Summer 2016

Stakeholder Engagement in Marine Protected Area Network Planning in Southern California: Understanding Fishing, Government, and Environmental Perspectives

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DOI: <https://doi.org/10.31979/etd.p64r-m2hz>
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STAKEHOLDER ENGAGEMENT IN MARINE PROTECTED AREA NETWORK
PLANNING IN SOUTHERN CALIFORNIA: UNDERSTANDING FISHING,
GOVERNMENT, AND ENVIRONMENTAL PERSPECTIVES

A Thesis

Presented to

The Faculty of the Department of Environmental Studies

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

By

Nicole Catalano

August 2016

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The Designated Thesis Committee Approves the Thesis Titled

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PLANNING IN SOUTHERN CALIFORNIA: UNDERSTANDING FISHING,
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August 2016

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ABSTRACT

STAKEHOLDER ENGAGEMENT IN MARINE PROTECTED AREA NETWORK PLANNING IN SOUTHERN CALIFORNIA: UNDERSTANDING FISHING, GOVERNMENT, AND ENVIRONMENTAL PERSPECTIVES

By Nicole Catalano

This study focuses on the MPA network planning process associated with California's Marine Life Protection Act (MLPA) in southern California, occurring between 2008-2009. This case study demonstrates the ongoing complexity of MPA planning efforts in balancing social and science goals and reinforces the view that public participation alone may not be sufficient in achieving the type of stakeholder support needed for successful MPA implementation. Using a qualitative approach, this research draws upon the field of public participation to examine the efficacy of the planning process from the perspectives of fishing, government, and environmental stakeholders. Findings reveal significant differences in perceptions among stakeholder groups. The fishing stakeholder group felt marginalized and expressed dissatisfaction with the process and the final MPA designations. The environmental and government stakeholder groups expressed a higher level of satisfaction, but were disappointed with the compromises that were made on the scientific criteria used for MPA design. The key factors that impacted stakeholder perceptions about the planning process and outcome were decision-making, influence, and transparency. Despite these findings, this study highlights a number of positive outcomes associated with capacity-building.

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Introduction

The loss of biodiversity in the marine environment has increased significantly over the last few decades. According to a report by the World Wildlife Fund (WWF), marine populations have experienced a decline of 49% between 1970 and 2012 (WWF, 2015). There are many factors affecting this decline, including climate change, pollution, fishing, and an overall loss in viable fish habitat (WWF, 2015). One approach that has been widely used to reduce marine biodiversity loss is the implementation of marine protected areas (MPAs). MPAs are areas in the marine environment that are zoned for protection, usually prohibiting fishing and other forms of extraction.

While MPAs have been attributed with biological and ecological success, they are often faced with local resistance due to restrictions that limit fishing or other human activity. Implementation of MPAs can be a source of conflict among user groups and can lead to negative socio-economic impacts such as displacement. A lack of public support or buy-in can occur as a result, especially if there are perceptions that MPA benefits are not shared equally among stakeholders (Agardy et al., 2003; Christie et al., 2003; Christie, 2004). If there is too much opposition, MPA planning efforts can be derailed or outright fail (Voyer, Gladstone & Goodall, 2013). Similarly, opposition in the form non-compliance can also negatively impact the biological integrity of an MPA once established (Agardy et al., 2003; Saarman & Carr, 2013). Therefore, the success of an MPA often depends on the ongoing support of fishermen and the local community.

Research has shown that one effective way to gain MPA support is by involving local stakeholders in the actual MPA planning and ongoing management. For example, Dalton, Forrester and Pollnac (2012) contend that the meaningful engagement of stakeholders can “lead to decisions that are better supported, rules that are more likely to be followed, and outcomes that meet management goals” (p. 1224). Moreover, according to Dietz and Stern (2008) and Beierle and Cayford (2002), effective stakeholder engagement can also increase trust, satisfaction and capacity between the public and government agencies. Newig and Fritsch (2009) found that stakeholder engagement can also lead to other beneficial outcomes such as improving the overall quality of the plan by incorporating public values and local knowledge.

While the literature is rich with research dedicated to measuring the contribution of stakeholder engagement in MPA planning, there still remains a lot of controversy over how to engage stakeholders effectively in MPA planning. If a planning process is flawed, it can lead to negative social and biological consequences (Agardy, Di Sciara & Christie 2011; Christie et al., 2003; Christie, 2004; Dalton et al., 2012). This study examines the efficacy of stakeholder engagement in MPA network planning efforts that occurred in southern California between 2008-2009 as part of the Marine Life Protection Act (MLPA). By focusing on the perceptions among fishing, government, and environmental stakeholder groups, this study provides insights that can help inform MPA planners and resource managers in future MPA efforts.

Related Research

Marine Protected Areas (MPAs)

The International Union for the Conservation of Nature (IUCN)'s definition of an MPA is the most commonly cited definition in the literature. The IUCN defines an MPA as an area within the marine environment that is “a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural value” (Dudley, 2008, p. 56). The IUCN also offers six different classifications of MPAs, based on various goals and associated protection levels and. For example, Category I MPAs are the strictest, having an objective that is purely preservation of the biodiversity, and often identified as “no take-areas/marine reserves” (Dudley, 2008, p. 57). Category II MPAs are managed for “ecosystem protection” (Dudley, 2008, p. 58) with allowances for visitation, recreational activities and nature tourism. Extractive activities such as fishing would not be consistent with Category I or Category II MPAs (Dudley, 2008, p. 58), but would be consistent with Category VI, which would allow for a sustainable collection of a species (Dudley, 2008, p. 58) and sometimes referred to as a “managed resource protected area” or “multiple-use area” (Agardy et al., 2003, p. 358). For simplicity purposes, MPAs have commonly been described as no-take, limited-take or multiple-use. No-take MPAs are spatial closures that prohibit all forms of resource extraction (e.g., fishing) and limited-take MPAs are areas in the marine environment that allow restricted harvest (Dudley, 2008).

The IUCN and the World Conservation Monitoring Center (UNEP-WPEC) tracks, monitors and compiles information about MPAs around the world. According to the IUCN and UNEP-WPEC, there are currently 5,000 MPAs designated around the world, covering 0.8 % of the world's ocean (IUCN & UNEP-WPEC, 2016). Most MPAs are located along or close by the coast, many of which can be found in the tropics (IUCN & UNEP-WPEC, 2016). Marine reserves, or what is known as 'no-take' MPAs, cover approximately 10% of the global MPA area (IUCN & UNEP-WPEC, 2016). The two largest MPAs in the world include the Great Barrier Reef Marine Park (344,400 km²) and the Northwestern Hawaiian Islands (341,400 km²) (IUCN & UNEP-WPEC, 2016; Wood et al., 2007). However, these are the exceptions, as MPAs are usually a lot smaller, with an average size of 544 km²; and no-take marine reserves are even smaller (IUCN & UNEP-WPEC, 2016). The Initiative reports that out of the 124 marine reserves studied, half of them are smaller than 3.75km² in size (IUCN & UNEP-WPEC, 2016).

The minimum size required for MPAs to be effective varies among scientists, with many stating that the range should be at least 3 km² to at least 13 km² and the IUCN reports that only 35-60% of existing MPAs meet these minimum size recommendations (IUCN & UNEP-WPEC, 2016). For the purpose of illustration, Figure 1 below shows an example of the boundaries of two different types of MPAs in Point Reyes National Seashore in California. The MPA highlighted in red is a no-take State Marine Reserve (SMR) and the MPA highlighted in blue is a State Marine Conservation Area (SMCA). The Point Reyes SMR is 9.55 square miles and has an along-shore span of 7.5 miles (CDFW, 2010a). The Point Reyes SMCA is 12.27 square miles (CDFW, 2010b).

California Department of Fish and Wildlife, Marine Region GIS Lab ~ March 14, 2013

Figure 1. California Marine Protected Areas. Point Reyes State Marine Conservation Area (SMCA) and State Marine Reserve (SMR). Reprinted with permission from the California Department of Fish and Wildlife (CDFW, 2013a).

Single MPAs and MPA networks. Stand-alone MPAs are often used to protect a specific habitat type from degradation due to overfishing or pollution or to protect marine life in a particular stage of life that is limited to a single habitat such as in spawning or nursery grounds. More recently, there has been an increase in popularity in the use of MPA networks as opposed to single MPAs (Laffoley, 2008; Lowry, Wright & Christie, 2009; White, Alino & Meneses, 2005). A network of MPAs consists of one or more single MPAs that are linked together but defined by different spatial proportions and distinct levels of protection (White, Alino & Meneses, 2005). A network of MPAs can be more effective because it protects the many different habitats that are used by marine species during their entire life cycle, which is dependent on adequate larval distribution (Laffoley, 2008). A network approach also offers other benefits. For instance, single MPAs are not able to support marine populations that are large enough to sustain themselves unless the area of protection is also fairly large; and, since single, large MPAs are not always feasible to implement, the use of MPA networks offers vital spatial connections that can provide greater long term sustainability of marine life versus a single MPA approach (Laffoley, 2008). According to Laffoley (2008), “MPA networks can magnify benefits of individual sites, protect large-scale processes, slow the loss of endangered marine species and restore depleted fisheries” (p.10).

The efficacy of a network depends on the placement, size and spacing of individual MPAs and the protection that is provided between ecosystem types (Laffoley, 2008). Therefore, MPA networks must be well planned and designed. For instance, an effective MPA network must have numerous, connected sites that include replications of

all habitat types. MPA networks must have MPAs that are sized adequately to support populations of the largest species in a marine environment as well as migratory species with the rationale being that a series of spatially connected MPAs would aid in the recruitment and protection of marine species from one MPA to another, resulting in a population that is more self-sustaining (Laffoley, 2008; Roff, 2005). The size of individual MPAs in a network is also important. Larger MPAs provide greater protection to a wider distribution of species than smaller MPAs because they can cover larger distances of adult species and larval dispersal (Laffoley, 2008). Larger sized MPAs also increase the possibility for fish spillover and larval production (Laffoley, 2008). However, since large MPAs aren't always feasible to implement, scientists suggest that a network of smaller-sized MPAs can be a reasonable alternative that is just as effective (Laffoley, 2008). The spacing between MPAs in a network is also critical, especially for larval dispersal. MPAs that are spaced closer together are better connected and provide protection to a wider range of species through juvenile movement patterns (Laffoley, 2008). The shapes of MPAs in a network are important because of the edge effect (Laffoley, 2008). The edges of an MPA are often heavily fished because they do not provide the same safeguards as the interior area of an MPA. So, if the goal of an MPA is biodiversity conservation, then it is better to minimize the edge habitat and maximize protection of the interior (Laffoley, 2008). If the goal is fishery management, then it is best to provide continuous habitat inside and outside of the MPA to allow for spill over (Laffoley, 2008). MPA planners also recommend using squares and rectangles to shape

MPAs in a network so that they are easily identified by longitude and latitude (Laffoley, 2008).

Social impacts of MPAs. No-take MPAs have been proven to result in many biological benefits including an increase in density, biomass and individual sizes of marine species (Fogarty & Murawski, 2004; Rowley, 1994). No-take MPAs can also provide social benefits such as restoring commercial and recreational fisheries and providing opportunities for scientific research and tourism (Christie et al., 2003; Christie, 2004). Multiple-use MPAs have been proven to provide both ecological and social benefits as they provide both resource protection and continued access to traditional communities who have cultural and historic ties to the marine environment (Agardy et al., 2003). Multiple-use MPAs have also been considered to be a reasonable solution in regions in which conflicts between resource users and conservation goals are high (Agardy et al., 2003). However, there is disagreement within the literature about the efficacy of multiple-use MPAs in achieving conservation benefits (Agardy et al., 2003). Agardy et al. (2003) explain that the cause of this lies in the fact that the two approaches do not share the same goal as:

The first approach is based on the principle of sustainable use and the second is based on the principle of protectionism through no-take. Sustainable use approaches are predicated on the concept that living resources of an MPA replenish themselves naturally and can be exploited within limits. (p. 358)

This point is important to consider because there is a consensus within the literature that MPAs are developed often for ecological and biological reasons with little consideration given to the social impacts of MPAs (Christie et al., 2003; Christie, 2004; Chuenpagdee et al., 2013; Jentoft, van Son & Bjørkan, 2007; Voyer et al., 2013).

Christie et al. (2003) explain that, in this regard, it is common to have MPAs that are biologically and ecologically successful but are complete social failures, in which there is “no broad participation in management, sharing of economic benefits or conflict resolution” (Christie et al., 2003, p. 22). Christie et al. (2003) further describe how these social failures are often a result of a lack of local participation or buy-in and concludes that natural resources cannot be sustainably managed unless those who use the resource perceive it to be in their interest and are deeply involved in the planning and management process. As such, social science researchers are advocating for more studies dedicated to understanding the social impacts of MPAs. This type of contribution to the MPA literature can inform MPA planners on how to make better policy choices that would gain greater public support and acceptance.

MPAs in California. MPAs have been designated along the California coastline since the 1970s, covering less than 3% of State waters with a total of 63 MPAs (Gleason et al., 2013). However, California’s existing MPAs have been criticized for not being effective due to their small sizes, the type of uses that were permitted, and the fact that they were not planned as a network (Gleason et al., 2013). In 1999, the Marine Life Protection Act (MLPA) was passed in the State legislature, mandating the evaluation of existing MPAs in California and the creation of a more effective statewide network of MPAs. There were early attempts to implement the mandates of the MLPA, but those efforts failed in 2000 and again in 2002 due to financial and political reasons as well as local opposition (Agardy et al., 2011; Gleason et al., 2010). Lessons learned from the earlier failed processes indicated that more funding was needed to implement a statewide

planning process that involved a high-degree of public and stakeholder input in a more meaningful way. A public-private partnership was then formed in 2004 between the California Department of Fish and Wildlife (CDFW) and the Resource Legacy Fund (a group of large foundations that support conservation projects) to implement a statewide public planning process more effectively (Gleason et al., 2010). The implementation of the MLPA was referred to as the MLPA Initiative and consisted of four regional planning processes along the coast that involved the participation of public stakeholders, including commercial fishermen, recreational fishermen, environmental NGOs, municipalities, government agencies, tribes, among others. The statewide process occurred over multiple years, starting in 2004 and ending in 2011. As a result of the planning process, the State now has 124 MPAs that now cover 16% of state waters (Gleason et al., 2013). The efficacy of the network continues to be studied and the results won't be available for some time, due to the fact that many of the benefits of MPAs will not be realized until 20 to 30 years from now. While many view the MLPA public planning process as a huge success for the State and the people of California, it was, and still is heavily criticized and opposed by recreational fishing groups (Gleason et al., 2013).

Public Participation Theory

Involving the public in MPA planning is one way to develop the necessary support required for the successful implementation of MPAs (Christie et al., 2003; Christie, 2004; Voyer et al., 2013). Public participation is defined as “any process that directly engages the public in decision-making and gives full consideration to public input in making that decision” (EPA, 2015). Examples of public participation range from

the most basic form such as voting, surveys and town hall meetings to more extensive forms such as advisory committees and stakeholder panels (Beierle & Cayford, 2002). Stakeholder participation refers to the engagement of people who may be affected by policy decisions and giving them an opportunity to influence the decision-making. Anyone who has a 'stake' or interest in something is considered a stakeholder. The participation of stakeholders is essentially a way to incorporate the lay public or their representatives in government decision-making (Beierle & Cayford, 2002).

Public participation has its roots in both democratic theory and deliberative democratic theory. It is important to distinguish among the two, as the former views public participation as the essence of democratic governance because it provides an avenue for citizens to influence public decisions that affect them (Rosenbaum 1978); however, many critics of democratic theory argue that merely providing an opportunity to influence public decisions does not necessarily equate to citizen power (Arnstein, 1969; Parkins & Mitchell, 2005). For instance, Sherry Arnstein was among the first to conceptualize this idea by describing public participation as a ladder with eight rungs that correspond to the different levels of participation, ranging from non-participation at the bottom two rungs to full managerial power at the upper three rings (Arnstein, 1969, p. 217). In this regard, deliberative democratic theorists perceive traditional public participation methods such as voting as limited opportunities that are nothing more than symbolic gestures (Abelson et al., 2003; Arnstein, 1969; Parkins & Mitchell, 2005). Deliberative democratic theorists advocate instead for a higher level of participation, one in which the public actively discusses and debates decision options that lead to mutually

agreed upon solutions (Abelson et al., 2003; Parkins & Mitchell, 2005). Participation that involves discourse, debate, and collective problem solving is what deliberative democratic theorists say is at the heart of legitimizing the democratic process (Abelson et al., 2003).

Prior to the 1960s and 1970s, public participation in environmental decision-making and natural resource management was limited due to society's reliance on technology and science to solve environmental issues (Parkins & Mitchell, 2005). This historic public reliance on science and technical experts to solve environmental issues is important to discuss. For one, involving the public in decision-making that involves a high degree of science or technology often times is difficult to do because of the level of knowledge and expertise required to participate at the decision-making level (Parkins & Mitchell, 2005). Two, the public, as a result, relies on and trusts experts to act on their behalf (Parkins & Mitchell, 2005). However, this reliance is not necessarily healthy because it does not guarantee the production of outcomes that also represent the values of the public. For instance, these experts can "act inappropriately (or fail to act) within policy or technical realms, thereby exposing the public to unintended consequences" (Parkins & Mitchell, 2005, p. 535). In addition, reliance on experts exacerbates the "elite-based leadership model" that often fails to integrate the range of public values into the decision-making process (Parkins & Mitchell, 2005, p. 535). Therefore, the 1960s and 1970s stressed the importance of civic participation in environmental decision-making (Beierle & Cayford, 2002), leading the way to today's demand for government transparency and more public engagement.

Conceptual framework. The National Research Council (NRC) is the research arm of the National Academies of Sciences, Engineering and Medicine, a non-profit organization that performs research for U.S. federal and state agencies. The NRC created the Panel on Public Participation in Environmental Assessment and Decision Making to research whether, and under what conditions, public participation achieves the outcomes desired. Through their research, the NRC panel determined that a successful public participation process in the context of environmental decision-making is one that exhibits legitimacy, quality and capacity building (Dietz & Stern, 2008). Figure 2 below illustrates the framework.

Figure 2. Conceptual framework – NRC public participation success criteria (adapted from Dietz & Stern, 2008).

In general, the NRC views public participation as way to legitimize the decision-making process and to enhance the quality of the outcome (Dietz & Stern, 2008). For instance, by increasing the legitimacy of the deliberation process, the outcome (e.g., environmental policy decision, habitat plan, risk assessment) will respectively be also legitimate and of higher quality; and can lead to capacity building in the form of trust and understanding which in turn leads to improved social results (Dietz & Stern, 2008).

The definitions of the key concepts of the framework are explained as follows. The NRC defines process legitimacy as “a process that is seen by the interested and affected parties as fair and competent and that follows governing laws and regulations” (Dietz & Stern, 2008, p. 2). However, the panel warns that merely looking at legitimacy from the aspect of legal standards can be constricting because those who disagree with the quality of the process or outcome could see it as being legally legitimate (Dietz & Stern, 2008, p.2). The panel prefers that the equitable distribution of costs and benefits of a public decision and the degree of influence on public decision by those who participated to be the focus when assessing legitimacy (Dietz & Stern, 2008, p.2). The NRC defines outcome or plan quality as:

assessments or decisions that 1) identify the values, interests and concerns of all who are interested 2) identify the range of actions that may be taken 3) identify and systematically consider the effects that might follow or uncertainties about them 4) use the best available methods and knowledge relevant to the above mentioned tasks and 5) incorporate new information, methods, and concerns that arrive over time (Dietz & Stern 2008, p. 2).

The NRC defines capacity-building as follows:

when participants including agency officials and scientists become better informed and more skilled at effective participation by becoming better able to engage the best available scientific knowledge and information about diverse values, interests and concerns and by developing a more widely shared understanding of the issues and decision challenges and a reservoir of communication and mediation skills and mutual trust (Dietz & Stern 2008, p.2).

According to the NRC, the outcome of capacity building is achieved when the following occurs:

Having better educated and informed public, public more skilled at participating in environmental decisions, more competent and skilled public officials, improved methods for scientific analysis of environmental issues, better communications among interested and affected parties, better relationships among the various participants in making and implementing environmental decisions, improved institutional systems for environmental communication and decision making and a more widely shared understanding of the nature of environmental issues and decision challenges. (Dietz & Stern, 2008. p.71-72)

Beierle and Cayford (2002) also suggest that one indicator to look for when evaluating capacity is a change in stakeholder trust including perceptions about an agency's credibility, legitimacy or competence (p. 30). Similarly, capacity can be measured by the degree to which the public learned about the issue to actively engage in decision-making (Beierle & Cayford, 2002, p. 26). Beierle and Cayford (2002) also explain that a process has failed to build capacity if there was no effort to assist the public in understanding information, which often results in the public "feeling powerless to engage effectively in decision-making" (Beierle and Cayford 2002, p. 32).

The NRC also asserts that a public planning process must be collaborative in both identification of the issue and the process design to be effective (Dietz & Stern, 2008).

Other guiding principles for effective public participation processes according to the NRC include the following:

1) inclusiveness of participation 2) collaborative problem formation and process design c) transparency of the process and 3) good faith communication 4) environmental assessment and decisions with substantial scientific content should be supportive with collaborative, broadly based, integrated, iterated analytic-deliberative process (Dietz & Stern, 2008, p.222-245).

The NRC also advises that the broader and more direct the participation is by those affected by the process, the greater the improvements will be to the legitimacy and quality of the decision process (Dietz & Stern, 2008).

The role of science in public participation often results in challenges because of the competing nature of scientific data versus normative values. As such, the NRC developed the following guidelines to help integrate scientific analysis and public participation:

1) ensuring transparency of decision to relevant information and analysis 2) paying explicit attention to both facts and values 3) promoting explicitness about assumptions and uncertainties 4) including an independent review of official analysis and or engagement in a process of collaborative inquiry with interested and affected parties 5) allowing for iteration to consider past conclusions on the basis of new information (Dietz & Stern 2008, Chapter 9, 220-245).

NRC sub-criteria. The NRC framework is supported by findings from the natural resource planning, public planning, collaborative planning and public participation literature. As such, the use of sub-criteria from the literature can provide a more comprehensive approach to measuring the success of a participatory process. Process qualities such as stakeholder representation, degree of stakeholder influence, level of stakeholder commitment, time allotted to the planning process, ground rules, goals and objectives, clarity of roles, transparency, among other qualities can be analyzed

to evaluate the legitimacy of a process. For example, the literature explains that the participants of a process should comprise of a broadly representative sample of the affected public (Ansell & Gash 2008; Brody, 2003; Carnes et al., 1998; Dietz & Stern, 2008; Innes & Booher, 1999; Koontz 2003; Mandarano, 2008; Margerum, 2002; Randolph & Bauer 1999; Rowe & Frewer 2000). A legitimate process should include all affected stakeholders (Mandarano, 2008; Margerum, 2002) and be inclusive (Innes & Booher 1999; Margerum, 2002), broad (Ansell & Gash, 2008; Brody, 2003), and diverse (Carnes et al., 1998). In fact, Ansell and Gash (2008), stress that “broad based participation is the heart of the legitimization process” (p. 556). As such, the exclusion of key stakeholders can lead to failure (Ansell & Gash, 2008; Rowe & Frewer, 2000). Brody (2003), however, warns that having a high number of participants can actually increase conflict by having too many competing interests at the table, which can slow down the decision making process or even dilute the strength of the final plan.

As stated earlier in this chapter, the NRC panel states that a public participation process must be collaborative. The planning literature explains that a collaborative planning process is only legitimate when non-government stakeholders have real influence over the outcome of a planning process and stakeholder participation will wane if it appears that their participation is ineffectual (Ansell & Gash, 2008; Beierle, 2000; Parkins & Mitchell, 2005; Rowe & Frewer, 2000; Webler & Tuler, 2006). A legitimate process is also one in which there is trust and transparency (Beierle & Cayford, 2002; Dietz & Stern, 2008; Irvin & Stansbury, 2004). For example, the legitimacy of a process can be measured by determining whether or not mistrust among participants, including

government agencies, was reduced during the process; and, also by the degree to which mutual trust was increased between participants and government agency representatives (Beierle & Konisky, 1999; Dietz & Stern, 2008; Innes & Booher, 2004; Margerum 2002; Newig & Fritsch, 2009). Furthermore, a process with transparent decision-making helps establish trust among participants (Irvin & Stansbury, 2004; Rowe & Frewer, 2000). For instance, Rowe and Frewer (2000) explain that transparent decision-making can assuage suspicion or mistrust among participants involved in a planning process.

The literature emphasizes that a high quality outcome is one that represents the broad interests of the stakeholder group, meets local needs, meets scientific standards, and is supported by the local community (Koontz, 2003). The quality of the plan can also be measured by participant perceptions and the degree to which stakeholder input is incorporated into a plan (Beierle, 2002; Innes & Booher, 1999). The rationale, according to Beierle (2002), is that the type of input provided by stakeholders should not be dismissed, as stakeholders often bring a high level of knowledge to the table; and, stakeholders can contribute new information and solutions that are otherwise not available, resulting in a higher quality plan. A high quality plan or outcome is also one in which stakeholders agree with (Margerum, 2003) and accepts (Carnes, 1998). Finally, stakeholders must be confident that the final plan will be effective (Beierle & Cayford, 2002; Chess & Purcell, 1999).

These are just a few examples of the type of sub-criteria that support the NRC framework. A more comprehensive index of sub-criteria and associated indicators which helped inform the conceptual framework for this study is available in Appendix A.

Purpose of Study

The main purpose of this study is to conduct a qualitative case study to investigate the role of stakeholder participation in the South Coast MLPA planning process and to examine the efficacy of the South Coast planning process from the perspectives of fishing, government, and environmental stakeholders within the context of the NRC framework.

Research Questions

The overarching questions guiding this research study are:

- 1) What role did stakeholders have in the South Coast MLPA collaborative planning process?
- 2) How did stakeholders perceive the legitimacy of the process?
- 3) How did stakeholders perceive the quality of the plan?

Methods

Study Site

The focus of this study is on the South Coast regional planning process of the MLPA. Figure 3 below illustrates the study area in the context of the entire MLPA statewide planning process.

Figure 3. MLPA South Coast regional stakeholder planning process. Adapted from CDFW's State Wildlife Action Plan (CDFW, 2013b).

The South Coast region was chosen for this study because there has been no research dedicated specifically to this regional stakeholder process of the MLPA. Other studies have been conducted on MLPA planning processes associated with the Central Coast, North Central Coast and North Coast regions. Moreover, the South Coast region had the largest stakeholder group (64 stakeholders) in comparison to the other regional processes of the MLPA.

There are several other characteristics of the South Coast region that make this regional planning process an interesting case to study. The geography of the South Coast region is unique because it covers the coastline from Point Conception to the border with Mexico, covering a significant portion of the California's jurisdictional waters — approximately 1,027 square miles including ocean, estuary, and offshore rock/island waters (CDFW, 2016). This region is also known as the Southern California Bight, where the cold ocean currents from the north mix with the warm ocean currents of the south. As such, this region is characterized as being rich in marine biodiversity and includes some of California's most important marine habitats as well as some of the State's most highly productive fishing grounds. There are also several offshore islands that contribute to the region's unique geography and ecology, including those associated with the Channel Islands National Park. Other offshore islands in the region include Begg Rock, San Nicholas, San Clemente, Santa Barbara, and Santa Catalina. Adding another layer of complexity to the planning process is the fact that the the United States Navy has military operations on some of these islands. Furthermore, the South Coast region is also characterized as highly urbanized and densely populated. The combination of geography, climate, and ecology of the South Coast region therefore lends itself to being one of the State's most popular regions for coastal recreation by residents and nonresidents (e.g., tourism) alike.

Study Design

This research used the qualitative case study methodology as described in Hancock and Algozzine (2011), Merriam (2002), Stake (1995) and Yin (2007). Multiple

sources of data were used to answer the research questions including semi-structured interviews, a questionnaire, and document review. The convergence of these data sources allow for triangulation, which makes the study more comprehensive and accurate as to how participants experienced the phenomenon (Stake, 1995; Yin, 2009).

The conceptual framework that informed this study is based on the NRC criteria (Dietz & Stern, 2008) used to evaluate public participation processes in environmental decision-making. As explained in the previous chapter, the NRC asserts that process legitimacy, quality of outcome and capacity building are the three key factors that determine the success of a public participation or planning process within the context of environmental decision-making (Dietz & Stern, 2008, p. 69-20). This study therefore attempts to evaluate the criteria of process legitimacy and quality of the outcome within the MLPA's South Coast regional planning process based on the perceptions of fishing, government, and environmental stakeholders. As such, data collection for this study is organized according to the topics of process legitimacy and the quality of the final plan.

The NRC framework was chosen for this study as opposed to other frameworks because it is based on the most comprehensive research in the public participation in environmental decision-making field. The majority of the research in the public participation literature focuses on specific aspects of this framework, such as process or outcome, or the relationship between the two. Since the framework is supported by findings from the natural resource planning, public planning, collaborative planning, and public participation literature, a more comprehensive set of sub-criteria and associated indicators was needed to conduct a thorough investigation for this study. Based on the

findings from the literature, an index of approximately 40 sub-criteria and associated indicators was created to operationalize process legitimacy and plan quality (see Appendix A). These indicators are based on 13 key sources identified through a comprehensive review of the public participation literature. These indicators were also selected based on their feasibility for evaluating the South Coast MLPA regional planning process.

Data Collection

Data collection occurred during the summer and fall of 2015. Data used in this research was organized into the following categories: semi-structured interviews, closed-ended questionnaire, and document review.

Participant selection. Participants were identified through the South Coast Regional Stakeholder Group (SCSRG) Contact List that is available online at the California Department of Fish and Wildlife (CDFW) website.¹ Outreach started in the Spring of 2015 and included reaching out to all 64 stakeholders on the list. Reaching out to stakeholders was difficult because the contact sheet was more than 5 years old and therefore was obsolete. Several stakeholders had moved on to new roles with other organizations or agencies. Other stakeholders had physically moved out of California and were not available for in-person interviews. In addition, some individuals did not want to be included in this study due to the controversial nature of the topic. There were stakeholders from the commercial fishing sector who explained that their experience as a stakeholder during the MLPA South Coast regional planning process was so negative that

¹ All documents reviewed in this research study are publicly available on the CDFW website (<http://www.dfg.ca.gov/marine/mpa/scproject.asp>)

they did not want to participate in this study or discuss the MLPA. There were two stakeholders on the SCSRG that represented Native American tribal interests, the Coastal Band of the Chumash Nation and the Kumeyaay. These tribal representatives did not respond to requests for participation in this study and are not included in this study as a result.

Due to the reasons explained above, this study was successful at only recruiting 23 of the 64 stakeholders. Participants were grouped into categories based on stakeholder type, including the following: commercial fishing, recreational fishing, environmental NGO, government agency, academia or institutional, and recreational non-fishing. Appendix B includes a complete list of participants and their corresponding ID numbers. The questionnaires were administered to the same individuals who participated in an interview, with the exception of one environmental NGO representative who did not have the time available to complete the questionnaire. Thus, there are more interviewees than questionnaire respondents. Table 1 below includes the distribution of participants by stakeholder type.

Table 1

Participant Categories

	Semi-structured Interviews	Questionnaire
Stakeholder Type	Number of Participants	Number of Participants
Commercial Fishing	3	3
Recreational Fishing	6	6
Environmental NGOS	5	4
Government Agencies	7	7
Academia/Institutional	1	1
Recreational Non-fishing	1	1
Total	23	22

Most participants were located in the geographic regions of San Diego, Orange County, Los Angeles, Ventura, and Santa Barbara. There were two representatives located in Sacramento.

Interviews. Qualitative interviews were used as one of the main methods for investigating stakeholder perceptions. A semi-structured interview format was used that included a combination of open-ended and closed questions. The interview guide included in Appendix C was informed by the evaluative framework developed by the NRC and utilizes questions focused on measuring participant perceptions related to the legitimacy of the process and quality of the outcome. Interview questions were based on the criteria established by the NRC and the supporting indicators identified in the public participation literature (see Appendix A). Open-ended questions allowed the interviewee to freely discuss their perspectives and experiences.

All interviews were conducted in-person, which required travel to each interviewee's location, identified in the regions listed above. Interviews occurred in coffee shops, restaurants, offices, public parks, libraries, and even in private residences. The interviews typically occurred over a one-and-a-half-hour time period. However, there were some interviews that lasted between two and five hours in duration. The interview data was collected with specific permission from the interviewee and in full compliance with the Institutional Review Board (IRB) guidelines. Due to the controversial nature of the topic, participant names and responses are confidential. Any descriptive information or direct quotes used in this study are identified by participant ID

number or by user type (e.g., educator, commercial fisherman, recreational fisherman, environmental, etc.).

All interviews were audio-recorded with explicit permission of the respondent. The purpose of recording the interviews was to develop an accurate transcription that was later used in the analysis process of the research project. Handwritten or dictated notes were also used to support the audio recording and to capture additional information. A total of 23 interviews were manually transcribed over a three-month period between July and September 2015. Each transcript took between 5 to 10 hours to transcribe, depending on the length of the interview.

Questionnaires. A questionnaire with 24 closed-ended questions was also used in this research study (Appendix D). Similar to the interview guide, questions were related to the criteria and indicators identified in the academic literature related to process legitimacy and quality of the outcome. Closed-ended questions were scaled similar to the Likert scaling method in which the interviewee is asked to indicate their level of agreement with a statement. For example, participants could choose from the following five responses from lowest to highest: strongly disagree, disagree, neutral, agree, and strongly agree. While not all questions used the same exact scale, they did represent the same scale in value from lowest to highest (from 1 to 5). The purpose of the closed-ended questionnaire was to collect information that could be numerically analyzed later in the data analysis stage. A total of 22 of the 23 interviewees completed questionnaires, which were administered and collected prior to the start of each interview.

Document Review. While interviews and the questionnaire served as the main data collection method, a review of documents related to the South Coast MLPA planning process was also conducted to support the data collected from the interviews and questionnaire (e.g., confirming or contradicting evidence). The types of MLPA related documents that were reviewed included the stakeholder group's meeting notes, planning documents, presentations, information brochures, most of which are available online at the CDFW website. Document review was also used to reconstruct how the stakeholder planning process occurred in the South Coast region. Similar to the interviews and questionnaire, select indicators identified in the literature related to the process design were evaluated in the document review.

Data Analysis

Data analysis for this research study was based on pattern, theme and content analysis described by Creswell (2009), Miles and Huberman (1984), Quinn (2002), and Stake (1995). Patterns and themes were coded and categorized for analysis within the context of the theoretical framework using Creswell's Six Steps to Qualitative Data Analysis (2009, p.185-189) (see Appendix E).

Interview data analysis. The data from the interviews in this study were analyzed over a three-step process. First, responses to each interview question were analyzed according to a set of a priori codes based on the indicators identified in the literature. A codebook was created as directed by Creswell (2009), that includes a comprehensive list of a priori codes and their corresponding definitions. Interview

responses for each participant were coded and then entered into a database created in Microsoft Excel. Each interview response was condensed into a smaller descriptive code; and then, the data was coded with corresponding categories from the codebook.

The second step consisted of thematic coding of emergent themes, which includes themes or categories of data that occurred repeatedly throughout the interviews. The number of times a particular theme comes up per category can uncover patterns and when this happens an open coding approach would be used to uncover emerging themes (Creswell, 2009). This type of coding process usually requires multiple rounds of coding and categorization in efforts to further refine it (Miles & Huberman, 1984). Microsoft Excel was used to catalogue emergent themes, which were sorted and then resorted. A final process of consolidation took place in which key patterns were identified as the relationship between the themes.

The third step involved quantifying the qualitative data from the interviews. This step was completed by re-sorting codes into simple categories such as yes, no, partially, some, mostly. Since the sample size was small (N=23), only descriptive statistics was used to identify trends in responses across the entire participant group and also by different stakeholder groups (e.g., fishing, government, and environmental).

Questionnaire data analysis. All numerical data from the questionnaires were entered into a database created in Microsoft Excel. Descriptive statistics was used to analyze the distribution of responses across the entire stakeholder group and also by different stakeholder groups (e.g., fishing, government, and environmental). Since the sample size was small (N=22), only descriptive statistics was necessary to see the trends

in responses among the different stakeholder groups. There were a few questions that were paired with open-ended questions on the interview guide. The purpose of this was to provide an additional layer of examination to confirm participant perspectives gleaned from the interviews.

Validity, Reliability and Generalizability

As described above, a mixed-method research approach was used for this case study and includes the use of semi-structured interviews, a questionnaire, and document review. Converging the data from these multiple sources (or triangulation) can make a study more comprehensive and accurate as to how participants experienced a phenomenon (Yin, 2009; Stake, 1995). According to Creswell (2009), the convergence of multiple sources of data and the perspectives of different participants adds validity to the study (p.191). Creswell (2009) recommends using rich, thick description to illustrate the perspectives of the participants as this makes the results more realistic and richer, and therefore adds rigor to the study (p.192).

Qualitative case-study research is considered not generalizable because the researcher conducts a deep investigation into every aspect of one particular case. The focus of qualitative research is on “particularity” rather than on “generalizability” and the value of qualitative research is grounded in the specific themes and descriptions that arise in the context of a study site (Creswell, 2009, p. 192). While it is possible in the case-study approach to qualitative research to generalize to a broader theory, it is often difficult to do unless there are multiple cases analyzed (Creswell, 2009; Yin, 2009). The purpose of this study is to relate the research findings to existing theory, within the limitations of a single case. The findings of this study can provide useful data for future research dedicated to the analysis of multiple cases. This study also poses a challenge for

generalizability because the context of each planning process that occurred within the overall MLPA Initiative is unique to the context of each region.

Roadmap for Study Results

The qualitative and quantitative results of the semi-structured interviews, questionnaire and document review are presented in Chapter 4 through Chapter 7. The results are organized by research question: Research Question #1, description of the MLPA planning process and the role of stakeholders in the South Coast MLPA collaborative planning process; Research Question #2, stakeholder perceptions about the legitimacy of the process; and, Research Question #3, stakeholder perceptions about the quality of the final plan. Additional topics that came up as a result of this research study are also incorporated into this results section and include the following topics: capacity building and the role of science.

The purpose of Chapter 4 is to provide a narrative explanation that describes the MLPA collaborative planning process and the role that stakeholders had in the South Coast MLPA regional planning process, or Research Question #1. Data used for this section consist of data collected from document review and from the semi-structured interviews. Chapter 5 focuses on the indicators identified in the academic literature to measure the criteria of process legitimacy, or Research Question #2. Quantitative results from the questionnaire are first represented. Qualitative data such as emergent themes that developed from the interviews are also included with representative quotes to provide further insights into stakeholder perceptions about the legitimacy of the process.

Chapter 6 encompasses both the quantitative results of the questionnaire and the qualitative results from the interviews that address stakeholder perceptions about the final plan, or Research Question #3. Themes derived from the semi-structured interviews with representative quotes are also presented as well as information from the document review on the quality of the final plan. Chapter 7 provides a discussion on additional topics that emerged during the research study related to capacity building and the role of science.

The Role of Stakeholders in the South Coast MLPA Planning Process

Overview of the South Coast Regional Stakeholder Planning Process

The South Coast Regional Stakeholder Group (SCRSRG) consisted of 64 members, including primary and alternate members. As described previously, the SCRSRG was broad and included members representing academia, environmental NGOs, government institutions and agencies, commercial fishermen, recreational fishermen, non-fishing recreationists (e.g., surfers, kayakers) and Native American tribes such as the Coastal Band of the Chumash Nation and the Kumeyaay. Stakeholders in the South Coast regional planning process were primarily tasked with the following: 1) to evaluate existing MPAs located in the South Coast region of California from Point Conception to the California/Mexico border and 2) to develop three alternative proposals for a network of MPAs for that region for consideration by the Blue Ribbon Task Force (BRTF), who then made a final decision on which proposal to recommend to the California Fish and Wildlife Commission (CDFW Commission). All three proposals had to meet the scientific criteria set forth by the Science Advisory Team (SAT), the requirements of the MLPA Initiative, and the feasibility criteria of the California Department of Fish and Wildlife (CDFW) and California Department of Parks and Recreation (CDPR). The process was iterative and involved three rounds of developing proposals and review by the BRTF, CDFW and the SAT. The BRTF was responsible for overseeing the work of the SCRSRG and ensuring that each draft plan met all of the criteria given to the

stakeholders. Figure 4 below illustrates the flow of information between these key groups (CDFW, 2009a).

Figure 4. California Marine Life Protection Act Initiative. Key players and information flow. Reprinted with permission from the California Department of Fish and Wildlife (CDFW, 2009a)

The SCSRSG was divided into three working groups, one that represented the conservation interests, one that represented the fishing interests, and one that represented the cross-interests of the broader stakeholder group. Each working group within the SCSRSG would develop a draft MPA network proposal based on initial guidance from the CDFW, the SAT and the BRTF, as illustrated in Figure 4. The SAT guidance provided information on the size, habitat type, and spatial requirements that each MPA had to

cover. The stakeholders in each working group would have to negotiate amongst themselves to determine the locations and boundaries of each MPA within their draft network proposal based on this guidance. After each round of negotiations, each working group would submit a draft proposal to the SAT, CDFW and BRTF for review and feedback. After their review, the working groups within the SCSRG would make revisions. Many of the revisions would require additional negotiations within each working group. By the end of the third round of negotiations, a refined proposal from each group would be submitted to the BRTF, who would make a decision on which proposal to submit to the CDFW Commission. A more detailed description about the planning process is available in Appendix F.

The draft proposals produced by the stakeholder group had to include a full network of MPAs for the South Coast region, including the boundaries and coordinates for every MPA in the network and their respective level of protection, referred to as ‘take’ regulations (CDFW, 2008a). Table 2 includes the categories of MPAs and their respective levels of protection defined by the CDFW Public Resources Code, Sections 36602 and 36710.

Table 2

MPA Designations and Corresponding Level of Protection

MPA Designation	Level of Protection
State Marine Reserve (SMR)	All extractive activities including fishing and kelp harvesting are prohibited
State Marine Park (SMP)	All commercial extractive activities and some recreational activities are prohibited
State Marine Conservation Area (SMCA)	Some recreational and/or commercial extractive activities may be limited.

Source: CDFW, 2008b; California Public Resources Code, Sections 36602 and 36710.

As stated previously, the starting point for stakeholders was to first evaluate the MPAs that existed prior to the MLPA. Figure 5 below includes a portion of the southern California coastline with a sample of the existing MPAs prior to the MLPA.

Figure 5. Existing MPAs in Southern California (adapted from CDFW, 2009b)

The map shows the various levels of protection by name of each MPA and by color, identified as SMR (red), SMP (yellow) or SMCA (blue). Stakeholders had to build a new map (similar to Figure 5 above) of MPAs along the coastline from Point Conception to

the border with Mexico and assign varying levels of protection based on the guidance given to them. The network of MPAs that exists in the Channel Islands National Park was not considered for reevaluation because these MPAs were created during a separate stakeholder process that occurred prior to the MLPA. The rationale is that the MPAs associated with the Channel Islands would eventually become part of the South Coast regional network of MPAs.

Science criteria. Since the planning process was both stakeholder-driven and science-based (Gleason et al., 2013), the stakeholders had to follow a specific set of science criteria developed by the SAT, which was consistent across all regions of the statewide MLPA planning process. As previously explained, the science criteria determined the size, spacing, habitat representation and shape of each MPA. The science criteria are included below in Table 3.

Table 3

Science Criteria for Designing MPAs (MLPA Initiative)

Criteria	Rationale	Guideline
Habitat Representation and Habitat Replication	Protecting the diversity of species that live in different habitats and those that move among different habitats over their lifetime.	Every “key” marine habitat should be represented in the MPA network.
	Marine Habitat Types (e.g., Estuaries)	Protect each habitat type in three to five MPAs within each biogeographic region
	Depth Zones (e.g., Intertidal)	Set aside enough habitat in each MPA to include 90% of biodiversity for that habitat
	Biogenic Habitats (e.g., Kelp Forests)	
	Oceanographic Habitats (e.g., Upwelling areas)	Replicate key marine habitats in multiple MPAs
	Unique Marine Habitats (e.g., Surfgrass beds)	
Size	MPAs have to be large enough to encompass adult movement for range of species.	MPAs should have an alongshore span of 5-10 kilometers (3- 6 miles) of coastline, and preferably 10-20 kilometers (6-12.5 miles).
		Larger MPAs would be required to fully protect marine birds, mammals, and migratory fish.
		MPAs should extend from intertidal to offshore areas
Spacing	MPAs have to be close enough together for larvae to move from MPA to another.	Based on currently known scales of larval dispersal, MPAs should be placed within 50-100 kilometers (31-62 miles) of each other.

(Source: Adapted from CDFW, 2008c)

As the table demonstrates, the MPAs had to meet a minimum shore span of 3 to 6 miles along the coast, extending from the intertidal to offshore environment. In addition, the MPAs had to be spaced adequately apart to ensure network connectivity. Each MPA had to be spaced between 31 miles and 62 miles of each other. Habitat coverage was also

important. The SAT guidelines required the protection of each habitat type in three to five MPAs within each biogeographic region as well requiring each MPA to include 90 percent of biodiversity for each of those habitat types.

Feasibility criteria. The stakeholder group had to also follow MLPA Initiative Guidelines as well as feasibility guidelines by CDFW and CDPR, which are summarized in Table 4 below.

Table 4

MPA Guidelines from MLPA, CDFW, and CDPR

MLPA Initiative Guidelines	CDFW Feasibility Guidelines	CDPR Guidelines
MPAs are designed and managed, to the extent possible, as a network	Use straight lines	Provide opportunities for the public to visit California's marine resources
Improved marine life reserve component	Use easily recognizable landmarks	Help protect representative examples of marine habitats
Consider existing MPAs	Use major lines of latitude/longitude	Provide special protection for intertidal species and habitats
Adaptive management of the MPA Network	Use simple regulations	Provide special marine interpretation and education programs
Each MPA should have identified goals and objectives	Consider accessibility	Facilitate law enforcement
Use classifications for MPAs as defined	Avoid unnecessary complex arrangements of MPAs	MPA proposals should have clear management goals and objectives
	Avoid depth contour boundaries	MPA designations should align with management goals
	Avoid intertidal MPAs that do have an offshore component	

(Source: Adapted from CDFW, 2008d; CDFW, 2008e; CDFW, 2008f; CDFW, 2008g)

The table above illustrates that each MPA has to have clear goals and objectives and emphasizes that the array of MPAs has to be managed as a network. In addition, The CDFW provided specific guidelines in relation to the design of the MPAs, including

identifying easy-to-find landmarks and using straight lines as well as major lines of latitude and longitude. Figure 6 below illustrates the type of MPA design that the stakeholder group was expected to create.

Figure 6. Adapted from the California Department of Fish and Wildlife MPA design feasibility criteria provided in Handout N (CDFW, 2008e, p.11)

In this figure, Example A does not meet the CDFW feasibility criteria of an MPA boundary design because it utilizes corners that are not 90 degrees and does not use boundaries that are due north/south and east/west. However, Example B does meet the feasibility criteria as described.

Stakeholders were also tasked with providing local knowledge and expertise, sharing local information to include into the South Coast Regional Profile document, and conducting outreach to their local constituencies (CDFW, 2008h). Stakeholders were also responsible for drafting regional and MPA-specific goals for the South Coast region that support the larger goals of the MLPA (CDFW, 2008i).

Qualitative Analysis

Based on interviews, participants described how they were divided into three gem groups and then sub-working groups, one that was oriented more to fishing interests, one that was oriented more to conservation/non-fishing interests, and one represented the cross-interests of the broader stakeholder group. Each group was responsible for creating its own draft alternative proposal for a network of MPAs in southern California using the science criteria and other guidelines that were given to them. According to the interviews, many stakeholders felt the BRTF picked and chose from the three different proposals in the final selection of an alternative proposal. Many participants also stated that the proposal chosen was largely based on the work of the cross-interest group (called the Topaz Gem group). The cross-interest group was considered by stakeholders as the “middle-of-the-road group” or the group that was most willing to make compromises (Participant 2, Academia/Govt; Participant 3, Environmental; Participant 12, Government; Summer 2015)

Perceptions about the role of the stakeholder. There were two questions in the interviews that were used to gain perspectives from stakeholders on how they perceived their role in the planning process. The first question addressed the issue of whether or not the stakeholder role was made clear and the second question sought to identify stakeholders’ expectations of their role and responsibilities in the process. According to the interview responses, the majority of stakeholders interviewed felt that their role was clear, with the majority agreeing that the stakeholder role was to design a network of MPAs for the South Coast region using the science criteria provided by the SAT. However, there were still some differences among stakeholders’ expectations. For

instance, some participants stopped short of stating that their expectation was to create MPAs and instead stated that their expectation was to provide input and local knowledge into the planning process, with the hope of influencing the outcome and making a difference. Others stated that they were there to make recommendations on a law (referring to the MLPA), which is important to acknowledge because it emphasizes the top-down approach of the MLPA versus a bottom-up approach that are used in other types of planning processes. Table 5 below illustrates these stakeholder responses regarding the clarity of their role and expectations.

Table 5

Clarity of Stakeholder Role and Expectations

No. of comments, N=33	Theme	Representative Comment
16	Role was to create a network of MPAs	“My expectation, in terms of what we were expected to do. We were supposed to design marine protected areas. My understanding was to utilize the standards they gave us (the scientific standards) and work towards resolving a set of maps. It was expected that there would be some differences” (Participant 19, Recreational Fishing, Summer 2015)
10	The role of stakeholders was made clear	“Oh yeah. Yeah. I thought they made things very clear, what we were supposed to do, if you ask me” (Participant 9, Environmental NGO, Summer 2015)
5	Expectation: provide input into the process	“Well, there was a bunch of us in recreational fisheries who believed that together with the commercial fishermen, we had an opportunity to provide some knowledgeable input that would help them understand areas that could be put into a marine reserve, but that would also leave us opportunity to continue to fish. So we thought, well, we’ll provide some balance” (Participant 16, Recreational Fishing, Summer 2015)
2	Expectation: make recommendations on a law	“We got handled the responsibility to carry out a Law. You can’t stop the process because it was mandated by law. My job was to minimize pain for the fishing interests, economic pain. I did add something of scientific value, I have some faith in science” (Participant 20, Commercial Fishing, Summer 2015)

There were subtle differences in the way different stakeholders responded to the question about expectations of their role. For instance, government representatives tended to respond in more neutral terms:

My expectation was to fully participate in the establishment of an effective, but reasonable, MPA network that would contribute as one tool in the California’s Fish and Wildlife’s toolbox for maintaining ecologically sound populations of both commercially valuable and non-commercially valuable invertebrates and fish and algae in the ocean. (Participant 6, Government, Summer 2015)

Whereas, environmental representatives tended to respond with more enthusiasm for conservation as the example comment below illustrates:

I saw the MLPA implementation as a huge opportunity to go from a southern California with very limited ocean resource protection to having robust, underwater parks. (Participant 11, Environmental, Summer 2015)

Stakeholders representing fishing interests generally responded in a more reserved manner, expressing that they had hoped to share their insights as being someone who is out in the water every day and that they hoped to provide a balance of perspective into the process.

Stakeholder motivation. There was one question asked during the interviews that focused on the stakeholder motivations. The purpose of this question was to better understand the diversity of stakeholder interests and to help explain the cause of some of the conflicts in the planning process, which will be discussed further in Chapter 5.

Interview responses were sorted into the following four different motivation categories: conservation, mitigation of socio-economic impacts, both conservation and utilization, and other. Figure 7 shows the distribution of responses from the interviews.

Figure 7. Stakeholder (N=23) motivations for participating in the South Coast regional planning process.

As Figure 7 suggests, interviewees had a mix of different interests as a stakeholder in the SCSRG. Seven interviewees stated that they were only interested in conservation; six interviewees explained that they hoped to mitigate the socio-economic impacts as a result of the MPAs; five interviewees expressed that they were seeking a balance of conservation and continued utilization of marine resources; and, five interviewees expressed that they were there for some other reason, such as protecting the interests of the government agency they worked for.

As illustrated in Appendix G, most environmental stakeholders (5 out of 6) were only interested in conservation, whereas most fishing stakeholders (6 out of 9) were interested in mitigating socio-economic impacts. There were some fishing stakeholders

who were interested in both conservation and continued utilization. The government stakeholder group had the most mix of responses with a portion (3 out of 8) indicating that they sought a balance of both conservation and utilization, and another portion (3 out of 8) citing that they were there to protect the interests of the government agency they represented (indicated by the ‘other’ category). This was most true for the United States Navy (U.S. Navy) who had an interest to ensure that the MPA network developed would be compatible with the military’s interests. Similarly, the Coastal Commission participated to ensure that the final plan would comply with the provisions of the California Coastal Act. A smaller portion (2 out of 8) of the government stakeholders expressed interest in conservation only, which was true for natural resource managers affiliated with a government agency. Table 6 below includes representative comments to illustrate these themes.

Table 6

Stakeholder Motivation

No. of comments, N=23	Theme: Stakeholder Motivation	Representative Comment
7	Conservation only	“We were working to get the most conservation oriented MPA network that we could. We wanted it to be based on sound science. We wanted it to maximize ecological benefits for marine ecosystems.” (Participant 3, Environmental, Summer 2015)
6	Mitigate socio-economic impacts	“My expectation was to represent my constituency in my study region and to mitigate excessive closures from the socioeconomic standpoint. I’m a sea urchin diver, mostly concerned with the near shore.” (Participant 4, Fishing, Summer 2015)
5	Both continued utilization and conservation	“We were hoping to achieve a balance of utilization and conservation. To protect ecosystems and maintain sustainable fisheries.” (Participant 8, Government, Summer 2015)
5	Other	“We hoped to ensure that the array that came out of the process was compatible with the military, US Navy mission.” (Participant 13, Government, Summer 2015)

Emergent themes about stakeholder roles. A few emergent themes developed over the course of the interviews in regards to stakeholders’ roles in the South Coast planning process. These themes are explained further below and include the following: 1) stakeholders felt that their roles were limited 2) stakeholders felt that they had very little decision-making authority and 3) stakeholders felt that the only decision-making power they had was in regards to the locations or geographic boundaries of the MPAs.

Many stakeholders felt that their role in the planning process was very limited due to an emphasis placed on meeting the science criteria of the MLPA. They could only

choose locations for MPAs if they site met the science criteria, which limited their options for locations. For example, some stakeholders likened the science criteria akin to a recipe or a prescription that was given to them to follow (Participant 21, Environmental, Summer 2015). If the science criteria were not followed, then their proposal would not be recommended to the BRTF. Many of the stakeholders felt that they had no decision-making authority at all and instead described how they were only tasked with providing recommendations to the BRTF, since it was the BRTF who made the actual decisions. Some stakeholders described that the only decision-making they were involved in was the location or geographic boundaries of the MPAs, since the design of the network of MPAs was constricted by the science requirements related to habitat type, size and spacing (Participant 6, Government, Summer 2015). Table 7 below describe these themes with representative comments.

Table 7

Perceptions on Stakeholder Role

No. of comments, N=25	Emergent Theme	Representative Comment
12	Role of stakeholders were restricted due to the science criteria	"Our task was very limited by the guidance they gave us. The opportunity to come up with solutions was very limited based on the guidelines that was given by the SAT" (Participant 1, Commercial Fishing, Summer 2015)
7	Stakeholders only made recommendations; BRTF and Commission made decisions	"I don't think that I made any decisions. I made recommendations. No decisions were made by stakeholders. All decisions were made by the BRTF. We only provided the recommendations." (Participant 5, Recreational Fishing, Summer 2015)
6	Stakeholders made decisions only on location of MPAs	"Size was minimum 3 miles by 3 miles and maximum size was 12 by 12 miles and the intermediate size was 9 by 9 miles, or something like that. I'm not remembering exactly. So we were given. And there was a minimum distance apart and a maximum distance apart. So we had to make decisions on location, but in addition, we had to meet the requirements of all the habitat types within that location, so you had to capture enough area to capture enough of the required habitat types." (Participant 6, Government, Summer 2015)

In summary, stakeholders felt that they had a limited role in the planning process due to the emphasis placed on meeting the scientific criteria. The criteria provided by the SAT, the MLPA Initiative, the CDFW and CDPR and the geography of the southern California marine environment also provided stakeholders with limited flexibility in choosing options for MPA locations. The perception among stakeholders as having a limited role in the planning process also affected perceptions about influence, decision-

making and plan quality, all of which are topics that will be discussed further in the Chapter 5 and Chapter 6.

Process Legitimacy

Stakeholder perceptions about the legitimacy of the South Coast regional planning process are discussed in this chapter. The results are derived from qualitative analysis of the semi-structured interviews and the quantitative analysis of the closed-ended questionnaire that used Likert-like scaled statements. As explained in Chapter 3, the questions used in the interviews and the questionnaire were informed by legitimacy criteria identified in the literature review (see Appendix A). The broad concept of process legitimacy was operationalized using four subcomponents: 1) process design, 2) stakeholder engagement, 3) trust, and 4) conflict. Perceptions were analyzed by the stakeholder group as a whole and also by stakeholder type (e.g., fishing, government, and environmental). Due to the number of criteria to measure process legitimacy, this chapter only focuses on the most relevant findings. Refer to Appendix H for a complete analysis of all results.

Process Design

Table 8 below includes a summary of responses from the questionnaire related to process design across all stakeholder groups.

Table 8

Process Design. Frequency of Survey Responses Across All Stakeholder Groups

Survey Question	No. of Respondents (N)	R1	R2	R3	R4	R5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Time allocated was sufficient	22	1	4	4	8	5
Ground rules were made clear at the beginning of the process	22	3	3	3	10	3
Did you agree with the ground rules?	21	0	7	1	6	7
Goals and objectives were clear	22	3	3	2	7	7
Did you agree with the goals and objectives?	21	2	2	3	6	8
The process was open and transparent	22	7	2	3	4	6
		Not at All	Somewhat Not	Neutral	Somewhat	Perfectly Understood
Did you understand the tasks?	22	1	0	2	4	15
		Not at All	Somewhat Disagreed	Neutral	Somewhat Agreed	Strongly Agreed
Did you agree with the tasks?	22	1	1	2	7	11
Did you agree with how decisions were made?	22	7	6	2	5	2

The responses indicate that there was general agreement on the majority of indicators related to process design. For example, the group as a whole mostly agreed or strongly agreed with the following: time allocated to the planning process was sufficient, the ground rules were clear, goals and objectives were clear, tasks were clear, the information and tools provided were adequate, and the process was inclusive. Respondents as a group also indicated that they agreed with the ground rules, the goals and objectives, and the tasks that were asked of them.

However, analysis by stakeholder group revealed that fishing representatives responded more negatively than environmental or government representatives on questions related to the process design. For instance, fishing representatives generally indicated that they did not think the ground rules and goals and objectives were clear. Fishing stakeholders also expressed disagreement with the ground rules and objectives of the MLPA planning process. On the other hand, most (if not all) of the representatives from the environmental and government stakeholder groups responded more positively to aspects about the planning process and expressed agreement more frequently.

Stakeholder representation. Responses to interview questions related to the representation and balance of stakeholders on the South Coast regional stakeholder panel were divided. Two questions were asked during the interviews as to whether or not there were groups underrepresented or overrepresented on the South Coast regional stakeholder panel. Eleven out of 22 interviewees indicated that they thought there were groups underrepresented and 8 out of 22 interviewees thought that there were some groups overrepresented. There were also strong differences between responses from the fishing

representatives and environmental and government representatives. For instance, many of the fishing representatives (6 out of 9) stated that there were no groups underrepresented, whereas most environmental stakeholders (4 out of 6) and some of the government representatives (4 out of 7) felt that there were groups underrepresented on the stakeholder panel (Figure 8).

Figure 8. Q. Were there any groups underrepresented on the SCRS?

Similarly, most of the fishing representatives (8 out of 9) did not feel that there were groups overrepresented on the panel, whereas some of environmental representatives (3 out of 6) and some of the government representatives (4 out of 7) believed that there were groups overrepresented on the stakeholder panel (Figure 9).

Figure 9. Q. Were there any groups overrepresented on the SCSRG?

Interviewees cited several examples of whom they thought was under represented and overrepresented. Tribal interests, non-fishing recreationists, small-scale artisanal fisheries, subsistence fishermen were among those that interviewees felt were underrepresented. Subsistence fishermen in southern California were described to be mainly pier anglers, usually immigrant populations such as Asians, Filipinos, and Latinos, whose main source of food is the fish that they catch. According to an interviewee, the subsistence fishing community is actually fairly large (a few thousand) but doesn't have much representation (Participant 11, Environmental, Summer 2015). Another group that was cited as being underrepresented were government agencies and private sector actors engaged in marine related activities such as sea walls, dredging, wastewater discharge,

sand replenishment, and underwater pipelines. Several interviewees noted how more of these agencies should have been there, but weren't. According to interviewees and the documents reviewed, there was one stakeholder who represented southern coastal water and wastewater agencies.

Table 9 below summarizes representative comments describing how some stakeholder groups were underrepresented.

Table 9

Stakeholder Perceptions On Underrepresentation

No. of comments, N=11	Theme	Representative Comment
4	Non-fishing recreationist/public were under represented	“It was balanced to some extent. I was talking about earlier to whether to what extent it adequately represented the public at large versus more professional interests – corporate environmentalism was well represented; commercial fishing was well represented; and commercial recreational fishing was well represented. But those corporate interests are not always the same as public interests.” (Participant 19, Recreational Fishing, Summer 2015)
3	Tribes were under represented	“I’d say maybe the non-consumptive recreational user were under-represented and maybe the Tribes were under represented. We had two Tribal representatives. But we would have probably benefited from having more folks there.” (Participant 3, Environmental NGO, Summer 2015)
2	Subsistence fishermen	“So the group that was most prominently underrepresented was the subsistence fishing community.” (Participant 11, Environmental NGO, Summer 2015)
2	Other government agencies and private sector involved in marine related activities (dredging, pipelines, etc.)	“There are lots of other things that result in the take of marine life. Beyond fishing... How the MPAs would affect other people and other uses was less clear. So, those folks weren’t, didn’t, necessarily come up and make sure that they were represented, and I’m talking about things like maintaining seawalls that are below subtidal areas; people maintaining higher optic cables, or pipelines or sewage outfalls. There are, you know, sometimes those activities result in the take of marine life. So about half way or [¾] three quarters the way through South Coast planning process I think that came to folks’ attention. Sediment management, dredging, and dredge disposal, and those are all kind of activities that would be affected by the designations of the MPAs. Some of those groups representing those interests were represented in the RSG [Regional stakeholder group] and some weren’t just because it wasn’t clear how they would be affected.” (Participant 18, Government, Summer 2015)

In terms of overrepresentation, many of the environmental representatives thought that there were too many fishing representatives on the stakeholder panel, whereas fishing representatives thought the panel was actually balanced. Table 10 below includes representative comments from the interviews.

Table 10

Stakeholder Perceptions On Overrepresentation

No. of comments, N=15	Theme	Representative Comment
8	No group was over or under represented	“From a manpower stand point, no. I think there was an even distribution. I think that there was an extreme imbalance in funding and influence. But I think there was an equal, balanced representation of stakeholder groups.” (Participant 5, Fishing, Summer 2015)
5	Fishing groups were overrepresented	“I think the fishing group. If you went by the numbers, definitely over 50%. But I think they needed to be represented” (Participant 17, Government, Summer 2015)
2	Environmental groups were overrepresented on the stakeholder panel	“I mean, public opinion might say that the NGO side of things was over represented, having Wildcoast, Heal The Bay, CoastKeeper, Surfrider Foundation, etc. And the criticism could be made that yes, we were getting funding to participate in this. I think that is a valid criticism of the process, but you know in the world of politics, it is just the way it works. That is the nasty side of it, and it goes either way...” (Participant 23, Environmental, Summer 2015)

There is some merit to why environmental groups felt that the way they did regarding the fishing community being overrepresented on the stakeholder panel. The fishing community in southern California is very large and crosses many factions. For

instance, on the commercial fishing side, there are fishermen from the lobster, bait, abalone/kelp farms, groundfish, and sea urchin industries as well as captains of commercial fishing boat fleets. On the recreational fishing side, there are surf fishermen (who fish with a pole from the beach), pier fishermen, kayak fishermen, breadth-hold dive fishermen, spear fishermen and commercial sport fishing. Therefore, there were many more fishing representatives that needed to be on the stakeholder panel in comparison to other stakeholder groups. According to the documents reviewed, there were a total of 9 recreational fishing representatives and 13 commercial fishing representatives who were engaged in the planning process. In comparison, there were approximately 9 representatives from local and national environmental groups. There were also many representatives from the government and institutional sector that were stakeholders on the planning process, which consisted of approximately 16 government representatives from federal agencies, state agencies, county agencies, public ports and marinas, national and state parks, and several municipalities.

Openness and transparency. Responses were divided among stakeholders about the openness and transparency of the planning process. Nine out of 22 survey participants responded that they either disagreed or strongly disagreed that the planning process was open and transparent and 10 out of 22 survey participants indicated that they either agreed or strongly agreed that the planning process was open and transparent. Responses were also more polarized among the different stakeholder groups. For instance, most (7 out of 9) fishing representatives disagreed or strongly disagreed with the statement that the planning process was open and transparent; whereas, most (4 out of

5) of environmental representatives and most (6 out of 8) of government representatives agreed or strongly agreed that the planning process was open and transparent

Figure 10).

Figure 10. Q. The process was open and transparent.

The perception that the planning process was not open and transparent among fishing representatives is worth noting because the MLPA planning process was considered to be one of the most transparent planning processes by those affiliated with the process and by those outside of the process (Fox et al., 2013). Based on a review of the MLPA documents, the planning process intended to be open and transparent in several ways. The planning process emphasized engagement with the ordinary public. For instance, members of the public were invited to attend all of the South Coast regional

stakeholder meetings as observers. There were a total of 18 stakeholder meetings over a one-year period between October 2008 and October 2009. While the stakeholder meetings did not accept public comments during the meetings, there was a mechanism in place for the public to send in comments to be later reviewed by the BRTF and the stakeholder group. Aside from the stakeholder planning meetings, the MLPA Initiative also held eight separate public open houses and six all-day public workshops in different locations throughout southern California for the public to attend and share their input. The process also organized two, separate all-day Tribal forums. In addition, the MLPA Initiative also made sure that there was no barrier to attending stakeholder meetings. The MLPA Initiative offered reimbursement to stakeholder participants for travel and lodging for those who had taken time off from work to attend meetings. In terms of transparency, the MLPA Initiative webcasted all stakeholder meetings and made them available on the CDFW website. These webcasts and videos are still available to date online. All the MLPA planning documents such as meeting agendas, presentations, and meeting notes were also made available online for public access. Similarly, the MLPA Initiative made all documents and information from meetings of the BRTF, SAT, and California Fish and Game Commission accessible online as well. In these ways, the process was very open and transparent.

However, there were several stakeholders, mostly fishing representatives, who did not perceive the process to be open and transparent. There are several reasons for this, but first a distinction needs to be made in regards to openness and transparency experienced by the public and that experienced by those involved in the actual

deliberations. A planning process that is open and transparent in terms of engagement with the public does not necessarily mean that decision-making during a negotiated process is open and transparent. For instance, there were many elements of the planning process that did not appear open and transparent to stakeholders, among them being the behind-the-scene politics and agreements made among different stakeholder groups prior to the start of negotiations. It is important to note that these sentiments were not exclusive to fishing representatives. Participants from non-fishing groups shared similar experiences such as the example comment below:

It wasn't a completely open public process. Maybe that's the way things need to be. I don't know...I've never experienced that type of thing... that in some areas, a certain reef, would meet the science requirements, and so forth but there would be a tradeoff with the fishing groups and they would say 'if you back off in supporting this area, we'll let you have this area over here'. (Participant 2, Government/Institutional, Summer 2015)

Interviewees also reported that the MLPA Initiative should have also been more transparent as well as the BRTF in terms of how they made decisions in the final stages of the planning process. Table 11 below summarizes stakeholder perspectives related to openness and transparency that emerged during the interviews.

Table 11

Stakeholder Perceptions On Openness and Transparency

No. of comments, N=39	Theme	Representative Comment
14	The process was not open and transparent	The process could have been more transparent. There were lawsuits over decisions being made in hotel rooms prior to coming down to open meetings. The process had the appearance of untrustworthiness. Nothing could be proved. But there was definitely an appearance of issues with transparency and conflicts of interest. (Participant 5, Fishing)
8	The process was open and transparent	This [openness and transparency] was a criticism of the process that is without merit. I didn't like the outcome either. Staff was dedicated to the transparency and openness. (Participant 11, Environmental)
7	Not Transparent – BRTF decision-making, closed door, preservationist leaning	I think that this was pretty much a sham with pre-ordained outcomes. Very early, the deciders met secretly and separately. Q. Who were the deciders? The BRTF. (Participant 14, Fishing)
5	Not Transparent –Private funding source influenced outcome	I think that the Resource Legacy Fund was very much a shadow group. They provided the funding. There were kind of rumors that they were behind, that there was this funding support that was really environmental in nature. So that caused some consternation for the fishermen. That was never really upfront. (Participant 6, Government)
5	Not Transparent – Stakeholders made backdoor deals	It wasn't all a completely open public process. Maybe that's the way things need to be. I don't know...I've never experienced that type of thing... that in some areas, a certain reef, would meet the science requirements, and so forth but there would be a tradeoff with the fishing groups and they would say 'if you back off in supporting this area, we'll let you have this area over here'. (Participant 2, Government, Summer 2015)

Fishing representatives, in particular, did not feel that planning process was open and transparent because they thought that the MLPA was inherently biased towards participants and scientists who only advocated for the most protections in terms of quantity, size, and type of reserves (no-take marine reserves vs. limited take). They did not feel that there was much consideration for multi-use MPAs, which would allow certain types of fishing at limited levels. Fishing representatives also felt that they were unfairly singled out because the MLPA only addressed the impacts of fishing, and not any of the other impacts that affect the marine environment. In fact, interviewees across all groups acknowledged how impacts from activities such as dredging, sand replenishment, sewage outfalls, pipelines, and anchoring were among those that were not taken into consideration by the MLPA. Fishing representatives therefore felt that the MLPA was really an “Anti-fishing Act” and nothing more (Participant 5, Fishing, Summer 2015) and since the MLPA Initiative did not outwardly recognize this, many fishing representatives felt that the MLPA planning process was not transparent.

Fishermen also did not feel that the MLPA planning process was open to the information or knowledge they had from their daily experience of being out in the marine environment. For instance, one interviewee described the following:

We were never taken seriously. We were never given the respect of people being out in the water every day. And when we offered something, it was basically thrown out, out of hand because it didn't go along with the ideas that were being projected by the scientists and the environmentalists who came in wanting more and more and more. And then they would back off slightly from the huge demands that they made and think that they were trying to compromise. (Participant 16, Fishing, Summer 2015)

The same interviewee further explained how the recreational fishing stakeholder group hired a well-respected marine biology research team to collect scientific data on key areas that are important to recreational fishermen for inclusion in the planning process, but described how the SAT and the MLPA Initiative would not consider reviewing the information: “We never got that study, which we spent a lot of money on, to be considered as part of the process” (Participant 16, Summer 2015). Table 12 below summarizes perspectives related to this theme.

Table 12

Stakeholder Perceptions that Fishing was Singled-Out

No. of comments, N=43	Theme	Representative comment
28	The MLPA only addresses the impact of fishing	<p>When the MLPA came down here on the South Coast, where we really do have big, huge impacts on the ocean; they ignored all the important ones and focused entirely and solely on fishing. And I can give you several examples” (Participant 19, Fishing, Summer 2015)</p> <p>The process/initiative didn’t address the important stuff – tertiary dumping into the ocean, sewage outfall, hotel laundry soap ends up on beach/water; stormwater – non-point sources; diesel, oil, etc. Instead, the process/initiative only addressed and sought to restrict fishing (Participant 4, Fishing, Summer 2015)</p>
8	The MLPA was not open to input from the Fishing Community	<p>“That was a train wreck for us. And it was obvious that there was always; any group was a majority against us. They were pro-MPA, pro closed areas, and they were going to have them. And we tried to offer them alternatives, and they were ‘never enough’. Nothing that we offered was acceptable” (Participant 16, Fishing, Summer 2015)</p>
7	The MLPA is anti-fishing	<p>“To us, it [the MLPA] was creating no fishing zones. It was all about creating no fishing zones. (Participant 15, Fishing, Summer 2015)</p>

Compounding this negative perception about openness and transparency further, several members of the fishing stakeholder group, as well as some representatives from the government stakeholder group, felt that there was an unstated relationship between the funders of the MLPA Initiative (the Resource Legacy Fund), the scientists (the SAT), and the environmental groups; which to them, demonstrated a lack of transparency (Participant 1, Fishing; Participant 4, Fishing; Participant 5, Fishing; Participant 6, Government; Participant 8, Government; Participant 14, Fishing; Participant 16, Fishing,

Summer 2015). Below are a few example comments from interviewees that describe this lack of transparency:

I think that the Resource Legacy Fund was very much a shadow group. They provided the funding. There were kind of rumors that they were behind, that there was this funding support that was really environmental in nature. So that caused some consternation for the fishermen. That was never really upfront. (Participant 6, Government, Summer 2015)

The following comment represents the perspective from a fishing stakeholder:

Some of the members of the SAT team were funded by the Packard Foundation, and there was going to be more funding after the process was over; so did they make their decisions based on what the Packard foundation wanted? I can't say that they did. But I'm sure it had an influence. (Participant 1, Fishing, Summer 2015)

To contrast these views, there were participants in the planning process who felt that that the planning process was open and transparent. One environmental representative explained: "This [openness and transparency] was a criticism of the process that is without merit. I didn't like the outcome either. Staff was dedicated to the transparency and openness." (Participant 11, Environmental, summer 2015). Another interviewee also explained a similar viewpoint:

We were listened to in the process, but deference was given to the fishing community (commercial and recreational). Their recommendations were taken in more. They would say 'it's important to keep fishing there because they have a lot to lose'. (Participant 11, Environmental, Summer 2015)

Decision-making. More than half of the participants across all groups (13 out of 22) either disagreed or strongly disagreed with how decisions were made during the planning process. Only 7 participants agreed or strongly agreed with how decisions were made during the planning process, and 2 participants remained neutral. Per the data in Appendix H, most (6 out of 9) of the fishing representatives disagreed or strongly

disagreed with how decisions were made while some (2 out of 5) of the environmental representatives disagreed with how decisions were made and some (3 out of 8) of the government representatives either disagreed or strongly disagreed with how decisions were made. This is interesting to note, because this is one of the process design elements in which members of all stakeholder groups, including environmental stakeholders, expressed dissatisfaction. When participants were asked to elaborate on the decision-making process in the semi-structured interviews, most interviewees described how the process appeared to have sought consensus, but that it was not possible to reach consensus. Interviewees explained that because of the lack of consensus, the planning process used both straw voting and majority voting to make decisions. Table 13 below includes representative comments.

Table 13

Stakeholder Perceptions On Decision-Making

No. of comments, N=31	Theme	Representative Comment
15	The planning process did not reach consensus	"There was a voting mechanism. Where you would do a lot of straw polls and try to get consensus...No. It never reached consensus. It almost seemed like it was designed not to reach consensus. Or maybe their expectation was that it wouldn't reach consensus" (Participant 1, Fishing, Summer 2015)
12	BRTF made decisions that were political in the end	"Halfway between say majority [vote] and horse-trading. Like I said earlier, you would find out what other people wanted and then you had something you wanted, then you could maybe trade them! So that's horse-trading." (Participant 20, Fishing, Summer 2015)
4	Decision-making was akin to horse-trading	"Halfway between say majority vote and horse-trading. Like I said earlier, you would find out what other people wanted and then you had something you wanted, then you could maybe trade them! So that's horse-trading!"

Interviewees expressed dissatisfaction with the decision-making process for several reasons. Several participants reported having problems with the voting mechanism because at the beginning of the process voting seemed to favor the fishing interests due to the fact that there were many more fishing stakeholders than environmental stakeholders. For example, one environmental stakeholder explained:

Consensus was pretty difficult. So possibly that is why they chose to go with majority vote. They said 'majority with diverse interests represented' was kind of the threshold was for a vote. But the way that the 'diverse interests' was reflected in voting could include recreational and commercial fishermen. (Participant 11, Environmental, Summer 2015)

Similarly, fishing representatives also expressed dissatisfaction with the voting mechanism because the voting rules kept changing. For instance, some participants

described how when an outcome of a vote favored fishing interests, the outcome would be reneged because it didn't result in an outcome desired by other stakeholder groups.

Table 14 below provides representative quotes.

Table 14

Stakeholder Perceptions On Voting

No. of comments, N=6	Theme	Representative Quote
6	Decision-making rules kept changing	'They made a massive tactical error in the process – started with the voting. They wanted extreme closures – no one voted. 100% of the votes were on the least closures (it was the only type that everyone agreed to) and it was the smallest amount of closures. The environmentalists got killed in that vote and they [the process facilitators] just simply changed the rules. (Participant, Fishing, Summer 2015)

Members of the fishing stakeholder group also expressed dissatisfaction with the voting mechanism because as the process continued on, more and more fishing representatives would gradually drop out of the planning process, which skewed the voting results in the end. Membership within the fishing stakeholder group dissolved over the course of the process due to a number of reasons including the lack of available time to participate, the degree to which the process turned political, and dissatisfaction with the planning process. The Topaz Gem group (the cross-interest group) drafted the plan that was chosen by the BRTF as the basis for the final plan for the South Coast region. During the final stages of deliberations, recreational fishing stakeholders in the Topaz Gem group were so infuriated with the process that they walked out before the final vote. The final vote therefore only reflected the vote of the remaining stakeholders,

which in this case would mostly be environmental and government stakeholders. One interviewee explained that the recreational fishing stakeholder group walked out because of the high numbers and large sizes of the MPAs; and, because the final plan did not reflect any of their preferences, the recreational fishing stakeholder group could not support the final plan or “put their name behind it” (Participant 20, Fishing, Summer 2015). Here is a more descriptive comment:

When it came down to the actual voting on things, that was difficult because, like I said, the membership of the groups started to dissolve, so that in my group, it was much stronger favored by environmental interests near the end, which, that was a problem. It wasn't the environmentalists' fault. I mean, if you walked out, you walked out... like I said, our group was taking votes, but we lost all our fishing representation off of the group. How the hell are you going to win a vote then? (Participant 20, Fishing, Summer 2015)

This is worth noting because it implies that the only stakeholders who supported the final plan in the end mostly consisted of mostly environmental and government stakeholders.

The implication is that consensus across all stakeholder types was not achieved.

Dissatisfaction was also expressed with how decisions were made because many felt that a lot of the negotiated agreements and compromises they made early in the process would later be reversed for various reasons. For instance, one interviewee described how some participants “regretted making agreements earlier in the process because of the tradeoffs that they ended up making later in the process” (Participant 1, Fishing, Summer 2015). Another interviewee explained the following: “If your side walks out and you let the other side be in total control, then at the last minute they can change everything, and so you lose whatever type of benefits you had already achieved in the negotiation” (Participant 20, Fishing, Summer 2015).

Many interviewees also felt that the decision-making power was really in the hands of the BRTF (refer to Chapter 4), who had the authority to make the final decisions in the end. However, many interviewees described how those decisions just didn't make any sense and were instead more influenced by politics as opposed to the science criteria. This was a source of frustration for some participants as one interviewee described the following:

But in the end, the BRTF picked and chose. So, instead of choosing a plan, a compromised plan, they just took what they wanted from each plan. Which is already a compromise. You can't pick and cherry pick from a compromised plan that people had spent a year and half developing. You can't do that. How is that fair? (Participant 14, Fishing, Summer 2015).

Similarly, another interviewee explained it this way:

Like I said, they set up a collaborative process where we came up with goals but if the entire process doesn't agree with those goals, and ultimately if somebody else, the Blue Ribbon Task Force, is making the decision, then so, it's kind of democracy with a twist. (Participant 20, Fishing stakeholder, Summer 2015)

And, another interviewee explained the decision-making of the BRTF as follows:

Some of it I know was done quickly and haphazardly. Because you see MPA lines [that were drawn for the MPAs] land in places where it doesn't make any sense to land. There are certain landmarks that would have been a good place to draw a line out from, but the line landed 30 feet on the right of it or 30 feet on the left of it. So there wasn't enough attention to detail on some of that stuff. Which you know sound like a minute detail, but is actually really important from an enforcement perspective especially. (Participant 23, Environmental, Summer 2015)

Tools and information. The quality of the tools and information that was provided to stakeholders was one element of the process design that was well received among all participants. Most of the stakeholders interviewed (18 out of 22) indicated that they felt that the information and tools provided to them in the planning process was

adequate, and in some cases more than adequate (see Appendix H). Interviewees reported that there was no shortage of information and described how it was the one of the most informative public processes that they have participated in. The two most discussed information sources among interviewees included a GIS mapping tool called Marine Map and the science data provided by the SAT panel. Marine Map was received positively across all stakeholder groups. However, some participants indicated that they had problems with the scientific data that informed the MPA design. Some stakeholders perceived the science data to be “cooked” or “biased” (Participant 8, Government; Participant 4, Fishing; Participant 16, Fishing; Participant 15, Fishing; Participant 5, Fishing; Summer 2015). While the role of science will be further discussed in Chapter 7, Table 15 below summarizes stakeholder perspectives about the tools and information they had access to in the South Coast Regional planning process.

Table 15

Stakeholder Perceptions Regarding Tools and Information Resources

No. of comments, N=28	Theme	Representative Comment
11	GIS mapping tool was well-received	“Yes. In fact, I thought the Marine Map tool was extraordinary and an excellent tool to make decisions, as we were talking and to test out different shapes and arrays of MPAs, and in real time. And pull up the data on those arrays, like how much kelp there was, how much substrate there was, including some economic data. So the Marine Map was an essential tool, and many of the stakeholders were tapped into it while we were talking and said ‘but what about if we had this? Or try that?’ And we were able to have those discussions. So the web based tool was phenomenal” (Participant 13, Government, Summer 2015)
7	Science data provided was good and reflects the best available science	“The Science was a lot better than what was used in previous decisions [Channel Islands]. The process did have good science guidelines in terms of size, spacing, species, etc.” (Participant 2, Academia/Government, Summer 2015)
5	There was a high quantity of information provided	“They provided, literally, reams of data. More data and more science than anybody had the time to read or understand. So if you had a question, about something, then somebody, then there was a study on it, and if there was a question where there wasn’t a study on it, somebody got that information/study for you from somewhere. To the best of their ability. I don’t remember anyone saying anything like ‘we just totally don’t know on that’.
5	There were problems with the science data	“Well, we certainly had access to all of the information from the SAT. But as we went through the information we found problems and holes. We had marine biologists and other scientists who were part of the fishing stakeholders, and they refuted some of the information” (Participant 5, Fishing, Summer 2015)

To summarize, stakeholders generally responded positively in regards to most elements of the process design (e.g., ground rules, timing, tasks, goals, and objectives) except for members who represented fishing interests, who tended to respond more negatively. Participants across all stakeholder groups expressed dissatisfaction with how decisions were made during the planning process, citing the horse-trading style of negotiations and how the BRTF made decisions in the end that were either influenced by politics or made in haste. There was a strong divergence among stakeholder perceptions in regards to the level of openness and transparency, stakeholder representation, and the quality of the scientific data that was used in the planning process. In particular, the fishing stakeholder group and some of the government stakeholders felt that the decision-making was not transparent and that the planning process was not open to their input; whereas, the environmental stakeholder group perceived the process to be very open and transparent. The environmental stakeholder group felt that the fishing community was overrepresented on the panel, whereas the fishing stakeholder group did not feel that there was any group overrepresented or underrepresented. With the exception of the scientific data, participants across all stakeholder groups perceived the tools and information that they had access to as either adequate or more than adequate, which is a very positive indicator.

Stakeholder Engagement

Table 16 below includes a summary of responses from the questionnaire related to stakeholder engagement across all stakeholder groups. Appendix H includes analysis by stakeholder type (e.g., fishing, government, and environmental).

Table 16

Stakeholder Engagement. Frequency of Survey Responses Across All Stakeholder Groups

Survey Question	Sample Size (N=22)	R1	R2	R3	R4	R5
		Not at All	Somewhat Concerned	Neutral	Concerned	Extremely Concerned
How concerned were you about the issue or problem?	22	1	4	0	3	14
		Not Committed	Somewhat Committed	Neutral	Committed	Very Committed
Describe your level of commitment to the planning process	22	0	0	0	5	17
Describe the level of commitment of others in the process	22	0	1	1	12	8
		Not at All	Somewhat Not	Neutral	Somewhat	Completely Understood
How well did you understand the technical issues?	22	0	0	2	4	16
		Very Untrue	Untrue	Neutral	Somewhat True	Very True
Participants were listened to and engaged in the process	22	3	0	3	7	9
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Participants had the opportunity to change or influence the agenda	22	4	6	2	7	3
		Very Dissatisfied	Dissatisfied	Unsure	Satisfied	Very Satisfied
How satisfied were you with the process?	22	5	5	0	9	3

As the above table illustrates, the majority of participants responded positively on survey questions related to the quality of stakeholder engagement. Most respondents (17 out of 22) stated that they were concerned or extremely concerned about the problem the MLPA was trying to address; and all of the respondents (22 out of 22) indicated that they were either committed or very much committed to the planning process. The majority of respondents (20 out of 22) indicated that the level of commitment of other stakeholders was either committed or very much committed. The majority of respondents (20 out of 22) indicated that they either somewhat understood or completely understood the technical aspects of the issue. Many respondents (16 out of 22) indicated that they were listened to and engaged in the process. Based on the results of the interviews, all (14 out of 14 respondents) stakeholders indicated that they had an opportunity to raise concerns during the process. However, 11 out of 18 respondents indicated that they believed that the MLPA Initiative did not respond to their concerns adequately. Perceptions were therefore generally high related to stakeholder engagement.

Level of influence. Respondents were divided in their responses related to whether or not they thought they had influence in the planning process. Nearly half of respondents (10 out of 22) disagreed or strongly disagreed that they had opportunity to influence the agenda; 10 out of 22 also agreed or strongly agreed that they could influence the agenda; and 2 out of 22 were neutral. It was mostly representatives from the fishing stakeholder group who felt that they had little or no influence. For instance, fishing representatives (8 out of 9) did not agree that they had an opportunity to influence the agenda. Whereas, most environmental stakeholders (4 out of 5) and most government

stakeholders (6 out of 8) indicated that they either agreed or strongly agreed that they had the opportunity to influence the agenda. Table 17 below illustrates stakeholder perspectives about their influence in decision-making.

Table 17

Stakeholder Perceptions on Influence

No. of comments, N=27	Theme	Representative Comment
11	No influence/limited influence	"Because it was no longer a balance perspective, it was no longer an open process. It was one where there was always a leg up to the environmental community and while they gave lip service to us, we never saw an opportunity to have any kind of a major influence on where they were going to put these closed areas." (Participant 16, Fishing, Summer 2015)
8	Yes, had influence	"Now, that's not 100%. They actually did listen to me on one thing. And that was that the reserves primarily benefit benthic species, the ones that live there full time; and the ones that pass through, they don't particularly [protect the fish that pass through, pelagic]. Migratory. And so because the breath hold divers can very selectively target their fish they would and a couple of exceptions allow us to harvest animals that weren't benefiting from the reserve by their definition. I think there was a little justice there." (Participant 14, Fishing, Summer 2015)
8	No local knowledge incorporated	No, it was cooked. Local knowledge was nowhere. They were missing local knowledge." (Participant 7, Government, Summer 2015)

Environmental stakeholders felt that they had influence in the process. This finding is not a surprise since they were already in alignment with the goals of the MLPA Initiative from the get-go and because they came from a position where they really only stood to gain. Any area that was a loss to the fishing community was a gain for the environmental community. And since the purpose of the planning process was to create a

new network of MPAs, the fishing community was clearly operating from a losing position. So essentially, the planning process became a zero-sum game.

Fishing stakeholders explained that they did not feel that they had influence because they felt that the outcome was already pre-determined and that the planning process was not open to accepting any other information unless it supported the goals of the MLPA. Many fishermen felt that their local knowledge was dismissed in the planning process. Table 18 below illustrates example comments that related to stakeholder influence.

Table 18

Perceived Level of Influence

No. of comments, N=17	Theme	Representative Comment
9	There was a pre-determined outcome	“They [MLPA Initiative] channeled an outcome to a desired result... they engineered the process to get the outcome they wanted.” (Participant 4, Fishing, Summer 2015)
8	Fishermen and Tribes had no influence	<p>“Tribal representatives, fishermen – were heard, but not able to be influential” (Participant 6, Government, Summer 2015)</p> <p>“No, it was cooked. Local knowledge was nowhere. They were missing local knowledge.” (Participant 7, Government, Summer 2015)</p> <p>“When we came aware that we were going to get the shaft, and I am speaking for a lot of people when I say that - we felt betrayed by this process. We were never taken seriously. We were never given the respect of people being out in the water every day. And when we offered something, it was basically thrown out, out of hand because it didn’t go along with the ideas that were being projected by the scientists and the environmentalists who came in wanting more and more and more. And then they would back off slightly from the huge demands that they made and think that they were trying to compromise.” (Participant 16, Fishing, Summer 2015)</p>

The fact that fishermen felt that their local knowledge was not incorporated into the planning process is important to note. As explained in Chapter 1, one of the goals of public participation in environmental decision-making is to incorporate local knowledge with the rationale being that the outcome would be of higher quality because sites can be better identified for protection (Beierle & Konisky 1999; Dietz & Stern, 2008; Newig & Fritsch, 2009). Local knowledge, in this context, can help fill the gaps in scientific data (Helvey, 2004). For example, it is not uncommon, especially in remote regions, to incorporate traditional ecological knowledge in protected area planning efforts. In developed and urbanized regions, protected area planning efforts can use local community knowledge to help fill data gaps. For instance, the local fishing community in California can be an important source of information for identifying productive fishing areas for protection (Helvey, 2004). However, at the same time, it is important to acknowledge that not all fishermen may be willing to share that type of information due to fear of losing productive fishing grounds.

During the interviews, participants often cited the SAT as having the most influence in the planning process. This makes sense given the role of the SAT, as explained in Chapter 4. The science team had a significant amount of influence because planning process was designed to be not only stakeholder-driven but also science-based. The SAT developed the science guidelines and was responsible for reviewing and providing feedback on all draft MPA proposals. It is not surprising that fishing stakeholders felt that they had no influence given how their motivations were often in conflict with the goals and objectives of the MLPA (refer to Chapter 4 for discussion on

stakeholder motivation). The MLPA was a law which required implementation of MPAs. There was very little that the fishing community could do to change this. As such, their level influence was limited to negotiating the geographic locations of the MPAs, their boundaries, and size. However, as previously stated in Chapter 4, many interviewees described how their capacity to make decisions during the process was restricted by the science guidelines. The science criteria informed the SCRSG as to where to place the MPAs, which often times would be the same places that were productive fishing grounds. The range of options for locations of MPAs that met the science criteria was therefore limited. For instance, one interviewee described the following:

There was an overall lack of choices because of the science criteria. This process was ‘dictated’; the science goals were ‘dictated’ to stakeholders. The science goals /guidelines were not collaboratively agreed to; unlike other processes in which the stakeholders came up with the science guidelines/goals themselves... The South Coast MLPA was more ‘dictated, directed’; it was ‘by command’. And that doesn’t feel good. (Participant 20, Fishing, Summer 2015)

Similarly, many interviewees described the BRTF as also having a lot of influence, which makes sense given their role and authority to make final recommendations to the CDFW Commission. As described in Chapter 4, the BRTF was responsible for overseeing the work of the stakeholder group and making a final choice on an IPA (preferred alternative). The BRTF did have authority to make decisions to improve the final plan. However, many interviewees described the decisions of the BRTF to be “political”, “cherry-picked” or “just didn’t make any sense” (Participant 1, Fishing; Participant 2, Government; Participant 20, Fishing; Participant 19, Fishing, Summer 2015; Participant 6, Government; Summer 2015). In effort to describe how much influence the BRTF had, an interviewee explained the following:

The process accepted proposals from outside of the stakeholder panel. The conservationist group adopted a proposal [from an outside group], which was perfect – it was the only one that met the size and space requirements. There were no SMCAS (conservation areas that allowed use); they were all Marine Reserves. It was perfect from a conservation perspective. But the BRTF didn't accept it. Supposedly, because it was so far to the left. But it met the letter of the law. BRTF rejected it early on. Because of this [outright rejection] people/participants felt disenfranchised with the system, pretty early on. (Participant 12, Government, Summer 2015)

There were two stakeholders who were commonly cited as having a lot of influence in the planning process: the United States Navy (U.S Navy) and a regulatory affairs specialist who represented the southern coastal water and wastewater agencies. For example, the U.S. Navy's influence was described as follows:

It was just that they had all the cards. They could get what they wanted. It's absurd that they didn't resolve the Navy issues beforehand, because they made us spend so much time on debating about what we're going to do with St. Nicholas Island, and then the Navy would come in and be like 'Um, we're putting in a counter terrorism site there, so we are not letting you' (Participant 21, Environmental, Summer 2015).

Similarly, the influence of the coastal water agencies and wastewater agencies was described this way:

Water quality basically came down to 'don't put MPAs next to sewage outfalls'. And a lot of that was due to that person's work. And the SAT actually created, after the initial set of rules, they actually created new rules after that type of input. The science advice actually evolved as things went along. It wasn't just static. If new information was brought in, and it was credible and verified, and like I said this person was very effective in bringing in good data, so her information was accepted by the SAT and it became part of the guidance. (Participant 9, Environmental, Summer 2015)

Others similarly described the how the water agency had influence over the BRTF, which was a source of discontent among stakeholders:

The political powerful groups like the Wastewater Management District, they prevailed, even though they are a negative impact on the environment. They had a stake at the table but they had much stronger political influence at the BRTF level. Even the Fish and Game Commission. So, in the marine reserves, you wouldn't think you could dump sewage in it, but the BRTF drew the lines around the sewer outfalls in the marine reserves. (Participant 1, Fishing, Summer 2015)

Satisfaction with the planning process. Responses were also divided in regards to levels of satisfaction with the planning process. Twelve out of 22 survey respondents indicated that they were satisfied or very dissatisfied with the process and 10 out of 22 respondents indicated that they were dissatisfied or very dissatisfied with the planning process. Most fishing representatives (8 out of 9) expressed that they were either dissatisfied or very dissatisfied with the planning process, while all of the environmental (5 out of 5) and most of the government stakeholders (6 out of 8) expressed that they were either satisfied or very satisfied with the planning process.

Response to stakeholder concerns. Based on interview results, stakeholder comments related to the adequacy of the MLPA Initiative's response to stakeholder concerns were mixed. Eleven out of 18 of interviewees did not think that the MLPA Initiative Team responded adequately to their concerns; whereas 7 out of 18 interviewees felt that the MLPA Initiative Team partially or fully responded to stakeholder concerns. This sentiment appears to be shared across all stakeholder types. For instance, most of the fishing stakeholders (7 out of 8) indicated that they felt that the MLPA Initiative's response to their concerns were not adequate; whereas some (3 out of 4) environmental

representatives indicated that the Initiative's responses to stakeholder were partially or fully adequate and some (4 out of 6) of the government representatives reported that they thought responses to stakeholder concerns were not adequate. Table 19 below includes a summary of responses by theme.

Table 19

Adequacy of MLPA's Response to Stakeholder Concerns

No. of comments, N=18	Theme	Representative Comment
11	No, the MLPA Initiative did not respond adequately to concerns.	"All these concerns were brought up by numerous people, including myself. <i>Q. How did they respond?</i> There were ways of avoiding the answers." (Participant 1, Commercial Fisherman, Summer 2015)
5	Yes, the MLPA Initiative responded adequately to concerns.	"Yes. They would then have a meeting and then they would often come back and make some adjustments. Yeah, they responded. God, they were trying to make it happen. A lot of people would plug their ear. But, like you said, these were pre-existing conflicts, they already knew what the issues would be. But not all of them. There were wild cards" (Participant 22, Non-fishing Recreational, Summer 2015)
2	Partially. The MLPA Initiative responded partially to concerns.	"I think it was somewhere in the middle there. There were some working on the MLPA Initiative that were really responsive and some that were less so" (Participant 3, Environmental NGO, Summer 2015)

Level of commitment. While 16 out of 22 survey participants indicated that they thought that the commitment level of others was either committed or very committed, environmental stakeholders had more mixed views regarding the level of commitment of other stakeholders in the planning process. For instance, only 3 out of 5 environmental

representatives indicated that they thought that other stakeholders were committed or very committed, whereas all of the fishing and government representatives thought other stakeholders were either committed or very committed to the planning process. There is a reason for this. During interviews, some participants explained how members from the fishing stakeholder group would not be willing to negotiate and often would stonewall negotiations (Participant 21, Environmental; Participant 11, Environmental, Summer 2015). Other participants explained how there were certain fishing representatives who were committed to “overthrowing” or “obstructing” the planning process instead of collaborating (Participant 13, Government; Participant 22, Non-fishing recreationist/Environmental; Participant 9, Environmental, Summer 2015) and others cited how there were many participants who were not committed to the process at all, but committed to their own goals instead (Participant 17, Government, Summer 2015).

Stakeholder input. In terms of the input that stakeholders provided in the process, the majority provided input that was based on geography, use-preferences and values. All participants had the opportunity to provide input into the creation of a Regional Profile for the South Coast region. This document included not only scientific information, but it also included information regarding important commercial and recreational fishing areas. While the fishing stakeholder group provided information related to their knowledge from fishing, local environmental groups provided information related to known water quality issues, and the national environmental groups provided information related to resource value according to the scientists that were working with MLPA Initiative. The planning process did conduct a commercial fishing and

recreational fishing survey to identify areas of socio-economic importance to fishing interests, even though it was not a requirement of the MLPA.

In summary, participants across all stakeholder groups reported that they were highly committed to the planning process and were very concerned about the issue that the MLPA was seeking to address. These are positive indicators in terms of their level of engagement in the planning process. Representatives from the fishing stakeholder group generally responded more positively to questions related to stakeholder engagement than they did to questions related to process design. Stakeholders across all groups did not believe that the MLPA Initiative responded adequately to their concerns. There were also areas where the responses contrasted among stakeholder groups, including level of satisfaction, level of influence, and the perceived level of commitment of other stakeholders. The fishing stakeholder group, in particular, felt that they had no ability to influence decisions during the planning process. In fact, with the exception of Tribal interests, fishing representatives felt that they were the only stakeholder group that could not influence decisions during the process. The fishing stakeholder group also felt that their local knowledge was not incorporated into the final plan. As the following chapters will illustrate, the perceived lack of influence coupled with perceptions that decision-making was not transparent will impact the fishing stakeholder group's attitudes towards the planning process and the MLPA as well as their respective level of support for the outcome.

Conflict and Trust

This section discusses conflict and trust using data from both the semi-structured interviews and closed-ended questionnaire. Table 20 below includes a summary of responses from the questionnaire related to trust and perceptions about the public agency, CDFW in this case. Appendix H includes analysis by stakeholder type (e.g., fishing, government, and environmental).

Table 20

Trust. Frequency of Survey Responses Across All Stakeholder Groups

Survey Question	Sample Size (N=22)	R1	R2	R3	R4	R5
		Very Negative	Somewhat Negative	Neutral	Somewhat Positive	Very Positive
Describe your attitude towards the public agency BEFORE the process	22	0	0	7	11	4
Describe your attitude towards the public agency AFTER the process	22	5	2	3	7	5

Trust. As Table 20 illustrates, many respondents (15 out of 22) indicated that they perceived the public agency (CDFW, in this case) favorably before the start of the planning process; whereas not one participant had a negative attitude towards the public agency before the process; and, 7 out of 22 participants reported having neutral attitudes towards the agency prior to the MLPA planning process. However, perceptions about the public agency changed after the planning process was completed. For example, 12 out of 22 survey respondents indicated that their attitude was still favorable after the planning process and 7 out of 22 respondents indicated that their perception was somewhat

negative or very negative after the planning process. The responses were fairly mixed across stakeholder groups. For instance, most fishing stakeholders (7 out of 9) expressed having a somewhat positive or very positive attitude towards the public agency before the start of the planning process; whereas, some of the environmental stakeholders (3 out of 5) and some of the government respondents (5 out of 8) indicated that they had a somewhat positive attitude about the public agency before the start of the planning process. These attitudes slightly changed after the planning process was completed. For instance, some of the fishing representatives (5 out of 9) indicated that they had a somewhat negative or very negative attitude towards the public agency after the planning process was completed. The attitudes of environmental representatives towards the public agency changed to positive among after the planning process. All environmental stakeholders (5 out of 5) indicated that they had a somewhat positive attitude towards the public agency after the planning process. Similarly, several of the government stakeholders (5 out of 8) indicated that they had a positive or very positive attitude towards the public agency upon completion of the process.

Other questions related to trust and conflict were asked during interviews in the form of open-ended questions. For contextual reasons, interviewees were asked if they had previous experience or familiarity with the other stakeholders on the panel. Only 17 participants responded to the question. Seven interviewees reported that they knew most of the other stakeholders, 6 interviewees indicated that they knew some of the other stakeholders, and 4 interviewees indicated that they did not know any of the other stakeholders. Most fishing stakeholders (4 out of 7) indicated that they knew some of the

other stakeholders; most environmental stakeholders (4 out of 6) indicated that they knew most of the other stakeholders; and some of the government stakeholders (2 out of 4) knew most of the other stakeholders. There were previous working relationships among the stakeholders because of the previous planning process that occurred in the Channel Islands National Marine Sanctuary. However, some of the participants, especially the recreational fishing representatives who fish from shore, had no prior experience with many of the stakeholders. This factor could explain why there was a lack of trust among recreational fishing representatives towards other stakeholder groups and why the fishing stakeholder group may have felt alienated. Interviewees who indicated that they had previous experience with stakeholders thought it was quite beneficial. For instance, one interviewee who participated in the previous Channel Islands National Marine Sanctuary process stated the following:

Quite a few of us had worked together for long time. Which helps also. You don't have to do so much peeing on fences. They know where you are at. And it's important, you know. That's a tough one. In a short process, where do you ever get the trust you need to really do this stuff that you did. So the fact that we did know each other as well as we did, it was beneficial. (Participant 20, Fishing, Summer 2015)

Mutual understanding. Interviewees were asked if they believed that there was mutual understanding among stakeholders. Responses were divided with 9 out of 22 interviewees responding that there was mutual understanding, 9 out of 22 stating that there was no mutual understanding, and 4 out of 22 stating that there was some mutual understanding. Table 21 below illustrates perspectives on mutual understanding.

Table 21

Stakeholder Perceptions On Mutual Understanding

No. of comments, N=22	Theme	Representative Quote
9	Yes, there was mutual understanding.	“Yes, there was mutual understanding but it was acrimonious. It was not pleasant. There was understanding but no embracing of it /or the other side” (Participant 8, Government, Summer 2015)
4	Some.	“There was some and there was some that were not. I don’t think you can generalize the interactions among people. Some people would have understanding of your point and some people wouldn’t” (Participant 1, Commercial Fishing, Summer 2015)
9	No, there was no mutual understanding.	“No. Because we would come out and give a statement about something. And the environmental community would just say ‘oh no, we don’t want that, that’s not true’ and they would get a scientist to come out and support their version of things.” (Participant 16, Recreational Fishing, Summer 2015)

Perceptions about mutual understanding were mixed across the stakeholder groups. Five out of 9 fishing stakeholders thought that there was no mutual understanding; whereas most of the environmental stakeholders (4 out of 5) and some of the government stakeholders (5 out of 8) thought that there was mutual understanding among participants.

Conflicts. All of the interviewees confirmed the presence of conflicts during the planning process, most of which were described by interviewees as being related to values and perceptions about the science criteria developed by the SAT in the MLPA. Most of the interviewees (20 out of 23) indicated that there were pre-existing conflicts. .

Table 22 below includes a summary of the type of conflicts and representative comments.

Table 22

Stakeholder Conflicts During the Planning Process

No. of comments, N=40	Theme	Representative Comment
17	Conflicts were value-based	Value based. Conflicts were for sure more value based. The fishermen had some issues with the science. And I think that the field of MPAs is kind of in its infancy. So, the science is questionable too. In terms of the sizes of the necessary minimums and maximums. But, I'd say in general, the issue was values. (Participant 6, Government, Summer 2015)
13	Conflicts were science/technical based	It depends on how you frame that. So, there was definitely what you could call a 'science conflict' between the fishing community and the academic community. The fishing community with validity, says 'we know what is going on out there, we are out there every day, we know what is going on'. And then there was the academic community that said 'We are the academic community and we are the scientists and we know what is going on'. There was some conflict on that (Participant 9, NGO Stakeholder)
2	Conflicts were about geography	It was a location based negotiation, a place based negotiation, and I think that is where the conflicts came from, was just about the locations. It didn't seem to come from a place of value, to me. Location meaning size, location and habitats that were engaged. (Participant 11, NGO Representative, Summer 2015)
8	Conflicts were about economics/socio-economics	Conflicts were more on values and socio-economics. There was no long range view by interests to best protect those... (Participant 2, Academic /Gov, Summer 2015)

As described in Chapter 4, the larger stakeholder group was divided into three separate Gem Groups (Topaz, Opal and Lapiz) and each group had to deliberate (or negotiate) the geographic location of each proposed MPA. This task presented a

challenge to the stakeholders as each location of every MPA in the network became a point of conflict among stakeholders. Stakeholders described that there were conflicts on choosing the locations of MPAs because the geographic areas most suitable for meeting the SAT criteria were often times the most frequented fishing grounds (Participant 11, Environmental; Participant 2, Academia; Summer 2015), which goes back to the zero-sum game analogy. Stakeholders also explained that conflicts in regards to the locations were a result of the unique ecology and geography of the South Coast region. For instance, stakeholders characterized the habitat of the nearshore region of the South Coast as being mostly sandy and soft with very little rocky, hard-bottom habitat. Stakeholders described 70 % to 90 % of the nearshore habitat to be sandy and 10 % to 30 % of the nearshore habitat to be rocky. Document review supported these estimates provided by the interviewees. The SAT similarly described the marine habitat to be 75% sandy, soft-bottom and 25% rocky, hard-bottom (CFDW, 2008g). This is important to consider because fishing in southern California is described as only occurring in that 10% to 30% rocky, hard-bottom habitat area because fishing traditionally occurs only around rocky substrate and hard-bottom regions. Therefore, by default, the areas that were important to environmental interests for MPA protection were also important fishing grounds for commercial and recreational fishing stakeholders.

To illustrate, several stakeholders described the geographic conflict as follows:

An overview of the area is that this area is 90% sand [referring to Southern California region]. Which is its' own ecology. And 10% rock. Well 90% of the fish live on that 10% rock. While the conservationists are happy to say that they only took a small percentage of the area, they took the highest, a humongous percentage, of the productive area. And I was startled right from the get-go, that they targeted all of the productive rocky reef area just immediately. (Participant 14, Recreational Fishing, Summer 2015)

In addition, the size of the MPAs had to have a minimal alongshore span of 3 miles (but 6 miles were preferred). The size criteria became a source of conflict for stakeholders because it meant that the entire length of some beaches would have to be closed to recreational fishing. For example, Laguna Beach in Orange County is approximately 7 miles long, but the final plan resulted in an MPA that covered 6 of the 7 miles of Laguna Beach. Each MPA extends from the shore out, prohibiting recreational fishing directly from the beach. As such, the stakeholder group impacted the most were those who do not use motorized boats, such as shore and surf anglers, kayak fishermen, and spear fishermen. The negotiation process was full of conflicts, as the choices for locations of MPAs would often be the center of dispute between fishing and environmental stakeholders, given how they were the exact same areas that were socially important to recreational anglers.

Participants were also asked whether or not conflicts were resolved during the planning process. Some respondents (8 out of 14) indicated that conflicts were resolved mainly through negotiations and compromises while other respondents (6 out of 14) felt that conflicts were never resolved. There was no formal conflict resolution mechanism in place. If a conflict could not be resolved through negotiating, then stakeholders would

turn to the facilitators and MLPA Initiative staff for assistance. Representative comments are included below in Table 23 to illustrate.

Table 23

Stakeholder Perceptions on Conflict Resolution

No. of comments, N=14	Theme	Representative Quote
8	Yes, conflicts were resolved through compromise and negotiations.	We would come to agreement. It was just that map is a huge series of interconnected compromises. If you pick one piece apart...it's all connected. I don't know if the value piece ever gets resolved. But I think everybody knew where the other side was coming from. (Participant 3, Environmental NGO, Summer 2015).
6	No, conflicts were not resolved.	"Well certainly there were opportunities to provide points of view. But I felt that there was no conflict resolution to the point where there was compromise in most of the areas." (Participant 5, Summer 2015)

It was mostly fishing representatives (4 out of 5) who felt that conflicts were not resolved during the planning process; whereas, all environmental representatives (4 out of 4) and most government representatives (3 out of 5) who believed that conflicts were resolved through compromise and negotiations.

In summary, issues with trust and conflicts were extensive during the planning process. Many stakeholders viewed the CDFW positively before the start of the planning process, including the fishing community. However, perceptions shifted after the process was completed. Fishing stakeholders reported more negative feelings towards the government agency and environmental stakeholders reported more positive feelings towards the agency. These changes in perceptions towards the public agency will impact capacity-building, which will be discussed further in Chapter 7. Perceptions about

mutual understanding were also mixed across stakeholder types, with many indicating that mutual understanding was low. There was agreement that the conflicts were mainly based on values and science and that there were pre-existing conflicts. The group as a whole felt that most conflicts were resolved through negotiations and compromises, but many fishing representatives did not feel that conflicts were ever resolved.

Summary – Perceptions about Process Legitimacy

The responses from both the questionnaire and semi-structured interviews show noticeable differences in perceptions about process legitimacy among stakeholder groups. The fishing stakeholder group generally responded more negatively to indicators related to process legitimacy than the environmental or government stakeholder groups. As explained earlier in this chapter, the two key areas in which there was agreement across all stakeholder groups were decision-making and access to tools and information. For example, all groups expressed dissatisfaction with how decisions were made during the planning process. The fishing stakeholder group and some government stakeholders felt that the decision-making was not transparent. Stakeholders across all groups expressed dissatisfaction with the voting mechanism, a lack of consensus, the horse-trading style of negotiations, and the decisions made in the end by the BRTF. On the other hand, nearly all of the stakeholders reported that the tools and information provided were adequate or more than adequate, which was a very positive perception. The fact that the fishing stakeholder group felt that the planning process was not open and transparent caused a sense of distrust and skepticism towards the public agency and the MLPA Initiative. Moreover, the fishing stakeholder group also reported not having influence over the

decisions and felt that their local knowledge and preferences were not considered into the decision-making, leaving them feeling marginalized.

Quality of the Final Plan

In this chapter, stakeholder perceptions about the quality of the final plan are discussed. Results are derived from both the quantitative analysis of the closed-ended questionnaire and the qualitative analysis of the semi-structured interviews. As explained in Chapter 3, the questions used in the interviews and the questionnaire were informed by plan quality criteria identified in the literature (see Appendix A). All criteria measured were analyzed by the stakeholder group as a whole and also by stakeholder type (e.g., fishing, government, and environmental). Refer to Appendix I for a complete analysis of all results.

Quantitative Analysis

The questionnaire (see Appendix D) included approximately four questions to assess stakeholder perceptions about the final plan. Table 24 below includes a summary of stakeholder responses.

Table 24

Plan Quality. Frequency of Survey Responses Across All Stakeholder Groups

Survey Question	N=22	R 1	R 2	R 3	R 4	R 5
How satisfied were you with the final plan?		Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
		6	3	3	9	1
Did you agree with the final plan?		Not at All	Somewhat Disagreed	Unsure	Somewhat Agreed	Very Much Agreed
		5	5	2	7	3
The final plan conforms to sound decision-making and analysis		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		7	3	4	6	5
Rate the Quality of the final plan		Very Low	Low	Somewhat Good	High	Very High
		7	2	5	6	2

Level of satisfaction with the final plan. Responses were mixed across stakeholder groups in terms of satisfaction with the final plan. Ten out of 22 respondents indicated that they were either satisfied or very satisfied with the final plan, while 9 out of 22 respondents expressed that they were dissatisfied or very dissatisfied with the final plan. Three respondents reported that they were neutral. All of the environmental stakeholders (5 out of 5) expressed that they were satisfied, while most of the fishing stakeholders (7 out of 9) reported that they were dissatisfied or very dissatisfied. Approximately half of government stakeholders (4 out of 8) expressed that they were satisfied with the final plan. There was only one participant who expressed that he or she was very satisfied with the final plan.

Agreement with the final plan. Results were also mixed among participants in terms of their level of agreement with the final plan. Nearly half of the respondents (10 out of 22) expressed that they agreed or very much agreed with the final plan and nearly half of the respondents (10 out of 22) either somewhat disagreed or did not agree at all with the final plan. Two of the respondents were neutral. Most fishing stakeholders (7 out of 9) did not agree with the final plan whereas most environmental stakeholders (4 out of 5) partly or somewhat agreed with the final plan. Government stakeholders were more divided on this question, with some (5 out of 8) expressing that they somewhat or very much agreed with the final plan, and few (3 out of 8) indicating that they somewhat did not agree with the final plan.

Conformance with sound analysis and decision-making. Results were also mixed among stakeholders regarding perceptions about the final plan reflecting sound analysis and decision-making. Ten out of 22 respondents indicated that they disagreed or strongly disagreed that the final plan conformed to sound analysis and decision-making. In comparison, 8 out of 22 respondents reported that they agreed or strongly agreed that the final plan conformed to sound analysis and decision-making. The remaining four respondents were neutral. Most fishing stakeholders (8 out of 9) either disagreed or strongly disagreed with this statement, while all environmental stakeholders (5 out of 5) either agreed or strongly agreed with this statement. Some government stakeholders (3 out of 8) remained neutral and some (3 out of 8) agreed or very much agreed, while a few (2 out of 8) disagreed or strongly disagreed.

Quality of the final plan. Results were also mixed in regards to stakeholder perceptions about the quality of the plan. Eight out of 22 respondents considered the quality of the final plan to be somewhere between high and very high quality. Five out of 22 respondents reported that the quality of the final plan was somewhat good. The remaining respondents (9 out of 22) thought the plan was between low quality and very low quality. Most environmental stakeholders (4 out of 5) perceived the plan to be of high quality, whereas most fishing stakeholders (7 out of 9) perceived the plan to be of low or very low quality. The responses of government stakeholders ranged, with more than half (6 out of 8) indicating that they thought the quality of the final plan was either somewhat good, high or very high quality. Only two government stakeholders indicated that they thought the final plan was between low quality and very low quality.

Qualitative Analysis

The semi-structured interviews included a total of six questions related to stakeholder perceptions about plan quality (refer to Appendix C). A total of three questions from the questionnaire were duplicated in the interviews for the purpose of triangulation and to gain an additional depth of information that closed-ended questions alone would not be able to provide.

Interview Question. Did you agree with the final plan? Interview responses reflected similar results as the questionnaire, which were mostly mixed. Most fishermen (7 out of 9) disagreed with the plan; while most environmental stakeholders (4 out of 6) agreed and some government representatives (5 out of 8) agreed with the plan. All remaining responses reflected disagreement or partial agreement. Stakeholders who agreed or partially agreed with the plan explained how the plan is not as good as it should have been due to the compromises that were made on the science criteria in effort to reduce socio-economic impacts. These stakeholders also emphasized how they preferred to have had a network of MPAs that met all of the science guidelines because they believe that the MPA network will not be as effective in meeting conservation goals. Environmental stakeholders specifically emphasized how they preferred to have had more SMRs² (no-take reserves) than SMCAs³ (multi-use reserves, limited take), given that SMRs provide a higher level of protection. However, at the same time, many stakeholders recognized that the final plan represented the best outcome given the

² State Marine Reserves offer the highest level of protection due to the prohibition of fishing (no-take)

³ State Marine Conservation Areas offer the least amount of protection because certain types of fishing are permitted (limited-take)

circumstances. For example, one environmental stakeholder explained: “Well, I think it was the best that we could come up with. I don’t think it is as good as it should have been. But I do think it is the best that we could come up with” (Participant 9, Environmental, Summer 2015).

Members of the fishing stakeholder group mostly disagreed with the final plan. Some fishing stakeholders explained how the goals of the MLPA were overreaching and that the number and size of the closures⁴ were too much. Stakeholders across all groups described how the planning process was rushed towards the end, which led to poor decision-making in the final stages of plan development. Those decisions had negative consequences on the quality of the plan as well as on the socio-economic impacts for the fishing community. As explained in Chapter 5, many stakeholders expressed dissatisfaction with how decisions were made because of the level of horse-trading that occurred during the negotiations and the degree to which politics influenced outcomes. Some stakeholders expressed a mix of both disagreement and agreement with the final plan as a result. Below is an example of a representative comment:

I have a mixture of agreement and disagreement. Some aspects of the plan didn't make sense. The BRTF was deadlocked due to horse-trading. Large areas became defacto MPAs, but they were in remote, un-fished areas. But they [BRTF] wanted MPAs there...It could have been worse. But, so I wasn't totally disillusioned. There were good points to it. But I was disappointed in it that it was done more like political horse-trading instead of focusing on the science issues as much. And fortunately, the SAT did lay out some boundaries that kind of forced some of it in. But in the end, a lot of the decisions were made for other reasons” (Participant 2, Government, Summer 2015).

⁴ The fishing community often refer to MPAs as ‘closures’

Table 25 below includes themes and representative comments related to stakeholder agreement with the final plan.

Table 25

Interview Q. Did You Agree with the Final Plan?

No. of comments, N=23	Theme	Representative Comment
10	Agreed with the final plan; but it wasn't ideal.	"Was it ideally what I wanted to see? No. I think that it represents the best attempt at balancing the science and the social components of the stakeholder group and process. That map was drawn by a group of people who care about the ocean. And I feel that given the framework that we were operating in, it's the best outcome; I mean there are lots of things that I would like to change about that map. But given the controversy and the fact that so many people live in southern California I think that we did a good job." (Participant 3, Environmental NGO, Summer 2015)
8	Disagreed with the final plan.	"I did not agree. And I don't really think that there was sound analysis. I think went it came to the BRTF, it was comprised of more environmentally bent personalities. For the most part, I think that by the time we got there [to the BRTF] the sound analysis from the groups was good. With the caveat that the guidelines that were given, were based on the state of the science. And I don't think the state of the science was perfect. But we did the best we could. The scientists did the best they could. I think there was the problem of the voting in the end." (Participant 6, Government, Summer 2015)
5	Partially agreed with the final plan.	"No. But I didn't disagree either. I would have liked it to have been a little stronger. But overall I thought that it reflected a good compromise. It was one of those things where I felt like I could live with it, but I didn't love it." (Participant 11, Environmental NGO, Summer 2015)

Recreational fishing representatives disagreed with the plan because they felt that that there was an injustice in the fact that many of the new MPAs eliminated their opportunity to fish in areas that they have traditionally fished, which included some of

the more popular public beaches for outdoor recreation in southern California. These beaches provided a sense of place and an opportunity to experience the outdoors for many recreational fishermen, some of whom do not have the luxury to live directly on the coast. Many of the new MPAs cover the entire along-shore span of some of these popular beaches, therefore prohibiting all recreational fishing in coastal areas that historically have been used by recreational anglers who fish from shore (e.g., shore fishermen and surf fishermen) or within a short distance of the shore (spear fishermen and kayak fishermen). The recreational fishing community felt that the new fishing closures were representative of class politics between the affluent coastal communities and the less affluent inland communities. For instance, one fishing representative described the power imbalance between the community as follows:

In southern California, they didn't put MPAs in front of private property (because of the lawsuit that happened in Sea Ranch area of the North Central MLPA process). What they did was in Los Angeles and in Orange County, they put two of the larger reserves they put them only on public access areas – off of Malibu, Point Dune, and Zuma Beach. Zuma was one of the largest public beaches. They put MPAs covering the entire Zuma Beach. You can access it but you cannot fish now as a result. There is no recreational fishing there. This is an environmental justice issue... They did the same thing with Laguna Beach. There is no more fishing access at Laguna Beach all the way to Dana Point. The MPA covers the entire public access area – it's a 3-mile long reserve" (Participant 19, Fishing, Summer, 2015)

The following interview comment describes the class dynamic even further:

These are the prejudices of the cities – San Clemente, Laguna Beach... They actually filed a petition to have a marine reserve. They don't want the kids coming in from Santa Ana to go there. These cities have small town, narrow mindsets. They don't like the traffic and they don't like the people coming. (Participant 19, Fishing, Summer 2015).

And, another recreational fisherman provided a similar description to illustrate the political influence of the elite class in the MPA planning process:

Look who got the biggest preserves out in front of their houses. People in Malibu with a lot of money. People in Laguna Beach with a lot of money. And it left out the little people who used to have consumptive access in front of those waters. That's because rich people, because rich people can sit on the terrace and have an unobstructed view of the ocean without pesky fishermen, kayakers, and others destroying their view. Follow the money. Look where the marine reserves wound up and look up the net per capita value of the people in that area... They don't want to see a greasy fisherman or some kayaker out there. They just want to see seals and birds. There is nothing wrong with that. But that's all they want to see. And they've got the money to influence the outcome.” (Participant 14, Fishing, Summer 2015)

Table 26 below includes representative comments.

Table 26

MPAs and Social Injustice

Number of comments	Theme	Representative Comment
4	Disagreement with social justice impacts of final plan	“The other issue, which have been related to time too, was the environmental justice issues where the process ended up bending towards local political interests than to the broader public. Laguna and Point Dune were two examples in Orange County where that had occurred.” (Participant 19, Recreational Fishing, Summer 2015)

Interview Question. Does the final plan reflect sound analysis and decision-making? The responses followed a similar trend to the findings on the survey question, which were also mixed between stakeholder groups. Nearly half of the interviewees (8 out of 19) did not feel that the plan reflects sound-analysis and decision-making, while less than half (7 out of 19) indicated that they did feel that the plan reflects sound analysis and decision-making. The remaining interviewees felt that the final plan reflected some

sound analysis and decision-making. Most fishing stakeholders (6 out of 9) felt that the final plan does not reflect sound analysis and decision-making, whereas some government (2 out of 4) and most environmental stakeholders (4 out of 6) felt that the final plan does reflect sound analysis and decision-making. Table 27 below illustrates example perceptions with representative quotes.

Table 27

Interview Q. Does the Final Plan Reflect Sound Analysis and Decision-making?

No. of comments N=19	Theme	Representative Comment
8	No, the final plan does not reflect sound analysis and decision-making.	“No. Not just after what I just said. Let’s put it this way, it wasn’t completely off the hook. There was a lot of sound decision-making that went into the process. And you are never going to achieve perfection. But you kind of at least want to get halfway there. And I don’t think we even got halfway there.” (Participant 19, Fishing, Summer 2015).
7	Yes, the final plan mostly reflects sound analysis and decision-making.	“I mean I would say that I feel 80% on that. There was opportunity for them to put MPAs in different locations, but politically a decision was made not to do that. Of course you have to weigh political; and I understand that decision makers have to weigh the natural resources versus the politics. But it is concerning to me.” (Participant 11, Environmental NGO, Summer 2015)
4	Some, parts of the final plan reflect sound analysis and decision-making.	“Some part were. Some parts weren’t. Like I said, I didn’t agree with all the science. And other scientists didn’t agree with the science. So there was disagreement amongst the scientists on the science; and so if that was the guidelines used to make the plan then, is it sound?” (Participant 1, Fishing, Summer 2015)

As shown in the table above, stakeholders believe that the final plan would have reflected sound analysis and decision-making had the process not been influenced by politics. The representative comments demonstrate that the outcomes would have been different in that

scenario (Refer to Chapter 5 for more discussion on perceptions about decision-making). In addition, the fishing community strongly disagreed with the science that was used in the MLPA and as such did not believe the decisions were based on sound science and analysis. Chapter 7 will discuss the role of science further.

Interview Question. What letter grade best represents the quality of the final plan? For this question, a letter scale was used to rate the quality of the final plan, as follows: excellent (A), above average (B), satisfactory (C), below average (D) and unsatisfactory (F). Almost half of the interviewees (10 out of 22) thought the quality of the final plan was above average, giving it a score of B. Six interviews thought the final plan was satisfactory, giving it a score of C; and 5 interviewees thought the quality of the final plan was below average or less than satisfactory, giving it a score in the D and F range. There was only one interviewee who thought the quality of the plan was excellent and gave it a score of A. Overall, the majority of the scores fell in the B and C range, with environmental stakeholders giving the final plan higher scores and fishing stakeholders giving lower scores.

Stakeholder perceptions of the quality of the final plan were primarily based on the degree to which the plan met the scientific criteria for size, spacing, habitat, and level of protection.

For instance, one interview explained their perception as follows:

In terms of quality, it [the final plan] could have been better. It does not meet the SAT guidelines, in size, spacing, type of habitat. SCMA's [conservation areas that allow certain take] – were allowed for this process. It gives flexibility. Gives consumptive uses too. But marine reserves [no-take], practically speaking, are more effective. The jury is out if conservation areas will work. You will notice more conservation areas than marine reserves in the South Coast, and especially

when you compare the South Coast to the Central or North Coast. Enforcement is also hard in a marine conservation area (Participant 11, Environmental NGO, Summer 2015).

Table 28 below illustrates the range of perceptions about the quality with example comments.

Table 28

Interview Q. What Letter Grade Best Reflects the Quality of the Final Plan (A to F)?

No. of comments, N=22	Theme	Representative Comment
10	Plan Quality = B	"I'd give it a B. When it first came out, I would have given it a C. But I've since upgraded it to a B. In the light of time and perspective." (Participant 21, Environmental NGO, Summer 2015)
6	Plan Quality = C	"If you ask me, it barely mostly passed the SAT requirements. I still look at it as if it were supposed to be between 3 and 16 [on a linear scale]. And when it ended up closer to 3. Well if 3 is the minimum, then it gets you a D. So we probably got a C, C+." (Participant 9, Environmental NGO, Summer 2015)
4	Plan Quality = D	"I'd give it a 'D'. Low quality." (Participant 10, Recreational Fishing, Summer 2015)
1	Plan Quality = A	"I'd give it an 'A' given that it was first unique, one of its kind, and just the amount of multi-stakeholder involvement to come up with a plan of this detail, that worked both economically and from scientific perspective. I think it was one of those that worked both ways." (Participant 13, Government, Summer 2015)
1	Plan Quality = F	"The plan could have been made acceptable. I would never say that it was higher than a C. But it was clearly an F, for the way it turned out. Had they been willing to be more receptive to the suggestions of the recreational anglers and commercial anglers/fishermen..." (Participant 16, Recreational Fishing, Summer 2015).

Interview Question. Does the plan represent the broad interests of the stakeholder group? Responses were mixed across the stakeholder groups.

Approximately half of the interviewees (11 out of 21) indicated that they thought that the final plan reflects the broad interests of the stakeholder group, 2 out of 21 interviewees believed that it somewhat or moderately does, and 8 out of 21 interviews believed that the final plan did not reflect the broad interests of the stakeholder group. The majority of fishing stakeholders (8 out of 9) indicated that the plan did not represent the broad interests of the stakeholder group, while the majority of environmental stakeholders (5 out of 6) felt that the plan did represent the broad interests of the stakeholder group. Most of the government stakeholders (3 out of 6) believed that the final plan does represent the broad interests of the group. Table 29 below includes example comments.

Table 29

Interview Q. Does the final plan represent the broad interests of the stakeholder group?

No. of comments, N=21	Theme	Representative Comment
11	Yes, the final plan represents the broad interests of the stakeholder group.	“I think pretty good. Again, considering the range, it was good. Considering the range of stakeholders, it was good. Again, if you want a plan that is going to be steered towards you, don’t go with this plan. Go with the Agency plan. All or none.” (Participant 7, Government, Summer 2015)
8	No, the final plan does not represent the broad interests of the stakeholder group.	“Broad interests were not represented. The final plan let down everyone – the people of this state, the commercial fishing folks, NGOs, - all were let down by the process. The process was ill served.” (Participant 4, Fishing, Summer 2015)
2	Moderately, the final plan moderately represents the broad interest of the stakeholder group.	“It is weighted more towards the environmentalists. But it in general, it did respect some key areas for fishermen.” (Participant 6, Government, Summer 2015)

Some interviewees characterized the final plan as one that represents the interests of only two extreme camps – fishing and non-fishing – due to the polarization that occurred during the planning process; therefore, leaving nobody satisfied. Some interviewees felt that the plan does reflect the broad interests of the Topaz Gem group.⁵ Other interviewees explained how the SCSRSG does not really represent the broader interests of the citizens of California and instead only reflects the professional interests of

⁵ Note, it was Proposal 1 by Work Group 1, Topaz platform (cross-interest/middle-of-the-road group) that formed the basis of the final plan (or preferred alternative)

those who participated in the stakeholder process. Table 30 below illustrates example comments.

Table 30

Additional Perceptions on the Quality of the Final Plan

No. of comments, N=9	Theme	Representative Comment
4	The final plan reflects the broad interests of the Topaz Gem Group	“Yeah,[it reflects the stakeholders] in the middle ground group, yes.” (Participant 3, Environmental NGO, Summer 2015)
3	The final plan reflects the interests of professional interests, not the interests of the average citizen of California.	“I think the problem with the stakeholder makeup is that it was not representative of the broader make-up of the citizens of [southern] California. The majority of people in California are not commercial or recreational fishermen. They are just people that like to go to the beach and care about the ocean. But people that have a stake in the ocean, especially an economic stake, are going to be very vocal.” (Participant 3, Environmental NGO, Summer 2015).
2	The final plan represents the interests of two extreme camps, no one was left happy.	“The process left really no one happy. There were two extreme camps [conservationists and fishing].” (Participant 2, Academia, Summer 2015)

Interview Question. Will the final plan be effective? Ten out of 21 interviewees indicated that they believed that the plan will be effective in achieving its conservation goals, 4 out of 21 interviewees indicated that the efficacy of the plan remains to be seen, and 7 out of 21 interviewees indicated that they believed that the final plan will not be effective. Environmental stakeholders (5 out of 6) were most confident about the plan’s efficacy; whereas, most fishing stakeholders (7 out of 8) were the least confident. Most government stakeholders (5 out of 7) felt that the plan will be effective. Several others

across all stakeholder groups felt that it remains to be seen whether or not the MPA network will be effective. Table 31 below shows representative quotes.

Table 31

Interview Q. Will the Final Plan Be Effective?

No. of comments, N=21	Theme	Representative Comment
10	Yes, the plan will be effective.	"I think that it is mostly going to be mostly effective. In the areas that turn out to not be effective, I think we can reevaluate." (Participant 23, Environmental NGO, Summer 2015).
7	No, the plan will not be effective.	"The only thing it did was close down fishing. It didn't protect anything else. It didn't protect against dredging damage and filtration on reefs when they do sand movement, it didn't protect against sewage, it didn't protect against nonpoint runoff, it didn't protect against any other threats in the marine environment." (Participant 1, Commercial Fishing, Summer 2015).
4	Efficacy remains to be seen/too early to tell.	"It's hard to say at this point. I hope it enhances our local marine resources. And some people say anecdotally that they area already starting to see benefits in certain areas. I have not seen any evidence of that." (Participant 11, Environmental NGO, Summer 2015).

The fact that most environmental stakeholders believe the plan will be effective is surprising, given how they expressed dissatisfaction with how too many compromises were made on the science criteria. Some environmental stakeholders explained in their interviews that efficacy remains to be seen and expressed concerns over the higher number of SMCAs than SMRs in the final plan. SMCAs offer less protection because they allow certain types of fishing and are not considered 'no-take'. Some stakeholders explained how SMCAs are a relatively new concept that has not been studied yet and their efficacy has yet to be proven. Nevertheless, most environmental stakeholders felt

that the plan will more effective than having no plan. For instance, an environmental stakeholder commented “they [the MPAs] will be more effective than no rules. But I think there could be more effective mechanisms I think.” (Participant 23, Environmental, Summer 2015). Interviewees who were most optimistic believe that the final plan will be effective as long as certain conditions are met: compliance and enforcement, good management, and scientific monitoring. A summary of these themes is included in the Table 32 below.

Table 32

Additional Perceptions About Plan Efficacy

No. of comments, N=12	Theme	Representative Quote
5	Plan efficacy depends on compliance and enforcement	“Well, it’s set up to be effective. Here are the downsides of being effective. Do you have enough people to enforce it? I luckily have rangers, but we still see violations. And recently, we’ve seen some blatant violations. Where they know it’s closed. They just know the chance of getting caught is low. And we’re out there a lot. So, I think as long as there is enforcement we will be ok.” (Participant 12, Government, Summer 2015)
3	Plan efficacy depends on funding and monitoring	“Then, I don’t think there is enough funding to do monitoring. So, where I think they are going to fall is when someone says ‘show me the recovery for La Jolla. Because you said that there would be more fish- that there would be bigger fish and that there would be more spillover. Show me any of those’...I don’t think that there is enough money in the Monitoring Enterprise to make that happen.” (Participant 12, Government, Summer 2015).
2	Size of MPAs may affect efficacy	“I think it will be very effective. It will remain to be seen if they are big enough. It is certainly better than where we were.” (Participant 9, Environmental NGO, Summer 2015).
2	SMCAs are not proven	“There are many more SMCAs then SMRs in South Coast. SMRs are most effective type of MPA, and we don’t know how well SMCAs benefit marine resources and they are tough to enforce” (Participant 11, Environmental NGO, Summer 2015).

The issue of poaching and enforcement was a topic that was repeated throughout the interviews. Many participants stated that poaching exists, is rampant and that

enforcement is difficult to do due to lack of state agency⁶ resources. In addition, some stakeholders explained how poaching will negatively impact the scientific monitoring or data collection of the MPAs by skewing the results. Table 33 below provides representative comments.

Table 33

Poaching

No. of comments, N=4	Theme	Representative Comments
4	Lack of compliance & poaching	“And because there still <i>is</i> a lack of enforcement, the MPAs got the nickname ‘poacher’s paradise’, because there is no real way to monitor, the State doesn’t have very many funds. It’s just not. They can’t be everywhere. So there is poaching.” (Participant 15, Fishing, Summer 2015)

Document Review

The documents reviewed for this research supports stakeholder perceptions about the quality of the plan. The MLPA Initiative acknowledged that the final plan, or preferred alternative, of the South Coast region did not meet the scientific guidelines of the MLPA. According to the *South Coast Regional Stakeholder Group Online Survey and Lessons Learned Report to the Resource Legacy Fund* (Harty, 2010), the Integrated Preferred Alternative (IPA) that the BRTF recommended to the California Fish and Wildlife Commission is:

⁶State agency refers to CDFW

lower ranked than either Proposal 1 (P1) or Proposal 3 (P3)⁷ in evaluation of habitat representation, habitat replication, MPA size, and MPA spacing for different levels of protection... the IPA has the largest number of MPA clusters that fall below minimum size and the greatest proportion of total MPAs below minimum size at very high, high and moderate high levels of protection (LOP)” (p. 29).

The same report also states how the BRTF “acknowledged that its IPA⁸ did not meet all the science guidelines and justified this set of choices as an ‘effort to garner further cross-interest support and reduce potential socioeconomic impact’” (Harty, 2010, p 29).

The South Coast regional planning process resulted in a conservation plan that slightly increased the the number of MPAs in the region, from 42 MPAs to 50 MPAs, with the inclusion of 2 military closures (Harty, 2010, p. 28). The final plan also includes the lowest percentage of SMRs and the highest percentage in area of SMCAs (Harty, 2010, p. 29). However, the area of MPA coverage actually doubled from an original base of 7.8 % area covered by MPAs to 16%, which includes two military closures (Harty, 2010, p. 28). Table 34 below compares the changes in MPA coverage as a result of the South Coast MLPA planning process.

⁷ P1 or P3 refers to Proposal 1 and Proposal 3 that was submitted in the final round to the BRTF. P1 refers to the proposal of the cross interest group (Topaz) and P3 refers to the proposal by the conservation/non-fishing group.

⁸ IPA refers to Integrated Preferred Alternative (See Chapter 4 or Appendix F)

Table 34

Distribution of MPAs in the Final Plan for the South Coast Region

Existing MPAs Prior to MLPA (1999)	Quantity & Area Coverage
State Marine Reserves (SMR)	15 (6.9%)
State Marine Conservation Area (SMCA)	19 (0.8%)
State Marine Parks (SMP)	8 (0.1%)
Total	42 MPAs (7.8%)
New MPAs after the MLPA	Quantity & Area Coverage
State Marine Reserves (SMR)	28 (11.7%)
State Marine Conservation Area (SMCA)	19 (3.2 %)
State Marine Parks (SMP)	1 (0.1%)
Military Closures	2 (1.6%)
Total	50 MPAs (16.6% coverage)
Amendments March 2016	Quantity- only
State Marine Reserves	19
State Marine Conservation Areas (SMCAs)	21
State Marine Conservations Ares, No-Take (SMCA- No-Take)	10
Military Closures	2
Total	52 MPAs

Adapted from Harty, 2010, Table 1, p. 28 & CDFW 2016

As Table 34 illustrates, the final result is that the plan reflects less MPAs in number but more area in terms of protection. The fact that there are more SMCAs than SMRs in the South Coast region may affect the efficacy of the network. However, this has yet to be determined.

Summary – Perceptions about Plan Quality

The results of the survey and interviews demonstrate noticeable trends in the way that fishing and environmental stakeholders responded in both the interviews and in the questionnaire. Fishing stakeholders tended to provide more negative responses while environmental and government stakeholders tended to provide more positive responses related to plan quality. Fishing stakeholders agreed less with the final plan than environmental or government stakeholders did. Similarly, fishing stakeholders were more dissatisfied with the final plan than environmental stakeholders. Fishing stakeholders also did not feel that the final plan represented the broad interests of the stakeholder group.

The fact that the fishing community disagrees and is unsupportive of the final plan makes sense, given that they lost access to key locations for fishing. This particular MPA planning process was in many ways like a zero-sum game, as every area that became an MPA represented a gain for the environmental community and a loss for the fishing community. The recreational fishing community in particular also lost a sense of place, which isn't something that can be easily compensated for or even replaced. The fact that recreational fishing stakeholders felt that there was an element of classicism or elitism influencing decisions was a surprising insight, but when one contextualizes this sentiment, it is also understandable. As explained in Chapter 1 and 2, incorporating public values into government decision-making is fundamental to democracy and therefore one of the social goals associated with public participation (Beierle & Cayford,

2002). The recreational fishing community did not feel that the final plan reflected any of their preferences or values, and instead felt the plan only represented the values of the environmental interests, many of whom are supported by the affluent elite coastal communities. Therefore, it is not a surprise that the outcome was not satisfying for the fishing stakeholder group.

The fact that the fishing community did not agree with the MPA zoning designations of the plan is also not unusual. This is a quite common occurrence in MPA planning processes such illustrated with the Great Barrier Reef rezoning effort (Sutton & Tobin, 2009) and the Florida Keys National Marine Sanctuary planning process (Suman, Shivlani & Milon, 1999). These studies will be further discussed in Chapter 8.

There seems to be a correlation between stakeholder perceptions about the science criteria not being met and perceptions about plan quality and efficacy. Environmental stakeholders who felt that the plan did not meet the scientific criteria also had diminished perceptions about the quality and efficacy. For example, many of the environmental stakeholders sought to incorporate the maximum level of protection (i.e. in terms of habitat, size and spacing) in efforts to achieve the most conservation benefits. This makes sense given that the motivation for many of the environmental stakeholders (as explained in Chapter 4) was to develop a plan that would provide the most conservation benefits. However, many of the stakeholders reported that the final plan fell short in a number of places, which in turn impacted their perceptions about the quality and efficacy of the plan. Many stakeholders stated that the end result was better than nothing and an improvement compared to the status quo, but noted that it was less than ideal. Similarly,

stakeholders thought while the plan may not be as effective as a plan that had meet all the science criteria, the plan is still more effective than the implementation of no plan. These perceptions are also not unusual as related research has shown that conservation projects that restrict human access often result in compromises on plan quality, both in terrestrial and marine protected area planning efforts (Drazkiewicz, Challies, & Newig, 2015; Suman et al., 1999). These studies will be further discussed in Chapter 8.

The reason that poaching is occurring in a number of the MPAs is because the MLPA planning process did not achieve the desired buy-in and voluntary compliance from the fishing stakeholder group in the South Coast region. There is also inadvertent poaching happening due to lack of public education on MPAs and their respective boundaries. The degree to which poaching impacts MPA efficacy is undetermined but would be worth evaluating in future research. The fact that the environmental stakeholder community is also concerned about poaching makes sense, given their motivations and level of commitment to the MLPA in terms of investment of time and resources. Similarly, it is also not a surprise that the environmental stakeholder group supports the final plan despite the fact that many were disappointed in the plan's quality, because the environmental community has been invested in the MLPA from the project's inception. For instance, the legislation of the MLPA was drafted by the Natural Resources Defense Council (NRDC) (Jun, 2013) and the MLPA was both politically and financially supported by the environmental community, including several influential NGOs and private foundations (Jun, 2013). Therefore, it makes sense that the environmental community supports the implementation of the plan regardless of any

disappointment they may have had with the quality. Furthermore, based on interviews, the CDFW continues to depend on local environmental NGOs for time, staff and resources for the management of these MPAs through a collaborative arrangement and a program called the MPA Collaborative Network (www.mpacollaborative.org). As such, it is reasonable to assume that the environmental community therefore has a vested interest in the success of these MPAs.

Capacity Building and the Role of Science

This chapter focuses on the topics of capacity building and the role of science in the South Coast MLPA planning process. While these topics are not specifically tied to a particular research question in this study, they are topics that emerged during the inductive analysis of the interview data and are therefore noteworthy to report. Appendix J includes data and figures to support this chapter.

Capacity Building

According to public participation literature, one of the goals of environmental decision-making processes is capacity-building, which is evident when there is a better educated and informed public participating in environmental decisions, better understanding of the complexity of environmental issues and decisions challenges, improved relationships between participants and agencies implementing the environmental decisions, and improved methods for scientific analysis of environmental issues (Beierle & Cayford, 2002, p. 15; Dietz & Stern, 2008, p. 71-72). Increasing public understanding about environmental issues is important because it can lead to improved capacity for solving those problems (Beierle & Cayford, 2002, p.15). Similarly, engaging the public in more meaningful decision-making can restore trust and improve relationships between the public and the governing agency (Beierle & Cayford, 2002, p. 15).

Based on the interview data, the MLPA planning process in the South Coast region resulted in many positive outcomes in terms of building capacity. For instance, the MLPA South Coast planning process went to great lengths to ensure stakeholders had

access to adequate information and tools to actively participate in the planning process.

As stated in Chapter 5, 18 out of 22 participants interviewed responded that they felt that the information and tools provided were adequate, with some participants noting that the tools and information provided were beyond adequate. There was no problem with access to information as stakeholders had access to all the scientific data provided by the SAT and the opportunity to raise questions and seek assistance for further clarification.

For example, one interviewee described the information and tools as follows:

But you heard that there was lack of information. But, the MLPA staff would say, 'Well I don't understand. We actually have more information than we ever had'. So, I think it was always an easy argument that there was 'never enough' [information]. But there was a ton of information. And there were scientists who could help you clarify the information on how it was used. And then because of the map itself, we were using the tool -- we could actually calculate things like size and distance and get values. We would actually graph things out. And then the SAT would take your proposals and analyze them for you and give you feedback on how well you were meeting the goals and objectives. It's pretty good. (Participant 12, Government, Summer 2015)

While impacts to fisheries were not a focus of the MLPA, the MLPA Initiative did hire a consulting firm to examine potential impacts to commercial and recreational fishing based on data provided in commercial fishing logbooks and landing receipts as well as interviews with recreational fishermen on areas of fishing importance. This information was shared with the entire SCRSB to assist them in the negotiation process. In this regard, the MLPA planning process was very diligent about providing stakeholders with sufficient information and resources to assist them in the planning process.

The MLPA planning process also improved scientific analysis by providing all stakeholders with access and training on the use of an interactive GIS software tool called Marine Map. The GIS software program allowed stakeholders to design MPAs in real-

time, using different layers of data such as geography, ecology, biology, habitat, economic and special data. The GIS software program enabled stakeholders to quickly compare data sets, something that would have been difficult to do manually. The GIS software tool was very well received among stakeholders, with many considering it to be an extraordinary tool that helped them engage effectively in the planning process. For instance, an interviewee described the capabilities of the GIS software program as follows:

Marine Map was really good. It was incredible. It would settle arguments like that [*snaps fingers*]. If it moved the boundary points 6 miles, you would add another square mile of habitat. And you wouldn't really be hurting anything. If you moved it back, for instance 300 feet, you'd be away from the sewer outfall, and it would show you that. (Participant 22, Non-fishing recreational/Environmental, Summer 2015)

In this regard, the planning process definitely improved methods for scientific analysis.

The South Coast regional planning process did experience difficulty in educating some stakeholders about the environmental problem the MLPA Initiative was looking to solve. There are a few reasons for this. For one, the planning process was not designed to bring stakeholders together to define a common problem and then to find a common solution. The problem was already defined in advance, and according to document review, the problem was that California's current system of MPAs was no longer effective in achieving their conservation benefits (CDFW, 2008h). So the solution was adoption of the MLPA law, which required the State to reevaluate existing MPAs and create a network of MPAs that is more effective and spatially connected. The purpose of the planning process was not to deliberate on the problem or the merits of MPAs or fishery management science, but instead to focus on implementing the solution (CDFW,

2008h). In fact, some stakeholders explained in their interviews how the issue or problem was never even stated during the planning process (Participant 20, Fishing, Summer 2015). Secondly, perceptions about the problem differed among fishing stakeholders and environmental stakeholders. This is not necessarily due to a flaw in the design of the process and instead has more to do with different viewpoints about the state of the marine environment and the philosophical convictions on how to best manage those resources. Based on interviews, the fishing stakeholder group did not view the state of the marine environment the same way that environmental stakeholders did. Nor did they agree on the cause of the problem. For instance, one interviewee explained how “conflicts mainly centered around disagreement on the 'cause' of the problem, pollution versus fishing, for example” (Participant 2, Government, Summer 2015). Another interviewee explained how “there is animosity between fishing and environmentalists. Environmentalists strongly feel that fishermen destroy the ocean.” (Participant 10, Fishing, Summer 2015). Perceptions were so different among stakeholders, that one fishing stakeholder described the difference this way:

It was a total different view of the status of the ocean. It was a total different view of what was needed to bring it back to sustainability. In the minds of the environmentalists, everything they could get [for reserves] was what the [ocean] needed. It was total different perception... the environmentalists looked at from a glass being half empty and we looked at it the other way. So the solution was so far apart between the two sides, that we were never going to reach agreement, especially with the way the process was set up. With so many different people pushing us towards closures. (Participant 16, Fishing, Summer 2015)

An environmental stakeholder explained the difference of views this way:

Conflicts were over preservation versus utilization. There was disagreement on what we see in the ocean. Conflicts were about perceptions about what was going on in the ocean. And this perception stuff fed into the technical stuff... The conflicts were over the state of things, and values that were imposed...

We couldn't agree on the contribution of fishing to the obvious decline of California's marine life heritage, natural heritage, even though over, over and over, scientists showed us that if you put a 'no take' zone inside the Hong Kong Harbor, which they did, that you would have five times the amount of fish inside it within a year, proving that pollution is not the driver. We still had that conflict. (Participant 21, Environmental, Summer 2015)

Fishermen were also committed to the way the State already managed fishing, through regulations and permits, which they thought were effective. Environmental stakeholders, in contrast, believed existing fishing regulations were not effective alone and therefore preferred to add a conservation approach to managing marine resources; and, the environmental community felt that existing MPAs in California were not working and believed that scaling up existing MPAs was the best solution. For example, one interviewee explained:

You know, it [the MLPA] was characterized as being something that would provide protection. Not necessarily management. And we argued that we didn't think it was needed because we felt that the managers - by controlling the seasons, the bag limits, the minimum size limits and the overall harvest of these resources - provided sufficient protections of the resources. But their argument was that 'that' wasn't enough and that stocks were down from what they used to be. (Participant 16, Fishing, Summer 2015)

These opposing viewpoints are also important to note because they are fundamental to understanding the way stakeholders engaged in the planning process from the actual negotiating and compromising to their respective levels of support for the MPAs. Given these opposing viewpoints, the fishing stakeholder group did not become better informed about the environmental issue, affecting their capacity and willingness to participate in

future participation efforts, including the management of the new MPAs. Table 35 below summarizes these dominant viewpoints between fishing stakeholders and environmental stakeholders.

Table 35

Comparison of Views Among Fishing and Environmental Stakeholders

Theme	Fishing Stakeholders	Environmental Stakeholders
What is the problem?	There is no problem. California's coastal waters are sufficiently managed and protected. Fish stocks are at Maximum Sustainable Yield (MSY).	California's coastal waters are being depleted of marine life at exponential rates; marine life has decreased in density, biomass and size. California coastal waters need new protection and management.
What is the cause of the problem?	Pollution, climate change, dredging, sand mining, oil/gas, coastal development, wastewater discharge, and fishing (to less of a degree) are collectively impacting California's coastal waters.	Over-fishing and not sufficient protection. Other impacts to ocean are recognized, but not the main focus for regulation.
What is the best way to approach the problem?	Existing fishing regulations and management practices, based on single-species protections.	Network of more efficient MPAs that include no-take marine reserves and based on ecosystem-based management; that allows for enhanced recreational (non-fishing) and research opportunities. Minimizing impacts to the economic value of fish, when possible.
What would make MPAs more acceptable	True wilderness approach, in which all human activities are restricted in MPAs (including boating, anchoring, diving, snorkeling, etc.), not just a restriction on fishing. A mix of smaller MPAs, rotated MPAs.	Network of more efficient MPAs that include no-take marine reserves and based on ecosystem-based management that allows for enhanced recreational (non-fishing) and research opportunities.
Philosophy behind the use of MPAs	MPAs as a fishery management tool based on sustainable use.	MPAS as a biodiversity conservation tool used to complement existing fishery management.

One of the more interesting findings, as highlighted in above table, is that fishing stakeholders explained that they would be more supportive and accepting of the MPAs if they restricted all human activity, not just fishing. This is based on the fact that the

fishing community felt unfairly singled out, as described previously in Chapter 5. By restricting access to all stakeholders, the fishing community feels that the outcome would be more fair to everyone involved. Moreover, the fishing community does see the value of conservation and therefore expressed that they would be more willing to support conservation efforts that are based on a true wilderness model as opposed to an approach that restricts access to a specific stakeholder group. For example, it does not make sense to the fishing stakeholder group that dive boat operators can anchor on a reef in an MPA, but fishing is prohibited.

Now, there were some stakeholders who were not part of the fishing stakeholder group who reported that they learned a lot about the environmental issue by participating as a stakeholder in the planning process. For instance, one government stakeholder explained their experience as follows:

Regarding my feelings towards the issues – on level of concern about the issue; is that I was somewhat concerned about the issues. I learned more about it, and became more concerned. I learned a lot in the process (Participant 13, Government, Summer 2015).

As the public participation literature suggests, one way to rebuild trust between public agencies and the public is to engage more stakeholders in influencing decisions (Beierle & Cayford, 2002). The South Coast MLPA planning process attempted to build trust between the public and the public agency by engaging the public in an inclusive, open and transparent stakeholder planning process. However, as explained in Chapter 5, the majority of fishing stakeholders indicated that they had little to no influence in the decision-making and felt that the planning process was not open and transparent; whereas, most environmental stakeholders and some government stakeholders generally felt that

they did have influence and that the process was open and transparent (refer to Chapter 5 for complete discussion on influence). Moreover, as discussed in Chapter 5, there was not a single respondent on the questionnaire that had a negative attitude towards the public agency (CDFW) at the beginning of the planning process. However, attitudes shifted after the planning process was completed from positive to negative among most fishing stakeholders and some government stakeholders. Environmental representatives who originally expressed neutral attitudes toward the public agency viewed the public agency more positively upon completion of the planning process. It is therefore reasonable to assume that trust was lost between fishing stakeholders and the public agency because of this perceived lack of influence in the decision-making and lack of transparency, which is not surprising. Environmental stakeholders felt they had influence and therefore viewed the public agency more favorably once the process was completed. It is also possible that environmental stakeholder views shifted from neutral to positive because they may not have felt that the State agency was doing enough to conserve marine resources prior to the process; and, implementation of the MLPA may have changed their views because they now feel that the State agency is doing something proactively to conserve marine resources. As a result, the public agency gained the trust of the environmental stakeholder group.

One of the more positive results in this study is that stakeholders gained skills in participation in public processes and as a result expressed interest in participating in future processes. For some of the participants, the MLPA planning process was the first time they ever participated in such a process, especially for some recreational fishing

stakeholders. Most government and some environmental stakeholders and fishing stakeholders expressed that they had previous professional experience as a stakeholder in other processes (Figure 11). The remaining stakeholders either had some previous experience and no experience as a stakeholder.

Figure 11. Stakeholders' level of experience

When asked whether or not they would consider participating in future public processes, approximately 14 out of 19 interviewees indicated that they would be interested in participating as a stakeholder in future public processes. These results are quite encouraging, given the criticism that this particular planning process received. Per Figure 12 below, all of the environmental stakeholders (4 out of 4) and most of the government stakeholders (5 out of 7) indicated that they absolutely would be interested in participating in future processes, and it was only a few interviewees from the fishing

stakeholder group (2 out of 8) who stated that they would not be interested in participating in future public processes.

Figure 12. Q. Would you participate in future planning processes?

In summary, the MLPA planning process in the South Coast region did very well in some aspects of capacity building. The MLPA improved methods for scientific analysis by using the GIS software tool called Marine Map in the planning process and increased capacity by training stakeholders on how to use the software. The MLPA also provided adequate access to information and resources to assist stakeholders during the planning process. There was also tremendous effort in the process to assist stakeholders on understanding the issue. However, the process failed to create a shared understanding of the environmental problem, which was not necessarily due to a fault in the process

design but had more to do with values, perceptions, and convictions of among various stakeholder groups. This suggests that there were unresolved conflicts prior to planning process. Interviewees who expressed the least satisfaction in the process also felt that they had little to no influence in decision-making and therefore have a negative perception of the public agency (CDFW) as a result of the MLPA planning effort. The interviewees who expressed the most satisfaction in the planning process also indicated that they did have influence in the planning process and therefore changed their attitudes towards the public agency from neutral to positive as a result. In this regard, levels of trust diminished between the fishing stakeholder group and the public agency (CDFW) and enhanced between environmental stakeholders and the public agency. The most encouraging outcome of the planning process is that stakeholders who had no prior experience in public processes became more skilled at participation and also expressed interested in future engagement.

The Role of Science

Under the MLPA Act itself, there was a legal mandate to implement a science-based MPA network design, informed by the best readily available science and sound scientific guidelines (Saarman et al., 2013). As explained in Chapter 4, the MLPA was supposed to be both stakeholder-driven and science-based, but the role of the stakeholder was limited due to the MLPA's emphasis on following specific scientific criteria (refer to Chapter 4). This study included one open-ended interview question in regards to the role that science had in decision-making during the planning process.

Interview Question. Does the final plan meet the scientific criteria of the MLPA? Results were mixed across the South Coast regional stakeholder group. Seven out of 21 interviewees indicated that the plan meets the scientific criteria that was used in the MLPA, 6 out of 21 interviewees indicated that they believed the plan does not meet the scientific criteria, and 8 out of 21 interviewees stated that the plan partially meets the scientific criteria. None of the environmental stakeholders thought that the plan reflected all of the science guidelines of the MLPA. Most environmental stakeholders (4 out of 6) believed the plan partially met the scientific criteria; half of the fishing stakeholders (4 out of 8) thought that the final plan did represent the science guidelines, with some stating that the plan went beyond meeting the scientific criteria; and, another portion of the fishing stakeholders (4 out of 8) felt that plan partially meets the scientific criteria or not at all. A portion of government stakeholders (3 out of 7) believed that the plan represents the scientific guidelines, with the remaining four government stakeholders indicating that the final plan either does or does not meet the scientific criteria. Table 36 below illustrates representative comments.

Table 36

Interview Q. Does the Plan Meet the Scientific Criteria of the MLPA?

No. of comments, N=21	Theme	Representative Comment
7	Yes. The plan does meet the science criteria.	"It definitely does. I think it went beyond them. It definitely met the science criteria. So, that's good. It just went beyond." (Participant 6, Government, Summer 2015)
7	No, the final plan does not meet the science criteria.	"Barely. Little more than half. I want to be clear when I say a little more than half. Its more like, if they were to pass the science stuff, something different would have had to happen at Pales Verdes, but it didn't. So that it means that it didn't pass all of the science guidelines." (Participant 9, Environmental, Summer 2015)
4	Mostly. The final plan mostly meets the science criteria, but there were compromises that were made.	"I think for the most part it does. I'd say 75 to 80 % it does conform to the science uses. It is just that these certain concessions that were made, where it doesn't make sense." (Participant 23, Environmental, Summer 2015)
3	Partially, some parts did meet the science criteria, while others didn't.	"Like I said, I think that there are certain parts of it that meet the science guidelines and other parts that didn't." (Participant 3, Environmental, Summer 2015)

The final plan did not meet the scientific criteria due to a combination of reasons, most of which had to do with the degree of compromising and the influence of politics in the decision-making process as described in previous chapters. As described in Chapter 5, interviewees expressed disappointment with how decisions were made at the stakeholder level due to horse-trading and also at the BRTF level due to the influence of politics. As described in Chapter 6, several participants indicated that some of the decisions made on

the locations and sizes of the MPAs did not make any sense and will compromise the effectiveness of the network in the long run. For example, one stakeholder explained the following: “I think there are holes. There are some really good MPAs in there. But if you want to achieve the network effect, we got a few holes that I worry that will compromise the network” (Participant 11, Environmental, Summer 2015). As described in Chapter 6, participants felt rushed towards the end of the planning process in order to meet a deadline, which led to hasty and inadequate decision-making by both the stakeholders and the BRTF. These last minute decisions affected the outcome so that not all the scientific guidelines could be met. Table 37 below illustrates how the science criteria were impacted by compromises.

Table 37

Compromises on the Scientific Criteria

No. of comments, N=10	Theme	Representative Comment
10	Compromises were made on the science criteria; The final plan does not meet the sizing, location, or habitat requirements.	“Another example is the La Jolla MPA where we were able to capture the super high quality habitat. But that MPA doesn’t meet the science guidelines. It was 2 square miles too small. That was the compromise that we made, that I made. Either we capture some of that habitat or we don’t get any of it. So there are places like that all over the map that are compromises and are not ideal. Naples Reef is another example. It is a tiny MPA but it protects the reef. It’s not ideal. It’s better than nothing.” (Participant 3, Environmental, Summer 2015)

Another complicating factor is that fishing stakeholders disagreed with the science that was used in the MLPA. Most of their disagreement had to do with the fact that the science that is used behind MPA management, at least in the context of the

MLPA, is different than the science that is traditionally used in fishery management.

Both approaches are essentially committed to different goals and principles. For example, the science that is used in MPA management, as applied in the MLPA, is grounded in the goal of biodiversity conservation; whereas, the science behind fishery management is based on the goal of sustainable utilization. They are effectively two different approaches that are influenced by opposing values and goals.

Fishing in State waters (0-3 miles out) historically has been managed by regulations set forth by the CDFW and advisory councils such as the Pacific Fisheries Management Council (PFMC). Fishing regulations commonly manage individual species and are often restricted by season, number, size and equipment (Participant 2, Academic/Government, Summer 2015; Participant 16, Fishing, Summer 2015; Participant 19, Fishing, Summer 2015). The scientific guidelines of the MLPA was grounded in a conservation approach focused on protecting the whole ecosystem as opposed to individual species (Participant 2, Summer 2015), which was problematic for the fishing community. The ecosystem approach focuses on large MPAs connected closely together to protect as many different types of habitats possible, to protect the movement of as many adult species as possible, and to ensure adequate larval dispersal to protect the entire lifecycle of different marine species. In order to do this, the science criteria required that each MPA cover the coastline with a minimum span of 3 to 6 miles and a preferred span of 6 to 12.5 miles. As explained in Chapter 5, to implement MPAs of this size and meet the spacing requirements of 31-62 miles of each other, significant closures had to be made in the nearshore habitat area of several popular recreational areas

along the coast. These closures specifically impacted recreational fishermen who are limited to the nearshore environment, such as shore fishermen, surf fishermen, kayak fishermen, spear divers. Some commercial fishing activities close to shore, such as with lobster, were also affected. Therefore, implementation of the MLPA had the most negative consequences on fishermen close to shore. The fishing stakeholder group particularly felt that the science that was applied in the MLPA was in direct conflict with their local needs and preferences. For the fishermen, the placement of large areas of reserves along the coastline took away the opportunity to fish, which was not the case with existing fishing regulations. To illustrate the difference, a fishing stakeholder explained the following: “Fishing regulations controlled the harvest but didn’t control our opportunity to fish” (Participant 16, Summer 2015). Moreover, as stated earlier in this chapter, existing fishing regulations appeared to be working in the eyes of the fishermen. This sentiment, along with a belief that the closures were unnecessary, led to perceptions among the fishing stakeholder group that the scientific criteria that was used to design MPAs in the MLPA was flawed and unsound. Table 38 below illustrates representative comments.

Table 38

Stakeholder Perceptions on the Role of Science

No. of comments, N=22	Theme	Representative comment
22	Science was not sound	“I believe they tried to present the best, but I think their analysis of the information was flawed. And, primarily the size and makeup of the MPAs. When it really came down to it, I know that I could have designed a way better process, a way better outcome. I just know the ocean. People don’t know it. I know where the sand; I’ve dived every end of this area. I ‘ve seen it personally. I know what it is like during the winter, the summer.” (Participant 14, Fishing, Summer 2015)

Fishermen also felt that the science behind the MLPA provided a blanket (or ‘all or nothing’) approach to conservation versus a more nuanced approach that is often used in fishery management. For example, one interviewee illustrated:

That’s the other huge flaw into this. There was no consideration for managed care, for managed fishing. It was all or none. That’s the other binary assumption. That fishing is bad. That no fishing. It’s either fishing or no fishing. There is no in between. (Participant 14, Fishing, Summer 2015)

Stakeholders also didn’t understand why existing fishing management regulations were dismissed prior to the passage of the MLPA. Fishing stakeholders indicated that the process would have been more acceptable if the MLPA Initiative and CDFW had evaluated existing regulations prior to implementing the MLPA (Participant 6, Government; Participant 10, Fishing; Summer 2015). For instance, one stakeholder explained:

They never assessed the status of existing fishing regulations. I don’t understand why they couldn’t give us an assessment or estimate of what the fishing regulations are. I am adamant about this. It wasn’t up for discussion to improve

the California Fish and Game regulations and it should have been (Participant 6, Government, Summer 2015).

Based on documents reviewed, the MLPA Initiative's position was that MPAs were being implemented to complement existing fishery management practices. There may have been less conflict perhaps if the MLPA Initiative demonstrated or communicated more clearly as to why there was a need for both fishing regulations and closures, which to the fishermen were excessive. An evaluation of existing fishing regulations before the passage of the MLPA may have also helped satisfy this information gap.

In conclusion, science played a key role in the MLPA planning process, which many described as the linchpin of the whole process. As described in Chapter 4, stakeholders were required to adhere to a specific set of parameters related to the size, spacing and habitat types set forth by the SAT in efforts to create a cohesive network. In fact, as described in Chapter 4, several interviewees described how the science criteria was dictated to them and actually restricted their role as a stakeholder.

The MPA literature emphasizes that the success of an MPA depends on stakeholder acceptance and effective management and enforcement (Saarman et al., 2013, p.46). The literature also states that these elements can be improved if stakeholders and managers understand the underlying ecological principals that support the MPA network approach to marine conservation (Saarman et al., 2013, p. 46). Most fishing stakeholders to this day do not accept the underlying ecological principles that support the application of MPA networks. They also do not agree with the science criteria and do not support the ecosystem-based management approach that guided the implementation of the MLPA. These perspectives essentially explain why the fishing stakeholder group did not support

the goals of the process nor the outcome. The fact that the fishing stakeholder group never accepted or agreed with the science criteria also explains why the negotiation process was so problematic. Stakeholders were forced to essentially make compromises, unfortunately at the expense of the science criteria. Hypothetically, had the fishing group accepted and supported the science behind the MLPA effort, the outcome may have been very different.

Given the fact that science had an influential role in this planning process, it appears somewhat ironic that the science guidelines were compromised. However, this outcome is not that unusual. Other studies conducted in protected area planning, both on land and in the marine environment, have shown that in some cases, compromise is what is required in order for a plan to be implemented (Drazkiewicz et al., 2015; Suman, Shivlani, & Milon, 1999). These studies will be discussed further in the Related Research section of the following Chapter.

Analysis and Discussion

The chapter is divided into five sections. The first section will provide a high level summary of the findings from each chapter (Research Questions 1-3 and the topics of Capacity Building and the Role of Science). The second section will compare these findings to previous research. The third section will focus on implications of this study. The fourth section will discuss the limitations of this study and the fifth section will focus on recommendations for future study.

As described in Chapter 4, the results of the interviews demonstrate that stakeholders across all groups perceived their role to be restricted due to the MLPA's emphasis on meeting scientific criteria. The stakeholder panel was limited to negotiating the geographic boundaries and locations of MPAs, which were informed not only by the science criteria but by other criteria set forth by the CDFW, CDPW and the MLPA Initiative itself. In this regard, stakeholders, especially fishing representatives, felt that the terms were dictated to them and not collaboratively agreed to, leading participants to feel that their participation wasn't meaningful.

As described in Chapter 5, the results of the surveys and interviews indicate that participants as a group responded favorably to many (15 out of 24) indicators to measure the legitimacy of a planning process. However, stakeholders across all groups expressed dissatisfaction with how decisions were made during the process. Decision-making therefore was a key concern for many stakeholders, which impacted their perceptions about the legitimacy of the process and the quality of the plan. The three factors that contributed most to fishing stakeholder group's perceptions about the legitimacy of the

process were decision-making, transparency, and level of influence. The fishing stakeholder group felt that they had no influence on the outcome, with many indicating that they thought the outcome was pre-determined. Fishing representatives also felt that the process was not open or transparent. The combination of these factors contributed to a sense of marginalization among fishermen, ultimately leading to negative perceptions about the legitimacy of the process and plan quality. In contrast, the environmental stakeholder group felt that they had influence over the outcome and that the process was open and transparent. However, they expressed dissatisfaction with the decision-making because they felt that the decisions were influenced by politics which diluted the quality of the plan. Decision-making was the only factor that influenced the environmental stakeholder group's perceptions on legitimacy (Figure 13).

Indicators	Fishing	Environmental	Government/Inst.
Openness & Transparency	Red	Green	Green
Decision-making	Red	Red	Gray
Influence	Red	Green	Green
Tools & Information	Green	Green	Green
Satisfaction	Red	Green	Green
Representation	Green	Red	Green
Level of Commitment	Green	Green	Green
Technical Understanding	Green	Green	Green
Reduced Pre-existing Conflicts	Red	Red	Red
Response to Concerns	Red	Red	Green
Attitude towards public agency BEFORE	Gray	Green	Green
Attitude towards public agency AFTER	Red	Green	Green

Figure 13. Process legitimacy: stakeholder perceptions (red = negative; green= positive; gray = mixed positive/negative)

As explained in Chapter 6, results from the survey and the interviews reveal that views were polarized among stakeholder groups about the quality of the final plan (Figure 14).

Indicators	Fishing	Environmental	Government/Inst.
Level of Agreement			
Plan represents broad interests			
Plan represents sound decision-making			
Plan reflects the science criteria for effective MPAs			
Rate the quality of plan			
Level of satisfaction with plan quality			
Confidence in plan			

Figure 14. Plan quality: stakeholder perceptions (red = negative; green = positive; gray = mixed positive and negative)

Fishing representatives were the least satisfied with the final plan, citing the lack of local knowledge, poor decision-making, disagreement with the science used to design MPAs in the MLPA, and the fact that they thought the number and size of fishing closures were overreaching. With the exception of fishing representatives, perceptions are generally good about the quality of the plan even though many participants felt that the scientific

integrity of the network was compromised in efforts to reduce socio-economic impacts.

While environmental and government stakeholder groups did not agree with elements of the final plan that did not meet the scientific criteria, they did express that the final plan was better than no plan. In this regard, stakeholders did see the planning process resulting in an improvement over existing conditions.

Results from the survey and interviews are more positive in regards to capacity building, as indicated in Chapter 7. The only exceptions were related to fishing representatives who did not increase their understanding about the issue and whose attitudes towards the public agency (e.g., CDFW) shifted from positive to negative as a result of the planning process (Figure 15).

Indicators	Fishing	Environmental	Government/Inst.
Did stakeholders become better informed on the environmental issue?			
Did the process build trust with the public agency?			
Did stakeholders gains skills to participate in future public processes?			
Did the process improve decision tools and analysis?			

Figure 15. Capacity-building: results across stakeholder groups (red=negative; green = positive)

The results from interview data and document review, which are also included in Chapter 7, demonstrate that science had a significant role in the MLPA planning process; however, a majority of participants felt that the final plan only partially met the scientific criteria.

A Comparison of Findings to Previous Research

This section will focus on how the findings of this study relate to previous research.

MLPA research. Two thesis dissertations have been published on two other MLPA planning process, one in the Central Coast region and the other in the North Central Coast region. Both studies were guided by different research questions and used different methods, however the findings were similar to the findings of this study. For example, the study on the Central Coast MLPA planning process by Jun (2013) found that there was strong opposition from the local fishing community. The Jun (2013) study also reported issues with lack of transparency and stakeholder influence. Results of the Jun (2013) study also showed that fishing stakeholders did not feel that they were engaged meaningfully. Fishing stakeholders also felt that the outcome was pre-determined and expressed dissatisfaction with the involvement of the private funding source in the MLPA planning process, which led to a high level of suspicion (Jun, 2013). The final plan or preferred alternative that was chosen by the BRTF in the Central Coast region was also based on a plan that was developed by a cross-interest group or what they called a “splinter group” (Jun, 2013, p 233). This plan formed the basis of the final plan and was mixed with a separate plan developed by CDFW. The BRTF also made further

modifications to the final plan in the final stages of the planning process, which became a source of dissatisfaction among all stakeholders (Jun, 2013).

A thesis study conducted on the North Central Coast MLPA planning process also found similar results (Malloy, 2008). Malloy (2008) found that the stakeholder group was polarized in their positions as fishermen wanted the least amount of protections and environmental groups wanted the most protections. Malloy (2008) also reported substantial stakeholder dissatisfaction with the BRTF decision-making on the final plan, which was also based on plan produced by a cross-interest group. While the final MPA network plan for the North Central Coast satisfied a higher number of stakeholders, the plan resulted in less restrictions on fishing access and failed to meet the science criteria of the MLPA (Malloy, 2008).

The findings of both of these research studies are very similar to the findings of this study, which also showed polarized perceptions among different stakeholder groups, mostly between fishing and environmental stakeholders. This research study found that there was a general lack of support among fishing stakeholders and there were also issues with transparency and stakeholder influence. The findings of this study similarly describe how the use of private funding for a public project did not resonate well with members of the fishing community, as it resulted in perceptions of mistrust and lack of transparency. Similar to the Central Coast and North Central Coast planning process, the South Coast planning process resulted in adopting a plan that was largely based on a proposal developed by a cross-interest group with modifications made by the BRTF. In addition, the modifications made by the BRTF were also a major source of dissatisfaction

across all stakeholder groups, which echoes the findings in the Central Coast and North Central Coast planning processes. Moreover, the plan adopted for the North Central Coast in the Malloy (2008) study resulted in less fishing restrictions and more compromises on the science criteria, which is similar to the plan that was adopted in the South Coast planning process. In contrast to this study, the Central Coast study found that the plan was successful in reflecting the cross-interests of the broader stakeholder group and meeting the scientific criteria (Jun, 2013).

Several MLPA related lesson-learned articles were published in the journal *Ocean & Coastal Management* after completion of the entire statewide MLPA planning effort. Gleason et al. (2013) highlighted issues with poaching and a lack of support among the recreational fishing community. The results of this study support those findings, as participants in this study indicated evidence of poaching in some of the newly created MPAs. In addition, the results of this study also indicate a lack of support among recreational fishermen.

MPA research. Studies on MPA planning efforts conducted in other geographic regions such as in Florida, Rhode Island, Massachusetts and Australia, also showed opposition among fishing stakeholder groups. Suman et al. (1999) studied the perceptions and attitudes of stakeholders in developing marine reserves in the Florida Keys National Marine Sanctuary planning process. The study found that environmental stakeholders and non-fishing recreation industries such as diving were the most supportive of no fishing zones and fishing stakeholders were the least supportive or most opposed (Suman et al. 1999). The study (Suman et al. 1999) also found that the fishing

stakeholders were more supportive of existing fishing regulations. In addition, Suman et al. (1999) found irony in that the fishermen were actually successful during negotiations in terms of reducing the level of protection of the MPAs, both in size of the marine reserves and the number of no-take MPAs; yet, the fishermen remained dissatisfied. The Suman et al. (1999) study also found that fishermen would have been more supportive if the MPAs banned all human activity instead of just fishing.

The results of this study are very similar to the results of Suman et al. (1999) study. For instance, it was the environmental and non-fishing groups (e.g., recreation, government) in this study who were most supportive of the MLPA planning process and outcome; and, it was the fishing stakeholders who were the least supportive of the process and outcome. Similarly, while the fishing stakeholders in the South Coast region were not successful in reducing the number of marine reserves, they were similarly successful in reducing the level of protections by decreasing the number of no-take marine reserves as well as the size of some of the MPAs. For example, the South Coast final MPA network plan exhibits a higher number of SMCAs in comparison to the number of SMRs. Yet, similar to the Suman et al. (1999) study, the fishing stakeholder group remained dissatisfied. In both studies, the outcome represented a compromise on the level of protections in an attempt to satisfy multiple stakeholder groups; yet, the level of satisfaction unfortunately did not change. In addition, both studies indicate that stakeholders from environmental groups expressed dissatisfaction in not reaching the level of protection that is required for the plan to be effective.

Nutters and Pinto da Silva (2012) studied perceptions among stakeholders during marine spatial planning efforts in Rhode Island and Massachusetts and found that fishing stakeholders were disappointed in that they didn't have the opportunity to participate in shared decision-making in plan development. In their study, Nutters and Pinto da Silva (2012) found that fishermen did not feel that they were “truly at the table” or able to influence the outcomes (p. 15-16). Some fishermen in their study indicated their participation was only used to legitimize the planning process (Nutters & Pinto da Silva, 2012, p.15). In addition, Nutters and Pinto da Silva (2012) study found that fishermen reported an overall lack of capacity to effectively participate given that they were not as organized as some of the other stakeholder groups (2012, p. 16). Nutters and Pinto da Silva (2012) concluded that the reasons why fishermen felt the way they did in those particular processes had more to do with a combination of miscommunication, unreasonable expectations, and lack of clarity in terms of what the stakeholders were specifically expected to do (p. 16). This Nutters and Pinto da Silva (2012) study particularly emphasizes the importance of communication in planning processes and demonstrates the types of problems that can occur when roles are not spelled out clearly.

This study did not find that there was a lack of effective communication by the MLPA. In fact, the MLPA probably over-communicated to make things clear in terms of what was expected of stakeholders. Based on interviews with participants in the South Coast planning process, roles were made clear and there were no doubts about what they were expected to do. The MLPA used a planning model that was supposed to be both stakeholder-driven and science based. In this regard, stakeholders did have a seat at the

negotiation table; unlike the planning process in the Nutters and Pinto da Silva (2012) study. However, this study demonstrates that having a seat at the negotiation table does not necessarily guarantee effective participation. This study echoes similar sentiments among fishing interests as in the Nutters and Pinto da Silva (2012) study in regards to having a lack of influence in the planning process. It is also hard to make a comparison of the levels of capacity that fishermen had in the South Coast MLPA planning process and that of in the Nutters and Pinto da Silva (2012); and, it is similarly difficult to make a determination as to what degree does stakeholder capacity correlates to levels of influence. Based on interviews in this study, fishing stakeholders did create the Fishermen's Information Network (FIN) to better mobilize fishing constituents during the South Coast MPA planning process. However, the FIN was established a bit late in the process, which may have impacted the fishermen's effectiveness in the process. The FIN nevertheless will help build capacity among fishermen for future public processes. While it wasn't a specific focus of this study, a closer examination of the relationship between stakeholder capacity and influence would be worth studying in future research.

Sutton and Tobin (2009) studied perceptions among recreational fishermen towards the 2004 rezoning effort of the Great Barrier Reef Marine Park in Australia, and found that recreational fishermen supported the idea of rezoning the marine park, but were displeased with the planning process and the plan that was implemented (p. 6). Sutton and Tobin (2009) reported that recreational fishermen were dissatisfied with the planning process due to perceptions that the outcome was predetermined; a perception they were treated unfairly; and the fact that fishermen were not sure how their input was

integrated into the planning effort (Sutton & Tobin, 2009, p. 6). These perceptions are similar to those perceptions among fishermen in this study, as many felt that the outcome was predetermined and that their local knowledge was not integrated into the outcome.

Public participation and planning research. In contrast to the MPA research, the public participation in environmental decision-making literature demonstrates more positive outcomes. For example, Beierle (2002) found that more intense processes result in better quality outcomes. Beierle refers to intense processes as those in which the stakeholders are involved in the actual decision-making (2002). In Beierle's 2002 meta-analysis of 239 public participation and environmental decision-making case studies, Beierle found that public participation in environmental decisions leads to higher quality decisions (2002). Beierle contributes this correlation to the fact that public participation often leads to the incorporation of new information in the form of local knowledge and local values, more joint gains, greater satisfaction, and conflict resolution (2002).

This study in some ways contradicts the findings the public participation literature. The South Coast MPA planning process, while it sought to engage stakeholders in the actual decision-making, the process did not necessarily lead to a higher quality outcome. This is evident by how the plan only partially meets the science criteria of the MLPA due to compromises that were made in efforts to reduce socio-economic impacts. This suggests that the intensity of participation is not necessarily a sufficient condition for a higher quality outcome. As described previously, this study as well as other studies within the MPA literature, demonstrate that intense planning processes actually result in a

compromised outcome in which the levels of protection are often reduced. However, this is not limited to the MPA literature, as similar planning efforts on land also result in outcomes that are less than ideal but better than the status quo. For example, in their study, Drazkiewicz et al. (2015) found that compromise was needed for implementation of a conservation plan for the Spreewald Riparian Land Project in Germany. Citing the Drazkiewicz et al. (2015) study, the project:

prioritized nature protection, and sought to reduce human impacts. Farmers, tourists, fishers and hunters all feared that they would face restrictions, prohibitions or exclusion. The project was plagued by conflict and controversy from 1993 – when discussions about the project started – with stakeholders describing it as a “guerrilla war”. Conflict arose due to a lack of transparency, and environmental groups were seen as pushing for the project arbitrarily without considering the interests of those affected (p. 8).

The project therefore resulted in making compromises on the conservation measures in order to appease the opposing stakeholder groups. Drazkiewicz et al. (2015) also found that despite the compromises, the project sponsors felt that the final plan still represented “a significant improvement on ‘business as usual’” (p 9). The same finding is true for the South Coast MLPA planning process, as compromises were needed in order to move the MPA plan forward; yet, while the proponents of the project felt that the outcome was less than ideal, it was nevertheless better than nothing (see Chapter 6).

These findings also raise an important point in the public participation literature that should be considered, given how there is much attention being given to meta-analysis of multiple case studies. While the results of these studies show promising results, not every environmental case study is the same, and it depends on the project being implemented. For instance, public participation in decisions surrounding the clean-up of

hazardous sites or the clean-up of water pollution in watersheds usually lead to more harmonious processes with better quality outcomes. For these types of cases, there is more common ground on the goal of the project. Case studies in the literature focused on projects that involve restricting human access often demonstrate an increased in conflict and opposition and reduced outcome quality. This type of context should be made more apparent in the public participation literature, as different conclusions can be drawn depending on the context and goals of the public participation program.

Research Implications

As noted in the previous section, more and more research on MPA planning efforts continues to demonstrate that such processes continue to result in opposition and among fishing stakeholder groups. The results of this study also supports that claim. Ongoing stakeholder support and buy-in, which is a key factor in MPA success, continues to be a challenge in MPA planning and implementation. This study confirms the need for additional research on how to better engage fishing stakeholders in planning efforts.

Research Limitations

This research study has limitations given that it is focused on stakeholder engagement only from the perspectives of three stakeholder groups: fishing, government, and environmental. A more comprehensive study would have included more participants in order to better identify and confirm trends among different stakeholder groups. However, participant recruitment was difficult since not all stakeholders in the South Coast MLPA planning process were willing to participate in this study. This was the case

for representatives from the two Native American tribes and representatives from the commercial fishing sector. In fact, some stakeholders specifically declined to participate in this study because they felt that their experience with the South Coast MLPA planning process was so negative. As such, the sample size is small (N=23) and the results are only based on perspectives of 23 stakeholders representing fishing, government, and environmental stakeholder groups. While it is not clear exactly how the inclusion of additional participants (e.g., Native American tribes) would have impacted the results of this study, the fact that some participants chose not to participate because they reported having a negative experience with the MLPA suggests that their responses may have also been negative. In addition, a more comprehensive study should include the perspectives of other key players of the MLPA, such as members of the BRTF, the SAT, and CDFW. Data from these groups may support or contradict perspectives from participants of the South Coast regional stakeholder group.

Another limitation of this study is that it is retrospective. The MLPA's South Coast regional planning process occurred over 8 years ago between 2008 and 2009. Participants in this study were asked to reflect on an experience that they participated many years ago, which may have affected how participants responded. For example, stakeholders who were initially opposed and unsupportive to the process may have had time to reflect and may have responded less negatively. Similarly, participants may have had difficulty in remembering details about their experience due the long gap in time. Some participants even stated that enough time had passed for them to gain a new

perspective, causing them to view their experience with the MLPA somewhat differently or less emotionally. For other stakeholders, their views remained the same.

A major limitation of the case-study research method is that it is not generalizable, since it is focused mostly on the in-depth particulars of a certain case (Stake, 1995). The findings of this case study cannot be generalized because they are unique to the context of the South Coast planning process of the MLPA Initiative. In addition, since there is no agreed upon model in the academic literature for evaluating legitimacy and fairness in public planning processes, this research is limited to the criteria selected for this study.

Despite these limitations, the in-depth nature of this single case study results in findings that may not have been uncovered through other research methods. The findings of this single case study can nevertheless be informative for planners involved in future MPA implementation efforts, especially given that the findings of this research study confirm the conclusions of similar research that has been conducted on other MPA planning efforts.

Recommendations for Future Research

As explained in the Introduction, the use of no-take marine reserves have been heavily studied, indicating that they often result in biological successes but social failures. The use of multi-use and limited-take MPAs have emerged as an alternative, especially when there are conflicts among different user groups. However, based on interviews in this study, the environmental community prefers the use of no-take MPAs over multi-use, limited-take MPAs because research results are well-known. Future research on multi-use, limited-take MPAs are well warranted because if outcomes determine that this type

of marine reserve can result in both biologically and socially successful outcomes, then their use could be a more reasonable alternative to the no-take marine reserves that are often prescribed. In addition, the use of multi-use, limited-take marine reserves could be more satisfying to different user groups. However, the results of this type of research could also demonstrate weaknesses, which could impair their use. Nonetheless, this type of research is worth considering as it could produce a reasonable alternative that can meet both biological and social goals.

While it will take decades to determine the biological outcomes of the new MPAs in the South Coast region, studies on their efficacy will be important, especially given that there is a perception that there are holes in the network design. Given how the MPAs that existed prior to the passage of the MLPA received criticism for not being managed effectively, it would equally be important to study the efficacy of the management approach associated with the new MPAs.

Moreover, the South Coast planning process as well as the other regional planning process provide a great laboratory to investigate the relationship between participation in MPA planning and capacity to participate in MPA management. For example, the MLPA Initiative created a public program called the MPA Collaborative Network in effort to engage local coastal communities in the management of the new MPAs. It would be interesting to examine which stakeholder groups are involved in the management of these MPAs (e.g., fishermen) as well as to determine the efficacy of these community-based management programs. This type of research could lead to support for such programs, especially when public agencies have limited resources to engage in

management and enforcement activities. This type of research can also verify a correlation between effective stakeholder participation and stakeholder capacity to participate in management of a protected area.

Some of the pre-existing conflicts in this study were focused on perceptions and philosophies on the use of MPAs versus the use of existing fishing regulations. Moreover, one of the criticisms among fishermen in this study is that existing fishing regulations were not evaluated and should have been prior to the MLPA. As such, future research should also focus on the efficacy of existing State fishing regulations. Results from this type of study could shed light on which regulations work best and which ones need to be reevaluated; therefore, confirming whether or not the claim that existing regulations are not working is with or without merit.

Conducting more research on the social or cultural value of recreational fishing would be a more innovative approach towards understanding the perspectives of recreational fishermen (Voyer et al., 2013). This type of research could unveil findings on how to better engage recreational fishing stakeholders in MPA planning, which is important given how their support is often critical to the success of an MPA.

The public participation and environmental decision-making literature often draws conclusions based on meta-analysis of hundreds of case studies. Most of the outcomes of these study show positive results. However, the literature often fails to distinguish which types of case studies lead to which type of outcomes. For instance, it is not necessarily true that public participation processes that involve access restrictions, such as in this study, lead to better outcomes in terms of stakeholder satisfaction, conflict

resolution or plan quality. More research is therefore warranted on examining the efficacy of public planning programs that are focused on restricting access. Finally, future research should also focus on how to reduce pre-existing conflicts prior to negotiations in a public planning process.

Conclusion

This research study examined the efficacy of stakeholder engagement in the MLPA South Coast regional planning process from the perspectives of fishing, government, and environmental stakeholders. The results of this study, as well as the related studies discussed, demonstrate that public participation alone is not sufficient for generating the type of stakeholder support that is needed for effective MPA implementation. The findings of this study also suggest that when stakeholders are actually involved in the decision-making, which is a higher form of public participation, it does not guarantee influence over a decision. This is probably one of the biggest misconceptions in the field of public participation.

The results of this study demonstrate that fishing stakeholders perceived the legitimacy of the process and the quality of the plan as negative. The key factors that affected fishing stakeholder perceptions were decision-making, influence and transparency. Meanwhile, the only factor that was negatively perceived by environmental stakeholders was decision-making. These findings do not necessarily mean that the entire process was flawed, but they do suggest that decision-making, influence, and transparency continue to be important factors that affect stakeholder support, especially among fishermen, in MPA planning efforts.

There are some encouraging findings associated with capacity-building. Many stakeholders in the three stakeholder groups indicated that they will continue to participate in future public processes, despite expressions of discontent with some of the aspects of the planning process. Stakeholder capacity was also increased because the

participation process provided access to good decision support tools. It is reasonable to assume that these tools will only enhance engagement in future processes.

As others studies have demonstrated, compromise is often necessary for plan implementation especially in projects that have a high degree of conflict. The South Coast MLPA planning process is another case in which compromise was required for implementation. Public participation in the South Coast MLPA planning process resulted in compromises that reduced the conservation standards of the final plan. However, in spite of these compromises, the process still failed to garner the support of the fishing stakeholder group, which raises questions about the efficacy of such planning processes. If both science and social outcomes are compromised because conflicts cannot be resolved, then the utility of this type of public participation might be limited.

The insights learned from this case study provide an opportunity for the public, resource agencies and MPA managers to apply lessons learned to future planning processes. With more MPA planning efforts expected to occur worldwide, it is important to continue to study how to better balance stakeholder engagement with science goals, especially when the stakes for effective natural resource protection and social equity are equally high. It is also equally important to improve stakeholder engagement, especially among fishing stakeholders, so that there is a better distribution of joint gains and losses among stakeholder groups. At the same time, environmental stakeholders should also be more reasonable with their expectations during MPA planning efforts, as more flexibility may be needed in order to generate broad support for MPAs. There are many lessons that can be drawn from this study. For one, special attention should be given to conflicts prior

to stakeholder engagement and MPA planners should seek to resolve those fundamental conflicts prior to negotiations. Secondly, MPA planners should be clearer on how decisions are made in the planning process, including those decisions made by other key entities in the planning process (e.g., BRTF, SAT). And finally, while planning processes should be flexible, process rules should also be consistently applied throughout the process.

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Appendix A: Indicators to Operationalize NRC Criteria

Table 1

Operationalization of Conceptual Framework, Process Legitimacy (adapted from Dietz & Stern, 2008)

NRC Criteria: Process Legitimacy	Indicators from the Literature	Data Source
Timing (Randolph & Bauer, 1999; Rowe & Frewer, 2000; Brody, 2003)	Was the process rushed? Was there sufficient time to participate, build trust, to learn to resolve disputes, to create solutions? Did participants believe time was adequate? Time resources - participants should have sufficient time to make decisions; did participants participate early enough?	Closed-ended Questionnaire
Process design (Rowe & Frewer, 2000)	Was there confusion about roles and responsibilities	Semi-Structured Interview
Process design (Rowe & Frewer, 2000; Margerum, 2002)	Was there confusion among participants about the goals and objectives of the planning process?	Closed-ended Questionnaire
Process design (Rowe & Frewer, 2000)	Was there confusion about the assigned tasks that were asked of the participants	Closed-ended Questionnaire
Process design (Innes & Booher, 1999; Margerum, 2002; Dietz & Stern, 2008)	Did participants agree to the ground rules of the process? Did participants decide on ground rules? Evidence of organized structure	Closed-ended Questionnaire
Process design (Innes & Booher, 1999; Randolph & Bauer, 1999; Dietz & Stern, 2008)	Did participants agree with the goals and objectives of the process?	Closed-ended Questionnaire
Process design (Innes & Booher, 1999; Mandrano, 2008)	Did participants agree with the tasks that were assigned of them	Closed-ended Questionnaire
Process design (Innes & Booher, 1999; Dietz & Stern, 2008)	Did participants agree on what the issue/problem was?; also addresses interest level/motivation in participation	Closed-ended Questionnaire

NRC Criteria: Process Legitimacy	Indicators from the Literature	Data Source
Mutual Understanding (Beierle & Cayford, 2002)	Evidence of mutual understanding; participants have an opportunity to understand each other/persistent problems of mutual understanding	Semi-Structured Interview
Technical Understanding (Beierle & Konisky, 1999)	Did participants understand the science, the regulations, and constraints of the planning process? How well understood the technical aspects of environmental problem?	Semi-structured Interview and Closed-ended Questionnaire
Level of Commitment (Randolph & Bauer, 1999; Rowe & Frewer, 2000; Beierle & Konisky, 1999; Beierle & Cayford, 2002; Koontz, 2003; Irvin & Stansbury, 2004)	How committed were participants? Participants' commitment to the issue. How committed was the Public Agency – in terms of financial resources dedicated to the project and staff? Adequate resources to support the process?	Closed-ended Questionnaire Semi-Structured interview
Level of Commitment (Randolph & Bauer, 1999)	How did participants perceive other participant's level of commitment?	Closed-ended Questionnaire
Active Participation (Innes & Booher, 1999; Beierle & Konisky, 1999)	Did participants feel heard? Was there two-way communication? Did the process keep participants at the table? Was there good two-way communication between stakeholders and govt decision-makers and scientists	Closed-ended Questionnaire
Stakeholder inputs into process (Randolph & Bauer, 1999; Beierle & Konisky, 1999; Beierle, 2002)	What type of information did stakeholder provide; Did participants participate in gathering and analyzing scientific and other info 3) formulating alternatives 4) assessing effects of the alternatives and 5) Evaluating and selecting an alternative? Did participants participate in-1) review and comment 2) engagement in values-oriented activities such as visioning and 3) in technical activities as well as values-oriented activities; Did participants contribute information that would not otherwise have been available? Did participants come up with innovative ideas?	Semi-structured interviews
Degree of conflicts (Beierle & Cayford, 2002; Beierle & Konisky, 2000)	Evidence of conflicts, and what were they, context of them, resolved; presence of persistent problems (negative); allowed participants to debate values related issues and arrive at a common view	Semi-structured Interview
Pre-existing conflicts (Beierle & Cayford, 2002; Beierle & Konisky, 1999; Koontz, 2003)	Were there pre-existing conflicts prior to deliberation?	Semi-structured Interview
Mistrust/Trust (Beierle & Cayford, 2002; Beierle & Konisky, 1999; Dietz & Stern 2008)	Did participants trust public agency? Did attitudes change after the process towards public agency/sponsor of project?	Closed-ended Questionnaire

NRC Criteria: Process Legitimacy	Indicators from the Literature	Data Source
Level of Concern (Koontz, 2003; Innes & Booher, 1999; Margerum, 2002)	The level of concern is associated with what the process will actually achieve; process is driven by a purpose and tasks that are real practical and shared by the group; Is the issue a common problem?	Closed-ended Questionnaire
Representation (Koontz, 2003; Margerum, 2002; Brody, 2003; Innes & Booher, 1999; Rowe & Frewer, 2000; Mandrano, 2008)	Was the participant panel well represented, broad and/or diverse - what was the context of the participant panel	Semi-Structured Interview
Decision-making (Mandarano, 2008; Innes & Booher, 1999; Koontz, 2003; Beierle & Konisky, 1999; Margerum, 2002)	Did participants agree with how decisions were made? Were decisions made by consensus? The degree that consensus was sought. Was consensus achieved?	Closed-ended Questionnaire; Semi-structured Interview
Influence on decision-making (Beierle & Koniky, 1999; Beierle & Cayford, 2002; Arnstein, 1969; Randolph & Bauer, 1999; Innes & Booher, 1999)	How much influence over decision-making participants perceived they had? Stakeholders' perceived influence on the policy outcome; Responsibility to affect and implement decisions Who controlled the agenda setting; the degree that the participants controlled the agenda/design of process; the extent to which stakeholders rather than agencies, controlled the agenda and activities	Closed-ended Questionnaire Semi-structured interview
Tools and information used in process (Rowe & Frewer, 2000; Neligan, 2003)	Participants should have access to the appropriate resources to enable them to successfully fulfill their brief; 1) information resources - summaries of the pertinent facts 2) human resources -access to scientists, witnesses, decision analysts;3) material resources - tools, whiteboards; What information is provided? Where is it made available? When?	Semi-structured Interview
Transparency (Dietz & Stern, 2008; Irvin & Stansbury, 2004)	Was the process transparent?	Closed-ended Questionnaire
Satisfaction (Margerum, 2002)	Level of satisfaction with process	Closed-ended Questionnaire

Table 2

Operationalization of Conceptual Framework, Quality of Final Plan (adapted from Dietz & Stern, 2008)

NRC Criteria: Quality of the Decision	Indicators from the Literature	Data Source
Agreement/Satisfaction (Margerum 2002)	Agreement with the final result; Support from stakeholders; Level of satisfaction with end result	Semi-Structured Interview and Closed-ended Questionnaire
Acceptance (Innes & Booher, 1999; Dietz & Stern, 2008)	Level of acceptance of final result; produces information that stakeholders understand and accept	Semi-Structured Interview
Quality of Plan (Innes & Booher, 1999)	How do participants perceive the quality of the plan to be? Does the plan incorporate high-quality information of many types and assures agreement on its meaning?	Semi-Structured Interview and Closed-ended Questionnaire
Final plan represents the broad interests of stakeholder group (Dietz & Stern, 2008)	How much of the plan is meaningful to participants? Does the output reflect a broad view of the issues important to participants?	Semi-Structured Interview
Final Plan meets science guidelines (Koontz, 2003)	How much of the plan is scientifically meaningful	Semi-structured Interview
Final plan represents sound analysis and decision-making? (Dietz & Stern, 2008)	How were decisions made? Was the basis for decision-making sound?	Semi-structured Interview Questionnaire
Confidence in Plan (Beierle and Cayford, 2002; Chess & Purcell 1999)	Do participants believe the plan will be effective in meeting the goals and objectives?	Semi-structured Interview

Appendix B: Participant List

- Participant 1 – Commercial Fishing Representative
- Participant 2 – Academia/Institutional Representative
- Participant 3 – Environmental Representative
- Participant 4 – Commercial Fishing Representative
- Participant 5 – Recreational Fishing Representative
- Participant 6 – Government Representative
- Participant 7 – Government Representative
- Participant 8 – Government Representative
- Participant 9 – Environmental Representative
- Participant 10 – Recreational Fishing Representative
- Participant 11 – Environmental Representative
- Participant 12 – Government Representative
- Participant 13 – Government Representative
- Participant 14 – Recreational Fishing Representative
- Participant 15 – Recreational Fishing Representative
- Participant 16 – Recreational Fishing Representative
- Participant 17 – Government Representative
- Participant 18 – Government Representative
- Participant 19 – Recreational Fishing Representative
- Participant 20 – Commercial Fishing Representative
- Participant 21 – Environmental Representative
- Participant 22 – Recreational Non-fishing/Environmental Representative
- Participant 23 – Environmental Representative

Appendix C: Interview Questions

Questions:

1. What is your role in the organization/agency/institution that you represent?
2. What did you hope to gain for yourself and your organization by participating?
3. How did you hear about the South Coast MLPA Planning Initiative? Were you notified? If so, by whom? When?
- 4a. What was your expectation of your role and responsibility in the process?
- 4b. Was the role of participants made clear at the beginning of the process?
- 5a. Do you feel that the stakeholder panel was well balanced? Was there good representation of the people who should be involved?
- 5b. Do you feel that the process was inclusive? Diverse (representing a diversity of interests?)
- 5c. Were there any overrepresented groups? Were there any underrepresented groups?
6. Have you collaborated in the past with any of these stakeholders or Agency/sponsor of project? If so, in what capacity?
7. How were decisions made in the planning process? Were they made by consensus or majority-vote or other?
8. How did you share information with the wider constituency that you represent? How were their concerns brought to the stakeholder discussion?
9. Did you feel that there was mutual understanding among participants? By Agency/Sponsors?
- 10a. What type of conflicts existed during the process? Were conflicts related to the technical/scientific aspects of the issue? Or the value-related aspects of the issue?
- 10b. How were they resolved?
- 10c. Were there pre-existing conflicts?

- 10d. Were disputes settled before deliberation? How?
- 11a. What type of information and tools did you have access to, to assist you in decision making?
- 11b. Was it adequate?
- 11c. Did you understand the technical aspects of the issue?
12. What type of information or input did you share in the planning process? (E.g., technical, non-technical, value based, scientific, economic, expert, etc.)
- 13a. Did you have concerns during the South Coast MLPA planning process?
- 13b. How did you raise these concerns? Was there a formal process?
- 13c. How did the agency/sponsor of the MLPA Initiative respond to those concerns? Adequately?
- 14a. Did you agree with the final outcome? Please Explain.
- 14b. Even if you did NOT agree with the final outcome, do you believe that the final plan conforms to sound analysis and decision –making?
15. How would you rate the quality of the final plan? (Letter grade A-F)
16. To what extent do you believe the final plan represents the broad interests of the stakeholder participants?
17. To what extent do you believe the final plan reflects the scientific standards and guidelines used in the planning process?
18. What were the impacts of the final planning decision to your constituency?
19. Are there any aspects of the process that could have been done differently?
20. Would you participate in future collaborative planning processes?
21. How effective do you think the final plan will be in achieving its goals?

Appendix D. Questionnaire

Instructions: Please rate the following statements by circling the appropriate response.

1. Time allocated to the South Coast regional planning process was sufficient.

- 1- Strongly Disagree
- 2- Disagree
- 3- Neither Agree or Disagree
- 4- Agree
- 5- Strongly agree

2. The ground rules were made clear at the beginning of the process.

- 1- Strongly Disagree
- 2- Disagree
- 3- Neither Agree or Disagree
- 4- Agree
- 5- Strongly agree

3. Did you agree with the ground rules?

- 1- Not at all
- 2- Somewhat disagreed
- 3- Neutral
- 4- Somewhat agreed
- 5- Very much agreed

4. The goals and objectives of the planning process were clear.

- 1- Strongly Disagree
- 2- Disagree
- 3- Neither Agree or Disagree
- 4- Agree
- 5- Strongly agree

5. Did you agree with the goals and objectives of the planning process?

- 1- Not at all
- 2- Somewhat disagreed
- 3- Neutral
- 4- Somewhat agreed
- 5- Very much agreed

6. Did you understand the tasks that were asked of you in the planning process?

- 1 – Not at all
- 2 – Somewhat did not understand
- 3 - Neutral
- 4 – Somewhat did understand
- 5 – Perfectly understood

7. Did you agree with the tasks that were asked of you as a participant in the planning process?

- 1- Not at all
- 2- Somewhat disagreed
- 3- Neutral
- 4- Somewhat agreed
- 5- Very much agreed

8. How concerned were you about the issue/problem that the planning process was looking to address?

- 1– Not at all concerned
- 2 – Slightly concerned
- 3 – Somewhat concerned
- 4 – Moderately concerned
- 5 – Extremely concerned

9. Did you agree with how decisions were made during the process?

- 1- Not at all
- 2- Somewhat disagree
- 3- Neutral
- 4- Somewhat agree
- 5- Very much agree

10. Describe your level of commitment to the planning process

- 1 – Not committed
- 2 – Somewhat committed
- 3 – Neutral
- 4 – Committed
- 5 – Very committed

11. How would you rate the commitment of others in the process?

- 1 – Not committed
- 2 – Somewhat committed
- 3 – Neutral
- 4 – Committed
- 5 – Very committed

12. How well did you understand the technical aspects of the issue?

- 1 -- Not at all
- 2 – Somewhat not
- 3 – Neutral
- 4 – Somewhat
- 5 – Completely understood

13. Participants were listened to and engaged in the process.

- 1 – Very untrue
- 2 – Untrue
- 3 – Neutral
- 4 – Somewhat true
- 5 – Completely true

14. Participants had the opportunity to change or influence the agenda.

- 1– Strongly Disagree
- 2 – Disagree
- 3 – Neither Agree or Disagree
- 4 – Agree
- 5 – Strongly agree

15. How would you rate your attitude towards the Public Agency/Sponsors of the planning process BEFORE your participation in the process?

- 1 – Very negative
- 2 – Somewhat negative
- 3 – Neutral
- 4 – Somewhat positive
- 5 – Very positive

16. How would you rate your attitude towards the Public Agency/Sponsors of the planning process AFTER your participation in the process?

- 1 – Very negative
- 2 – Somewhat negative
- 3 – Neutral
- 4 – Somewhat positive
- 5 – Very positive

17. How collaborative was the planning process?

- 1 – not at all collaborative
- 2 – slightly collaborative
- 3 – somewhat collaborative
- 4 – very collaborative
- 5 – extremely collaborative

18. The process was open and transparent.

- 1– Strongly Disagree
- 2– Disagree
- 3– Neither Agree or Disagree
- 4– Agree
- 5– Strongly agree

19. How satisfied were you with the final plan that was developed?

- 1 – very dissatisfied
- 2 – dissatisfied
- 3 – unsure
- 4 – satisfied
- 5 – very satisfied

20. How satisfied were you with the process?

- 1 – very dissatisfied
- 2 – dissatisfied
- 3 – unsure
- 4 – satisfied
- 5 – very satisfied

21. Do you feel that your participation had influence on the final outcome/decision?

- 1 -- not at all influential
- 2 – slightly influential
- 3 – somewhat influential
- 4 – very influential
- 5 – extremely influential

22. Do you agree with the final outcome?

- 1- not at all
- 2- somewhat not
- 3- neutral
- 4- somewhat agreed
- 5- very much agreed

23. The final plan/end result conforms to sound analysis and decision-making.

- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly Agree

24. On a scale of 1-5, with one being low quality and 5 being the highest quality, how would you rate the quality of the final agreement/plan?

- 1 – Very low quality
- 2 – Slightly low quality
- 3 – Somewhat good quality
- 4 – Very high quality
- 5 – Extremely high quality

Appendix E: Creswell's Six Step to Qualitative Data Analysis

(Adapted from Creswell, 2009, p 185-189)

Step 1: Organize and prepare the data for analysis (p. 185). This step includes transcribing interview recordings from the audio-recordings to a word document, scanning material, typing of field notes and sorting the data into different groups or categories of data depending on the sources of information.

Step 2: Read through the data (p. 185). This step includes reading the data and looking for general ideas about the information that the participants provided. The goal of this step is to get a general sense of the information and the ideas that are presented by participants. This also includes looking at tone, depth, and credibility of the information. One might include writing notes in the margins of the transcribed interview to capture initial thoughts about the data.

Step 3: Begin detailed analysis with the coding process (p. 186). Coding, according to Creswell (2009, p. 186) is the process of organizing the data and information into groups or segments of text before adding meaning to the information. This process involves organizing the data into segments by taking the text and segmenting sentences into categories. Then, one applies labels to those categories by using terms based on the actual language from the participants.

Step 4: Use the coding process to generate a description of the setting or people as well as categories for analysis (p. 186). According to Creswell (2009, p. 189), description involves a detailed rendering of information about people, places or events in a setting. Researchers can then generate codes for those descriptions. The researcher at

this step would then use the coding to generate a small number of themes or categories, perhaps five to seven categories for a research study. These themes would appear as major findings in a qualitative study and are often used to create headings in the findings sections of studies. Creswell notes that this type of data analysis is useful for case study research. These themes need to be then supported by diverse quotations and specific evidence. Themes can then be also further analyzed by either interconnecting them, shaping them into general descriptions, or even to form a theoretical model as in grounded theory (Creswell, 2009, p.189).

Step 5: Advance how the description of the themes will be represented in qualitative narrative (p. 189). One common way to do this is by using a narrative statement to illustrate the findings of the analysis. According to Creswell, this might be a discussion that focuses on the chronology of events, or of several themes and different perspectives of participants, or a discussion about how the themes are interconnected. Case studies might illustrate descriptive information about the participants by using a table.

Step 6: A final step in data analysis involves making an interpretation or meaning of the data (p. 189). This could be a summary of the lessons learned or a comparison of the findings with information from the academic literature or theories. This allows the research to use the findings to confirm previous information or diverge from it. This step is also an opportunity to provide new questions that need to be asked, including questions not foreseen by the researcher at the start of the project.

It is very common in qualitative research for codes to emerge during the data analysis (Creswell, 2009). However, predetermined codes can also be used in cases where theories are being examined. If predetermined codes will be used, it is recommended that the researcher create a qualitative codebook or a table of predetermined codes when coding the data (Creswell, 2009). An example of a codebook might be a table that has the titles of the codes in one column, a definition of codes in another column, and then specific examples or line numbers from where the code was discovered in the interview transcript (Creswell, 2009). The codebook can change during the course of study (Creswell, 2009).

Appendix F: Background on the South Coast MLPA Planning Process

The stakeholders of the SCRSG started meetings in October of 2008 and completed their work in October of 2009. The information that follows provides an overview of how the South Coast planning process unfolded with the majority of the information coming from a report produced by Kearns & West titled *Marine Life Protection Act Initiative: South Coast Regional Stakeholder Group Online Survey and Lessons Learned, Report to the Resource Legacy Fund Foundation* (Harty, 2010).

According to the Kearns & West report, the MLPA I-Team organized the South Coast Regional Stakeholder Group into three working groups that they called “Gem Groups – Topaz, Opal and Lapis” (Harty, 2010, p. 19-20). The Topaz group represented multiple interests or cross-interests, whereas the Lapis group represented more of the conservation interests and the Opal group represented more of the fishing and resource extraction interests. The SCRSG planning process included three rounds of deliberations in which each Gem Group was asked to draft proposals for a network of MPAs for the region, with the SAT reviewing each proposal and providing feedback at the end of each round. In round one, each Gem Group produced two draft proposals for review by the SAT and the BRTF. There were also three external proposals submitted during the first round from the commercial fishing interests, the recreational fishing interests and also the environmental NGO interests. The goal of round two was to have each Gem group make a single proposal based on revisions requested by the SAT and BRTF. However, the Lapis Gem Group could not conform to these requirements and ended up submitting two

draft proposals upon the completion of the second round. During the third round, the MLPA I-Team reassigned the membership of the Gem groups into three new working groups that were based on both the preferences cited by the stakeholders themselves and the discretion of the MLPA I-Team. The three new working groups were called “platforms” and consisted of the Topaz Platform (representing the cross-interests of the larger stakeholder group), External A Platform (representing fishing interests only) and Lapiz I Platform (representing non-fishing and conservation-only interests). Each platform group submitted a new draft based upon the work of the earlier drafts. The BRTF provided additional guidance during the third round to help all three groups meet the SAT science criteria and create more balanced proposals. Each of the three platform groups submitted a single alternative MPA proposal for evaluation by the BRTF in September 2009. Figure 1 below illustrates the three rounds of proposal development during the South Coast Regional Stakeholder Group.

Figure: 1. SCSRG Planning Process⁹. Note. Adapted from “Marine Life Protection Act Initiative: South Coast Regional Group Online Survey and Lessons Learned, A Report to the Resources Legacy Fund Foundation, September 19, 2010,” by J. Michael Harty, Kearns & West, Inc., 2010, p. 21. Reprinted with permission.

⁹ The year in this Figure is incorrect. The year should be 2009.

The BRTF was tasked with developing an Integrated Preferred Alternative (IPA) based on one of the maps developed by the stakeholder group. The IPA would be recommended to the California Fish and Wildlife Commission for consideration for review under the California Environmental Quality Act (CEQA) and then finally for adoption. To create the IPA, the BRTF held their own deliberations and sought to combine elements from all three revised proposals produced by the working platform groups at the end of the third round of the process. The BRTF also had decision-making authority on the final selection of the locations of the MPAs for the region. The BRTF sought convergence among the different proposals, but experienced difficulty in the creation of a single preferred alternative and at first recommended all three MPA network proposals (with revisions) to the Commission. However, the BRTF was asked to present a single preferred alternative to the Commission. After a series of additional deliberations and decision-making, the BRTF unanimously developed and adopted a single preferred alternative that they forwarded to the Commission for consideration. This IPA was largely based on the map proposal created by the cross-interest group called Topaz, with elements imposed from the two other draft proposals. The rationale behind this was to address areas of differences among the different stakeholder groups by:

providing a balance between meeting science guidelines and minimizing socioeconomic impacts” (Harty, 2010, p.26). Ultimately, the BRTF decided on and IPA that did not meet the science criteria of the MLPA. The BRTF made

choices on locations of MPAs that did not meet the science criteria in order to reduce the socio-economic impacts (Harty, 2010, p. 26).

The Kearns & West Report also cited the following from the BRTF IPA Memorandum to illustrate the BRTF's position:

While each of the proposals has strengths and reflects intensive effort, none of the SCRSG proposals achieved the level of cross-interests support and balance of considerations to be adopted as the preferred alternative by the BRTF. The BRTF carefully considered where to make explicit choices based on extensive study and deliberation; many hours of input from the public; and helpful discussions with members of the SAT and SCRSG on the underlying science and specific local economics at key geographies...

...The single, preferred alternative is intended to balance multiple considerations and bridge some of the remaining areas of divergence among the SCRSG proposals. While the IPA does not meet all the science guidelines, the BRTF carefully determined where the few exceptions to science guidelines should be made in an effort to garner further cross-interest support and reduce potential socioeconomic impacts. The BRTF unanimously approved forwarding the IPA to the Commission as the preferred alternative for the MLPA South Coast Study Region. (BRTF IPA Memorandum, cited in Harty, 2010, p. 26)

Appendix G: Role of the Stakeholder – Data & Figures

Figure 16. The motivations of stakeholders (N=23) in participating in the South Coast MLPA planning process.

Figure 17. Categories of motivation by stakeholder group (N=23)

Appendix H: Process Legitimacy- Data & Figures

Survey Responses

Figure 18. Q. Time allocated was sufficient

Figure 19. Q. Time allocated was sufficient (responses by stakeholder group)

Figure 20. Q. Ground rules were made clear at the beginning of the process

Figure 21. Q. Ground rules were made clear at the beginning of the process (responses by stakeholder group)

Figure 22. Q. Did you agree with the ground rules?

Figure 23. Q. Did you agree with the ground rules? (responses by stakeholder group)

Figure 24. Q. Goals and objectives were made clear.

Figure 25. Q. Goals and objects were made clear (responses by stakeholder group)

Figure 26. Q. Did you agree with the goals and objectives?

Figure 27. Q. Did you agree with the goals and objectives? (responses by stakeholder group)

Figure 28. Q. Did you understand the tasks that were asked of you?

Figure 29. Q. Did you understand the tasks that were asked of you? (responses by stakeholder group)

Figure 30. Q. Did you agree with the tasks that were asked of you?

Figure 31. Q. Did you agree with the tasks that were asked of you? (responses by stakeholder group)

Figure 32. Did you agree with how decisions were made during the process?

Figure 33. Did you agree with how decisions were made during the process? (responses by stakeholder group)

Figure 34. Q. The process was open and transparent.

Figure 35. Q. The process was open and transparent (responses by stakeholder group)

Figure 36. How concerned were you about the issue/problem?

Figure 37. Q. How concerned were you about the issue/problem? (response by stakeholder group)

Figure 38. Q. Describe your level of commitment to the planning process.

Figure 39. Q. Describe your level of commitment to the planning process (responses by stakeholder group)

Figure 40. Q. Describe the commitment level of others.

Figure 41. Q. Describe the commitment level of others (responses by stakeholder group)

Figure 42. Q. How well did you understand the technical aspects of the issue?

Figure 43. How well did you understand the technical aspects of the issue? (responses by stakeholder group)

Figure 44. Participants were listened to and engaged in the planning process.

Figure 45. Participants were listened to and engaged in the planning process (responses by stakeholder group)

Figure 46. Participants had the opportunity to change or influence the agenda.

Figure 47. Participants had the opportunity to change or influence the agenda (responses by stakeholder group)

Figure 48. How satisfied were you with the planning process?

Figure 49. How satisfied were with the planning process? (responses by stakeholder group)

Figure 50. Q. Describe your attitude towards the public agency BEFORE the planning process

Figure 51. Describe your attitude towards the public agency BEFORE the planning process (responses by stakeholder group)

Figure 52. Q. Rate your attitude towards the public agency AFTER the planning process.

Figure 53. Rate your attitude toward the public agency AFTER the planning process (responses by stakeholder group)

Qualitative Interview Data Results

Figure 54. Q. Do you believe the stakeholder panel was well balanced?

Figure 55. Q. Do you believe the stakeholder panel was well balanced? (response by stakeholder group)

Figure 56. Q. Do you believe that the planning process was inclusive?

Figure 57. Do you believe the planning process was inclusive? (responses by stakeholder)

Figure 58. Q. Were there any group overrepresented?

Figure 59. Q. Were there any groups overrepresented? (responses by stakeholder group)

Figure 60. Q. Were there any groups underrepresented?

Figure 61. Were there any groups underrepresented? (responses by stakeholder group)

Figure 62. Q. How were decisions made by stakeholders?

Figure 63. Q. How were decisions made by stakeholders? (responses by stakeholder group)

Figure 64. Q. What type of information and tools did you have access to?

Figure 65. Perceptions about the tools and information provided (by type of information)

Figure 66. Perceptions about the GIS Software Tool, Marine Map (by stakeholder group)

Figure 67. Perceptions about the science guidelines provided by the SAT (by stakeholder group)

Figure 68. Q. Was the information and tools provided adequate?

Figure 69. Q. Was the information and tools provided adequate? (responses by stakeholder group)

Figure 70. Q. Did you understand the technical aspects of the issue?

Figure 71. Q. Did you understand the technical aspects of the issue? (responses by stakeholder group)

Figure 72. Q. Did you have an opportunity to raise concerns?

Figure 73. Q. Did the MLPA staff respond to your concerns adequately?

Figure 74. Q. Did the MLPA staff respond to your concerns adequately? (responses by stakeholder group)

Figure 75. Q. What type of input did you provide in the planning process?

Figure 76. Q. What type of input did you provide in the planning process? (responses by stakeholder group)

Figure 77. Q. Have you worked with any of the members of the SCSRG in the past? (level of familiarity)

Figure 78. Q. Have you worked with members of the SCSRG in the past? (responses by stakeholder group)

Figure 79. Q. Was there mutual understanding between stakeholders?

Figure 80. Q. Was there mutual understanding between stakeholders? (responses by stakeholder group)

Figure 81. Q. What type of conflicts were present?

Figure 82. Q. Were conflicts resolved?

Figure 83. Q. Were conflicts resolved? (responses by stakeholder group)

Figure 84. Q. Were there pre-existing conflicts?

Appendix I: Quality of the Plan – Data & Figures

Survey Results

Figure 85. Q. Did you agree with the final plan?

Figure 86. Q. Did you agree with the final plan? (responses by stakeholder group)

Figure 87. Q. The final plan conforms to sound analysis and decision-making.

Figure 88. Q. The final plan conforms to sound analysis and decision-making (responses by stakeholder group)

Figure 89. Q. Rate the quality of the final plan

Figure 90. Q. Rate the quality of the final plan (responses by stakeholder group)

Figure 91. Q. How satisfied were you with the final plan?

Figure 92. Q. How satisfied were you with the final plan? (responses by stakeholder group)

Interview Results – Data & Figures

Figure 93. Q. Does the final plan represent the broad interests of the stakeholder group?

Figure 94. Q. Does the final plan represent the broad interests of the stakeholder group? (responses by stakeholder group)

Figure 95. Q. Did you agree with the final plan?

Figure 96. Q. Did you agree with the final plan? (responses by stakeholder group)

Figure 97. Q. Does the final plan conform to sound analysis and decision-making?

Figure 98. Q. Does the final plan conform to sound analysis and decision-making? (responses by stakeholder group)

Figure 99. Q. What letter grade best represents the quality of the final plan?

Figure 100. Q. What letter grade best represents the quality of the final plan? (responses by stakeholder group)

Figure 101. Q. Will the final plan be effective?

Figure 102. Q. Will the final plan be effective? (Responses by stakeholder group)

Appendix J: Capacity Building and the Role of Science – Data & Figures

Capacity Building

Figure 103. Q. Would you participate in future planning processes?

Figure 104. Would you participate in future collaborative planning processes? (responses by stakeholder group)

Role of Science

Figure 105. Q. Does the final plan meet the science criteria of the MLPA?

Figure 106. Q. Does the final plan represent the science criteria of the MLPA? (responses by stakeholder group)