conservation groups represented on the team may choose to caucus with representatives from other, unrepresented conservation groups in order to exchange information and reach agreement on potential recommendations. This type of exchange ensures that representatives are adequately representing the interests of their constituency.

Facilitators will temporarily adjourn meetings if a certain group requests a chance to caucus or if the facilitators sense that caucusing may be beneficial to the group. Respondents explained that these caucuses are useful in that they allow groups to process information and discuss potential implications. One state-manager believes that by

allowing these types of conversations early in the process the facilitators helped move the TRT towards consensus:

“[The facilitators] gave team members an opportunity to work amongst their respective teams and allowed them to have smaller discussions with more productive [conversations]. So I think that was probably the main reason why this time in my mind that I think that you know, we came so close to reaching consensus” [State manager]

Prior to the 2019 meeting, breakout groups at TRT meetings typically consisted of these smaller, like-minded groups as there was less emphasis on cross-caucusing between team members. While participants find this type of caucusing useful early in the process, many believed it hinders discussions as the team moves closer to decision-making. One conservation representative explained that single-group caucusing eventually becomes “like building an army...you solidify your position and it actually increases the clashing when you come back to the meeting, it makes things more contentious.” This was a sentiment echoed by other team members who believed that the single-group caucusing can do more harm than good when allowed to occur later in the process. Because of this, most participants saw the emphasis on cross-caucusing by the facilitators in 2019 as a refreshing and productive change.

Multi-group working groups

All the TRT members interviewed believed that multi-interest working groups--both formal and informal--were productive in developing recommendations and driving agreement amongst team members. The most successful working groups in terms of generating agreeable recommendations were the multi-group committees that met in an informal setting during the weeklong TRT meetings. As one academic explained, “a lot

of the decision-making happens in the bars' ' after the meeting was adjourned for the day. This echoes findings reported by Freeman and Langbein (2000), in which more than 90% of respondents reported that aspects of a final rule had been negotiated within informal subgroups. While agency staff and facilitators may not be present at these informal meetings, they encourage team members to meet in a more casual setting to further discuss potential recommendations.

Participants hypothesized on why these informal meetings were so successful and the majority of respondents felt that these after-hours sessions allowed team-members to discuss options in an environment with less stress and emotion. They are able to interact with each other as people and not just as the face of an organization, as one conservationist explained:

“These [working groups] succeed because they're not formal. If you're sitting in your little special seat and you're wearing your special clothes and you've got your little special name tag you're not going to get outside of the icon to the actual person” [Conservation representative].

It's when team members were able to “get outside of the icon to the actual person” that they were able to build relationships with one another and begin having meaningful, productive conversations. This echoes findings by Dalton (2006), in which respondents emphasized the importance of getting to know other resource users and develop positive working relationships based on honesty and respect. These interactions help break down barriers between individuals and foster communication between different interests groups. This is a necessary hurdle to overcome because “You have to break down that notion that the other team is evil,” as one participant explained, and find common ground.

Team members also recognized that this type of cross-caucusing was successful for developing recommendations because it allowed for the free exchange of information

between stakeholder groups. It's within this type of environment that social learning can occur. Social learning is defined by Webler (1995) as changes “in how individuals see their private interests linked with the shared interests of their fellow citizens” (Webler 1995 p445). Essentially, social learning is a change in perspective on a particular issue that results from communication and interaction as individuals work to solve a common problem. Multi-interest working groups create an environment for social learning by allowing a small, diverse group of stakeholders to discuss their recommendations and concerns. One state manager revealed the effectiveness of these working groups at promoting social learning while praising a recent informal working group on rope modifications organized by the New England Aquarium:

“It was great. Everybody was able to glean some information, including the scientists, from the lobster fishing industry on how ropes really work and how they were a bit suspicious. [They explained] how the industry might have been suspicious about how the scientists were approaching their science. It was just phenomenal. Those sort of things just are what gels those groups together. They now understand.” [State manager]

Tension often arises from the industry’s perception that scientists and other outside interests lack experiential knowledge about the fishing industry and its resources (Sievanen 2011). Sitting down in smaller groups with other stakeholders allows the industry the ability to speak frankly and from experience about what types of recommendations were the most feasible. This not only creates an environment for social learning, but also seems to have eroded some of the distrust individuals may have felt towards one another upon entering the process.

This increased sense of trust is most visible within informal meetings. One participant noted that formal, NOAA-organized working groups leading up to the 2019

meeting were not productive, explaining that “when any meeting is sponsored by NMFS, the fishermen are not going to talk” because they feel that the agency does not have their interests in mind. A member of the gillnet industry explained that this distrust stems from years of tense working relationships with the agency. When the agency invites fishermen to take part in agency-sponsored working groups, the industry is reluctant to participate or offer up any information that may eventually lead to stricter regulations. Informal working groups where the agency is not present allow industry representatives the ability to express their concerns and explain their reasoning in a more relaxed, open setting where they feel respected, valued and listened to.

Of the various working groups that can be established within this process, informal, multi-interest working groups seem to be the most effective at promoting agreement between team members. These groups foster constructive dialogue and face-to-face interaction between participants--both important aspects of successful participatory processes (Chess and Purcell 1999, Fiorino 1990). Most of all, these working groups create an environment for social learning, which is crucial to maintaining successful participatory processes. Webler (1995) explains that the “crystallization point” of a successful process occurs when “the group transforms from a collection of individuals pursuing their private interests to a collectivity which defines and is oriented towards shared interests” (Webler 1995 p460). By breaking down walls, establishing effective communications and fostering positive, trusting working relationships, multi-interest working groups move the process towards that crystallization point. Overall this benefits the process and increases the likelihood of consensus.

Factors that Negatively Influence Consensus and Satisfaction

Exclusionary Working Groups

While multi-interest working groups have been successful at promoting social learning, boosting trust and developing working solutions, interview respondents indicated that they have limitations. While many of the participants expressed that working groups were beneficial to the process, others felt that some were exclusionary, which ultimately created areas of tension between team members and hindered the team's ability to reach agreement.

These working groups that respondents described as exclusionary include multiple working groups--formal and informal--held in the months prior to the April 2019 meeting. These working groups were composed of TRT participants from all interest groups except for conservation groups. This includes multiple formal working groups organized by the agency and composed of team member volunteers. While conservation representatives volunteered to take part in the working groups, none of them were chosen for the final committee. According to participants, the agency explained that they did not want the fishing industry to feel intimidated by the presence of the environmental groups, believing it would hinder discussion. One conservation representative explained why this action created a lot of frustration within the environmental community.

“It may have been well-intentioned to say 'We're only going to include these people because you want the conversation to go this way', but in the long run you are adding hurdles. When you exclude one of the stakeholders as part of the process, then you're making the process harder because now all of a sudden it's like, but did you consider this? Did you consider these policy things? Did you consider how this is going to impact the ESA and [NOAA's] Biological Opinion? That

wasn't part of the conversation because you don't let us at the table.”
[Conservation Representative]

While the agency—according to participants--may have thought they were making a decision that would lead to better conversations and outcomes, they ultimately alienated a subset of their team. If the agency wants to foster positive working environments and social learning, all interests must feel they are being included in the important conversations (e.g. Webler 1995).

This issue of exclusion also extends to the informal working groups sponsored by team members and outside organizations throughout 2018 and 2019. For instance, the New England Aquarium convened a working group in 2018 that many team members felt was extremely beneficial and contributed to social learning amongst participants. Environmental groups were not invited to participate in this working group for reasons similar to the formal NMFS working group. So while these conversations were widely viewed as successful by included interest groups, conservation groups again felt left out of the process.

While multi-interest working groups held in an informal setting can positively influence the process and the team's chances for success, these interest groups are most effective if they are inclusive of all interest groups represented on the team. As one participant stated, working groups “should be a smaller community of the general TRT,” in which all major interest groups are represented. Exclusion of certain groups from discussion not only makes the process more difficult but ultimately generates a sense of distrust and uneasiness towards the TRT process as a whole. Respondents suggested that by alienating certain interest groups, the agency and other team members may be

unknowingly encouraging those interest groups to pursue other alternatives outside of the process such as judicial action or legislative interference.

Lack of Clear Problem Definition

One of the most conspicuous barriers to negotiated agreement according to respondents stems from the team's inability to clearly define the problem they are tasked with solving. One of Harter's (1982) preconditions for success in negotiated rulemaking is that the process holds promise when at first "the issues are relatively well-defined" (p.83). Susskind and McMahon (1985) also indicate that "the issues must be readily apparent and the parties must be ready to address them" in order for negotiated rulemaking to be successful (p. 139). In interviews, participants frequently noted that some aspects of the issue that the ALWTRT was convened to address were not "readily apparent" to the stakeholders, which has influenced the teams ability to successfully negotiate.

The Atlantic Large Whale Take Reduction team is unique among TRTs because of the scope of the issue as well as the species and fishing industries that are involved. As one participant explained, with other TRTs there's no real lack of evidence connecting the species that become entangled and the fishing industry responsible for the entanglement. For example, entangled harbor porpoises are frequently hauled up in gillnets and reported by fishery observers. The Harbor Porpoise take Reduction team, therefore, has an easier time defining the problem because there's little-to-no question about how the entanglement happened, what type of gear was involved and what issues need to be addressed. The ALWTRT is different in that the species involved are large, powerful animals that are capable of dragging gear for weeks or even months at a time. By the time

the animal is discovered--alive or dead--it's nearly impossible to identify the source of the entanglement. Respondents indicated that this fact alone automatically puts the team at a disadvantage, as one conservation representative explains:

“You're not even starting the conversation at [team meetings] with an acknowledgement that animals are getting caught in a particular gear type, and if you don't have everybody on the same page going in you're never going to reach consensus. The conversation has to first start with an agreement that yeah, the issue is there. So that's in my opinion why this team has not and will not reach consensus easily.”
[Conservation representative]

Other participants shared similar sentiments regarding problem definition and the fact that team members were not on the same page when it comes to being able to identify the problem prior to developing recommendations. It's no surprise that a lack of agreement on problem identification hinders the negotiation process as Kelman (1996) states that the first part of using negotiation to solve a problem is identifying the nature and dimensions of the problem itself. Kelman (1996) explains that defining the problem should precede negotiations, but that “an integral part of the effort to find a solution is to reframe the problem in a way that makes it amenable to solutions” (p. 108). This echoes Perritt's (1986) summary of issue maturity, where negotiation cannot be utilized with limited information because parties are unable to fully solidify their position and develop options for compromise. Because the problem facing the ALWTRT is complicated and ill-defined to begin with, the team's ability to reframe the issue and negotiate viable solutions is hindered.

Throughout interviews with team members it became apparent that there are three aspects to the problem of large whale entanglements: the What, the Where and the How (Figure 3). While the “What” aspect of the problem is relatively well-defined, the “Where” and the “How” aspects of large whale entanglement are still too ill-defined to

create a clear picture of the anthropogenic problems facing large whales, particularly the North Atlantic right whale.

Figure 3 Aspects of right whale problem identification

The What

Take Reduction teams are only convened when the level of mortality exceeds the species Potential for Biological Removal (PBR), as outlined in Section 118 of the MMPA.

Mortality for the North Atlantic Right Whale has remained above the PBR value for 16 out of the past 17 years (Asaro 2019). This high mortality, along with ongoing decline in right whale populations and the 2016-2019 Unusual Mortality Event discussed previously legally obligate the agency to keep the team active. Both federal and private population surveys have noted that the population of right whales in the North Atlantic has declined since 2010 and that reproduction levels have been low, with only 121 calves born between 2010 and 2019 (Pettis et al. 2019, NMFS 2018). During the period between 2003 and 2018, 70 right whale mortalities were recorded in the Atlantic with over 88% of mortalities attributed to anthropogenic sources (Sharp et al. 2019). This leaves little

question that right whale populations are threatened. According to interviews, all respondents agree that right whales are at risk and that humans are involved in creating and increasing that risk, but the details of that involvement are a lot less clear.

The Where and the How

While the team may be in agreement that right whale populations are at risk due to anthropogenic sources, there is a lack of agreement within the team regarding the cause of that risk. One state manager explains the problem that the TRT faces when identifying “Where” and the “How” of the problem:

“You don't have really good information on where the entanglement took place, you don't have really good information on what type of gear it was because gear markings are there but they're maybe not sufficient enough to really determine anything. So you have to understand it's going to be a difficult sell to the fishing industry.”
[State Manager]

The large size of right whale habitat, which spans the North Atlantic, contributes to the limited understanding of the problem (Figure 4). The whales migrate from the southeastern United States--their only known reproductive grounds-- to northern latitudes and feeding grounds in Cape Cod Bay and other northern areas, typically along the continental shelf (NOAA fisheries). In 2018-2019 a single right whale was sighted in Cape Cod Bay, off the coasts of France and Iceland and in Canada's Gulf of St. Lawrence all within the same year (Hamilton et. al 2019). The area where potential interaction can occur is massive, and determining the exact location where a gear interaction occurred can be nearly impossible. This is the case when considering near-shore or offshore (EEZ) waters in the United States, but also whether the interaction occurred in domestic or international waters. Of the 30 right whale mortalities that took place from 2017-2019, 21 were discovered in Canadian waters. This fact causes frustration amongst the

stakeholders, particularly the fishing industry as one TRT participant exclaimed, “What’s going on in Canada? Why are we paying the price for something that’s happening in Canada?” To make matters worse, warming waters have shifted blooms of copepods--the whale’s main food source--northward and have created disruptions in the plankton’s once-predictable cycles, leading to even more unpredictability in right whale migratory routes in the last decade (Record et al. 2019).

Figure 4 North Atlantic Right Whale natural range. Image courtesy of NOAA fisheries.

Respondents noted that the team not only lacks a clear definition of where the interactions are happening, but also how potential mortalities occur. As mentioned previously, the whales have a large, often unpredictable range and as one fishery representative stated, “They’re obviously encountering things that aren’t lobster pots and gillnets.” Determining the exact source of an entanglement is difficult, as over 60% of the gear retrieved off of these animals is unmarked and unidentifiable (Asaro 2019). Rope diameter gives some indication to whether the gear was used inshore or offshore, as larger rope tends to be used in offshore fisheries, but not enough to prove anything substantial. Participants discussed that there are also other sources of injury and mortality

that the whales encounter in their natural habitat, particularly ship strikes. Ship strikes accounted for 42% of anthropogenic trauma leading to right whale deaths between 2003 and 2014, while entanglement accounted for 52% (Sharp et al 2019). Due to the way the MMPA is written, the TRT—and their resulting take reduction plans--can only address risk posed by the fishing industry, despite the obvious risk that ship-strikes pose to large whales. Participants voiced concerns about other potential forms of harassment, including acoustic pollution from maritime shipping and offshore energy production, which are also not within the team’s rulemaking jurisdiction.

All of these factors create what many theorists refer to as a “wicked problem,” a problem that is complex and difficult to solve due to incomplete information, the diversity of interest groups involved and the problem’s interconnectedness to other underlying factors (Rittel and Webber 1973, Head and Alford 2013). The particular type of problem that the ALWTRT faces is the most difficult type to solve-- in which the problem definition and potential solutions are unclear to participants (Head and Alford 2013). This type of problem can be remedied with improved data collection and extensive learning and discussion. Although NMFS does provide the team with data and tools to better make decisions, many team members consider the data insufficient to clearly identify and solve the problem.

Lack of Sufficient Data

According to respondents, the lack of agreement on the scope and source of the problem is compounded by a lack of sufficient data on current population density, fishing activity and overall risk to wild populations. Many interview respondents noted that current data are limited and do not allow the team to clearly answer the “where” and

“how” aspects of the problem definition in a way that would lead to effective management.

Limited information needed to make management decisions, such as with the ALWTRT, is a major flaw in any policy planning process. In Rowe and Frewer’s (2000) evaluative framework for participatory process, resource accessibility is considered a fundamental criterion that validates a process in the eyes of the public. This includes access to any and all information necessary to complete a management task (Rowe and Frewer 2000). In addition to helping participants define the problem, access to complete information is necessary to promote constructive dialogue, leading to more successful participatory processes (Dalton 2005). As one state manager explained, when it comes to large whale take reduction “the discussion always goes back to the lack of information and data, information that lets the policy makers make informed decisions”. Limited data not only inhibits the development of management decisions but also the team’s ability to agree on those decisions.

During the interviews, team members expressed frustration at the quantity and quality of the data made available to them and their constituencies. While data relating to whale population and entanglement rates are collected by a variety of government and academic institutions, NMFS is ultimately responsible for gathering and presenting scientific data to the team. Recommendations made by the team and the agency’s final management decisions are based on the data provided by the agency. Team members from all interest groups expressed dissatisfaction with the way in which existing data were presented and utilized by the agency. One member of the science community stated that the agency “does an absolutely horrible job of presenting the data.” When asked if

they trusted that NOAA was using the best available science in its current management plans, one participant said “well I think it’s the best *available* science,” suggesting that the data the agency currently relied on was not detailed enough to inform effective policy.

One example of how the agency’s lack of dynamic, accessible data can influence negotiation is the Risk Reduction Tool, which debuted at the April 2019 meeting. The tool was designed to model the level of reduced entanglement risk of proposed management options and utilized whale density models, fishing gear density data and entanglement risk survey data. While multiple team members thought the model itself, and the math behind it, was useful they were ultimately frustrated by the relevance and potential biases of the data feeding into the model. They believed the data utilized by the agency did not accurately reflect the current population density of right whales nor the risk associated with different gear types. The frustration that team members feel about the data feeding into the risk reduction tool is valid, as lack of robust data is tied to inaccurate ecosystem assessments and inadequate conservation measures (e.g. Friess and Webb 2011). More information about the Risk Reduction Tool and the data behind the model can be found in Appendix VI.

The inability of the team to clearly define the scope of the problem when it comes to large whale mortality and risk is one of the most glaring factors impeding the team’s ability to reach consensus. Lack of resources and available data to address this problem further weaken the negotiation process, as indicated in the literature. Not only does this lack of information weaken negotiation, but it contributes to ongoing frustration that many team members feel towards the process.

An Unfeasible Goal

Because the problem the team faces is so complex many respondents revealed that they are tasked with achieving a goal that becomes less feasible each time the team is convened. The MMPA mandates that take reduction plans develop regulations that would reduce incidental harm and mortality to levels below PBR within six months of implementation. As of 2018 the PBR level for the right whale is 0.9 individuals. Because the potential sources of incidental take are so varied and largely unknown, it is understandable why some participants feel that any take reduction measures implemented by the agency would not be capable of reaching this goal. As one study participant argued, you could remove all the vertical lines from the Gulf of Maine and still not reduce right whale take to levels below the current PBR. This reveals a potential weakness in the language of the legislation, as one federal representative explains:

“We are talking about such small numbers. The MMPA goal is so hard and because we're talking about an ESA listed stock you know, we don't have 30-40 animals to play with in terms of bycatch reduction, we're talking about one. So we're basically negotiating to eliminate take and I think you could argue that [the take reduction] program was never meant to do that” [Federal Representative].

Section 118 of the MMPA was written with the intention of reducing incidental take within commercial fishing operations, not to eliminate take via commercial fishing regulations. Many team members--particularly the fishing industry--struggle with the ongoing compromises that must be made in attempts to reach that PBR goal which hinder the team's ability to reach agreement. A process that was originally designed to produce a “win-win” scenario can no longer proceed without individuals having to make disproportionate sacrifices. One side eventually must give more than the other to reach management goals. This is a common occurrence in conservation management, where

stakeholder interests are often more competitive than they are complementary (e.g., McShane 2010).

Areas where there have been long-running take reduction measures in place, such as in Massachusetts, tend to have more historical instances of these uneven compromises. Because Cape Cod Bay is a vital feeding ground for right whales, Massachusetts fishermen were among the first subjected to take reduction measures early in the TRT process. During interviews, team members from this region said they were disheartened that the industry is required to implement further take reduction measures to meet MMPA standards. As one industry representative stated, “it’s like the goal post keeps moving, we get so close and then they move it” when new stock assessments prove that current take exceeds PBR levels.

The sheer difficulty of the task--compounded by a lack of information--makes the process extremely difficult for those that take part. When asked if they found the process rewarding one participant explained, “I find it daunting. There's no end in sight and it's hard to continually go back to the well when the well is running dry.” After 23 years of negotiated rulemaking with little ecological success to show for it, participants on the ALWTRT are finding it more difficult to find a sense of purpose in the process.

Weakness of resulting regulation

Another barrier to reaching consensus in the TRT process involves the lack of meaningful change in right whale conservation resulting from this team’s efforts--and the efforts of all the take reduction teams--over the previous two decades. Respondents noted that, despite initial population success, little has changed since the team was convened nearly 24 years ago. In fact, recent studies of TRT participant satisfaction found that

ALWTRT members were the least satisfied with their current Take Reduction Plan and, compared to other take reduction plans, the Large Whale TRP was found to be the least ecologically successful (e.g. McDonald et al. 2016).

One of the participants in this study explained why they believe the team has not been able to make significant ecological progress:

“Now, the consensus plan, we all know it won't work because it's been watered down to a point that we get consensus on it. [The plans] are so diluted that they don't work but they've taken right whales out of jeopardy [to some extent] So NMFS is okay with it. Then it takes years to show that it doesn't work. Then the TRT comes up with a new plan which, again, is too watered down to actually save right whales. That's what's been going on for 25 years, but it's worked really well to keep the fishing industry working relatively unimpeded.” [Federal Representative]

The perspective of this TRT participant echoes findings of Pellow's (1999) study of consensus-based decision making in environmental conservation. Pellow's (1999) research suggested that consensus based decisions benefit participants that are opposed to regulatory change--in this case the commercial fishing industry. Consensus agreements can be viewed as a lowest-common denominator approach to conflict resolution with a watered-down regulatory recommendation as the result (Pellow 1999). This could explain why many participants no longer see negotiated rulemaking as an effective tool for influencing political change.

Multiple respondents viewed the emphasis on consensus--mandated in the MMPA--as a major reason for the team's lack of ecological success. Some believe the agency relies on consensus as a way to avoid making sweeping executive decisions that may alienate the industry and drive potential legal action. When a consensus agreement is reached--or nearly reached--the agency can view the process as successful. The process

is a success because a plan was developed by stakeholders that reduced entanglement risk while minimizing industry impacts, meeting MMPA requirements. As one participant explained, “[the agency] can say they did something, but it's not effective because it's too small. That's what this process is and why it's somewhat doomed to failure.” This sentiment supports claims made by critics of negotiated rulemaking that this type of process is ineffective for conservation because an emphasis on consensus leads to weaker regulatory action that ultimately upholds the status quo (Peterson 2004, Innes 2004).

Existence of alternatives to negotiation

Participants acknowledged that alternatives exist to negotiated agreement that ALWTRT members routinely pursue, but that these alternatives are ultimately detrimental to the negotiation process. The fact that stakeholders can circumvent the process in multiple ways is useful for individual parties, but ultimately creates skepticism and distrust amongst participants while decreasing the legitimacy of regulatory negotiation.

Harter (1982) argues that negotiated rulemaking can replace traditional methods used by stakeholders to influence regulatory action such as litigation, congressional pressure and majority-rules decision making. Susskind and McMahon (1985) state that participants will only join in negotiations if they believe it will “produce an outcome for them that is as good or better than outcomes that would result from other available methods of pursuing their interests” (Susskind and McMahon 1985 p. 139). This precondition is based on a fundamental assumption in negotiation theory, known as BATNA (Best Alternative to a Negotiated Agreement) popularized by Fisher and Ury (1981). If the outcome of a party's BATNA is more favorable than what they can achieve

through negotiation, the party will be less willing to participate in negotiated agreements. If negotiation is to be successful, it must be the best option that participants have for achieving their individual goals.

Interviews with ALWTRT members revealed that, over time, negotiated rulemaking has not replaced these more traditional avenues of decision making--as Harter may have hoped--but has simply become another tool stakeholders can use to influence regulatory outcomes. What's more, oftentimes negotiation is not even the best option at their disposal, as one participant explained:

“As a team member you have a suite of tools in front of you and you can play with all of them at different times, it doesn't matter. Litigation's a tool in the toolbox; congressional pressure's a tool in the toolbox. That's how Maine got 71% percent of their waters exempted, right? It wasn't through negotiation, it was through congressional intervention. So everybody uses the process but everybody goes outside of it too.” [Conservation Representative]

The fact that all team members have the ability to go outside of the process to pursue their own interest appeared to be well-accepted by all respondents.

While TRT participants may be well aware that there are options other than negotiation available to them and others, the existence of alternatives effectively weakens the negotiation process by disrupting the perceived power differences between participants (Wolfe and McGinn 2005). This imbalance of power violates one of Susskind and McMahon's (1985) preconditions for successful negotiation that power, whether perceived or real, should be relatively balanced between participants in order to prevent participants from acting unilaterally. Negotiation is efficient so long as the power of one party does not overwhelm the power of others. The stronger a party's alternative, the more power it brings to the negotiating table thus decreasing the chances of

agreement (Perritt 1986, Lubbers 200). Perritt (1986) highlights that it's the responsibility of the agency to persuade participants that alternative action will not produce outcomes that are as desirable as those achieved through negotiation. In the case of the ALWTRT, the agency failed to convince participants that consensus would produce better outcomes than more traditional methods--such as litigation. When negotiation simply becomes another tool in the toolbox, there's little incentive for participants not to pursue options outside of the process.

The existence of alternative action for ALWTRT participants also weakens the process by sowing seeds of distrust amongst participants, as one conservation representative explains:

"I can look across the table and think 'I know what you're going to do, you're going to walk out of this, you're going to go immediately to an upper-level person in the agency and bypass the rest of us because you've got money and political influence. Once you realize that you can do that, what happens at the table is you know footnotes.'" [Conservation Representative]

When everyone has the opportunity to pursue other--potentially more effective--options, it becomes difficult to trust that team members will uphold their end of an agreement once a meeting is adjourned.

These feelings of distrust were validated in August of 2019, when the Maine Lobstermen's Association withdrew itself from the near-consensus agreement reached at the April ALWTRT meeting. In a letter to Chris Oliver, NOAA fisheries administrator, the MLA explained they were forced to withdraw their support, citing "serious flaws in the data presented in the TRT meeting" (McCarron 2019 p. 1). This was the first time that any team member had formally withdrawn their consent from a TRT agreement and many team members were shocked and upset at Maine's withdrawal. Multiple team

members were not even aware that a team member could formally change their mind after decision-making had taken place.

Interviews with team members were conducted in the weeks following Maine's formal withdrawal and many participants were still reeling from the news and unsure how it would affect the process going forward. One representative of the lobster industry discussed how Maine's actions had destroyed the trust between participants that had been established over the years.

“[on trust between team members prior to 2019] it was good, it was fair. We would talk, we would have conference calls before [meetings] and now it's empty words. I think they really just burned a lot of bridges, they shot themselves in the foot. Basically, Maine can raise their hands like ‘oh yeah, we agree’ and they're basically giving us all the finger. They've made it clear with this action that they don't give a shit about anybody or any process.”

Other participants echoed this sentiment, stating that Maine's actions set a dangerous precedent for the team and the process. Now it's clear to members of the TRT that there is nothing binding them to the agreements made at the table and no consequences if those agreements are withdrawn. Study participants explained that they were frustrated that so much time and energy could be spent developing a plan, only for a major participant to back out. It led one participant to question, exasperated, “What are we doing, why are we wasting our time?” This fact--that participants can opt out of agreements--is a common criticism of negotiated rulemaking cited by critics (Coglianese 1997 & 2001, Innes 2004). Susskind and McMahon (1985) explain that dissatisfied parties always have the option of walking away from negotiation, but imply that this option is only available before a decision is actually made, not after the fact. Innes (2004) argues that in a well-designed process, this type of action is unlikely because sophisticated participants will realize that maintaining trust and the potential for future

working relationships is more valuable than choosing to opt-out of previous agreements. By this account, the ALWTRT process is either poorly designed or simply an exception.

The possibility of defection along with the existence of alternatives increases participants' disdain towards the process as a whole. Not only is the likelihood of successful negotiation decreased, but the incentive of individuals to participate is also diminished. New team members were particularly skeptical of what this means for the future of the TRT. They believe that if others are so willing to go outside the process to accomplish their goals, it signifies that they don't believe in the negotiation process and are not vested in the outcomes. If participants are not vested in the process and cannot be trusted to adhere to agreements, individuals feel as though their participation in the process is ultimately valueless.

The Power of the Constituency

Another barrier to consensus that emerged throughout interviews relates to the representative structure of TRTs, a structure known as regulatory negotiation. Regulatory negotiation is a policy process employed by various executive agencies in which representatives of specific affected interest groups are brought together to negotiate the content of a proposed rule (Fiorino 1988). On the ALWTRT, the agency will choose interest group representatives that are believed to be leaders in their areas of expertise and are capable of representing a certain constituency's views throughout the process (TRT Protocols 2014). Because the problem that the ALWTRT is tasked with solving is so complex and decisions affect large, diverse and often powerful industries, regulatory negotiation allows for a wide range of interest groups to be included in negotiations. While this promotes inclusion, complex connections between constituents, their

appointed representatives on the TRT and other members of the team itself make agreement difficult (Perritt 1986).

Throughout the interviews, participants would often describe the pressure they felt to satisfy their constituency while working to negotiate agreements with other interest groups. Multiple participants explained that even though a person may be the best choice to represent a particular interest group, it does not guarantee that the constituency will support that person or the decisions they agree to at TRT meetings. Industry representatives explained that this is especially true of the fishing industry, which expects its representatives to negotiate in such a way that it minimizes impacts on the industry. When that does not happen, representatives are forced to explain the reasoning behind their decisions to a disappointed industry which can be difficult depending on the size of the constituency and its overall support of the representative going into the process.

There exists an inherent personal and professional risk that representatives take on when agreeing to participate in negotiation. When constituencies are large and opinions are diverse, a minority of competitive, powerful individuals can have significant influence on how a representative cooperates in negotiation (Aaldering and De Dreu 2012, Weingart et al. 2007). When a representative participates in negotiation and an agreement is made, that representative is responsible, in part, for that agreement and its consequences. This is different from traditional legislative or judicial methods, in which a third party--such as a judge--is responsible for making the final decision (Perritt 1986). If a constituency does not support an agreement, they can disavow a representative and the process, choosing instead to take matters into their own hands.

One respondent believes that this type of backlash is what led the Maine Lobstermen's Association to withdraw its consent from the 2019 near-consensus, explaining, "In Maine [the industry] takes maybe a little more aggressive action if they don't get what they want, they've been known to burn boats and you know, shoot people, so maybe there's a little bit of intimidation or fear." When the MLA withdrew its consent from the 2019 near-agreement the association cited serious flaws in the data as its main reasoning. This study participant, as well as others, suggested that the MLA ultimately backed out of their agreement because it was extremely unpopular with their constituency and they felt they had no other choice.

Respondents also expressed frustration over their inability to communicate their experiences on the TRT to their constituencies. Previously it was discussed that multi-interest working groups are successful because they create an environment in which social learning can occur. This type of interaction can lead to changes in perspective that ultimately benefit the participatory process and lead to more favorable outcomes (Webler 1995). In an attempt to clarify various interpretations of social learning in research, Reed (2010) developed a two-part definition in which he states that effective social learning must (1) Demonstrate that a change in understanding has taken place within the individuals involved and (2) That change in understanding goes beyond the individual and becomes established within larger social units or communities. While there's evidence that the ALWTRT process meets the first criterion, interview participants expressed that they struggle and are often incapable of conveying their new perspectives as part of the team to their constituencies, as one participant explained:

“The other thing that’s really hard about it is that you know, say you're a fisherman or even a conservationist and you come up we come up with this hard-fought agreement, which is--because it's consensus--not exactly what you wanted when you went in. But now you’ve had the benefit of sitting through all these meetings, hearing all this information and kind of coming up with a little cognitive dissonance in your brain that says "Okay, I’ve got to move a little bit". You go back to your constituent--who haven't had that exposure--and tell them what you're agreeing to and they're going, ‘What!? You did what?!’”

According to Reed’s (2010) definition, true social learning can only be achieved once the ideas and attitudes learned by a small group are allowed to diffuse to the members of wider social groups and communities, preventing backlash from a constituency regarding an agreement. Constituents are free to communicate with their representatives at any time, but they are not able to access the same types of information or valuable dialogue available to TRT representatives who are actively participating in the process. When constituencies are large and diverse, as they are in the Maine lobster industry, it may be difficult for a single representative to convey their experiences to a wider audience in a way that is meaningful and impactful. Also, the time-frame of the process may also not allow for this communication and for collaborative learning to occur. TRT meetings are, at most, only a week long and a lot of information is shared in a relatively short period of time. By creating avenues in which wider communities beyond the TRT can participate in the exchange of ideas and information, the agency may be able to develop a process that is more transparent to stakeholders and supportive of representatives.

Conclusions and Recommendations

The aspects of the ALWTRT process that seem most effective at promoting successful agreement amongst team members are factors relating to the overall management of the team itself. Structural aspects of the process, such as the coordination staff and the facilitators, create a fair and accessible environment for social learning to occur. They do so through adhering to NOAA protocols and maintaining a consistent process but also by encouraging multi-interest group discussions in which ideas can be exchanged in a productive manner. While in practice these factors may not have led to consensus for the ALWTRT, they create an environment where agreement is more likely. When considering the factors that inhibit the team from reaching consensus, three overarching themes became apparent that both hinder the negotiation process and reduce stakeholder satisfaction. The first theme relates to the team's inability to clearly identify all parameters of the problem and access the information necessary to define the scope of the problem and develop solutions. The second theme that emerges relates to weaknesses in the design of the process, particularly as it relates to the MMPA. The legislation's emphasis on consensus and strict conservation requirements hinder negotiations, weaken resulting regulations and drive participants to methods outside of the process. Lastly, the inability of participants and the agency to diffuse social learning to a wider community outside of the TRT leads to a lack of broader acceptance of the issue and development of potential solutions. This leads to reduced support of the process by the public, which puts representatives in a difficult situation in terms of reaching agreement. In the ALWTRT process, these negative factors significantly outweigh the

positives, explaining why the majority of study participants felt as though their role in the process was unfulfilling.

Growing feelings of Malaise

Throughout interviews and analysis, it became increasingly apparent that team members ultimately found the process--and their participation in that process--frustrating and unrewarding. One participant referred to the annual TRT meetings as “the worst week of my life, every year.” Even when participants discussed the aspects of the process that they found satisfactory--such as the coordination staff or the facilitators--there was an undercurrent of foreboding, as if these positive aspects of the process were doomed to eventually fail and breed future disappointment. Each participant interviewed made a reference at some point in the conversation, often sarcastically, to the fact that the process was failing, or that the team and the process were falling apart despite the agency’s attempts to keep the process moving forward.

In 1982 Philip Harter praised negotiation as the “cure for the malaise,” believing that an increase in participatory processes would serve as a solution for the uneasiness and discontent that stakeholders felt towards more traditional rulemaking practices (Harter 1982). Harter and his colleagues viewed negotiated rulemaking as a worthwhile experiment and encouraged government agencies to incorporate it into their rulemaking processes, which they did with increasing fervor over the following decades (e.g. Susskind and McMahon 1985, Harter 1982). Now, 38 years after Harter developed his proposed cure, these results suggest that negotiated rulemaking processes may eventually cause the same feelings of disdain and dissatisfaction that they were originally intended

to remedy. Negotiated rulemaking may have been a *treatment* for the symptoms of malaise, but three decades later it's proving to be far from a cure. The fact that the process is mandated by the executive agency only adds to the frustration, as participants feel they are stuck participating in a process that doesn't work or produce satisfactory outcomes.

Innes and Booher (2004) address the failures of legally required participatory processes, stating that such processes are not as inclusive as agencies intend them to be and seldom improve the quality of the decisions that agencies and public officials make. Instead, these processes eventually "discourage busy and thoughtful individuals from wasting their time going through what appears to be nothing more than rituals designed to satisfy legal requirements" (Innes and Booher 2004 p. 419). This attitude mirrors how ALWTRT participants are beginning to feel about their own process and their role within the take reduction team. Despite the fact that there is wide-spread acknowledgement of the process' shortcomings, the wheels of the take reduction process grind on unchanged in accordance with MMPA mandates.

The Need for a More Collaborative Process

While social learning is beneficial to the participatory process and leads to more satisfactory outcomes, there's evidence that the social learning that occurs at ALWTRT is not being effectively diffused through larger social groups. Citizens outside of the process are not subjected to the same information and conversation that their representatives are; therefore they have trouble supporting any agreements that may be made around the decision table. The sheer scope of the team and the size of the constituency make this all the more challenging. Creating more opportunities for

collaboration before, during and after negotiation may allow for improved dialogue amongst stakeholder groups and better flow of factual information. Innes and Booher (2004) argue that collaborative processes are a way to heal the fractures created between--and within--interest groups through traditional participatory processes. By allowing an inclusive group of citizens *and* their representatives to engage in transformational dialogue, citizens are able to learn other perspectives, grow their network and establish working relationships built on trust and mutual respect. This is true social learning, as defined by Reed (2010) in which an entire social group benefits from access to shared information.

Opening up dialogues and creating a more collaborative process not only creates the space for social learning, but also can lead to more creative solutions and better acceptance of regulatory outcomes. As previously mentioned fishermen are reluctant to divulge information if they believe the agency will disregard their input but are often the most informed about how a particular regulation change will affect day-to-day operation. By including the public in the process earlier and more frequently, the industry can participate in developing workable solutions without feeling like their suggestions are limited to the last hour of a meeting or until after a draft rule has been proposed. Such inclusion means that all sectors of a community can be inspired to take part, not just “the most organized, or the angriest or those with the narrowest interest” (Innes and Booher 2004). The ideas generated by these community groups can then be used as the basis for recommendations that can be negotiated by representatives later on. This does not necessarily mean that all stakeholders will approve of the final result, but they may see

the resulting regulatory action as more fair because of the transparency and openness of the dialogue leading up to any final decisions (Roberts 2002).

Currently the ALWTRT process is designed in such a way that this level of collaboration is not feasible. This is not to say that current representatives are ineffective or inadequate in their positions on the team. Constituencies are often large and diverse, and with TRT meetings lasting less than one week it's impossible for representatives to communicate complete information to their constituencies, let alone for those groups to discuss that information amongst themselves. This reveals another potential weakness of the process: that the ALWTRT, despite its size and complexity, is held to the same regulatory timeframe as other, smaller teams with less severe environmental circumstances. This is a tricky problem to tackle, as the ongoing plight of right whales and other large whale species require urgent action. Managers and citizens--particularly conservationists--may not approve of increasing the timeline of the process no matter how much it may increase the process's legitimacy.

Recommendations

The Marine Mammal Protection Act was last amended in 1994, when Section 118 was included by Congress with the intent of reducing marine mammal mortality. After nearly 25 years of uninterrupted interpretation and implementation, it may be time to assess the success of the legislation and propose necessary changes. While well-intentioned at the time, the language of the MMPA limits the way in which the law can be interpreted by the agency and ultimately leads to ineffective conservation policy. Consensus can only produce favorable outcomes when problems are well-defined and goals are clear and well-accepted (Crosby 1986). When problems are as complex and ill

defined as those faced by the ALWTRT, requiring stakeholders to reach consensus leads to watered down regulations, ineffective policies and frustrated participants. As Innes and Booher (2004) state: “When dilemmas dominate, it’s time to reframe,” but in this circumstance it’s nearly impossible to reframe the process when the process is so clearly defined in the legislation (p. 421). Amending the MMPA to remove the consensus requirement may allow the agency more creativity in how it approaches organizing the process, ultimately producing more effective regulations that meet ecological needs.

Changes to the MMPA could also be made to make the TRT process more inclusive, and make room for the types of collaborative processes previously discussed. One issue that the ALWTRT faces is that the scope of the problem is much larger than the scope of the team and the scope of the legislation that supports it. The focus that Section 118 of the MMPA puts on reducing mortality via commercial fishing operations does not allow room for negotiation about other sources of large whale mortality such as ship strikes. Redesigning the legislation to be inclusive more diverse stakeholder groups may lead to more constructive conversations and a suite of solutions that are ecologically effective.

The process could also be redesigned in such a way to improve how information is distributed and made accessible to stakeholder groups and to foster social learning at a community level. This could be as simple as hiring agency liaisons to work on behalf of representatives. These liaisons could serve as communication specialists between representatives, the agency and the constituents. This would allow for improved outreach and communication while alleviating pressure placed on TRT representatives and agency staff. Opening the door for more collaborative processes may in fact alleviate some of the

malaise felt by current participants. Wondalleck and Yaffee (2017) argue that in a truly collaborative process, people *want* to participate because they feel as though their participation is worthwhile and the impacts of their contributions benefit others in their community.

In lieu of long-term Congressional action regarding the MMPA, there is also a desperate need for more dynamic research regarding large whale population density, migratory patterns and risk. Lack of sufficient data is a major factor influencing the ability of the TRT to reach agreements and develop effective management strategies. As right whale populations continue to decline, the need for this updated data is even more urgent and should include data collected from a multitude of sources. The good news is that sources of that information already exist, as academic and research institutions have already developed ways of researching right whale abundance with methods ranging from acoustic detection devices to cataloguing opportunistic sightings from civilians. Once this data is collected and consolidated, the information should be made accessible and understandable to a wide audience, so that constituencies are able to process information at the same time as their representatives. This would not only allow team members to gain better insight into the problem and the impact of potential recommendations, but to work better with their constituencies to develop workable and well-supported solutions.

The team members of the ALWTRT would be the first to admit that this process is flawed and in need of serious restructuring. Whether or not the process can be restructured in a way that promotes successful negotiation in time to save the North Atlantic right whale is uncertain, but it's worth trying. The outcomes of implementing

these legislative or executive changes to the process can only make the process more inclusive, transparent and ultimately more legitimate in the eyes of its participants. Furthermore, TRT participants *want* to see this type of change so that outcomes of the process are more successful ecologically and in the eyes of the public. As one participant optimistically stated, “I want right whales to live and I want fishermen to fish. Those are the two things and I am convinced that they can happen.” Whether or not it does depends on NOAA's ability to detangle the complex web of issues created after 23 years of negotiated rulemaking and restructure its rulemaking processes in a way that is beneficial to stakeholders while continuing to protect some of world’s most at-risk species.

Appendix

Appendix I: Preconditions for Successful Negotiated Rulemaking

Preconditions for Successful Negotiated Rulemaking as summarized by Susskind and McMahon (1985)

In 1982 the Administrative Conference of the United States (ACUS) published a recommended procedure for negotiated rulemaking, arguing that such a process would “result in an improved process and better rules” (ACUS 1982). In the recommendation, the authors highlight conditions under which negotiated rulemaking is likely to succeed, which Phil Harter discusses further in his 1982 seminal article “Negotiating Regulations: A Cure for the Malaise?”. Drawing from Harter’s theories and the ideas of other negotiated rulemaking theorists, Lawrence Susskind elaborates on this further and develops a set of 8 hypotheses of conditions that, if met, will result in successful negotiation and rulemaking process (Susskind and McMahon 1985). .

First, participants must believe that partaking in negotiations will result in outcomes that are as acceptable as or more acceptable than outcomes they would achieve by pursuing other options. Essentially, negotiated rulemaking should be the best “tool” available to participants for achieving their legislative goals. Individuals will pursue their other options, such as filing lawsuits, if those options prove to be more successful or efficient. In order to work, negotiated rulemaking must be more efficient than a participant’s best alternative to negotiated agreement (BATNA), as described by Fisher

and Urey (1981). The greater a participant's BATNA is, the more power they bring to the negotiating table.

Power dynamics are another factor that must be controlled in order for negotiated rulemaking to be successful. The second hypothesis Susskind and McMahon list is that negotiations will only be successful if there is some effort to balance the relative power of the participants. If the involved parties are not interdependent, the process can proceed. The more powerful a party's BATNA, the more power they have to influence a negotiated outcome. If an individual or group feels that they are at a disadvantage and that the imbalance of power is too great, they are more likely to seek alternative pathways for achieving their goals (Fisher 1983).

Relative size of the negotiating body is also an important factor for success. Susskind and McMahon summarize Harter's insistence that negotiations be conducted with a limited number of participants. In the recommendations made by the ACUS, the authors state that "negotiations cannot generally be conducted with a large number of participants" (ACUS 1982 p3). The authors suggest the negotiations should involve no more than 15 participants. Susskind and McMahon reiterate this value as an ideal limit, but go on to explain that employing a skilled facilitator for negotiations can allow for effective communications among larger groups. They also suggest that more people can be included in the negotiating process if agencies break larger groups into smaller working group to ensure full participation by all interested parties (Susskind and McMahon 1985).

The fourth precondition that must be met is that the issues being brought to the table for deliberation must be "readily apparent and the parties must be ready to address

them” (Susskind and McMahon 1985 p.139). This involves the issues being relatively well-defined and “ripe” for discussion. For the purposes of this study, ripeness relates to the relatively definition of the problem. In order to be ripe for discussion, all parties must have an equal understanding of the problem at hand and the effect of potential solutions.

Negotiations and consensus building should not require participants to compromise deeply held beliefs and fundamental tenets (ACUS 1982). Susskind and McMahon elaborate that if values, such as theological values, are incontrovertible than there will be little room for collaboration or compromise. Any issues involving fundamental beliefs should be identified before negotiations are initiated.

Susskind and McMahon link the importance of removing issues surrounding fundamental values to their sixth precondition for success, which states that Negotiations are more likely to succeed if there are multiple, diverse issues being discussed. This hypothesis is based on theories presented by Raiffa (1982) which argue that having a multitude of issues “on the table” allows participants to rank their priorities and maximize their individual outcomes. This can increase the likelihood of a “win-win” resolution amongst negotiators.

The seventh precondition that theorists highlight is that a deadline is necessary for negotiated rulemaking to be successful. The existence of a deadline encourages participants to engage in the rulemaking and not delay or fail to reach agreement. Harter believes it is the job of the agency to issue and enforce this deadline, so that “decision on a rule is inevitable within a relatively fixed time frame” (ACUS 1982 p3).

Finally, in order for negotiated rulemaking to succeed the participants must have faith in the process itself and the methods for implementing a final rule once negotiation

has been completed. These methods must be understood and acceptable to all participating parties and the agency is responsible for fulfilling its role in a transparent way. Commitment to and perception of the process are important factors for continued success and parties must believe that their participation is worthwhile.

In the words of Lawrence Susskind: “In some respects, negotiated rulemaking efforts cannot fail. If consensus is not reached, at the very least underlying conflicts can be clarified, data shared and differences aired in a constructive way” (Susskind 1982:159). Because the benefits of consensus-based rulemaking seemed promising, U.S. agencies began experimenting with the model in the mid 1980s. United States Congress encouraged the integration of consensus-based negotiation by passing of the Negotiated Rulemaking Act of 1990 (Coglianese 1997). The policies set forth in this act were later incorporated into the Administrative Procedures Act (APA), giving federal agencies the ability to implement negotiated rulemaking and establish a rulemaking committee “If the agency determines that the use of negotiated rulemaking procedure is in the public interest” (5 USC § 563). Since then, many United States agencies have adopted the model in their own rule-making processes, including the Take Reduction Team process, which is the topic of this research.

Appendix II: Recruitment Letter

Dear [potential participant],

My name is [student researcher] and I am currently a master's student at the University of Rhode Island. I am a student investigator conducting a research study on the Atlantic Large Whale Take Reduction Team (ALWTRT). The principal investigator for this study is Professor [principal investigator] of the University of Rhode Island's Marine Affairs department.

This research is sponsored by the University of Rhode Island and, as such, has been approved by the university's Institutional Review Board. The goal of this research study is to gain a better understanding of how the ALWTRT functions. I am contacting you because you are an experienced team member that serves an important role on one of the team's many interest groups. I believe that your insight and expertise would be a valuable addition to this project.

Participation in this study is completely voluntary and all information collected will be confidential. Your role in this project would involve participating in an interview that would take approximately 60 minutes of your time. There are no anticipated benefits to individual participants in this study. However, this study does aim to better understand the specific factors that influence the team's ability to reach consensus. By identifying and understanding these barriers, it may become possible to design an improved and more meaningful process in the future.

This research study has been approved by the University of Rhode Island Institutional Review Board. If you are interested in participating, or if you have any questions about the project, please feel free to contact me, or the principal investigator, using the information below.

Thank you for your
time

[Student
investigator]

Appendix IIIa: Verbal Consent Form

Marine Affairs

The (en)Tangled Web They Weave: Roadblocks to Consensus in the Atlantic Large Whale Take Reduction Team

STUDY TITLE

The (en)Tangled Web They Weave: Roadblocks to Consensus in the Atlantic Large Whale Take Reduction Team

PRINCIPAL INVESTIGATOR:

STUDENT INVESTIGATOR:

You are being asked to take part in a research study. The purpose of the research study is to gain an understanding of factors that hinder consensus between members of the Atlantic Large Whale Take Reduction Team. Please read the following before agreeing to be in the study. If you agree to be in this study, it will take you approximately one hour to complete this survey. Questions will be asked about your experiences as a team member and your opinions on the take reduction planning process. There are no known risks, benefits or compensation.

Interviews will be recorded using a personal, digital recording device with your verbal consent. Voice recordings will be stored on an encrypted flash drive in the investigator's locked desk. All recordings will be deleted after 3 years. Your responses will be strictly confidential and any identifying information will be redacted from the final report. The responses may be directly used in a research paper, with all identifying information removed.

The decision to participate in this study is entirely up to you. You may refuse to take part in the study at any time without affecting your relationship with the investigators of this study or the University of Rhode Island (URI). Your decision will not result in any loss of benefits to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely from the survey at any point during the process; additionally, you have the right to request that the researchers not use any of your responses.

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have questions about the study, at any time feel free to contact Tracey Dalton from the URI Marine Affairs Department, at dalton@uri.edu.

Additionally, you may contact the URI Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Rhode Island IRB may be reached by phone at (401) 874-4328 or by e-mail at researchintegrity@etal.uri.edu. You may also contact the URI Vice President for Research and Economic Development by phone at (401) 874-4576.

Verbal Consent Statements

You are voluntarily making a decision whether or not to be in this research study. Giving your verbal consent means that (1) I have read this consent script to you and you understood this your options in this research, (2) you have had your questions answered, and (3) you have decided to be in the research study.

Please verbally select the from the following options regarding your participation and audio recording:

- ☐ I confirm I have been provided the information in this consent form and have had the opportunity to ask questions. I understand my role in this study and the steps taken to protect my privacy and confidentiality. I voluntarily AGREE to take part in this study..
- ☐ I confirm that I have been provided the information in this consent form and have had the opportunity to ask questions. I understand my role in this study and the steps taken to protect my privacy and confidentiality. I DO NOT AGREE to take part in this study.
- ☐ I confirm that I give my permission for audio recording(s) of me, to be used for transcription purposes and to be retained indefinitely. All audio recordings will be stored on an encrypted flash drive. You may still participate in this study if you are not willing to be recorded.
- ☐ I do NOT consent to this interview being digitally recorded on an audio recording device. You may still participate in this study if you are not willing to be recorded.

Appendix IIIb: Written Consent Form

Marine Affairs

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The (en)Tangled Web They Weave: Roadblocks to Consensus in the Atlantic Large Whale Take Reduction Team

STUDY TITLE

The (en)Tangled Web They Weave: Roadblocks to Consensus in the Atlantic Large Whale Take Reduction Team

PRINCIPAL INVESTIGATOR:

STUDENT INVESTIGATOR:

You are being asked to take part in a research study. The purpose of the research study is to gain an understanding of factors that hinder consensus between members of the Atlantic Large Whale Take Reduction Team. Please read the following before agreeing to be in the study. If you agree to be in this study, it will take you approximately one hour to complete this survey. Questions will be asked about your experiences as a team member and your opinions on the take reduction planning process. There are no known risks, benefits or compensation.

Interviews will be recorded using a personal, digital recording device with your given consent. Voice recordings will be stored on an encrypted flash drive in the investigator's locked desk. All recordings will be deleted after 3 years. Your responses will be strictly confidential and any identifying information will be redacted from the final report. The responses may be directly used in a research paper, with all identifying information removed.

The decision to participate in this study is entirely up to you. You may refuse to take part in the study at any time without affecting your relationship with the investigators of this study or the University of Rhode Island (URI). Your decision will not result in any loss of benefits to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely from the survey at any point during the process; additionally, you have the right to request that the researchers not use any of your responses.

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have questions about the study, at any time feel free to contact Tracey Dalton from the URI Marine Affairs Department, at dalton@uri.edu.

Additionally, you may contact the URI Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also contact the IRB if you have questions,

complaints or concerns which you do not feel you can discuss with the investigator. The University of Rhode Island IRB may be reached by phone at (401) 874-4328 or by e-mail at researchintegrity@etal.uri.edu. You may also contact the URI Vice President for Research and Economic Development by phone at (401) 874-4576.

By signing this consent form, I confirm I have read the information in this consent form and have had the opportunity to ask questions. I will be given a signed copy of this consent form. I voluntarily agree to take part in this study.

Printed Name of Participant

Signature of Participant
Date

Printed Name of Person Obtaining Consent

Signature of Person Obtaining Consent

Date

AUDIO RECORDING:

By signing this consent form, I confirm that I give my permission for audio recording(s) of me to be used for the purposes listed above, and to be retained on an encrypted flash-drive after transcription for 3 years. You are still able to participate in this study if you are not willing to be recorded.

Printed Name of Participant

Signature of Participant

Date

Printed Name of Person Obtaining Consent

Signature of Person Obtaining Consent

Date

Appendix IV: Sample Questions

Sample Interview Questions

Note: the following are a list of sample questions that may be asked to participants during data collection. As interviews will be semi-structured, these questions are meant only to serve as a guide to facilitate discussion.

I wanted to start by getting a little bit of background on your experience with the TRT

1. Can you describe your role as a member of the ALWTRT?
 - a. How long have you served on the ALWTRT
 - b. What interest group do you represent within the team?
 - c. Do you currently serve on any of the team's subcommittees? Which ones?
 - d. Do you currently serve on any other take reduction teams? If so, which ones?
 - e. How active would you say you are within the team?
 - i. How many meetings/webinars/conference calls have you attended in the last year?
2. Can you describe how you first became involved in the take reduction team?
 - a. What was the process of becoming a team member?
 - b. What made you want to become a team member?
3. How did your initial experiences as a team member compare to your expectations? In what ways were they different?
 - a. Were you happy with the outcome of your early TRT experiences? Why or why not?
4. How often do you interact with other team members outside of the TRT meetings?
 - a. Do you regularly interact or communicate with team members that represent other interest groups? If so, which ones?

I wanted to start off by discussing the April 2019 meeting

When you were informed of the meeting and the goals, what were your first thoughts?

5. How do you prepare to attend this meeting? Do you contact or reach out to any other team members prior to arriving at the meeting?

How does this compare to meetings in the past?

6. Can you walk me through the timeline of the April meeting? How did the week play out?
 - a. How well do you think the meeting adhered to the agendas that NOAA prepares prior to each meeting?
 - b. Any examples of meetings that did not adhere to what you would consider a “normal” timeline?
 - i. What was different about those examples?
7. How do, as a team member, feel about the agenda provided for each meeting? Do you think that they are realistic?
 - a. What about the goal statements for each meeting that are released with the agenda?
8. Can you talk about what happens when the team breaks into working groups?
 - a. How are the working groups organized and designed?
 - b. Are they typically mixed interest groups or one interest group?
 - c. Do you have a preference for a particular type of working group?
9. Can you talk about the role of the NOAA facilitators and representatives in the meeting process? Do they have any influence on the team’s ability to reach agreement?
10. Can you describe the decision making process within the take reduction team?
 - a. How are decisions made within working groups?
 - b. How are decisions made within the team as a whole when developing a proposal?
 - c. Can you describe any differences or difficulties that arise when reaching an agreement as a team as opposed to in a mixed or single-group working group?
 - d. Any specific examples that come to mind?
11. Can you think of any examples of a time when the team was close to reaching consensus on a TRP, but was ultimately unable to?
 - a. What prevented consensus from being reached in that situation?
 - b. How did NOAA representatives/facilitators help or hinder in that situation?
 - c. Reflecting back on it now, do you think something could have been done differently that would have led to consensus?
12. Can you describe the role that NOAA plays in encouraging or promoting consensus among team members?

- a. Do you feel that they provide adequate support to the team when it comes to making decisions?
 - b. What ways could the agency change its process to better promote consensus?
13. What is the professional, working relationship between team members? Particularly members of different interest groups?
- a. How have team member relationships changed over time?
 - b. Do team members generally get along with and respect one another?
 - i. Can you think of any examples where that wasn't the case?
14. Do you think that the team members share the same goals as NOAA and as one another when going into a meeting?
- a. Can you remember a circumstance where the differing goals of team members interfered with the decision making process?
15. In what ways are the team members similar?
- a. Are there any commonalities that exist between team members which surprised you?
16. Do you find this process and your role in it, rewarding? Why or why not?
17. In what ways is this effective process?
18. In what ways is this ineffective process?
- a. What changes do you think could be made to fix these problems?

Appendix V: Codebook
Primary Codes

Alternatives	Relating to other alternatives team members have to negotiated rulemaking, According to precondition one, Negotiations must produce an outcome that is as acceptable or better than outcomes resulting from other pursuable methods (Susskind and McMahon 1985)
Bargaining	Commentary on negotiation of compromise between stakeholder groups. Relates to precondition 6: integrative bargaining must be possible between stakeholder groups
Beliefs	Commentary on deeply-held or immutable beliefs. Relating to precondition number 5, that deeply-held beliefs cannot be in conflict.
Consensus	Commentary on consensus as it pertains to the ALWTRT process
Deadline and Goals	Commentary on deadlines and goals imposed by NOAA to reach agreement. Relates to precondition seven that a deadline is necessary to reach a negotiated agreement.
Facilitation and Coordination	Commentary relating to the third-party facilitators or NOAA coordination staff that organizes and manages the ALWTRT
Federal Responsibility	Commentary on NOAA's responsibilities before and after agreement is reach. Procedural adherence on the part of federal agencies, relating to precondition 8; that there must be established and acceptable methods of implementation
Meeting Objectives	Content relating to objectives made by NOAA prior to meetings regarding the goals and outcomes of a particular meeting
Potential Solutions	Technical, and policy solutions to reduce large whale entanglement and mortality
Power Dynamics	Commentary relating to precondition two, that relative power must be balanced. There must exist no imbalance of power between participating parties
Problem Identification	Commentary on problem identification and definition. Pertains to precondition 4, that issues must be readily

	apparent and ripe for discussion.
Risk Reduction Model	Thoughts on the risk reduction model developed by NOAA and presented at 2019 meeting using survey and biological data
Process	Commentary on the team itself or the process itself
Relationships	Commentary relating to interpersonal relationships between team members
Size and Scale	Commentary on the overall size of the team or amount of stakeholder representation
Working Groups	Commentary pertaining to working groups that take place during and between formal ALWTRT meetings.

Secondary Codes

Decision Support	Commentary relating to Decision support resources provided by the agency. This includes technical resources and data availability
Facilitation and Coordination	Quotes about facilitators or NOAA coordinators for the team
Malaise	Indicative of feelings of uneasiness and unhappiness that participants towards the process as a whole
Distrust	Distrust felt between team members or team members and the agency
Impossible Task	Uneasiness towards the process because it seems as if the process itself is never ending and goals will not and cannot be reached
Non-commitment	Relates to the idea that team members can withdraw their consent after the meeting
Other Alternatives	The existence of other alternatives that team members can seek out to achieve management goals
Status Quo	Frustration over effectiveness of management
Meeting Objectives	Objectives and Goals set forth by NOAA prior to the meetings

Problem ID	References to the problem that the TRT is trying to address regarding whale entanglement and mortality
How	How are the whales getting entangled, What are the gear types involved and how is that information obtained and recorded?
What	Commentary pertaining to large whale mortality, population dynamics and overall population decline
Where	Where the entanglements and interactions are occurring, changing migratory routes
Representation	Concepts related to representation of certain stakeholders. How the constituency can influence stakeholder participation.
Respect	Quotes about respect amongst team members and team members and the public
Rewarding	Aspects of the process that participants find rewarding or positive
Social Learning	References to interactions between stakeholder groups that inform decision making
Stakeholder Involvement	References to outreach to stakeholders regarding problem identification, solutions and implementation
SH Problem ID	References to stakeholder involvement in identifying the problem, where whales are and where entanglements are occurring and with what types of gear
SH Solutions	Stakeholder involvement in the development and testing of possible solutions prior to and after TRT meetings
Working Groups	More detailed descriptions of working groups and how they function and influence the process
Formal	Working groups that were put together by NMFS/NOAA at the table or during meetings
Informal	Working groups that met outside of the table at after-hours

	or during another time of the year to work on solutions
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Appendix VI: The Risk Reduction Tool

One example of how the agency's lack of dynamic whale data can influence negotiation is the Risk Reduction Tool, which debuted at the April 2019 meeting. The tool was designed to model the level of reduced entanglement risk of proposed management options and utilized whale density models, fishing gear density data and entanglement risk survey data. While many team members thought the model itself, and the math behind it, was useful and helped facilitated discussions, the same team members were frustrated by the relevance of the data feeding into the model, particularly the whale density data.

The Risk Reduction Model used large whale density data collected by Duke University on behalf of the US Navy. The "Duke Model" as many participants referred to it, integrated aerial and boat-based survey data collected within the US and Canadian EEZs between 1992 and 2014 collected by 5 different academic institutions (Roberts et al. 2016). While this data was the most comprehensive and accessible data available to the agency, TRT members felt it was not sufficient enough to feed into the model and be used to inform decision-making. Many felt that the Duke model was too limiting in the whale sighting data researchers chose to include. The Duke model only included survey data taken in federal waters, and did not include any acoustic, inshore data or opportunistic sightings from vessels such as whale-watch boats.

Many believed that, for this reason the density data was not entirely accurate or useful for TRT planning purposes. They also felt that the Duke Model, because it only included data collected before 2014, is not allowing the team to create an accurate picture

of current whale density. As one participant explained “everything changed in 2010,” when right whales began migrating northward and abandoning historic feeding grounds. This combined with the lack of opportunistic data made the Take Reduction Tool a useless resource, as one NGO representative explains,

“If you're only going to talk about risk reduction from 1998 to 2000, when whales are going to the Bay of Fundy, you know, you could probably look around Grand Manan and think ‘Oh, doing something over here is really important’. But if you look [at that same area] from 2010 to 2018 then there's really nothing. [The Risk Reduction Model] was very biased in its outcomes because of the data. It didn't have data in it that I think accurately reflects [where the whales are]. So that was my issue. The model is great, but I mean, it's only as good as the food you put in it, and the food wasn't very good.”[NGO representative]

Multiple participants also discussed their frustration towards the third aspect of the model: the gear severity index. To gather data for this aspect of the model, the agency polled members of the ALWTRT as well as other agency staff to gather perspectives on the relative severity associated with different gear types. Many team members voiced their concern for this at the 2019 meeting, believing the survey lacked the necessary rigor and relied on Team members weighing in on areas beyond their expertise (NMFS 2019).

In the interviews, stakeholders from various interest groups explained this frustration further. Multiple participants stated that the survey was an example of sloppy science. One member of the science community explained the survey as a “pseudo-expert elicitation,” that the agency put together because it was short on time. Considering that the fishing industry makes up a large portion of the team, many felt that the survey data was heavily biased and unreliable. Other team members were taken aback when they realized their answers were later used to develop the risk reduction tool, as a new member of the team explains:

“My lack of expertise in knowing how a whale responds to something versus how it doesn't respond to something while answering those questions and then [those answers] getting used as part of a tool that decides the level of risk was kind of astounding to me. It took a subjective poll and turned it into a quantitative analysis and it wasn't peer reviewed [at the time of the meeting], I don't know, I had a hard time with that. I mean, do I think it was helpful in the sense that it probably potentially helped to drive people to consensus? Maybe. But do I think it was good science? No.” [Fisheries Manager]

Other participants expressed that they weren't aware of the agency's intention with the risk-analysis survey. They were frustrated that they weren't told the purpose of the survey before completing it and, had they known, would have put more time and effort into answering the questions more diligently. As one industry representative stated “Do you know how many surveys come across our desks?” Similarly to the whale density data discussed above, the data feeding into the model was flawed and therefore the tool itself wasn't useful to inform decision-making.

Team members also expressed frustration over the fact that the Risk Reduction Tool was debuted at the April 2019 meeting and that team members were not introduced to the model prior to the meeting. Many participants felt that it was unreasonable to introduce such a complex tool and expect the team to learn and utilize the resource--using it to inform their decisions-- within a 4 day period. The introduction of the Tool and the expectation that it be used to develop measures to reduce risk by at least 60%--the goal of the April meeting-- left many participants feeling disgruntled towards the agency.

Bibliography

5 U.S.C. §§ 161-170

16 U.S.C. 1361

Aaldering, Hillie, and Carsten KW De Dreu. "Why hawks fly higher than doves: Intragroup conflict in representative negotiation." *Group processes & Intergroup relations* 15.6 (2012): 713-724.

Administrative Conference of the United States. 1982. Recommendation 82-4. Procedures for Negotiating Proposed Regulations. Adopted June 18th 1982.

Aguirre, Benigno E. "'Sustainable development' as collective surge." *Social Science Quarterly* 83.1 (2002): 101-118.

Arnstein, Sherry R. "A ladder of citizen participation." *Journal of the American Institute of planners* 35.4 (1969): 216-224.

Asaro, Michael. NOAA fisheries Management Update [PowerPoint Slides]. Presented to the North Atlantic Right Whale Consortium November 14th 2019.

Coglianese, Cary. "Assessing Consensus: The Promise and Performance of Negotiated Rulemaking." *Duke LJ* 46 (1996): 1255.

Coglianese, Cary. "Is consensus an appropriate basis for regulatory policy?." *Environmental Contracts, Comparative Approach* (2001).

Chess, Caron, and Kristen Purcell. "Public participation and the environment: Do we know what works?." *Environmental science & technology* 33.16 (1999): 2685-2692.

Crosby, Ned, Janet M. Kelly, and Paul Schaefer. "Citizens panels: A new approach to citizen participation." *Public administration review* (1986): 170-178.

Ctr. for Biological Diversity v. Ross, 349 F. Supp. 3d 38, 2018 U.S. Dist. LEXIS 171667, 48 ELR 20177 (United States District Court for the District of Columbia October 4, 2018, Decided).

Ctr. for Biological Diversity v. Ross, 310 F. Supp. 3d 119, 2018 U.S. Dist. LEXIS 79266, 2018 WL 2170317 (United States District Court for the District of Columbia May 10, 2018, Filed

Dalton, Tracey Morin. "Beyond biogeography: a framework for involving the public in planning of US marine protected areas." *Conservation Biology* 19.5 (2005): 1392-1401.

Dalton, Tracey Morin. "Exploring participants' views of participatory coastal and marine resource management processes." *Coastal Management* 34.4 (2006): 351-367.

Elliott, Michael L. Poirier. "The role of facilitators, mediators, and other consensus building practitioners." *The consensus building handbook: A comprehensive guide to reaching agreement* (1999): 199-240.

Fiorino, Daniel J. "Citizen participation and environmental risk: A survey of institutional mechanisms." *Science, Technology, & Human Values* 15.2 (1990): 226-243.

Fiorino, Daniel. "Regulatory negotiation as a form of public participation." *Fairness and competence in citizen participation*. Springer, Dordrecht, 1995. 223-237.

Fiorino, Daniel J. "Regulatory negotiation as a policy process." *Public Administration Review* (1988): 764-772.

Fisher, Roger. "Negotiating power: Getting and using influence." *American Behavioral Scientist* 27.2 (1983): 149-166.

Fisher, Roger, William L. Ury, and Bruce Patton. *Getting to yes: Negotiating agreement without giving in*. Penguin, 2011.

Freeman, Jody, and Laura I. Langbein. "Regulatory negotiation and the legitimacy benefit." *NYU Env'tl. LJ* 9 (2000): 60.

Friess, D. A., and E. L. Webb. "Bad data equals bad policy: how to trust estimates of ecosystem loss when there is so much uncertainty?." *Environmental Conservation* 38.1 (2011): 1-5.

Hamilton, P.K. et al. "North Atlantic Right Whale Catalog Update and Naming Results". Presented to the North Atlantic Right Whale Consortium, Portland ME. November 14th 2019.

- Harter, Philip J. "Negotiating regulations: A cure for the malaise?." *Environmental Impact Assessment Review* 3.1 (1982): 75-91.
- Head, Brian W., and John Alford. "Wicked problems: Implications for public policy and management." *Administration & society* 47.6 (2015): 711-739.
- Innes, Judith E., and David E. Booher. "Consensus building and complex adaptive systems: A framework for evaluating collaborative planning." *Journal of the American planning association* 65.4 (1999): 412-423.
- Innes, Judith E. "Consensus building: Clarifications for the critics." *Planning theory* 3.1 (2004): 5-20.
- Innes, Judith E., and David E. Booher. "Reframing public participation: strategies for the 21st century." *Planning theory & practice* 5.4 (2004): 419-436.
- Kelman, Herbert C. "Negotiation as interactive problem solving." *International Negotiation* 1.1 (1996): 99-123.
- Knowlton AR, Hamilton PK, Marx MK, Pettis HM, Kraus SD. 2012. Monitoring North Atlantic right whale *Eubalaena glacialis* entanglement rates: a 30 yr retrospective. *Mar Ecol Prog Ser* 466:293-302.
- Leach, William D. "Theories about consensus-based conservation." *Conservation Biology* 20.2 (2006): 573-575
- Lubbers, Jeffrey S. "Achieving policymaking consensus: The (unfortunate) waning of negotiated rulemaking." *S. Tex. L. Rev.* 49 (2007): 987.
- Maine Division of Marine Resources. Lobster License and Trap Tag Annual counts by zone 2008-2018. PDF.
- Marine Mammal Commission. Take Reduction Teams Archive.
<https://www.mmc.gov/sections/take-reduction-teams/>
- McCarron, Patrice. Letter to Chris Oliver, NOAA fisheries Assistant Administrator. August 30th 2019.

McDonald, Sara L., and Deborah Rigling-Gallagher. "Participant perceptions of consensus-based, marine mammal take reduction planning." *Marine Policy* 61 (2015): 216-226.

McDonald, Sara L., Rebecca L. Lewison, and Andrew J. Read. "Evaluating the efficacy of environmental legislation: A case study from the US marine mammal Take Reduction Planning process." *Global Ecology and Conservation* 5 (2016): 1-11.

McShane, Thomas O., et al. "Hard choices: making trade-offs between biodiversity conservation and human well-being." *Biological Conservation* 144.3 (2011): 966-972.

Miles, M. B., Huberman, A. M., Huberman, M. A., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.

NOAA Fisheries Office of Protected Resources. 2019. 2017-2019 North Atlantic Right Whale Unusual Mortality Event. Updated November 26th 2019.
<https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-north-atlantic-right-whale-unusual-mortality-event>

NOAA Fisheries. 2014. Marine Mammal Take Reduction Team Operating Protocols. July 2014.

NOAA Fisheries. 2014. Atlantic Large Whale Take Reduction Plan Supplements. Supplement A: Exempted Waters. August 2014.

NOAA fisheries. 2018. Atlantic Large Whale Take Reduction Team Meeting October 9th-12th 2018, Key Outcomes Memorandum. November 26th 2018.

NOAA fisheries. 2019. Atlantic Large Whale Take Reduction Team Meeting April 23rd-26th 2019, Key Outcomes Memorandum. October 4th 2019.

NOAA fisheries. 2005. Draft Environmental Impact Statement for Amending the Atlantic Large Whale Take Reduction Plan: Broad-based Gear Modifications. February 2005.

Pellow, David N. "Negotiation and confrontation: environmental policymaking through consensus." *Society & Natural Resources* 12.3 (1999): 189-203.

Peterson, M. Nils, Markus J. Peterson, and Tarla Rai Peterson. "Conservation and the myth of consensus." *Conservation biology* 19.3 (2005): 762-767.

Pettis, HM, Pace, RM III, Hamilton, PK. 2018. North Atlantic Right Whale Consortium 2018 Annual Report Card. Report to the North Atlantic Right Whale Consortium 2018.

Perritt Jr, Henry H. "Administrative alternative dispute resolution: the development of negotiated rulemaking and other processes." *Pepp. L. Rev.* 14 (1986): 863.

Read, Andrew J., Phebe Drinker, and Simon Northridge. "Bycatch of marine mammals in US and global fisheries." *Conservation biology* 20.1 (2006): 163-169.

Record, Nicholas R., et al. "Rapid climate-driven circulation changes threaten conservation of endangered North Atlantic right whales." *Oceanography* 32.2 (2019): 162-169.

Reed, Mark S., et al. "What is social learning?." *Ecology and society* 15.4 (2010).

Rittel, H. W., & Webber, M. M. (1973). "Dilemmas in a General Theory of Planning." *Policy sciences*, 4(2), 155-169.

Roberts, J., Best, B., Mannocci, L. *et al.* Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico. *Sci Rep* 6, 22615 (2016)

Roberts, Nancy C. "Keeping public officials accountable through dialogue: Resolving the accountability paradox." *Public Administration Review* 62.6 (2002): 658-669.

Robson, Colin, and Kieran McCartan. *Real world research*. John Wiley & Sons, 2016.

Rowe, Gene, and Lynn J. Frewer. "Public participation methods: A framework for evaluation." *Science, technology, & human values* 25.1 (2000): 3-29.

Saldaña, J. (2015). *The coding manual for qualitative researchers*. Sage.

Sievanen, Leila, et al. "Linking top- down and bottom- up processes through the new US National Ocean Policy." *Conservation Letters* 4.4 (2011): 298-303.

Susskind, Lawrence, and Gerard McMahon. "The theory and practice of negotiated rulemaking." *Yale J. on Reg.* 3 (1985): 133.

Sharp, Sarah M., et al. "Gross and histopathologic diagnoses from North Atlantic right whale *Eubalaena glacialis* mortalities between 2003 and 2018." *Diseases of Aquatic Organisms* 135.1 (2019): 1-31.

United States Environmental Protection Agency. Public Participation Guide: Glossary of Guide Terms. Accessed March 9th 2020.

<https://www.epa.gov/international-cooperation/public-participation-guide-glossary-guide-terms#conbld>

Waring GT, Josephson E, Maze-Foley K, Rosel, PE, editors. 2016. US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2015.

Webler, Thomas. "'Right' discourse in citizen participation: an evaluative yardstick." *Fairness and competence in citizen participation* (1995): 35-86.

Webler, Thomas, Hans Kastenholz, and Ortwin Renn. "Public participation in impact assessment: a social learning perspective." *Environmental impact assessment review* 15.5 (1995): 443-463.

Webler, Thomas, and Seth Tuler. "Unlocking the puzzle of public participation." *Bulletin of science, technology & society* 22.3 (2002): 179-189.

Weingart, Laurie R., et al. "Conflicting social motives in negotiating groups." *Journal of personality and social psychology* 93.6 (2007): 994.

Wells, S. and A. White. 1995. Involving the community. Pages 61-84 in S. Gubbay, editor. *Marine protected areas: principles and techniques for management*. Chapman & Hall, London.

Wolfe, Rebecca J., and Kathleen L. McGinn. "Perceived relative power and its influence on negotiations." *Group Decision and Negotiation* 14.1 (2005): 3-20.

Wondolleck, Julia M., and Steven Lewis Yaffee. *Marine ecosystem-based management in practice: different pathways, common lessons*. Island Press, 2017.

Young, Nina M. "The conservation of marine mammals using a multi-party approach: an evaluation of the take reduction team process." *Ocean & Coastal LJ* 6 (2001): 293.