

ABSTRACT

DIAZ, JOHN MICHAEL. The Evaluation of Military-Based Partnerships for Landscape-Scale Conservation: A Case Study of the North Carolina Sentinel Landscapes Partnership. (Under the direction of Dr. Robert Bardon and Dr. Dennis Hazel.)

Unplanned development and loss of compatible land uses negatively impact working lands, natural resource conservation, and military readiness; compromising the foundations of three major engines of North Carolina's economy. The Office of the Secretary of Defense (OSD) created the Readiness and Environmental Protection Initiative (REPI) that was designed to complement traditional efforts and provide a new approach by allowing the military to partner with other federal agencies, conservation organizations, and other national non-governmental organizations to achieve land-use compatibility. In order to understand what is needed by the unique coalition of partners to achieve large-scale mutual gain through collaboration, a qualitative case study approach was used to describe what lessons learned and best management practices may be transferred from the North Carolina Sentinel Landscapes Partnership Pilot Project for the institutionalization of regional cooperation on land-use planning. This case study included partnership interviews, strategic planning observation and key stakeholder surveys to understand how the variables that shape interagency collaborations impact the partnership and identify critical success factors for developing effective cross sector partnerships with the military.

The Evaluation of Military-Based Partnerships for Landscape-Scale Conservation: A Case
Study of the North Carolina Sentinel Landscapes Partnership

by
John Michael Diaz

A dissertation submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Forestry and Environmental Resources

Raleigh, NC

2016

APPROVED BY:

Dr. K.S.U. Jayaratne

Dr. Jacklyn Bruce

Dr. Robert Bardon
Co-Chair of Advisory Committee

Dr. Dennis Hazel
Co-Chair of Advisory Committee

DEDICATION

This dissertation is dedicated to my son, Dylan Michael Diaz. Becoming a father has been one of the greatest events in my life. There is nothing better than getting home from a long day of work to hear “I love you daddy,” which makes it all worth it. I can’t wait till the day that I can share with you how much your love helped me get me through this.

BIOGRAPHY

John Diaz has been a student at North Carolina State University since August of 2002 where he began his journey as a “Wolfpack” student. He got his first Bachelor of Science in 2006 in Science, Technology and Society. He entered the workforce during a recession where he experienced four company-wide layoffs, which sparked him to turn back to NC State to continue his education. He came back to get another Bachelor of Science in Environmental Technology and Management and a Master’s of Science in Natural Resources. John has been very lucky to have some incredible opportunities to work on some groundbreaking projects including the Southern Fire Exchange, The Fire Chasers Project and now with the North Carolina Sentinel Landscapes Partnership that is the focus of his dissertation. His career goal is to stay in academia and become a professor where he hopes to propagate and promote effective means for large collaborative partnerships to come together in order to provide a sustainable future for generations to come.

ACKNOWLEDGEMENTS

There are so many people that I would like to thank that have supported me along the long path of getting my PhD. I would like to first thank my wife who has been very supportive throughout the whole process of going back to school and has put up with me as I have stressed out to get everything done. She has been my biggest cheerleader and really helped me get through some tough times as I worked to get this all done.

Mom and dad, thank you for everything you do. Now being a father I understand how much you all sacrificed to give me all that you did and to provide me with the education that you did to get me to where I am at now. I hope you know that I appreciate it all.

Barb and Dave, thank you for all of your support throughout this process. I appreciate all that you all have done to help us through these tough times both financially and emotionally. I owe you all big time and the next Angus Barn visit is on me.

Bob Bardon, thank you for being an amazing advisor and mentor. You have provided me with such amazing opportunities to work on projects with some great people. I also really appreciate your support and kind words as I plugged through this whole process. I always felt like you had my back and that means a lot to me.

Dennis Hazel, thanks for always being there for me with a kind word to pick-up my spirits. I always knew that I could count on you for help and a kind word to help me through my day. I am really glad that I decided to make you my co-chair.

Dr. K.S.U Jayaratne, thank you for all of your support through my first program evaluation of the magnitude required for Sentinel Landscapes. You were pivotal to getting

me through that whole process and I really appreciated it. I always knew that if I had any question, no matter how ridiculous it was, that you would be there to help me.

Jaclyn Bruce, thank you so much for being my crutch and shoulder to lean on during the whole process as well. I don't know what I would have done without your guidance with my methods. It was really comforting to know that when I started to feel like I was going to have a panic attack because I thought I had messed up the methods that you would be there to guide me through.

TABLE OF CONTENTS

CHAPTER 1	1
INTRODUCTION	1
Conceptual Framework	2
Land-Use Compatibility.....	3
Landscape-scale Conservation	4
Market Based Conservation	5
Social Capital	7
Cross-Sector Social Partnerships	8
Partnership Life Cycle	9
Contextual Framework.....	10
The Land-Use Compatibility Issues of Eastern North Carolina	10
Threats of Private Land Conversion to Incompatible Land-Uses	13
Economic Drivers in Rural Landscapes	14
Military Directives for Landscape-scale Partnerships.....	16
Need for the Study	19
Purpose of the Study	19
Definitions	20
Assumptions	21
Limitations	21
Chapter Summary.....	22
CHAPTER 2	23
THEORETICAL FRAMEWORK AND REVIEW OF SALIENT LITERATURE	23
Theoretical Framework	23
The Variables that Shape Interagency Collaboration Framework	23
Literature Review	30
Critical Success Factors in Landscape- and Large-scale Cross-Sector Partnerships	30
Market-Based Approaches for Land-Use Compatibility	36
Evaluating Participation and Social Capital in Landscape-scale Management	39
Formal Evaluations of Military-Based Partnership for Land-Use Compatibility	40

Chapter Summary	45
CHAPTER 3	47
METHODOLOGY	47
Guiding Research Questions	47
Epistemological Position	48
Bias Statement & Researcher Contextual Connection	48
Research Design	49
Population	49
Participant Selection	50
Data Collection	50
Data Analysis	52
Trustworthiness	54
Credibility	54
Transferability	57
Dependability	58
Confirmability	60
Chapter Summary	61
CHAPTER 4	64
FINDINGS	64
Introduction to the Partnership, Partners and Key Stakeholders	64
Research Question One	67
<i>Broad Recognition of Issues and Needs</i>	67
<i>Public Perception of Military in Eastern North Carolina</i>	70
<i>The Influence of the Market-Based Conservation Initiative</i>	74
Research Question Two	77
<i>The Importance of Partnership Building Processes</i>	77
<i>Consensus Building Process to Develop a Shared Vision and Mutual Gain Solutions</i>	79
<i>Solving Problems and Resolving Conflict through Formal and Informal Processes</i>	83
<i>Using a Steering Committee to Promote a Stakeholder Driven Process</i>	86
<i>Adaptive Management: Planning, Evaluation and Monitoring</i>	89
<i>Recurring Engagement for the Development of Working Relationships and Trust</i>	92
<i>Strategic Communication to Increase Social Capital</i>	97

<i>Using Geographic Information (GIS) Maps for the Communication of Military Priorities</i>	99
Research Question Three.....	101
<i>Leveraging Pre-Existing Relationships</i>	101
<i>The Work of Program Champions.....</i>	105
<i>The Role of Land Grant Universities and Extension.....</i>	107
<i>Managing for Change and Turnover.....</i>	111
Research Question Four.....	114
<i>Navy Policy and Process Requirements</i>	115
Research Question Five.....	117
<i>Match Funding to Develop Multiple Benefit Projects</i>	117
<i>Funding Structures for the Dissemination of Program Funds</i>	119
Research Question Six.....	122
<i>The Military's Misunderstanding of a Pilot and the Associated Risk</i>	122
<i>Navy Perceptions of Eastern North Carolina.....</i>	124
<i>Insufficient Bidding Iterations for Market Identification</i>	126
<i>Funding Authority to Establish Landowner Agreements</i>	129
<i>Intermediary Organizations to Develop Landowner Trust and Program Credibility.....</i>	132
CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS	135
<i>Summary of Key Findings and Conclusions for each Research Question</i>	135
Research Question One.....	135
Research Question Two	138
Research Question Three.....	144
Research Question Four.....	147
Research Question Five.....	149
Research Question Six.....	151
Recommendations	155
<i>Future Research Suggestions.....</i>	155
<i>Suggestions for Practice</i>	156
REFERENCES	159
APPENDICES	171
APPENDIX A: INTERVIEW GUIDE	172
APPENDIX B: PARTICIPANT SURVEY	176

APPENDIX C: EMAIL TO PROSPECTIVE INTERVIEW PARTICIPANTS	178
APPENDIX D: EMAIL TO PROSPECTIVE SURVEY PARTICIPANTS	179
APPENDIX E: INTERVIEW INFORMED CONSENT FORM	180
APPENDIX F: PARTICIPANT OBSERVATION INFORMED CONSENT	183
APPENDIX G: PEER DEBRIEF MEMORANDUM #1	185
APPENDIX H: PEER DEBRIEF MEMORANDUM #2	199
APPENDIX I: PEER DEBRIEF MEMORANDUM #3.....	219
APPENDIX J: AUDIT TRAIL.....	238
APPENDIX K: ADDITIONAL CODING INFORMATION.....	239

CHAPTER 1

INTRODUCTION

Unplanned development and loss of compatible land uses negatively impact working lands, natural resource conservation, and military readiness; compromising the foundations of three major engines of North Carolina's economy. North Carolina leadership has a vested economic interest in the sustainability of rural landscapes that contribute approximately \$100 billion to the state's economy and provides irreplaceable ecosystem services that promotes environmental quality (GLCTF report, 2012). In North Carolina and across the country, The Department of Defense (DoD) has traditionally addressed land compatibility issues by working with local governments to develop favorable zoning and environmental management activities (Secretary of Defense, 2014).

Following the implementation of such projects, military leadership developed a new understanding of the complexity of these land compatibility issues creating a new DoD commitment to landscape-level collaboration and regional partnerships. They believe that this approach would further enhance their ability to manage encroachment (definition on page 20) and protect the environment. The Office of the Secretary of Defense (OSD) created the Conservation Partnering Program, now known as the Readiness and Environmental Protection Integration (REPI) program. REPI was designed to complement traditional efforts and provide a new approach by allowing the military to partner with other federal agencies, conservation organizations, and other national non-government organizations (NGOs) to achieve land-use compatibility (DoD REPI Program, 2014). DoD acknowledges the value of bringing together the interests and resources of multiple partners and federal agencies through REPI projects.

In a time of limited resources and declining budget appropriations, collaborative planning and the creation of working partnerships can help stretch resources, reduce duplicative work and leverage monies toward common goals that achieve multiple benefits (Bryson et al., 2006; GLCTF, 2012; Gruber, 2010; Wondolleck and Yaffee, 2000). The North Carolina Sentinel Landscapes Partnership Pilot Project represents an example of the new direction for military based conservation by bringing together a unique group of partners. These partners traditionally operate in a context of limited resources and multiple overlapping and sometimes conflicting critical needs and objectives. The partnership is focused on cooperation to develop projects that achieve multiple benefits through leveraging of funding and stacking of incentives at the local, regional and state level (GLCTF, 2012).

The holistic, statewide approach of the North Carolina Sentinel Landscapes Partnership increases the number of relevant stakeholders therefore increasing the complexity of collaborative efforts that are focused on achieving multiple benefits (Lefebvre, 2013). To date there has been little, if any, formal evaluation of the foundational work of cross-sector military-based partnerships for landscape-scale conservation. In order to understand what is needed for such efforts, it is important to explore the lessons and best management practices one can learn from the North Carolina Sentinel Landscapes Partnership Pilot Project.

Conceptual Framework

The concept of land-use compatibility is emerging as an important factor to consider when managing for the sustainability of rural lands. In many states, military training grounds are a part of the rural landscape resulting in significant interest from the military in the maintenance and enhancement of land uses that are compatible with military operations. Many programs and initiatives are approaching this issue through a landscape-scale approach

based on a recognition of the interconnectedness of interests. Recently, market based conservation strategies have been leveraged within landscape-scale conservation because it is financially attractive to multiple sectors. The belief is that market based conservation provides an effective means for achieving conservation goals because of the financial flexibility to undertake actions at the lowest cost.

Within such efforts, social capital is viewed as an essential ingredient for success. The decentralized nature of landscape-scale conservation make it extremely valuable to bring together key stakeholders for collective action. There are a myriad of collaborative arrangements that can be used to achieve such action ranging from cooperatives to various partnerships. Frequently, the cross-sectoral social partnership approach is used to effectively orient efforts towards a diverse set of interests and spark action within both the public and private sectors for public good. When a partnership approach is used, it is important to consider the concept of a partnership life cycle that outlines the general progression of partnerships and their changing needs. The partnership life cycle model is intended to assist partnerships in visualizing and managing their own development through different stages in the life cycle. It is important to consider that the criteria used to measure the effectiveness of an organization should be different depending on where it is in the life cycle.

Land-Use Compatibility

The United States military maintains combat readiness through intensive training on the ground and in the air and sea. In addition to bases and training ranges, the military also utilizes off-base air and land corridors that connect military bases and airfields with remote training ranges, and key air training areas and routes (GLCTF, 2012). Incompatible land uses

in areas used by the military negatively impacting military readiness by restricting the military's ability to recreate wartime conditions (GLCTF, 2012).

A significant characteristic that renders a particular land use 'incompatible' is the routine presence of non-involved people too near or under military training and testing activities (GLCTF, 2012). Land-uses that are considered compatible with military training include lands under agriculture production, forestry, natural areas or other land uses that limit development. Conversion of these lands to residential and commercial uses often result in higher population densities, tall structures, or other factors that limit military compatibility.

Landscape-scale Conservation

The concept of landscape-scale conservation represents a new collaborative approach that has become a widely agreed upon strategy by conservationists, policy makers, and practitioners to address land and water issues facing North America (McKinney & Johnson, 2009). Landscape-scale conservation encompasses three criteria:

“(1) multijurisdictional—the issues being addressed cut across political and jurisdictional boundaries; (2) multipurpose—they address a mix of related issues, including but not limited to environment, economy, and community; and (3) multistakeholder—they include public, private, and nongovernmental actors.”

(McKinney, Scarleet, & Kemis, 2010, p. 4)

The complexity and scale of issues associated with land use patterns, water management, biodiversity protection, and climate change adaptation emphasizes the need for a strategic landscape-scale conservation approach. (McKinney et al., 2010). In addition to being multijurisdictional, multipurpose, and multistakeholder, landscape-scale conservation efforts operate with various governance arrangements and at diverse geographic scales (McKinney

et al., 2010). The goal of each project is to address issues at a scale that is big enough to surround the problem, but small enough to tailor the solution (Porter & Wallis, 2002).

Since no single entity has the power or authority to address these types of cross-boundary concerns alone, there is often a gap in governance and a corresponding need to create informal and formal ways to work more effectively across boundaries. McKinney and Johnson (2009) explain that the process of achieving landscape-scale conservation requires regional collaboration that evokes a variety of approaches tailored to fit the scope and nature of the particular issues. Landscape-scale conservation initiatives tend to follow a progression from informal to more formal governance and implementation as people begin to think and act regionally. (McKinney & Johnson, 2009).

In some cases, landscape-scale conservation initiatives are nested within one another at varying geographical scales. “This situation accentuates the difficulties in defining large landscape conservation, yet each case represents its appropriate problem-shed that inevitably crosses geographical borders” (McKinney, Scarlett, & Kemis, 2010; p.16). The common currency in large landscape conservation is regional collaboration—“the ability to work across boundaries with people and organizations that have diverse interests yet share a common place and purpose” (McKinney, Scarlett & Kemis, 2010; p. 20).

Market Based Conservation

A wide variety of policy approaches can influence the conservation or increased production of ecosystem services. However, there exists a belief that the expansion or creation of new market-based approaches to providing ecosystem services will better achieve conservation goals by making conservation financially attractive to multiple sectors (Kroeger & Casey, 2007). Market-based solutions to natural resource challenges are emerging as new

tools for public and private entities seeking improvements in air, soil and water quality. Related benefits such as open space/working lands preservation, wildlife habitat enhancement, wise land use, and recreational opportunities are also drivers (NACD, 2008).

There are a variety of market-oriented strategies to conservation that evoke economic approaches such as auctions and trading credits to maintain valuable ecosystem services. These market based strategies have the potential to highlight and assign economic value to the ecological services society derives from wise stewardship of natural resources (NACD, 2008). They generally provide flexibility to undertake actions that have the lowest cost and result in more cost-effective achievement of natural resource conservation and environmental goals compared to traditional command and control approaches (USDA, 2008). For example, an emergent approach for achieving the aforementioned flexibility is the reverse auction process where landowners bid for contracts that stipulate the provision of certain service levels or associated management actions (Eigenraam et al., 2006; Greenhalgh et al., 2007).

A reverse auction process allows landowners to decide the monetary value they are willing to accept to enter into a contract that places limited restrictions on their land and the market determines the lowest bid that is generally acceptable to landowners (Eigenraam et al., 2006; Greenhalgh et al., 2007). The landowner will also determine the length of the time they are willing to place a contract on the property and the market determines the longest acceptable period at a specific bid range (Kroeger & Casey, 2007). Traditionally, each landowner submits a bid including price, acreage, and term of contract. Once all of the bids are accepted, they are evaluated and ranked against each other.

Social Capital

McKinney et al. (2010) explain that given the decentralized nature of large landscape initiatives, it is extremely valuable to bring together key stakeholders for collective action. The basic idea underlying social capital is that features of social structure can enhance capacity for action and the accomplishment of some type of goal (Castle, 2002; Paxton, 1999). Social capital helps solve cooperation problems where mutually beneficial outcomes depend on the actions of many individuals (Ostrom, 1990). There are two central components of social capital: the networks of association among individuals and the subjective characteristics of those associations (Paxton, 1999). Trust (Lubell, 2007) and norms of reciprocity (Sugden, 1998) among resource users make individuals more likely to cooperate with the expectation that others will do the same.

There has been modest application of the concept of social capital to the subject of land-use planning and conflict. Libby and Sharp (2003) explain that the subject of land use is particularly salient in rural-urban interface settings where formerly agricultural or undeveloped land parcels are converted to residential, commercial, or industrial uses. Land-use conflicts can emerge as a result of competition among the various services associated with the land and a consumer good of intrinsic value to both the owner and other citizens (Libby & Sharp, 2003).

Where incompatible land uses exist in proximity to each other, action to mitigate the conflict can occur at the individual and community level. Libby and Sharp (2003) explain that at both levels, the existence of social capital may help prevent or reduce the degree of conflict. At the community level, the existence of social capital may be vital to a successful planning effort that seeks to guide future land-use development to meet the goals of diverse

stakeholders (Libby & Sharp, 2003). According to Libby and Sharp (2003), where comprehensive planning is successful, people see a mutual interest in collaborating, negotiating, and ultimately agreeing on things.

Cross-Sector Social Partnerships

Collaborative activities have become more prominent and extensive in all sectors of many nations resulting in a “stunning evolutionary change in institutional forms of governance” (Alter & Hage, 1993: p. 12). One type of collaborative engagement is partnerships among business, government, and civil society that address social issues and causes (Austin, 2000; Gray, 1989; Sternberg, 1993; Stone, 2000; Young, 1999). In these cross-sector social-oriented partnerships (CSSPs) organizations jointly address challenges such as economic development and environmental sustainability (Clarke & Fuller, 2011).

There are competing definitions of CSSPs (Nelson & Zadek, 2000). Early on, Waddock (1989) characterized social partnerships as inherently cross-sectoral:

“the voluntary collaborative efforts of actors from organizations in two or more economic sectors in a forum in which they cooperatively attempt to solve a problem or issue of mutual concern that is in some way identified with a public policy agenda item.” (1991: 481-482)

For purposes of this study, CSSPs are defined as cross-sector projects formed explicitly to address social issues and causes that actively engage the partners on an ongoing basis. These partnerships differ greatly in size, scope, and purpose. Clarke and Fuller (2011) explain that CSSPs can “range from dyads to multiparty arrangements, local to global levels, short- to long-term time frames, and totally voluntary to fully mandated. In addition, organizations in

every sector face changing pressures and evolving public expectations that encourage them to partner across sectors.

Finally, sources of concern for social issues tend to be multifaceted, spilling over traditional boundaries of organizations, sectors, and nations (Waddell, 2005). McKelvey (1997) emphasized the need to study organizations over a long period of time within a historical perspective that allows for the study of organizational co-evolution to be understood simultaneously with the changes in the environment.

Partnership Life Cycle

Research shows that all partnerships, regardless of category, have a natural lifecycle (Greiner, 1979; Quinn & Cameron, 1983; Waddock, 1989). The partnership life cycle model is intended to assist partnerships in visualizing and managing their own development through different stages in the life cycle. Quinn and Cameron (1983) point out how the criteria used to measure the effectiveness of an organization should be different depending on where it is in the life cycle. This re-emphasizes the importance of indicators of success. Partnerships involve trying to maximize collaborative synergy between numerous partners in a dynamic environment (Seitanidi, Koufopoulos, & Palmer, 2011). The life cycle model may assist a partnership to steer a course for its future and make appropriate decision to ensure the collaborative working continues regardless of whether the partnership does itself (Caffyn, 2000).

Contextual Framework

This study focused on military-based partnerships for landscape-scale conservation and the promotion of land-use compatibility. In order to put the study in context, four areas must be considered: the land-use compatibility issues of eastern North Carolina, threats of private land conversion to incompatible land-uses, economic context of land-use compatibility, and military directives for large landscape partnerships. These four areas help to provide context to the issues and challenges facing rural landscapes in North Carolina.

The Land-Use Compatibility Issues of Eastern North Carolina

The DoD's largest amphibious training facility, Marine Corps Base (MCB) Camp Lejeune "comprises 156,000 acres along the Atlantic Ocean" (DoD REPI Program, 2015; p.1). Adjacent to Camp Lejeune and part of this base complex is Marine Corps Air Station (MCAS) New River, which supports aviation combat units (US Marine Corps, 2015). Areas near the base complex are rich in habitat and working lands, but also attract commercial and residential development.

Development has been identified as a critical issue impacting the sustainability and long-term viability of North Carolina's military installations (GLCTF, 2012). Other military concerns in the state include loss of access or overly restrictive access to air space and coastal/marine areas, and radio frequency encroachment (GLCTF, 2012). All of these result in restrictions on military training activities that are essential to sustaining military installations. Impacts of military growth on local communities and the environment, energy usage and evolving transportation, and economic corridors are also important planning considerations. The North Carolina Commanders' Council has recognized these as

challenges that the state and its military installations share as a common interest or concern (GLCTF, 2012).

Insufficient and uncoordinated land use planning and management are also impacting compatible land uses, contributing to the rapid loss of the state's working lands and loss and deterioration of natural resources (GLCTF, 2012). Sustained population growth in the state combined with increased competition for resources has resulted in the loss of working lands and natural habitat, and has led to military training restrictions. North Carolina is a national leader in the rate of farmland loss; between 2002 and 2007. The state has lost "more than 6,000 farms and 300,000 acres of farmland" (GLCTF, 2012; p. 10). The state's forest lands are also being lost at a staggering pace with 1.6 million acres lost since 1990 (Timberlands Unlimited, 2015). As a result, the United States Marine Corps has lost approximately 85 percent of flight training airspace in eastern North Carolina over the past 60 years (Elwood, 2008; GLCTF, 2012).

An example of local planning that has potential to restrict military training comes from Camp Lejeune. A largely undeveloped area adjacent to a landing field training area is currently zoned for 'high-density residential' uses (GLCTF, 2012). Such development in this area would greatly limit the installation's ability to use this landing field, particularly for nighttime training activities. Similarly, much of the undeveloped land around Fort Bragg is zoned as agricultural-residential districts (GLCTF, 2012).

"This classification intends to accommodate rural uses, including agricultural uses, uses that complement or support agricultural uses, and very low-density residential

uses. It encourages residential development that preserves farmland and other open space through flexibly-designed conservation subdivisions” (GLCTF, 2012; p 10).

Although useful for encouraging preservation of working lands, this designation is insufficient to preserve military-compatibility.

The compatibility challenge has been increased in recent years by a rapid influx of service members and their families into eastern North Carolina. Some of this growth is attributable to the decisions of the 2005 Base Realignment and Closure Commission, while some results from initiatives tied to requirements of the conflicts in Afghanistan and Iraq (GLCTF, 2012; Marstel-Day, 2009). “This influx of personnel represents the largest single job growth event in the state of North Carolina since the World War II era” (GLCTF, 2012; p.11). “Although many communities across the nation are grappling with challenges resulting from military growth, eastern North Carolina stands out as one of the most significantly impacted regions” (Marstel-Day, 2009; p. iv).

Land use and development patterns have enormous impacts on the responsibilities of local governments (GLCTF, 2012; Marstel-Day, 2009). Many communities in North Carolina are in need of water, wastewater, and transportation infrastructure, both to meet existing needs and to provide for future economic development (GLCTF, 2012). However, the placement of infrastructure profoundly influences the locations and patterns of new growth. Building new water and wastewater infrastructure in a previously undeveloped area generally leads to loss of open space to new residential and commercial development (GLCTF, 2012).

Threats of Private Land Conversion to Incompatible Land-Uses

Ninety percent of North Carolina's lands, including those of concern to the military services, are privately owned (Gharis et al. 2014; GLCTF, 2012). Private landowners face increasing economic pressures to convert farmland and working forests to non-working land uses (Dutzik & Schneider, 2012). Pressures include taxes, loss of economic viability of production activities, and increasing market value of land due to development pressure (Dutzik & Schneider, 2012; GLCTF, 2012). Profitability of working lands has been increasingly difficult to achieve over the past couple of decades for a number of reasons, including globalization and consolidation of corporate interests (GLCTF, 2012). Small scale farmers and forest landowners in North Carolina are now competing with large scale, global production operations that use low-cost labor allowing for the availability of products at lower prices thus reducing the demand for US products. For example in forestry, "globalization has resulted in fewer jobs, less investment in U.S. facilities, and less demand for fiber from U.S. forests for pulp and lumber products (Ashcraft, 2007)".

North Carolina property tax rates can also contribute to development pressure. In rapidly urbanizing areas, the fair market value of a parcel of undeveloped land will be high relative to that land's value as working lands, reflecting the fact that developing a parcel of land greatly increases the purchase price of that land (Dutzik & Schneider, 2012; GLCTF, 2012; Marstel-Day, 2009). Basing property taxes on potential land use rather than present use increases the costs of working that land, which negatively impacts the landowners' ability to remain economically sustainable. Higher taxation rates on North Carolina working lands therefore increase the economic pressure to shift from military-compatible to incompatible land uses (Dutzik & Schneider, 2012; GLCTF, 2012).

In addition to the aforementioned factors, there are also concerns for an aging and dwindling farmer population and the decreasing size of family forest holdings. Many North Carolina farmers are nearing retirement age with an average age of 57 years old (GLCTF, 2012). Fewer and fewer young people are becoming farmers due to the tremendous start-up costs, and so there are fewer people interested in keeping these working lands in production (GLCTF, 2012). Additionally, the size of family forest holdings is decreasing with an average size of 29 acres (Butler & Wear, 2013). Butler and Wear (2013) explain that forested land is becoming increasingly fragmented and parcelized due to estate disposal and urbanization. While projections cite an increase in forest landowners, forested lands are being passed down to the future generations in smaller blocks that will continue to increase the importance of amenity values. Trends show that the next ten years are a critical time of transition as the state's working lands change hands (GLCTF, 2012).

Most farmers and forest landowners have not considered how they will transition their land to the next generation. They generally do not seek out information or support in how to retain their property, or develop a plan for its transfer as working lands upon their death (Dutzik & Schneider, 2012; GLCTF, 2012). In the absence of such a plan, the heirs commonly sell the land to commercial developers to get the money and/or avoid inheritance taxes they cannot afford to pay. If the next generation continues to choose not to work the land, then much of that land will be converted to uses that are less compatible with military operations (GLCTF, 2012).

Economic Drivers in Rural Landscapes

Loss of compatible land uses has had negative impacts on the military, as it has on working lands and important natural resources, landscapes, and species. National defense,

agriculture/agribusiness, and other outdoor business-related activities are major contributors to the economic health and overall quality of life in North Carolina communities (Marstel-Day, 2009; GLCTF, 2012).

The military is North Carolina's second largest economic sector, with military activities contributing about \$48 billion to the state's gross product as goods and services each year (Oliver, Levy, & Debelleis, 2013). North Carolina is home to the third largest concentration of military personnel in the nation. In total, more than 540,000 individuals are either directly employed by the military or Coast Guard, or have jobs with organizations and companies producing products and providing services that support the military in North Carolina (Oliver, Levy, & Debelleis, 2013). DoD contracts performed in North Carolina were worth \$3.44 billion in fiscal year 2012. There were also a total of 93,232 DoD projects spread among every region of the state (Hibbs, 2012).

Working farms and forests are important to North Carolina's economy in their own right, in addition to being compatible with military operations and training. Agribusiness (food, fiber, and forestry products) is the number one industry in North Carolina, contributing about \$70 billion dollars and employing about 648,000 people or seventeen percent of the state's jobs (Dutzik & Schneider, 2012; Trust for Public Land, 2011; Walden, 2014). In 2012, the forest products industry produced \$16 billion in output and employed over 63,200 people with a payroll of \$3.3 billion (North Carolina Cooperative Extension, 2015). The forest products industry also contributed an additional \$550,000 to the rest of the North Carolina Economy for every \$1,000,000 generated in forest products (North Carolina Cooperative Extension, 2015).

Sustaining the military presence in North Carolina is also consistent with preserving the state's valued natural resources. Natural resources, including wetlands and forests, help clean our air and our water and provide opportunities for outdoor recreation. "They are a major contributor to North Carolina's \$16.5 billion per year tourism industry" (GLCTF, 2012, p.7). In all, land conservation contributes significantly to the economy of North Carolina; "every \$1 invested returns \$4 in economic value from natural resource goods and services alone (Trust for Public Land, 2011; p.1).

Military Directives for Landscape-scale Partnerships

The DoD is well aware of the issues it faces regarding land-use compatibility and military training. In December 2001, the Deputy Secretary of Defense directed the formation of the Sustainable Ranges Initiative (SRI) to address the encroachment challenge (National Academy of Public Administration, 2009). SRI is an umbrella program that supports the Department's Comprehensive Training Range Sustainment Plan. "It is designed to address encroachment, meet new global defense posture requirements, and mitigate potential impacts on training, testing and evaluation, and readiness" (National Academy of Public Administration, 2009; p.9).

Later enacted by Congress in December 2002, the "REPI Authority for Agreements to Prevent Encroachment" allows the Military branches to partner with state and local governments or private conservation groups to cost share the acquisition of easements and other real property interests (US DoD, 2013). The REPI program protects military value and maximizes commanders' flexibility to accomplish the mission by preventing, removing, and mitigating restrictions to training, testing, and operations. The REPI Program consists of three integrated components: buffer projects, landscape partnerships, and stakeholder

engagements (US DoD, 2015). Each component is complementary and works with other mission sustainability programs to provide problem solving and decision-support tools for installations and their neighboring communities.

Through the REPI program, DoD funds cost-sharing partnerships among a diverse group of stakeholders. These partnerships are intended to support military readiness by protecting compatible land uses and preserving natural habitat on non-DoD lands (US DoD, 2013). DoD believes that REPI buffer partnerships are a key tool for combating encroachment caused by sprawl, incompatible land use, and loss of habitat (US DoD, 2015). The philosophy is that individual REPI partnerships can create greater and multiple benefits by expanding and coordinating their efforts and activities in the form of regional partnerships and landscape-scale initiatives (US DoD, 2015). REPI affirms that a new dedication to landscape-scale conservation is made possible by promoting cross-boundary collaboration on planning and land use issues that can enhance sustainability efforts of a broader scale and scope (US DoD, 2015).

Since the Marines and Navy will be the focal point in this study, it is important to understand how they operate under the aforementioned program umbrellas. Under the Department of the Navy (DON), Navy and Marine Corps installations develop an Encroachment Management Program to address compatibility and readiness sustainment (US DoD, 2013). The Encroachment Partnering (EP) program is a key component of the overall Encroachment Management Program, providing the tool to implement the 2684a authority (U.S.C. 2684a, definition on page 20) and REPI program funding (US DoD, 2013). The Navy and Marine Corps seek out partners who share a vested long-term interest in properties of mutual interest and who are able to secure funding to participate in the transactions. DON

and its partners primarily enter into multi-year encroachment protection agreements that identify geographic areas of interest and govern how each party will conduct a transaction using the combination of partner, REPI program, and Navy/Marine Corps funds (US DoD, 2013). Under this over-arching multiyear agreement the partnership executes individual real estate transactions over a period of years or perpetual conservation easements. (US DoD, 2013). In each case, the DON obtains a real property interest from the partner, typically in the form of a restrictive use easement or conservation easement, ensuring that the land use will be compatible with nearby military uses in perpetuity (US DoD, 2013).

These programs have now set the stage for the Sentinel Landscapes approach that was officially announced by the DoD in 2013. This is an approach that calls for nationwide federal, local and private collaboration dedicated to promoting natural resource sustainability in areas surrounding military installations (Sentinel Landscapes, 2015). This federal program embodies the transition and change of philosophy of the DoD to a landscape-scale partnership building model. The overall strategy identifies opportunities that benefit national defense, local economies and conservation of natural resources.

“Where shared interests can be identified within a landscape, the partnership will coordinate mutually beneficial programs and strategies to preserve, enhance or protect habitat and working lands near military installations; reduce, prevent or eliminate restrictions that inhibit military testing and training; prevent incompatible development near our military facilities (Sentinel Landscapes, 2015; p.1).”

Need for the Study

The military represents a new partner at the conservation table, bringing a unique set of interests and demands that must be taken into consideration. The current NC Sentinel Landscapes Partnership benefits from understanding how the variables that shape cross sector partnerships impacted their landscape-scale efforts in order to ensure the sustainability of the partnership. Future cross sector military-based landscape-scale partnerships would benefit from understanding the experience of the North Carolina partners to determine what is needed to develop a sound foundation for a long-lasting collaborative relationship.

Additionally, the partnership developed an economically driven, market-based conservation initiative that represents a ground-breaking approach for protecting the military training footprint. Based on the novelty of aforementioned approach, it necessary to understand what key factors influence market-based strategies for the conservation of military training grounds and special use airspace through lessons learned from the North Carolina Market-Based Conservation Initiative (MBCI).

Purpose of the Study

The purpose of this qualitative case study is to (a) understand how the variables that shape the cross sector partnerships impact the initial stages of military-based partnerships and (b) describe important lessons learned and best management practices that should be considered when developing a military-centric market based conservation program. In order to accomplish these goals, the following guiding questions were established:

- How did the social and political climate of the state influence the collaboration?
- Why were some communication and problem-solving processes considered priorities by people in leadership positions?

- What roles did individuals and partnering organizations play in the collaboration?
- Which governing policies or guidelines of the partnering organization affected the development and implementation of the collaboration?
- Did the availability of resources impact the collaboration? If so, how?
- What key factors influenced the outcomes of the MBCI pilot?

Definitions

In order to provide a full understanding of military-based partnership to address land-use compatibility issues, a few definitions must be recognized.

2684a Authority – authority given by United States Code 2684a that allows the secretary of defense or the secretary of a military department to enter into an agreement with an eligible entity or entities to limit encroachments and other constraints on military training, testing, and operations (LII, 2015).

Encroachment - The North Carolina Governor's Land Compatibility Task Force defines encroachment as “urban development surrounding military installations and areas where they test and train that affects the ability of the military to train under realistic conditions (GLCTF, 2012; p. 9).

Working Lands - “those areas utilized by enterprises that critically depend on the support or use of natural resources on land and water (GLCTF, 2012; p. 4)” for the production of marketable commodities for the public good while preserving ecosystem quality and services.

Combat readiness - “[t]he ability of US military forces to fight and meet the demands of the national military strategy.” (Dun III, 2013) [1] (p. 1)

Reciprocity- “a situation or relationship in which two people or groups agree to do something similar for each other, to allow each other to have the same rights; mutual dependence, action, or influence (Webster, 2015).” Libby and Sharp (2003) identify the importance of social capital for addressing land-use concerns through collaborative partnerships. They explained that trust and norms of reciprocity increase the likelihood for collaboration.

Market-based conservation- “conservation of natural areas supported by market mechanisms (Munford, 2010).”

Sikes Act - The Sikes Act directs the Secretary of Defense, in cooperation with the U.S. Fish and Wildlife Service and State fish and wildlife agencies, to carry out a program for the conservation and rehabilitation of natural resources on military installations (USFWS, 2015). The Sikes Act allows for the sustainable, multipurpose use of natural resources subject to military security and safety requirements (USFWS, 2015).

Assumptions

It is assumed that the information provided by the Sentinel Landscapes partners and key stakeholders interviewed were representative of their individual experience. It is also assumed that all personal examples, anecdotes, etc. were truthfully and factually recounted to the researcher.

Limitations

This study was limited to leadership and key stakeholders involved with the North Carolina Sentinel Landscapes Partnership in eastern North Carolina. Consequently, the

insights and lessons learned garnered from this study may be unique to this group and context only. Therefore, the findings of this research may only be transferred by the reader if deemed appropriate.

Chapter Summary

Based on the need to develop regional partnerships to address land-use compatibility issues at a large landscape scale, continued research identifying the best management practices for partnership formation and development are needed (GLCTF, 2012). While cross-sector partnerships involving private, government and non-profits have been classified and evaluated in the past (Selsky & Parker, 2005), a military-based partnership exhibits different characteristics and unique interests related to combat readiness. This provides a unique paradigm for the manifestation of critical success factors for partnership sustainability within the initial stages of partnership life cycle. In order to evaluate and understand what is needed to successfully bring together a diverse group of partners and develop a partnership that attains mutual gain, the expectations and experiences of partnership leadership and key stakeholders must be researched. This study was conducted to understand how the typical factors that influence cross-sector partnerships impact military-based partnerships. It also evaluates the North Carolina Sentinel Landscapes Partnership for critical success factors during its initial stages based on the feedback of the study participants for program sustainability and model transferability.

CHAPTER 2

THEORETICAL FRAMEWORK AND REVIEW OF SALIENT LITERATURE

This chapter will discuss the theoretical framework for this study as well as review salient and related literature. There are four major theories of collaboration through which cross sector relationships can generally be described: transaction cost theory, resource-based theory, resource dependence theory, and exchange theory. These theories provide insight into the motivations various organizations might have for choosing to collaborate. Built upon the theories of collaboration, the Five Variables Shaping Interagency Partnerships (Melaville and Blank, 1991) were developed outside the specific fields of economics and management and are cited as an important theoretical framework for evaluating collaborative partnerships. The five variables include: climate, processes, people, policies and resources.

Theoretical Framework

The Variables that Shape Interagency Collaboration Framework

Social and Political Climate

Melaville and Blank (1991) identified the social and political climate of an area as the first factor likely to influence a cross sector partnership. The external environment can range from non-supportive to highly favorable. The most supportive climate is one in which the solution to a problem with multiple causes and consequences is a top priority and where previously established working relationships exist among potential partners (Melaville & Blank, 1991). A less than favorable climate is one in which a problem is not clearly recognized or in which potential participants are preoccupied with other concerns or have already developed negative relationships that preclude partnership efforts (Melaville & Blank, 1991).

When human needs, public sentiment, legislative priorities, and institutional readiness converge conditions are ripe for collaboration. Collaboration requires a proportionately greater commitment of trust and resources among participants than does cooperation, but it can also expedite greater change (Melaville & Blank, 1991). According to Melaville and Blank (1991), in many communities, the window of opportunity is open for collaboration but where it is not, agencies can begin to improve the climate for change by evaluating their own needs to improve services and by reaching out to their colleagues in other fields.

Communication and Problem-Solving Processes

Melaville and Blank (1991) identified the second critical variable in creating and sustaining interagency efforts as the “communication and problem-solving process participants use to establish goals and objectives, agree on roles, make decisions, and resolve conflicts” (p.22). The process establishes the working relationships and defines the operational rules necessary to guide the partnership initiative. It will influence the joint effort's ability to mitigate turf battles, reconcile differences in institutional mandates and professional perspectives, and make critical corrections in strategy and implementation (Melaville & Blank, 1991).

In a cooperative arrangement, the process of communication and problem-solving must be sufficient to enable partners to accept each other's respective goals for the partnership and to resolve difficulties as they arise (Melaville & Blank, 1991). “A much more detailed process is necessary for partners to reach agreement on a common goal, the hallmark of collaboration, and to work through the accommodations and institutional changes that achieving shared goals entail” (Melaville & Blank, 1991; p22). In order to avoid becoming entangled in value-related controversy, the partnership process must be based on a unified

view of the elements of high quality service delivery and the kind of outcomes participants wish to achieve (Melaville & Blank, 1991).

Melaville and Blank (1991) assert “over time, a strong communication and problem-solving process can help cooperative ventures develop an increasingly collaborative character” (p.23). It is often easier for partners to develop common goals after they have experienced success in more limited efforts. Melaville and Blank (1991) believe that provided partners are motivated to create better outcomes for their constituents, long-term working relationships can help partners recognize shared goals and encourage them to develop closer institutional linkages.

People: Leadership and Participation

Melaville and Blank (1991) identified the people who lead, participate in, and eventually implement the activities of cross sector initiatives as the third variable affecting the growth and development of joint efforts. Their vision, commitment, and competence are central to a successful partnership (Melaville & Blank, 1991). Whether joint ventures sink or swim is influenced by the urgency of the problems and the willingness of an individual to take the leadership (Melaville & Blank, 1991).

The quality of leadership greatly influences the process of agreeing on a common goal and negotiating a practical vision. Effective leaders press each side to understand their partners' point of view and the way they perceive the issues and problems at hand (Melaville & Blank, 1991). Leaders generate alternative solutions and pursue, from the many interests identified, those that constitute common ground. A leader focuses not only on the internal

process of the group, but represents its goals and interests to the community at large and cultivates potential allies.

In addition, their connections can expand the resources potentially available to the partnership and increase the interest of the press and potential funders in its activities.

Melaville and Blank (1991) explain that it is often possible to balance the views and interests of one's own institution while working to guide the group, but leaders who attempt to do so must be especially sensitive to the perceived conflicts of interest that can occur. Frequently, those who are able to avoid such conflicts have broad-gauge, general backgrounds or cross-disciplinary training and experience that help them interpret and communicate issues from various points of view and pose solutions such that multiple interests are served (Melaville & Blank, 1991).

Melaville and Blank (1991) believe that continued reliance on a single voice, however, will ultimately limit the flow of new ideas, under-utilize the pool of available talent, and undermine the growth of interdependence central to successful joint efforts. Particularly in system level initiatives, creating linkages among key stakeholder groups requires many leaders, each working in concert with other partners (Greenleaf & Spears, 2002; Melaville & Blank, 1991). Melaville and Blank (1991) identify an indicator of a partnership's effectiveness to be the creation of new champions or believers whose additional actions on behalf of shared goals build strength in the community.

Carefully designed organizational structures, especially in large coalitions, can ensure that all partners have a leadership role to play in achieving common goals (Melaville & Blank, 1991). Shared leadership is fostered when participants have clearly assigned

opportunities to plan and implement action and are held responsible for the successful completion of their activities (Gray, 1985). At the same time, a dynamic structure enhances the quality of the partnership's communication and problem-solving process (Melaville & Blank, 1991).

Once broad-based participation has been achieved, leaders must ensure that participants are fully involved in the partnership process (Melaville & Blank, 1991). Those who feel they have no important role to play quickly lose interest. At the same time, careful stewardship of valuable human resources is essential. Frequent communication is necessary, but unreasonable demands should not be made on people's time (Melaville & Blank, 1991). Every meeting should have a purpose and should be called only when a letter or phone call will not suffice.

Governing Policies of Partnering Organizations

A fourth variable affecting inter-agency partnerships is the set of governing policies that each agency brings to the table.

“These rules and regulations include the federal, state and local level policies, guidelines, and definitions that establish their institutional mandates; target population and eligibility requirements; budgets and programmatic reporting cycles; methods of supervision and evaluation; salary and career development structures; and operational language, among others” (Melaville & Blank, 1991; p.29).

Combined, these elements comprise each institution's unique identity. The natural tendency of participants to maintain their distinctive organizational characteristics gives rise to the turf issues that many joint efforts experience (Gray, 1985).

When the laws, regulations, and standard operating procedures of participating agencies are perceived as generally compatible with each other and the goals of the collaboration, conflict is minimal. However, when substantial differences exist, adjustments and accommodations are necessary to improve their fit. (Gray, 1985; Melaville & Blank, 1991). Partners committed to shared goals can often overcome the barriers that policy differences create.

Part of the process of negotiating a practical vision needs to be identifying what policy differences exist and whether they result from differences in terminology and in-house rules that can be changed or from statutory mandates (Melaville & Blank, 1991). Some barriers may be addressed without changing the law but when this is not possible and the law serves no useful purpose, legal change needs to be advocated (Melaville & Blank, 1991). In other cases, clear policy reasons for differences in eligibility and jurisdiction may be appropriate and should be left as is.

The most easily resolved differences are those that arise from the inability of participants from different institutional settings and backgrounds to speak the same language (Gray, 1985). A strong communication and problem-solving process and persistent efforts to avoid jargon and shorthand, clarify terms, and establish mutually acceptable definitions can help partners learn to understand each other (Melaville & Blank, 1991).

Availability of Resources

The availability of resources will determine whether or not the efforts of collaborative partnership will become permanently institutionalized (Melaville & Blank, 1991). In collaborative ventures, resources of all kinds must be pooled and reconfigured to achieve the

hoped for results. From the beginning, partnerships need to share staff time and expertise, in-kind services, and especially funds (Gray, 1985). Melaville and Blank (1991) believe that the commitment of resources is the litmus test “of any joint effort's determination to make a difference and a prime factor in determining whether partnership goals are likely to be institutionalized, replicated, and expanded” (p.32).

The continuity of funding is as important as the amount of money available. A predictable level of support allows participants to make long-term plans and consider priorities beyond day-to-day survival (Melaville & Blank, 1991). Creating the political will to sustain and replicate their innovations is the central challenge facing collaborative efforts. Melaville and Blank (1991) explain that cross sectors partnership initiatives must begin with a clear statement of the results they expect to achieve. Specifically stated objectives should anticipate the impact it will have on people's lives rather than simply estimating the number of services the initiative hopes to provide or people it plans to reach (Melaville & Blank, 1991). The partnership must each be held responsible for measuring, monitoring, and meeting these objectives within a reasonable period of time. Establishing clear targeting goals and objectives, and benchmarks to monitor progress on a continuous basis, can provide important feedback (Gray, 1985; Melaville & Blank, 1991).

Melaville and Blank (1991) assert that partners should negotiate and specify each partner's responsibilities and the terms under which they agree to meet them (Melaville & Blank, 1991). The process of developing a formal document enables participants to anticipate problems, find solutions, move toward specific goals and objectives, and minimize later misunderstandings (Melaville & Blank, 1991). Setting attainable short-term objectives, especially in the beginning, is necessary to create a sense of accomplishment and build

momentum (Melaville & Blank, 1991). At the same time, sufficiently ambitious long-term goals will help to capture the interest of funders and ensure that momentum is maintained (Melaville & Blank, 1991).

Literature Review

Critical Success Factors in Landscape- and Large-scale Cross-Sector Partnerships

Two comprehensive studies (Maurrassee, 2013; Wondolleck & Yaffee, 2000) using the theories of collaboration set the stage for understanding what critical success factors are needed to ensure the development of sustainable and successful collaborative partnerships. These studies are complimentary to the work of Melaville and Blank (1991), unpacking a comprehensive list of critical success factors that relate to the variables that shape interagency partnerships.

Wondolleck and Yaffee (2000) wanted to study the role of collaboration in resource and environmental management and understand how to make it work. They wanted to recognize what made certain collaborative partnerships successful and innovative with a particular interest in learning how agencies could build links with outside groups. They defined success largely in terms of perceptions of the people involved in the efforts across the spectrum of interests (Wondolleck & Yaffee, 2000). Using a multi-case study approach, they developed a set of lessons for practitioners and others that they drew from approximately ten years of research focused on learning “how people have worked together successfully to solve common problems, resolve conflicts, and build partnerships” (Wondolleck & Yaffee, 2000, p. xi), in order to develop sustainable solution grounded in mutual gain.

Wondelleck and Yaffee (2000) conducted surveys through the Forest Service's electronic mail system and interviews with representatives of non-agency groups. Through this work they identified 230 situations as examples of successful public-private working arrangements involving Forest Service personnel. Because the initial study was heavily focused on the Forest Service, Wondelleck and Yaffee (2000) broadened their case study work in the second phase to include other federal agencies, state agencies, and private organizations.

Based on the analysis of the various cases, eight broad lessons are presented for making collaboration work in natural resource management (Wondolleck & Yaffee, 2000):

- Building on common ground
- Creating new opportunities for interaction
- Crafting meaningful, effective and enduring processes
- Focusing on the problem in new and different ways
- Fostering a sense of responsibility and commitment
- Partnerships are people
- A proactive and entrepreneurial approach
- Getting help, giving help

The first lesson they present relates to building on common ground. Many successful collaborative groups emphasize a shared sense of place. In a number of collaborative processes, strong identification with a specific geographic location, biophysical feature, or community or neighborhood has provided the foundation on which the cooperative effort was built (Wondelleck & Yaffee, 2000). They work to identify their commonalities rather than their

differences. Successful partnerships also highlight common interests or find ways to bridge compatible yet disparate interests (Wondolleck & Yaffee, 2000).

Wondolleck and Yaffee (2000) also highlight the importance of creating new opportunities for interaction. The success of many collaborative processes can be attributed quite simply to establishment of an opportunity for interaction between parties where one did not previously exist (Wondolleck, 1988; Wondolleck & Yaffee, 2000). These opportunities have taken numerous forms including outreach, coordinators between groups, Memorandums of Understanding, advisory committees, and non-profit organizations.

Next, it is important to recognize collaboration as an ongoing and evolving process rather than a particular outcome. In most cases, Wondolleck and Yaffee (2000) evidenced shared decision making in which choices within the group were made by consensus. The process was structured to develop ownership of the problem-solving approach and its outcomes by a full range of participants (Wondolleck & Yaffee, 2000). In addition, processes created to foster interaction and decision making must be crafted in a way that is sensitive to the demands they place on people's time. Successful efforts at collaboration not only establish meaningful and effective processes for interaction, they find ways to make them endure over time. They institutionalize collaboration by creating structures and generating funding that will continue beyond initial partnership efforts (Wondolleck & Yaffee, 2000).

The next critical success factor that is presented is the ability of the partnership to focus on the problem in new and different ways. Most successful collaborative efforts exhibit a different mind-set among those involved, one that includes their willingness to try new behaviors and different ways of interacting. Innovative land and resource management

emphasizes the need to view organizational missions and management problems broadly by employing an ecosystem approach understanding the variety of interconnections (Wondelleck & Yaffee, 2000).

Successful collaborative efforts are effective at focusing people's attention on the set of substantive and institutional problems to be solved (Wondelleck & Yaffee, 2000). One key step is committing to a process of mutual learning in which participants agree that they individually do not have all the answers. Partners build a common understanding of a problem or situation through shared learning. Wondelleck and Yaffee (2000) explain that in a number of cases, science provided an approach that people could agree on and rely on as a means of making choices. It provides a common language and a set of procedures that enables them to overcome their value and interest-based differences (Wondelleck & Yaffee, 2000).

Wondolleck and Yaffee (2000) also found that fostering a sense of responsibility and commitment is critical to successful partnerships. Effective collaborative partnerships instill a feeling of ownership in the resources and issues at hand, the process being followed to address those issues, and the outcomes achieved by that process (Wondelleck & Yaffee, 2000). Considerable effort is made to craft decision-making processes that are perceived as fair and outcomes that are judged equitable (Wondelleck & Yafee, 2000).

The relationships that form the core of collaborative partnerships are between those individuals, not between organizations. They motivate the involvement of diverse individuals and pay attention to the cultural dimensions of the issues and of the people involved in the

process (Wondelleck & Yaffee, 2000). Ultimately, collaboration success because the projects acknowledge that partnerships are people and deal with their needs effectively.

According to Wondelleck and Yaffee (2000), many collaborative partnerships have gotten underway and succeeded due to the efforts of dedicated, energetic individuals who worked at being proactive and entrepreneurial. Wondelleck and Yaffee (2000) also explain that these people have established relationships, secured resources and institutional support, marketed the efforts and pushed for effective implementation. These efforts have built on preexisting networks of people in communities and have used the incentives facing individual stakeholder groups, and the symbolic power inherent in being seen as an innovator, as leverage to motivate others to get involved (Wondelleck & Yaffee, 2000).

Finally, Wondolleck and Yaffee (2000) provide insight on the success of getting help and giving Help. Many successful partnerships have moved forward because people sought and acknowledged the assistance of others (Wondelleck & Yaffee, 2000). They built public and political support, which led to the necessary authorizations and resources and allowed their efforts to proceed (Wondelleck & Yaffee, 2000). They also recognize when it is important to give help to enable other to do things that they would otherwise not be able to do (Wondelleck & Yaffee, 2000).

In comparison, Maurrassee (2013) studied large scale strategic cross-sector partnerships to understand how to make partnerships effective and what variables shape partnerships' efficacy. The cases emerged from the work of the Program on Strategic Partnerships and Innovation that continuously investigated critical success factors for strategic partnerships (Maurrassee, 2013).

Through this work, Maурrassee (2013) believes that it is easier to understand how efforts at the offset impact the various stages of the partnership's life, and the potential to ultimately achieve intended results. He believes that the first phase of a partnership's creation is inseparable from subsequent phases meaning that steps participants take in the beginning shape later steps along the way, which shapes actual outcomes. For this reason, Maурrassee (2013) provides insights from various focus group participants involved in strategic partnerships to understand how to develop an effective partnership early on.

Maурrassee (2013) found that successful partnerships evoke agreements in the early years that provide lasting impacts on the collaborative efforts (Maурrassee, 2013). To develop such agreements as well as partnership plans, a significant amount of communication is required based on the diversity of participants (Maурrassee, 2013). A partnerships' effectiveness rests on the strengths and limitations of participants. "Effective partnerships recognize their true capacity and shape their goals accordingly" (Maурrassee, 2013, p. 35).

Selecting the right partners is important because in many cases those sitting at the table might not have the breadth of experiences, resources, and expertise to address the problems at hand (Maурrassee, 2013). Effective partnerships proactively engage additional participants to expand their capacity (Maурrassee, 2013). While it is important to select the right partners, the presence of one representative from each organization does not give a complete picture of what it means for an institution to be engaged in a collaborative effort. The greater sum of the parts is a critical goal for partnerships to develop mutual understanding among diverse partners that enhances effectiveness (Maурrassee, 2013).

Maurrassee (2013) continues by citing the importance of clarity in the context of partnerships. Partnership participants come to the table for a reason and anticipate certain benefits from their involvement. Unless those expectations are articulated and explored across the group, disappointment could set in when those intentions are not met (Maurrassee, 2013). Also, power dynamics in partnerships involving representatives spanning a range of interests inherently create the need for clarity. Deliberate honest dialogue to clarify intentions among all partners at the outset can enhance the ongoing implementation (Maurrassee, 2013).

Once various parties join together some structure is required to coordinate participants and ensure progress (Maurrassee, 2013). Effective partnerships recognize how to create the structural components that enable their participants, processes, and goals. These structures can navigate complex and potentially crippling challenges such as power dynamics as well as raise the issues that might be unspoken and continually pursue accountability (Maurrassee, 2013).

By creating realistic goals, ongoing effectiveness is more likely when those goals are tracked over time (Maurrassee, 2013). Typically goals may be quantitative and/or qualitative to allow for the measurement of different aspects of the partnership's efforts and requiring varying level of rigor (Maurrassee, 2013). Strategic and effective partnerships are able to diagnose problems and select goals that truly address the issue that brought participants to the table (Maurrassee, 2013).

Market-Based Approaches for Land-Use Compatibility

Pirard (2012) conducted a review of market-based instruments for biodiversity and ecosystem services including Payment for Ecosystem Services (PES), taxes and subsidies,

mitigation or species banking and certification. Pirard (2012) identified two emblematic PES cases (Perrot-Maitre, 2006; Sanchez-Azofeifa, Pffaf, Robalino, & Boomhower, 2007) that focused on land-use and land-use compatibility. Each case provides an example of providing payments to landowners according to their land-uses and willingness to adopt conservation practices.

Perrot-Maitre (2006) analyzed the PES program developed and implemented by Vittel in northeastern France. Perrot-Maitre (2006) examined the methodology used by Vittel, and the ten-year process that was necessary to transform conflict into a successful partnership. Perrot-Maitre's (2006) main conclusion was that establishing a PES program is a very complex undertaking that requires the consideration of scientific but also social, economic, political, institutional, and power relationships. Scientific and economic research were only introduced later after a “dialogue had been successfully established between Vittel and the farmers, compatibility between farmers’ and Vittel’s objectives had been demonstrated, and the idea of a mutually beneficial partnership accepted” (Perrot-Maitre, 2006, p. 6).

According to Perrot-Maitre (2006), the ability to maintain farmers’ income level at all times and finance all technological changes was an important element of success, but primary reasons for the program’s success were not financial. Trust-building through the creation of an intermediary institution that was locally based and led by a program champion sympathetic to the farmers’ cause was critical to program success (Perrot-Maitre, 2006). Perrot-Maitre (2006) also found that the ability to link incentives to land tenure and debt cycle issues and to substitute the old technical and social support networks with new ones, were all fundamental conditions of success. This scenario was facilitated through the

development of a long-term participatory process to identify alternative practices and a mutually acceptable set of incentives (Perrot-Maitre, 2006).

Perrot-Maitre (2006) analysis shows that estimating costs and benefits of PES is not always possible. “Not all information is public knowledge, and costs are not broken down in a way that allows the separation of costs associated with the PES scheme from others” (Perrot-Maitre, 2006, p. 5). Perrot-Maitre (2006) explains that the Vittel experience is most likely to be replicable in places where land cannot be purchased and set aside for conservation, and where the risk to business is high while the link between ecosystem health and farming practices is well understood and expected benefits are sufficiently high to justify the investment.

Sanchez-Azofeifa et al. (2007) evaluated the intention, implementation, and impact of Costa Rica’s PES program. The program provided payments to private landowners who own land in forested areas in recognition of the ecosystem services their land provided (Sanchez-Azofeifa et al., 2007). This study demonstrated that PES contracts contributed little, if any, to the area’s rate of deforestation with a negative correlation between the level of PES contracts and previous forest clearing (Sanchez-Azofeifa et al., 2007). Sanchez-Azofeifa et al. (2007) believe it could have resulted from a policy design in which the PES contracts were fixed across space- each of the locations in the country is assumed to provide the same services and is offered the same level of payment per hectare- and enrollment was voluntary. “Targeting of these kinds of lands could lead to those with unprofitable or low-profit land being the dominant participants in the program” (Sanchez-Azofeifa et al., 2007, p. 8).

Sanchez-Azofeifa et al. (2007) assert that the nonrandom location of the first phase of PES contracts is important to consider as well. They explain that given considerable agency expertise in Costa Rica, and good local data, the PES program could have targeted threatened species so the impact could be greater than it initially appeared to be (Sanchez-Azofeifa et al., 2007). Yet because landowners chose whether or not to participate, lower profitability lands could dominate the program and a large fraction of payments could go to those who would have kept their lands in forest regardless of payments due to low opportunity costs (Newburn et al. 2005; Sanchez-Azofeifa et al., 2007; Sierra & Russman 2006). This dynamic emphasizes the need to develop PES markets through multiple phases to ensure that the program impacts land-use by changing the behavior of landowners who may not be as inclined to maintain their current land-use practices (Sanchez-Azofeifa et al., 2007).

Evaluating Participation and Social Capital in Landscape-scale Management

Carr, Bloschl, and Loucks (2012) developed a framework for evaluating large landscape cross-sector partnerships based on a comprehensive review of watershed management collaboratives. They explain that while evaluating process and long-term outcomes are important, it is necessary to also include intermediary outcomes to ensure partnership sustainability (Carr et al. 2012). According to Carr et al. (2012), social capital is critical for effective resource management (Pretty & Ward, 2001) and for activating participants to engage in environmental policy formation (Jones, 2010). Pretty and Ward (2001) also found that social capital sparked remarkable advances in group formation around the turn of the millennium, citing some four hundred thousand groups with around ten million members working in collaboration in watershed management, irrigation, micro-finance, forestry, integrated pest management, and for farmers' research. Research also

suggests that social capital is also highly correlated with the development of agreements and innovation (Kallis et al., 2009; Lejano & Ingram, 2009).

In this context, social capital is regarded as a significant parameter influencing issues of environmental policy and management (Beall, 1997; Bebbington, 1997; Jones et al., 2009a; Miller & Buys, 2008; Pretty, 2003; Pretty & Ward, 2001; Rydin & Pennington, 2000). Through the relevant literature, a main connection of social capital with environmental issues derives from the fact that it may positively influence the environmental behavior and attitudes of individuals. Thus, social capital has been connected to environmental co-management policies (e.g., Cramb, 2005; Dev, Yadav, Springate-Baginski, & Soussan, 2003; Pretty, 2003), environmental behavior (Briceno & Stagl, 2006; Miller & Buys, 2008; Torgler & Garcia-Valinas, 2007) and activation (Parisi, Taquino, Grice, & Gill, 2004).

Formal Evaluations of Military-Based Partnership for Land-Use Compatibility

To date, there has been little to no formal evaluation of the formation and development of military-based partnerships for the promotion of land-use compatibility. Currently the publications that exist regarding land-use compatibility take the form of guides (DoD, 2013; NACo, 2007; OEA, 2005; ULI, 2006) directed towards sharing best practices with military stakeholders to promote range sustainability. Lachman et al.'s (2006) assessment of DoD's REPI partnerships is the sole third party publication that evaluates military-based cross sector partnerships to address the encroachment of incompatible land uses.

While Lachman et al. (2006) did provide an assessment of military partnerships it was predominantly focused on the REPI program, directed towards providing insights for the “military partner”, and focused on buffering projects rather than the larger paradigm of landscape-scale land compatibility. The assessment included six cases: Eglin’s Air Force Base (AFB) buffering activities, Fort Carson’s buffering activities, Fort Stewart’s buffering activities, Marine Corps Air Station (MCAS) buffering activities, Naval Air Station (NAS) Fallon’s buffering activities, and NAS Whiting Field’s buffering activities.

Lachman et al. (2006) found that the partnerships of most of the buffering projects have been quite successful. Installations are leveraging diverse partners for different buffering needs around their installations. Lachman et al. (2006) explained that REPI partnerships must consider that potential partners also have different motivations for participating in buffering projects. At four of the six installations, the installation buffering program started by working with one partner but brought in others as the program matured and the need to acquire different types of properties arose. Lachman et al. (2006) also found that by bringing together a diverse group of partners it helps to leverage diverse types of funds and funding sources. Besides directly funding investments, partners also contribute significant time, skills, expertise, and other resources to conservation buffering (Lachman et al., 2006).

In turn, having and building long-term positive relationships among installation staff and the community and partners was important to success (Lachman et al., 2006). Since buffering projects depend on willing sellers and community and NGO partners, their participation in the program depends on trust and understanding (Lachman et al., 2006).

According to Lachman et al. (2006), installation staff members who had the lead on conservation buffering were well trusted in the community.

While REPI partnerships have been cited for their success, Lachman et al. (2006) explain that policy guidance is inadequate and as a result, there are inefficiencies in execution of partnership projects. Lachman et al. (2006) explains that it has caused confusion with partners and with joint efforts. The overall lack of guidance has also resulted in an inefficient use of time and money as a result of needing to redo things and resolve conflict during implementation (Lachman et al., 2006).

Lachman et al. (2006) findings show that the REPI program has placed too much emphasis on cost efficiency issues at the expense of program effectiveness. REPI over emphasizes having partners provide funds for conservation buffering, which is an unrealistic expectation for all buffering projects to have partners who can match or even come close to matching military funds (Lachman et al., 2006). Another policy issue for OSD to consider related to how other federal agency policies as well as partnering organization policies affect the buffering program. For example, Lachman et al. (2006) found that USDA programs that help fund the preservation of farmland could have given higher priority to farmland that also helps buffer military installations.

In addition, it is important to have a partnering relationship that focuses on joint collaboration rather than on the best real estate deal for the military. Over emphasis on fair market value defined by DoD's appraisal process has caused effectiveness problems, such as lost deals (Lachman et al., 2006). Given that conservation buffering benefits the installation, and the evidence shows that the military saves money by completing buffering deals as early

as possible, the program should not focus so much on such cost efficiency issues (Lachman et al., 2006). OSD and the Services need to allow some flexibility in these issues because of the long-term benefits and eventual cost savings to the military.

Lachman et al. (2006) identified that the military's process for developing, approving, and completing deals could be improved. The military process, particularly the Navy and USMC process, takes too long to develop, assess, approve, and fund property deals (Lachman et al., 2006). Since it can be difficult to engage landowners without funding in hand, "such processes need to be streamlined and other flexibility needs to be built into the system to enable the military to respond faster to real estate opportunities" (Lachman et al., 2006, p. xxi).

Cooperative agreements with partners "enable installations to complete buffering projects more effectively and efficiently by outsourcing key functions, such as the appraisal process" (p. 62). The delegation of authority to partners has a number of advantages for military partnerships. It frequently speeds up the process, especially the appraisal process, and has also made it cheaper (Lachman et al., 2006). The NGO partners are also experts in obtaining conservation easements and often can negotiate for and accept donations of land at less than the appraised fair market value (Lachman et al., 2006). A cooperative agreement approach, with more authority shared with the partner, fosters more of a true partnership relationship, since the partner has a more significant role and more responsibilities in the buffering process (Lachman et al., 2006).

Lachman et al. (2006) also found that at many installations, frequently because of Service guidance and policies, the efforts do not put enough emphasis on environmental and

conservation concerns. The emphasis is on sprawl only, with no consideration of long-term environmental consequences (Lachman et al., 2006). These findings indicate that military staff need to be educated about the need and importance of also focusing on environmental issues, “especially long-term strategic efforts to protect ecosystems and other ecological systems” (p.89).

In order to maintain a successful program, the installation and its partners need to spend a large amount of time on community outreach for a variety of reasons (Lachman et al., 2006). They need to explain the benefits of the program to the public so that landowners and other organizations will learn about the program and help support it (Lachman et al., 2006). Lachman et al. (2006) believe that outreach is also needed to help develop and engage local government support, especially in addressing regional growth issues. Public outreach is also needed to help overcome some landowner distrust and bad feelings toward the military because of historical land takings to create and/or expand the installation (Lachman et al., 2006). Gaining credibility with landowners is critical to having landowners volunteer to participate in the program.

Lachman et al. (2006) also uncovered staffing and management issues that occurred at all levels. It is important throughout the Services to have senior management and headquarters support conservation buffering. Where headquarters management was not as supportive of the program, it was difficult to be as effective at the installation level. Second, it is important to have the installation commander and senior management staff support and actively engage in conservation buffering. Installations with the commanders’ support and understanding about the importance of the buffering program can be more effective, because it helps provide staff support, helps motivate the staff, and helps with community outreach.

Lachman et al. (2006) assert that explaining the program to the community, developing priorities and projects, managing projects, and working with partners all take time. A full-time installation buffering person is needed who is well known and trusted in the community to conduct community outreach and communications, to develop trust with landowners and other community members, to assess priorities and manage the program, and to work with the partners.

Chapter Summary

Melaville and Blank's (1991) Variables that Shape Cross Sector Partnerships is the theoretical framework used to base this study. The aforementioned framework was built upon the theories of collaboration including the Transaction-Cost Theory (Williamson, 1975; Williamson, 1981), Resource-Based Theory (Milne, 1996; Schendel, 1978), Resource-Dependence Theory (Pfeffer & Salancik, 1978), and Exchange Theory (Levine & White, 1962). Mevlaville and Blank (1991) identify five factors that strongly influence all joint efforts: "the climate in which they begin, the processes used to build trust and handle conflict, the people involved, the policies that support or inhibit partnership efforts, and the availability of resources to enable these efforts to continue" (p. 20).

Cross sector land-scale partnerships have been studied in a variety of ways. It has been said that the first phase of a partnership's creation is inseparable from subsequent phases meaning that steps participants take in the beginning shape later steps along the way, which shapes actual outcomes (Maurrassee, 2013). Studies show that there are a number of critical success factors that can be identified during these initial stages in order to forecast the partnership's ability to achieve intended outcomes (Maurrassee, 2013; Wondelleck & Yaffee, 2000). These factors not only apply to the management of the partners but also relate to the

collaborative development and implementation of innovative conservation strategies to achieve land-use compatibility.

Market based approaches to natural resource management is an emergent strategy to achieve land compatibility goals by empowering landowners to participate in compatible conservation programs (Pirard, 2012). There are several factors that contribute to the success of these efforts including trust-building through the creation of an intermediary institution or partnership sympathetic to the landowners' cause was critical to program success (Perrot-Maitre, 2006). This highlights the importance of social capital in order to increase participation among partners as well as key stakeholder in the initiatives created by the partnership.

While military installations are leveraging diverse partners for different buffering needs around their installations it is important that these partnerships consider the different motivations among key stakeholders for participating in buffering projects (Lachman et al., 2006). Taking a strategic approach towards increasing social capital through joint need efforts, strategic planning, and community outreach are necessary for the success of these efforts. A number of efficiency and effectiveness issues need to be addressed to improve these efforts so that installations have a better chance to actually prevent most of their fundamental land compatibility problems (Lachman et al., 2006).

CHAPTER 3

METHODOLOGY

This chapter will discuss the methodology used in completing this study of landscape-scale military-based partnership for the sustainability of rural lands. The chapter will explain the researcher's bias and contextual connection; describe the research design, population, participant selection, data collection; and analysis strategies as well as demonstrate the trustworthiness of this study.

Guiding Research Questions

The purpose of this qualitative case study is to (a) understand how the variables that shape the cross sector partnerships impact the initial stages of military-based partnerships and (b) describe important lessons learned and best management practices that should be considered when developing a military-centric market based conservation program. Using Melaville and Blank's (1991) theoretical framework, the five variables shaping cross sector partnerships, a qualitative case study evaluating the initial stages of a military-based cross sectoral partnership was completed. In order to guide the research, six questions were established:

- How did the social and political climate of the state influence the collaboration?
- Why were some communication and problem-solving processes considered priorities by people in leadership positions?
- What roles did individuals and partnering organizations play in the collaboration?
- Which governing policies or guidelines of the partnering organizations affected the development and implementation of the collaboration?
- Did the availability of resources impact the collaboration? If so, how?

- What key factors influenced the outcomes of the MBCI pilot?

Epistemological Position

This study was conducted under the constructivist, or interpretive, philosophy (Merriam, 2009). Since the purpose of this study was to understand and describe, constructivism was the most appropriate epistemology to guide the research. This epistemology outlines that symbolic interaction and experiences of a person are important. Merriam (2009) stated that constructivist/interpretive research is “where qualitative research is most often located and assumes that reality is socially constructed, that is, there is no single, observable reality. Rather, there are multiple realities, or interpretations, of a single event” (p. 8). The constructivist position allows the evaluation of partnership formation and development to be grounded in the experience of the partners and key stakeholders. I believe that this approach provides a holistic understanding of such efforts based on insights of the research participants and their interpretations of the effectiveness the partnership.

Bias Statement & Researcher Contextual Connection

The researcher was a graduate student at North Carolina State University and a graduate research assistant for the North Carolina Sentinel Landscapes Partnership where he witnessed ongoing interactions among program partners and key stakeholders over a three-year span. The researcher has previously worked with and evaluated other interagency and cross-sector collaborations at North Carolina State University, but this study represents his first formal evaluation of regional military-based partnerships. The researcher’s knowledge and experiences of program evaluation gained as a graduate student and research assistant of the department influenced the reasoning and analysis of this study.

Research Design

Initially, the researcher conducted a pilot case using a qualitative survey and participant observation in order to gain a more comprehensive understanding of the Sentinel Landscapes Partnership as well as the related concepts associated with military-based conservation partnerships. A pilot case study helps to refine data collection plans with respect to both the content of the data and the procedures to be followed. The pilot case assists in the development of relevant lines of questions, possibly even providing some conceptual clarification for the research design as well (Yin, 2013). The insights gathered from the analysis of data from the pilot helped to inform the overall design of this study.

This study was designed as an intrinsic case study using document analysis and semi-structured interviews. In intrinsic case study research, the researcher's interest is simply in understanding the case in hand (Hamilton et al., 1977, Simons, 1980). Case study research aims to explore and depict a setting with a view to advancing understanding of it (Yin, 2003). In complex situations, case studies are the preferred evaluation tool when "how" and "why" questions are being posed (Yin, 2013).

Population

The population for this study was program partners and key stakeholders of the North Carolina Sentinel Landscapes Partnership. This partnership represents the only true iteration of a military-based regional partnership for landscape-scale conservation, in turn providing the only leadership group that may currently provide lessons learned and best management practices for the formation and development of such partnerships. Program partners and key stakeholders were chosen from the list of survey and strategic planning participants during the pilot case or identified by the principal investigator as key stakeholders to the formation

or development of the partnership. Of the 13 individuals interviewed, both male and female were represented with backgrounds ranging from soil and water conservation to military service. To give the reader a better understanding of the population, the researcher used “thick description” in the findings to describe the both the partnership and the population (Geertz, 1973). Ponterotto (2006) explained that by using thick description to describe a population, a researcher would fully describe the participants “without compromising anonymity” (p. 246). Providing a rich description of the study population “facilitates the reader’s ability to visualize the sample including their relevant demographic and psychological characteristics” (p. 246).

Participant Selection

Purposive sampling was used in this study to maximize the discovery of knowledge about the population. A purposive sample is used when “researchers use their special knowledge or expertise about some group to select subjects who represent this population” (Berg, 2001, p. 32). Initial study participants were selected based on their influence on overall partnership decision-making. Additional participants were selected using the snowball sampling approach. Snowball sampling allows the intial study participants to identify additional subjects based on a specific trait or quality (Merriam, 1998). For this study, each of the initial participants identified additional subjects to interview based on their reputation and influence among key stakeholder groups.

Data Collection

Creswell (1998) said data collection should be a “series of interrelated activities aimed at gathering good information to answer emerging research questions” (p. 110). Merriam (2009) said “qualitative inquiry, which focuses on meaning in context, requires a

data collection instrument that is sensitive to underlying meaning when gathering and interpreting data” (p. 2). Humans tend to be the best instrument for research like qualitative inquiry because they are more responsive to the situation and able to adapt to the changing conditions (Merriam, 1998).

The institutional review board (IRB) approval was obtained prior to contacting the study participants. The researcher contacted a combination of 13 key stakeholders and program partners via email to elicit their participation based on observation from the pilot portion of this study and recommendations from the principle investigator of the partnership. Follow up phone calls and emails occurred on selected cases to provide additional clarity on the purpose of the study and their role as a research participant. Once a participant agreed to participate in the study, they were assigned a participant identification number to ensure confidentiality and confirmability.

A calendar was created with times and participant identification numbers in order to maintain organization. Each participant was given the choice of a telephone or in-person interview. The researcher informed each of the participants of their rights as a participant in the study prior to the interview and clarified any questions or concerns before receiving consent. The participants had the right to skip any questions they did not want to answer, give off the record comments, and end the interview at any point.

The researcher conducted semi-structured interviews with each participant. Merriam (2009) said, “the main purpose of an interview is to obtain a special kind of information” (p. 88). Semi-structured interviews are conducted in a manner that allows for flexibility and change by using questions that can be moved around based on the conversation or includes

questions that are not as structured as a formal interview (Merriam, 2009). Each interview was coded, recorded and transcribed. Codes used for the interview portion of data collection included INT (Interview), part (participant) and a number assigned at random. Informed consent was obtained by all participants. The INT designation was simply used for organizational purposes and not presented in the findings of this study. Data from the qualitative interviews was presented in the findings using part (participant) and the corresponding participant number in order to mitigate potential issues of length..

Data Analysis

According to Corbin and Strauss (1990), “analysis begins as soon as the first bit of data is collected” (p. 6). Corbin and Strauss suggested that the researcher use “the usual methods suggested in the interview and field work literature to assure credibility of respondents to avoid biasing their responses and observations” (p. 5). In order to maintain credibility and accuracy, data collection and analysis were intertwined by using the constant comparative method (Merriam, 2009). Once data collection began, analysis began as well. Bias was kept in check by constantly comparing new data to previously received data. Categories that were developed were constantly reviewed and combined to form more current categories that coincided with developing research.

Creswell (1998) studied various qualitative researchers including Bogdan and Biklen (1992), Huberman and Miles (1994), and Wolcott (1994) and found there are three ways to analyze qualitative data. First comes “a general review of all information, often in the form of jotting down notes in the margins of text” (Creswell, 1998, p. 140). The researcher started reviewing interviews as soon as they were received. Notes were taken throughout collection in order for the researcher to recall and relate specific points. Before, during and after each

interview, the researcher noted different ideas or starred important information in order to create efficient analysis. For both document analysis and interview analysis, the researcher unitized the data (Corbin & Strauss, 1990). Merriam (2009) defines a unit of data as any “meaningful (or potentially meaningful) segment of data” (p. 176). At the beginning of the study, the researcher may still be unsure of what would be “meaningful,” thus “a unit of data can be as small as a word a participant uses to describe a feeling or phenomenon, or as large as several pages of field notes describing a particular incident” (Merriam, 2009, p. 176-177). The purpose of unitizing the data is “to compare one unit of information with the next in looking for recurring regularities in the data” (Merriam, 2009, p. 177). To unitize the data for this study, the researcher classified data using emergent themes, ideas or categories. These themes, ideas or categories were derived directly from the data; not an existing conceptual or theoretical framework.

Second, Creswell (1998) recommended “reducing the data...to develop codes or categories and to sort text or visual images into categories” (p. 140). Corbin and Strauss (1990) said concepts or information relating to the same phenomenon may be grouped together to form categories at this stage. Some concepts that are found may not become categories (Corbin & Strauss, 1990). When analyzing the documents and interview transcripts, the researcher was able to develop overall impressions from each phase of interviews and organized relevant data under the corresponding impression that served as the initial categories for data sorting. The list of impressions were constantly changing and updating until a final list was completed.

Categories continue to form and combine and rearrange. Over time, categories that are related to one another may join to form a theory (Corbin & Strauss, 1990). Therefore,

Creswell (1998) said the final step in analysis is to compare and relate categories to develop logical frameworks. Categories were combined and compared in order to form the large overarching themes of the data. The categories that emerged were then used to understand and complete a holistic view of the Sentinel Landscapes Partnership.

As part of the constant comparative method, content analysis was completed during data triangulation to analyze organizational documents. Creswell (1998) informed researchers that there are three parts to the content analysis process: open coding, axial coding and selective coding. For a more in-depth description of content analysis see Appendix K.

Trustworthiness

Qualitative research tends to be viewed as unverifiable because small sample size tends to not be generalizable (Dooley, 2007). Because of this challenge, qualitative researchers must take caution in proving the trustworthiness of their research. The researcher did this by increasing credibility, transferability, dependability and confirmability of this study.

Credibility

Dooley (2007) said that credibility is the “truth value” of qualitative research (p. 38). For this study, credibility was established using six different methods: prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis and member checks.

Prolonged engagement entails spending enough time in the field to understand the culture, social setting, or phenomenon of interest (Lincoln and Guba, 1985). This process

entails observing various aspects of a setting, speaking with a variety of people, and developing relationships with members of the culture. Lincoln & Guba (1985) explain that the development of trust facilitates understanding and co-construction of meaning between researcher and members of a setting. The researcher was engaged with the partnership as a research assistant for approximately three years, which allowed for the development of a holistic and comprehensive understanding of the case and the development of trust among study participants that lead to representative and honest feedback. As a research assistant I attended over twenty in-person partnership meetings, over thirty partnership conference calls, four partnership-related landowner workshops, and three other miscellaneous partnership events resulting in hundreds of hours of engagement.

Triangulation, according to Berg (2004) is the use of “multiple lines of sight” (p. 5). Berg stated that different types of research bring different “lines of sight” (p. 5) to fruition and thus helps a researcher gain a “better, more substantive picture of reality” (p. 5). Patton (2001) advocated using triangulation because it “strengthens a study by combining methods” (p. 247). Mathison (1988) said “triangulation has arisen as an important methodological issue in the evaluation literature...in particular, naturalistic and qualitative approaches to evaluation have demanded attention to controlling bias and establishing valid propositions” (p. 13). By using both document analysis and semi-structured interviews, the researcher was able to compare information in order to triangulate the data and gain a deeper understanding of the findings that emerged in the research (Jick, 1979). Golafshani (2003) said “to improve the analysis and understanding of construction of others, triangulation is a step taken by researchers to involve several investigators or peer researchers’ interpretation of the data at

[a] different time or location” (p. 604). Because of this, the researcher also used peer debriefing as a way to provide credibility to the research conducted.

Peer debriefing uses external sources to keep the research process in check (Creswell, 1998; Erlandson, Harris, Skipper, & Allen, 1993; Merriam, 1998). Lincoln and Guba (1985) refer to the person doing the debriefing as someone that keeps the researcher honest. According to Dooley (2007), “peer debriefing allows the researcher to test working hypotheses and find alternative explanations” (p. 38). A committee of individuals was selected to take part in the process of peer debriefing for this study based on their knowledge of the partnership, qualitative methods and partnership evaluation. The panel guided the research throughout the process by suggesting revisions to categories and reviewing themes with the researcher. Corbin and Strauss (1990) said that writing memos are an important part of doing research because they allow the researcher to track ideas and are involved in the formulation and revision of theory during the research process (Corbin & Strauss, 1990). After each step in the analysis process, the researcher would create a memorandum to send to the peer debrief team updating them on the progress of the study and data analysis to date. Once feedback was provided, the researcher would correct and change the developing analysis. For more information on peer debrief memorandums that were sent to the peer debrief team, see Appendices G-I.

Negative case analysis allows for the exploration of negative cases that are exceptions that must be accounted for by showing how they can fit the claim or that they are outside of the scope of the claim and involve a different claim. Lincoln and Guba (1985) explain the process involves searching for and discussing elements of the data that do not support explanations that are emerging from data analysis. The researcher explored all exceptions

that emerged during analysis through subsequent interviews and literature review to account for the exception and confirm patterns emerging from the data. Lincoln and Guba (1985) explain that by formulating alternative explanations and theories during analysis it can improve the overall analysis of the phenomenon of interest. Negative case analysis provided overall direction for the presentation of study findings but was not explicitly stated within the findings themselves. It was used as a measure to ensure that the research process was not pursuing interpretations of events that were not shared among multiple participants or presented in previous studies.

As stated by Lincoln and Guba (1985), “the most critical technique for establishing credibility” (p. 314) was member checks. Member checks are when a researcher takes the “data, analyses, interpretations and conclusions back to the participants so that they can judge the accuracy and credibility of the account” (Creswell, 1998, p. 203). For this study, after each interview was transcribed, the researcher sent the transcript back to the participants for review in order to check for accuracy of discussion. Participants were also able to review rough drafts of the researcher’s work in order to correct or provide substitute language (Creswell, 1998).

Transferability

Krefting (1991) explained that research is transferable when “the findings fit into contexts outside the study situation that are determined by the degree of similarity or goodness of fit between the two contexts” (p. 216). One method of establishing trustworthiness is by developing a rich description that allows readers “to make decisions regarding transferability” (Creswell, 1998, p. 203). Denzin (1989) explained that a rich description “presents detail, context, emotion, and the webs of social relationships that join

persons to one another” (p. 83). By utilizing rich details of the interviews, people, contexts and relationships in this study, readers are able to “transfer information to other settings and to determine whether the findings can be transferred” (Creswell, 1998, p. 203). Erlandson, Harris, Skipper, and Allen (1993) said “thick description provides for transferability by describing in multiple low-level abstractions the data base from which transferability judgments may be made by potential appliers” (p. 145). Erlandson et al. (1993) described low level abstractions as “specific features of experience [that] can be grouped into higher order abstractions, which, in turn, can be grouped into even higher order abstractions” (p. 23).

Krefting (1991) also said “transferability is more the responsibility of the person wanting to transfer the findings to another situation or population than that of the researcher and the original study” (p. 216). Therefore, as long as the researcher provides enough descriptive data to allow future researchers to compare, the original researcher constructs their information in a manner that can be considered transferable (Krefting, 1991). In order to promote the reader’s ability to transfer the finding of the study to their own context, the insights and lessons learned garnered are richly described along with the population of interest and study context. By developing this comprehensive view, the researcher facilitates the reader’s ability to identify the commonalities and differences as it relates to their case and ultimately judge how the associated findings may transfer.

Dependability

Golafshani (2003) explains that the term “dependability” in qualitative research closely relates to the idea of “reliability” in quantitative research. Clont (1992) and Seale (1999) also believed that dependability is important in qualitative research because it shows

consistency. Berg (2004) believed that in order to be trustworthy, verification had to take place. One part of verification according to Berg (2004) was that all procedures had been clearly articulated and that “another researcher could potentially replicate the study and the analysis procedures and draw comparable conclusions” (p. 40).

In order to ensure the dependability of the study, the researcher constructed a dependability audit trail. Dooley (2007) said a dependability audit trail is used “to track the process by providing an audit trail with documentation on methodological decisions and reflections” (p. 39). In order for this study to be deemed dependable, the researcher took detailed notes throughout the process. These notes were later used to create a deeper understanding of exactly what transpired during the study. The first task the researcher completed was to create an Excel document that included information about when participants were contacted, interview details, and the researcher’s thoughts and decisions. The audit trail was updated after each step of the research process. Detailed and accurate record keeping helped ensure a thorough dependability audit (see Appendix J for summary of details).

The audit trail was then used to conduct an inquiry audit. Lincoln and Guba (1985) explain that external audits involve having a researcher not involved in the research process examine both the process and product of the research study. The purpose is to evaluate the accuracy and evaluate whether or not the findings, interpretations and conclusions are supported by the data (Lincoln & Guba, 1985). For this study, the input of external researchers was solicited to evaluate the researcher’s ability to outline a process for replication. Each auditor was provided detailed notes that outlined the overall research

process, the evolution of the process through analysis, and associated thoughts and decisions along the process.

Confirmability

According to Seale (1999), confirmability is “designed to replace the conventional criterion of neutrality or objectivity” (p. 468). A confirmability audit trail was constructed in order to authenticate the confirmability of the study. Seale (1999) said, “auditing is an exercise in reflexivity, which involves the provision of a methodologically self-critical account of how the research was done” (p. 468). Dooley (2007) asserted “conclusions, interpretations, and recommendations should be traced directly back to their sources” (p. 39) in a confirmability audit trail. In order to help with the audit, the researcher kept accurate and detailed notes throughout the study. An audit trail “describes in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry” (Merriam, 2009, p. 223). An Excel file was created to provide organization of the confirmability trail. Along with an Excel version of email records, emails records were kept in a folder designated specifically on the researcher’s email account to track communication to and from participants, peer debrief team members or other people involved in the study.

Triangulation can also be used to increase confirmability. As mentioned previously when discussing measures of credibility, triangulation involves using multiple data sources in an investigation to produce understanding (Lincoln & Guba, 1985). Qualitative researchers generally use this technique to ensure that an account is comprehensive and well-developed. The researcher used multiple methods of triangulation including the triangulation of sources and analyst triangulation to help facilitate a deeper understanding of the phenomenon of interest.

Reflexivity is an attitude of attending systematically to the context of knowledge construction, especially to the effect of the researcher, at every step of the research process (Lincoln & Guba, 1985). "A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions" (Malterud, 2001, p. 483-484). Lincoln and Guba (1985) assert that the perspective or position of the researcher shapes all research regardless if it is quantitative, qualitative, or even laboratory science. Reflexivity allows the researcher to explicitly outline and bracket their bias to ensure that the study is data driven and not overtly guided by personal bias.

For this study, the researcher developed a reflexive journal to help maintain objectivity. The journal allowed the researcher to track methodological decisions and study logistics as well as the researcher's own values and interests. Journal entries were completed before and after every interview as well as throughout the process to keep researcher bias in check and keep the researcher on track. The researcher documented bias that related to both personal experience and beliefs as well as experience with the partnership throughout the research process. Journaling allowed the researcher to review data and reflect on personal variables that may affect the interview and data collection process (Lincoln & Guba, 1985).

Chapter Summary

This intrinsic case study was designed in five steps: document analysis, open-ended surveys, participant observation, semi-structured information and comparison of the information gleaned from each. The documents used for document analysis in this study included the partnership statement of work, planning and implementation documents,

meeting notes, and other related partnership created documents. Open-ended surveys and participant observation of partnership strategic planning followed as part of the pilot case. Yin (2009) explains that a pilot case study will help to refine data collection plans with respect to both the content of the data and the procedures to be followed. It also assists in the development of relevant lines of questions, possibly even providing some conceptual clarification for the research design as well (Yin, 2013).

Following the pilot case, semi-structured interviews were conducted using the information gleaned from the pilot case and the Melaville and Blank (1991) Variables that Shape Interagency Collaboration framework. Finally, the researcher completed a comparison of the information gleaned from each interviewee in order to review and compare the data collected (Merriam, 2009).

The population for the study was North Carolina Sentinel Landscapes program partners and key stakeholders. A purposive sampling technique was utilized in this study (Berg, 2004). Only individuals that were regarded as key decision makers within the partnership, key players in the formation and development of the partnership or held a strong reputation and influence among key stakeholder groups outside of the partnership were considered to be part of this study. This led to a total of 13 possible study participants. All 13 individuals were interviewed representing both male and female participants.

When beginning data collection, the researcher contacted the initial list of potential participants to participate in a semi-structured interview and were given the option of conducting the interview in-person or over the phone. Once a time and place were agreed upon, program partners and key stakeholders were informed of their rights as participants

prior to the interview (Merriam, 2009). Each interview was coded, recorded and transcribed. Codes for the interviews include INT (Interview) and a corresponding three-digit number represented the participant identification number.

Data was analyzed using constant comparative method. First, researchers must conduct “a general review of all information” (Creswell, 1998, p. 140). Second, Creswell (1998) stated that researchers should reduce data and start to build codes/categories” (p. 140). Finally, Creswell (1998) said the final step in analysis is to compare and relate categories to develop logical frameworks. As part of the constant comparative method, content analysis was completed. Content analysis has three steps: open coding, axial coding, and selective coding (Creswell, 1998).

Since the researcher was a research assistant for the Sentinel Landscapes Partnership, he witnessed ongoing interactions between program partners and key stakeholders. The researcher’s knowledge and experiences gained as a graduate student and research assistant of the department influenced the reasoning and analysis of this study. Trustworthiness of this study was established using tenants of credibility, transferability, dependability and confirmability.

CHAPTER 4

FINDINGS

Introduction to the Partnership, Partners and Key Stakeholders

The North Carolina Sentinel Landscapes Partnership included a breadth of partners and key stakeholders representing a range of interests that exist in eastern North Carolina. These interests include:

- Research, education and extension
- Natural resource conservation
- Farming and forestry
- Military training and readiness
- Environmental law
- Economic development
- Wildlife and habitat conservation

The study participants were either involved in the inception of the partnership, a member of the overall Sentinel Landscapes Partnership steering committee, or a member of the MBCI steering committee. Study participants represent a range of organizations including:

- North Carolina State University
- North Carolina Cooperative Extension Service: Extension Forestry
- Texas A&M University
- North Carolina Department of Agriculture
- Marine Corps Installations East
- The Environmental Defense Fund

- The North Carolina East Alliance
- North Carolina Department of Environment and Natural Resources
- North Carolina Soil and Water Conservation Districts
- The Association of Soil and Water Conservation Districts
- The North Carolina Farm Bureau Federation

The study participants cover a range of years of involvement with the partnership from 8 years, for those involved in its inception, to 5 years for those who were brought to fill in various roles as a result of turnover. These participants represent a breadth of job titles including: dean, associate dean, environment policy analyst, executive director, Assistant Chief of Staff (AC/S G7), attorney, director, public policy analyst, associate director, and program manager. The partners and key stakeholders included in this study demonstrate a range of middle to upper management responsibilities for their respective organizations. The 13 individuals interviewed, consisted of eleven males and two females who ranged in age from 40 to 70 years of age.

These partners and key stakeholders served an important role for the development of four partnership initiatives that were focused on the maintenance and enhancement of working lands, conservation and national defense. These initiatives included:

1. Partnership with North Carolina Department of Agriculture and Consumer Services (NCDA&CS) and Agriculture Development and Farmland Preservation (ADFP) Trust Fund.
2. Working Forests Initiative
3. Food and Fuel for the Forces (FF4F)

4. Market-Based Conservation Initiative (MBCI)

Each initiative, also known as a partnership element, was managed by a partnering agency or organization with an element lead that served as the point of contact.

The first initiative was focused on collaboration to promote landscape-scale conservation efforts that protect military training and testing areas. ADFP worked to promote the creation of county-wide farmland preservation plans, Voluntary Agricultural Districts (VADs), and Enhanced VADs. These efforts were intended to foster county level support for agriculture by identifying rural areas to preserve that are integral to agribusiness and providing private landowners limited assurances for agricultural production. ADFP has also focused its efforts on providing match funding for easements of value to the military with an emphasis on agricultural working lands.

The working forests initiative involved identifying landowners' needs to keep working lands working, categorizing resources available for maintaining working forests and pinpointing gaps in policy for sustaining working forests. Outcomes of this initiative include the development of a Working Lands Trust and a Working Lands Conservation Professional Development Program. The working lands trust is focused on offering landowners term and perpetual easements to protect their land from development while still permitting such activities as timber harvest. Additionally, the professional development program provided government agency and non-governmental organization professionals with training to work with landowners on developing conservation plans and engaging in conservation agreements.

FF4F focused on increasing local purchasing capacity by building the infrastructure and networks necessary to develop long-term connections between the Marine Corps installations and the farmers and foresters in eastern North Carolina. The goal of this initiative was to increase the use of local food products on military bases while promoting the growth of a regional biomass industry. The theory behind this element was that by making it a priority to purchase products from North Carolina would help maintain the economic viability of working lands. This initiative produced collaborative efforts between Marine Corps Installations East, the Defense Commissary Agency, the Defense Logistics Agency, North Carolina Eastern's Region, Foster Caviness, and Sodexo to implement the strategy.

Finally, the MBCI was a pilot project aimed at protecting an aviation training route that military pilots use to fly from their bases to a special-use airspace and a bombing range in the Pamlico Sound area of North Carolina. MBCI tested economic methods of protecting the route by promoting voluntary private landowner participation in performance-based, term-limited contracts to keep enrolled land in compatible land uses. MBCI used a market-based reverse auction system to optimize the use of available funds. The program was administered by the North Carolina Foundation for Soil and Water Conservation and the 18 local soil and water conservation districts.

Research Question One

How did the social and political climate of the state influence the collaboration?

Broad Recognition of Issues and Needs

The partnership was thrust into a relatively positive social and political climate where a broad spectrum of stakeholders recognized the benefit of collaborating to maintain rural landscapes. Interviewees cited a “recognition of what’s happening in North Carolina

(part115, part217)" as an important precursor for the social capital available to the partnership (part001, part101, part106, part107, part111, part205). A founding member and key leader of the partnership explained that, "people were already there and starting to think about aspects of this even before [the partnership] was on the scene (part101)." Stakeholders across various sectors had already begun working on disparate projects to address the issues facing rural landscapes to mitigate the negative impacts of the encroachment of incompatible land uses. The military sponsor identified this positive climate while also citing the disparity of the efforts explaining that, "they weren't necessarily congealed together to go down a path but there was certainly the emergence of some undeniable trends that were of concern going in (part101)."

Specifically, groups in agriculture, forestry and conservation were cognizant of the mutual issues that their sectors were facing and understood the need to work collaboratively to effectively address them. Multiple partners representing the interests of natural resource conservation cited a broad recognition of the "transitions going on in agriculture and the tobacco buyout process (part115, part217)" as precursors for discussion going on to explain that "groups were already talking before these discussions started with the military (part115)." Based on the issues facing rural landscapes in North Carolina and the relatively large military footprint, stakeholders "saw a value in supporting the military (part104)."

Several interviewees also cited a positive environment among potential collaborators and partners that came together in order "[to] address political and social concerns (part001, part101, part104, part107, part111, part115, part109, part205)," facing the communities in eastern North Carolina. A mutual understanding existed prior to the formation of the partnership of the potential to create solutions that would help the interests of rural

stakeholders by helping to maintain the military training mission. The partners saw value in the military “keeping their training routes (part001)” because “almost everyone in North Carolina wants the military to stay (part001).” The partners also understood that the military’s ability to conduct realistic training and weapons testing is vital to preparing troops for combat. They realized that the Marine Corps training and testing mission included amphibious, land and air activities and depended on a healthy and expansive network of bases, ranges, test areas and connecting routes that spans many eastern North Carolina counties (part101, part102, part115, part205).

The broad recognition of the issues resulted in beneficial policies and mandates that drove the partners to the table to collaborate (part001, part101, part104, part106, part107, part109). Several interviewees mentioned that this was very important from a policy perspective explaining that, “federal policy, say, ten years ago didn’t fully address [the issues facing rural landscapes], so the new initiatives and mandates have been important in looking for the solutions (part205).” Along with federal mandates, there was a recognition of the needs of these landscapes at the state level that prompted and facilitated collaborative efforts. Through the work of the Governor’s Land Compatibility Task Force, the state of North Carolina increased their awareness of the issues and needs of the landscapes as well as the value of cross sector partnerships. As a result of this work, the state legislature instituted a mandate for the promotion of multiple benefit projects with overarching goal “try[ing] to be the most military friendly state (part104).”

While the mandate was focused on promoting the needs of the military, multiple interviewees explained that it also spoke to the severity of the issue and the urgency to “find a way to advance working lands, conservation and national defense (part001, part101,

part106)." The aforementioned mandate and work of the Governor's Task Force were cited as, "drivers for the partners at the table, part of their mission, part of their reason for being (part106)."

Recognizing the issues facing rural landscapes and the needs of the various stakeholder groups, key stakeholders understood the need to promote mutual gain solutions and reduce turf battles for programmatic funding (part109, part311). The positive environment built upon the broad recognition of issues and needs was explained by one partner as providing a link between, "both department of ag[riculture] and department of defense who are actively working (part205)." A program lead further explained that this recognition among the General Assembly was also crucial to "setup of an ADPP trust fund whose mission statement was basically to preserve these resources and to do what has been suggested in mutual partnership activities (part106)." The actions by the general assembly along with the Governor demonstrate positive environment for development of a collaborative effort.

Public Perception of Military in Eastern North Carolina

Local community members in eastern North Carolina developed a negative perception of the military based on previous experience. One of the partners that helped to form the partnership identified a "love/hate relationship with the military (part002)" explaining that some landowners understand the importance of a military presence in North Carolina while others "don't always appreciate some of the things that come along with the military (part002). Multiple partners explained that generally there is a lot of respect for the military in North Carolina and an understanding of their economic impact on the state (part001, part002, part111, part115, part205). Animosity among landowners also exists

which was explained by one of the partners is due to “their granddaddy’s farm was taken by the Army in 1919 (part111).” A partner that was actively engaged with landowners explained that landowners characterized military-based programs as “an intrusion” that presented a unique challenge based on “how they perceived a partnership with the military (Int_part115).

A specific project that significantly worsened the public perception of the military and relations with local communities in eastern North Carolina was the Outlying Landing Field (OLF) Project developed by the Navy (part001, part002, part101, part104, part106, part107, part111, part115, part205, part217, part316, part319). One of the founding partners explained that the military was “looking to setup an outlying landing field for the Navy somewhere in North Carolina among other places because the one at Oceana which is outside of Norfolk is surrounded by housing developments and lots of lights (part001).” This partner explained that matters became contentious when the Navy “came up and bought up land without telling people they bought up land next to a waterfowl refuge, which doesn’t make a lot of sense for those that are interested in flying planes (part001).”

A source of frustration was evident among the local supporters of the OLF based on misinformation provided by the Navy (part001, part002, part106, part115, part205). One partner explained that “some of the early local businessmen and women and local political supporters of OLF were burned in the end because they may have stood up in early meetings and said this is a good thing for our county (part115).” This partner went on to explain that these people were told that “they only need X number of acres, when actually it was way more number of acres the military was interested in (part115).” Ultimately, the military formed relationships with leaders of local communities to influence them to be a program

champion in their county, and as one partner put it “they weren’t giving them the full story (part115).”

Based on the experience of the OLF, the partners explained that there were still leaders that were agitated and influence the implementation of the MBCI (part104, part106, part107, part111, part115, part205, part217). The partners responsible for the initiative explained that “the residual effects of OLF is the sole reason why we never delivered market based in Beaufort and [Washington] County (part115, part217).” One of these partners went on to explain that “the district was interested but select county commissioners had the attitude that market based was an end run to come at the concept of an outlying landing field from a different angle (part115).” Partnership documents (doc1) shows that discussions were held regarding this issue and the realization of the perception and trust issues at hand. When the program initiative lead was asked about this dynamic, they explained that “their trust in what we said [about] market based was going to run with zero (part115).”

The partners felt that since the OLF was a touchy issue specifically among landowners and local communities it compromised the partnership’s social capital at a local level. A program lead explained OLF was a detriment to the relationships “between local landowners, state government, federal government and private industry (part106).” This social climate impacted the manner in which the partnership engaged with local communities (part101, part104, part106, part115). One of the partners explained that it was a “healing process by working collectively together and at the same time an education process with the private landowners...municipalities, [and] the county governments because a lot of trust was lost (part106)”

Since the OLF impacted so many stakeholders across the eastern part of the state, it was at the forefront when the partnership worked with the public. One of the initial partners further expanded on this dynamic explaining that as a result of the OLF, “there was a lot of hesitancy at the upper levels outside of Camp Lejeune...and also some hesitancy in terms of landowners trusting. (Int_part001).” The partnership was very cautious in how they informed the public ensuring that their efforts were differentiated from the debacle of OLF (part001, part101, part104, part106, part115, part205). Through the initial efforts of the partnership, one of the program leads explained that “this was an effort to go back and look at what is the process for how we partner with the local community and what are the needs of the local community (part217).”

The partners also identified that proximity to military installations impacted landowner perception of the military presence in the state (part001, part002, part109, part115, part205, part217). One partner succinctly stated that “the people that live near the base, they feel the economics of having the military there (part217).” This partner went on to explain that “they own the restaurants, they own the hotels” and “are receiving economic benefit of the base being there (part217).” Since the efforts of the Sentinel Landscapes Partnership required the conservation of land between bases, landowners who were engaged by the partnership were not always within close proximity to a base. A partner who was actively engaged with landowners across the landscape used by the military as special use air space explained that those landowners further away from the base were more likely to have a negative stigma of the military because “they might not actually see an economic return (part115).”

One of the military partners understood the negative stigma of the military explaining that landowners “were initially suspicious, doubting (part101).” The military partners understood that landowners had developed a negative stigma of the military as land grabbers based on previous experience. This partner expanded on this dynamic of mistrust explaining that landowners will typically say, “this is my land...don’t come treading on my land (part101).” He explained that based on previous experience that “it doesn’t matter what the topic is, I think you’re going to find the private landowners especially get involved and want to know what you’re doing and why, how is it going to impact (part101)?” Several partners (part102, part104, part106, part 111, part115) cited the value of the partnership for overcoming the aforementioned perception issues which the military partner stated was the reason for “the development and implementation of the whole partnership (part102).”

The Influence of the Market-Based Conservation Initiative

The aforementioned social climate that resulted from the OLF project may have been further exacerbated by the administration and outcomes of the Market Based Conservation Initiative (MBCI). To understand the potential for detriment on the partnership among local communities, one partner explained that “there’s a perception that Sentinel Landscapes is just market-based (part205).” Due to the overemphasis on MBCI that resulted in this perception, the partner representing the program sponsor believed that it resulted in significant publicity of “some of the hiccups that it had” because “it was building a huge expectation out there with private landowners (part101).” This partner also believed that the attention that this initiative received was because it was “the one that was challenging the norm (part101).”

One of the biggest hiccups that was cited by landowners was the transition from performance contracts to traditional easements, which they were told would not be part of the

initiative. The initiative lead explained that “landowners were smart enough to say well this is just term easement why don’t you just call it what it is (part115).” Based on a survey conducted by members of the partnership, it was apparent that the landowners in eastern North Carolina were generally averse to easements and exhibited a preference to contracts. A partner expressed frustration from this change explaining that “it negatively impacted the opinions of landowners towards the partnership because we talked about contracts and then over time it sort of migrated a little bit closer to actually what some would call term easements (part115).”

The length of time it took the partnership to execute agreements and the abrupt termination of MBCI further worsened the perception of the partnership among landowners. The partner that worked closely with these landowners told a story of initial optimism that eventually turned into a state of relative pessimism. They explained that landowners would continue to reach out to see if the initiative was “still moving forward.” This partner further explained that landowners even became sarcastic explaining that they were “surprised it has gone as far as it had (part115)” with a landowner who was retired military explaining that they thought “it would have already been terminated (part115).”

Since there were already trust and perception issues related to military programs, one partner explained that these efforts “didn’t help improve that trust with the termination of the pilot early when we told landowners you will have 2 hopefully 3 opportunities (part115)” to bid. Many of the partners felt that these issues would further exacerbate military-based conservation efforts in the future (part104, part107, part111, part115, part205, part217) with one partner explaining that they are afraid that it will create a mentality of where “landowners are going to say well here we go again (part217).”

The experience of the partners with this initiative, specifically as it relates to their experience with the military, has created a climate of hesitancy. The concern, as one partner stated, was the ability “to maintain credibility with landowners (part104).” The concerns of credibility related to general concerns of future military programs as well as the credibility of the partners home agency or organization (part104, part111, part115, part217). While decisions made by the military were being made by the Navy in regards to MBCI there was concern that “it impacted the credibility of both the Marines and the Navy (part104).” This was a major concern to this partner because he felt that the Marines “had an effective, innovative set of partners working hard to deliver a goal and being required to fit into a process that they didn’t have to be but that had real downsides (Int_part104).” The sentiment was that there was an innovative group of partners that were poised to make a difference but were confined to the process and policy requirements imposed on them.

Some of the partners understood the history of the Navy and their reputation of being a difficult partner (part104, part111, part205). The Navy was cited as being the culprit for the project structure change, which several of the partners disagreed with (part101, part102, part104, part106, part107, part111, part115, part205, part217). One of the core leaders explained that “it definitely makes you more skeptical, more cynical and wanting more assurance before you do it again (part104).” This propagates a social and political climate that is not conducive for collaboration. A partner explained that it was unfortunate because, “I think all the partners are interested in helping the military but you’ve gotta be true to the relationship if the military wants partners (part104).”

Research Question Two

Why were some communication and problem-solving processes considered priorities by people in leadership positions?

The Importance of Partnership Building Processes

The Sentinel Landscapes Partnership started as a traditional university and extension project where the original partners responded to a request for proposals (part001, part002, part104, part111, part205). When the original leadership group was asked about what guided the efforts of the partnership they pointed to “the proposal itself (part002)”, which they explained guided “agreements that were written with the partners [that] established a timeline, scope of work, and expectations for accomplishments (part002).” Multiple partners identified that “[roles were] draw[n] from the proposal, the scopes of work, and the agreements (part001, part002).” One of these partners provided insight into the early stages of the Sentinel Landscapes efforts explaining that it was initially designed to “achieve the goals of the Marine Corps (part002)” and that it was “very much a directed project (part002).” The partners that developed the initial proposal and got the partnership off the ground explained that “the sponsor is giving us the money to achieve their objectives through academic means (part002)” and that the marines had a “dominant advisory voice at the table because they were the sponsors (part001).”

Multiple partners asserted that an “internal weaknesses of Sentinel Landscapes is how it got structured originally (part115, part217).” Multiple members of the core leadership group expressed that it “hurt the situation that some [of] the partners approached it as a project (part115, part217)” and believed that “whole thing is a process [that is] more organic in nature than just doing a project within a specific timeframe (part115).” One of the non-

profit partners went on to explain that “it’s very easy for people who manage grants; non-profits and university folks to fall into that project mindset (part115)” and asserted that “if you don’t keep the broader process in mind you lose some things that you could have gained along the way (part115).”

The collective gain of the partnership may have been compromised by the project-based approach due to the partnership’s inability to leverage existing and potential opportunities that aligned with their mission (part101, part102, part104, part106, part109, part111, part115, part205, part217.) The military partners felt like this approach comprised the partnership’s “ability to seek additional funding opportunities (part101, part102).” Additionally, several partners (part101, part102, part104, part106, part111, part115, part205, part217) agreed with the assertion of a program lead that “there could have been any number of projects that could have been done under the Sentinel Landscapes umbrella (part109)” but due to the fact that everyone was “focused on getting something done by a certain date (part109, part115, part205, part217)” many partners “fell out of the loop on what the overall goals were (part109, part115).” Multiple members (part109, part111) of the leadership group “felt like [establishing goals and objectives] was all over the place (part111)” because “if you break it out into individual projects and piecemeal out the projects you lose the integration necessary to have a focused strategy around Sentinel Lands (part109).” Ultimately a broad cross-section of partners (part106, part109, part111, part115, part217) believe that during the initial stages of the partnership, the project-based philosophy compromised the potential for collective gain because they felt that “without the [partnership] piece, you would be hard pressed to create synergy (part109).”

Partnership documents including meeting notes (doc2, doc3) identified a transformation from a project-based approach to partnership building midway through the original grant. The partnership began the strategic planning process that included the Sentinel Landscapes Partners as well as key stakeholders across the state. Many partners believed that the transition allowed “for goals and objectives [to be] embedded in building a broader partnership than something that just met [individual] needs (part101).” Multiple partners believed (part106, part109, part115) that by transitioning to this new approach it would allow the “individual programs [to] become voices for the Sentinel Landscapes partnership (part109).” The partners also saw the transition as an opportunity to clearly define the Sentinel Landscapes umbrella, which would allow the broader partnership to drive the elements rather than the deliverable based approach evoked during the inception of the project. A program element lead asserted that “we should not be talking about our individual elements without providing that Sentinel Landscapes message (part109).”

Consensus Building Process to Develop a Shared Vision and Mutual Gain Solutions

The partnership’s ability to bring together a broad range of interests through the inclusion of various stakeholders produced a diversity of cultures that required significant consideration. One of the partners involved in strategic planning understood this dynamic and explained that encouraging “compatible practices is a cultural challenge (part102).” A partnership document that included the insights of a key stakeholder expanded on this dynamic, identifying a challenge in developing and maintaining a shared vision based on scarce funds that creates “turf battles among [various] groups - the conservation NGOs, the military branches, the ag[ricultural] groups, counties, politicians (part205).” Multiple partners (part101, part102, part115) explained that they may have underestimated the complexity of

the partnership related to cultural diversity while one partner stated that “if there was a shortcoming it was probably in not anticipating what we know exists in society – diverse opinions and personal agendas - and in bureaucracies especially (part101).”

The partnership evoked a collaborative, consensus-driven problem-solving approach, which one of the partners felt was “one of the better aspects of [the partnership] (part101).” The partners expressed the importance of this approach based on the complexity of the partnership and the diversity of interests it intended to address (part101, part102, part104, part106, part107, part109, part115, part205). A key stakeholder that was asked be involved in the process explained that “it seemed that the people that needed to be in the room where there [providing] a good number of different perspectives (part316).” The partners also felt that by welcoming the diverse set of ideas, thoughts and expertise to the table it helped to reduce conflicts encountered by the partnership (part101, part102, part104, part106, part107, part109).

Through the consensus-driven model, the partnership welcomed a diverse set of ideas which was cited as the trademark of the partnership. A program lead explained that a “voice [was] given to each person’s opinion [and] they took the time to explore and fully internalize the partners concerns and opinions to come up with something that worked for everyone (part109).” This partner further explained that the consensus-driven approach “was the hallmark of what we were doing and I think we stayed true to that throughout with nobody becoming a dictator, nobody trying to take control of the process (part109).” Another partner expanded on the importance of this approach explaining that it created an environment where they “felt comfortable enough with the partners (part101)” to ask them questions and explore means of developing a mutual understanding to make effective programmatic decisions.

The partnership was able to constructively explore differences and develop solutions that were grounded in mutual gain (part101, part104, part106, part107). One partner explained that “whatever interest [individuals] may be bringing to the table is welcome (part101)” but that the partnership would not automatically “accept it the way you present it (part101).” The partnership made a concerted effort to “take all ideas into consideration (part102)” because of its ability to mitigate conflict down the road (part101, part102, part104, part106, part109).

While cultural differences seemed to be an issue from the beginning, multiple partners (part101, part104, part106, part107) believed that over time the partnership has “been able to work to create those bridges (part104)” by looking at “the common links and the intersect[ion] when you put all the circles together in the Venn diagram (part106).” In multiple interviews the partners explained that efforts were deployed for finding common links between the partnering organizations by “shar[ing] what our respective needs were to accomplish the [respective] missions (part107).” The partnership ensured that developing a shared vision was paramount because “without the mutual common organizational desire or goal to achieve we would have all gone to our separate corners and put up our little shields and cooperation would have ceased (part106).”

In relation to developing a shared vision, the partnership believed that there was a stakeholder group that provided a common link between the partners. Several partners interviewed explained that the “common denominator (part001, part101, part106, part107, part115, part217)” among those in the partnership was “to provide a service to their constituents (part106).” Partners believed that a shared vision was developed based on “the common link that was always constant ended up being private landowner because they were

the resource people that had the common and services related these resources linked all of us together (part106).”

The partnership strategic plan identifies the importance of the rural landowner within the partnership goals and objectives as well as the partnership vision. The Sentinel Landscapes vision stated in the strategic plans is “a convergence of military readiness, working lands and water resources, and conservation providing prosperity, health, and security for all.” The partners believe that they “were able to articulate [the landowner piece] to leadership and [constituents] to gain acceptance (part107)” based on the work of partnering agencies and organizations who “collaborat[ed] with private landowners (part107).”

Multiple partners (part001, part101, part102, part107) agreed that the work of the collective group was thorough regarding the landowner focus. The partners believed that they were effectively able to incorporate the landowner piece through their own “[collaborative] education process (part107)” encompassing ongoing outreach events that allowed the partnership to develop an understanding of “the mentality of a landowner (part107).” Another interviewee went on to explain that if “you put a program together by people who are not actually the landowner, the people that are going to be implementing or being affected by it, it usually won’t work (part001).” This sentiment was echoed by other interviewees that stated that “you really have to bring in the people who will be affected by something early on (part001).”

While multiple partners expressed “an appreciation of the private landowner piece (part101, part106, part107, part111)” one partner identified that there are “struggles to bring them to the table (part001).” The partners (part001, part101, part106, part107, part111)

believe that through the aforementioned education process that they were able to outline the overarching, long-term benefit to the landowner but was not able to provide the level of detail regarding their vision due to the inability to bring the landowner to the table.

The partners also identified the need to engage all services of the military and maintain their engagement in order to develop a shared vision for collective action. Multiple (part101, part102, part111, part205) partners identified that “all of the services (part101)” were invited to participate but only one military service sincerely participated in full. They believed that if the partners were able to maintain the engagement of their military partners, “it would have been more beneficial (part101)” and a weakness of the partnership that some believe hurt the efforts of the partnership. This was expressed by several partners (part101, part102, part107, part111, part115, part 205, part217) and was effectively encapsulated by a core group member that stated that “keeping the other services at the table has been harder [than expected] (part107).” This partner felt that this compromised the ability to develop a shared vision as many services are “autonomous in their own efforts (part107).”

Solving Problems and Resolving Conflict through Formal and Informal Processes

As a result of the diversity of actors involved with the Sentinel Landscapes efforts, multiple approaches were needed to solve problems and resolve conflict. Multiple interviewees explained that this was a result of “the policies of the different organizations or the structures in which they were designed did not always lend themselves to compatibility to work across the lines (part106).” One partner stated that “initially we were all in our separate corners, from the standpoint we had our directions and missions that we were supposed to accomplish and we begin to share what our respective needs were to accomplish the missions (part106).”

The partnership was able to use more of an informal approach within this core group of partners, which was important for the continued development of mutual respect that one partner explained was “present among all of those involved here at the state level (part102).” This partner went on to explain that the informal problem-solving processes produced “candid dialogue (part102)” which was important to all partners involved. The informal approach was also adopted for managing conflict. As one partner put it, they handled conflict by “basically to discuss[ing] it (part106).” The partner summarized a dynamic echoed by multiple partners (part101, part102, part106, part107, part109) stating that the partnership would “look at what the other options were and ask for inputs from others as far as suggesting ideas to overcome the conflict (part106).”

While the process was predominantly informal, the partnership did evoke structured problem-solving processes in order to increase the ability to reach consensus (part106, part107, part115). One partner explained that in multiple instances the partnership used “break-out groups trying to put things together” that would then be put in front of the larger group for approval (part106).” The partnership would also seek counsel from external entities to serve in an advisory role in order to ensure that a breadth of expertise and knowledge was integrated in the discussions among the partners (part101, part104, part106).

In addition, the partners explained that the processes adopted more of a formal structure when conversation where held with military partners outside of the core group (part104, part115, part217). One partner explained that the process “followed what you would normally do in conflict resolution situations (part115).” This partner explained a process was outlined for “how the discussions were held, when the discussions were held (part115)” and also explained that “notes were taken (part115)” in order to document the

conversations. Some of the program leaders thought this approach was necessary because consensus was not always possible in this arena. One partner asserted that due to the nature of the discussions “it didn’t always move toward group consensus (part217)” because “sometimes one party ruled in heavier than the other (part217).” Another partner explained that this dynamic occurred around the table citing the example where they “insisted conservation plans remained part of the process (part115).”

A key partner explained that conflict usually revolved around “a simple lack of understanding of what parameters each party was operating under (part101).” Since there was a formal process in place, discussions could be leveraged to promote mutual understanding among those around the table (part101, part102). The military partner further explained that “by discussing those parameters [it] eliminated options from the table [that] everybody seemed to understand, recognize, and accept. (part101).

While the formal process exhibited relative success, the partners demonstrated a relative level of frustration with the inclusion of key military decision-makers in programmatic decisions (part104, part115, part217, part205). A program lead explained that it “wasn’t always clear to us is did we have the decision makers at the table or did we have their representatives at the table (part115).” While a steering committee member of MBCI explained that “[the military] is such a big entity that you could never have all the people you needed in a room to agree (part316).” Having the necessary decision-makers underscores the success of these formal efforts as well as the importance of evoking the aforementioned formal approach.

Using a Steering Committee to Promote a Stakeholder Driven Process

The partnership developed a steering committee in order to represent the diverse interests and needs associated with the context of management. Due to the project-based approach evoked at the onset, many partners felt that “at first there really wasn’t a steering committee to send things to (part115).” There were negatives and positives identified by the program partners and key stakeholders based on this initial reflection. Many vocalized that “the leeway that was given to the element leads to explore the possibilities was critical to getting as far as we did (part109).” A program element lead went on to explain that overall the efforts of the partnership was a “very creative process and that the creative piece, which is the building of the elements, needs to be somewhat autonomous but then brought together to feed from insights of the other elements in the program (part109).”

On the flip side, several interviewees felt that “the creative minds of the folks within the room could have been brought to bear on all of the elements more [and from a] lessons learned standpoint the steering committee needs to provide guidance, at least creative input to all elements (part109).” Multiple element leads (part106, part109, part115, part205) explained that since more of the direction was driven by the individual elements and the project leads drove the process, this compromised the partnership’s initial ability to “leverage the synergy of the elements [and] to be able to articulate the value of the umbrella program of Sentinel Landscapes (part109).” Several key partners (part101, part104, part106, part115) explained that initially everyone was “more concerned with the MBCI program within Sentinel Landscapes (part109)” because of the innovative nature of the element which created “less [of] a Sentinel Landscapes steering committee [and] more of [a] Market Based Conservation steering committee (part109).” The main negative consequence identified by

the program partners was that “at least one of the projects didn’t gain traction (part104)” because it “seemed like that group was operating in isolation (part104).”

Fortunately, even though the partners expressed during interviews that it “took a while to get the steering committee process [to get] going (part205)” they explained that it has evolved and is “working now much better than it was in the first couple years (part205).” Multiple partners explained that by having the university and extension develop “a formal steering committee and a core team (part205)” it provided some much needed “structure (part205)” and a shift to “thinking strategically that [wasn’t] fully realized the first couple [of] years (part205).” In order to represent the organizational mandates and interests of the partnership and the broader landscape of working lands, conservation and national Defense, the partnership brought in leadership from each of the partnering organizations to be included in the partnership steering committee. All of the partners explained that the benefit of the steering committee structure as summarized by an elements lead was that “everyone who was in the steering committee was representing a stakeholder and having all of them in place really, that implied they’re buying in from their organizations (part205).”

The steering committee was responsible for setting partnership policies and guiding the direction of the partnership. The steering committee also served as the mouthpiece of the partnership building credibility and awareness among their constituents (part106, part107, part109, part115). Multiple partners expressed a value-added of the steering committee because “the [committee structure] makes sure that each of the elements are focusing on the prime objectives of the Sentinel Landscapes and not going down rabbit holes that are of little or no value to the overall strategy of Sentinel Landscapes (part109).”

The partnership also brought together key stakeholders into a committee structure to consider the feasibility of developing a framework for ecosystem markets in eastern North Carolina to promote the maintenance and enhancement of both conservation and national defense. The stakeholders formed three committees (science, economics and policy) to aid in the planning process. Initial leadership interviewed explained the use of “a hybrid between those three [committees] and the steering committee (part205)” with the intent “that core team [would] push things forward (part205)” and that by “having that structure in place (part205)” it would again continue to “ensure buy-in (part205).” The committee members were recruited from a variety of organizations based on relevant experience in the scientific, policy, economic and conservation fields of eastern North Carolina (part001, part104, part115, part217). Initially this effort focused on habitat crediting for endangered species, longleaf pine conservation and open space conservation as it related to military training routes (part001, part002, part101, part205).

Early partnership documents (doc4, doc5) provide an outline of responsibilities for each of planning committee that were evoked during the initial stages of the partnership. The Science Committee was responsible for considering the viability of conservation efforts, developing research-based metrics for determining the value of conservation efforts and ensuring recommendations were based on the best available science. The Economics Committee was tasked with determining what incentives private landowners would require and how a market-based approach could be created to net a benefit for acreage maintained in conservation and national defense compatible efforts. The Policy Committee was tasked with developing guidelines for landowner participation and for assessing whether policies were in place to effectively implement the program. Interviews with early partnership leadership

explained that “the structure of the economic group, policy groups (part101)” with facilitation by the university was “extremely important to make sure we were hitting those three biggies (part101).” A few partners (part101, part104, part115) expressed a belief that “if you have too much of one but not the others you don’t have a great chance of success (part101).”

One of element leads lauded the contribution of a “technical support group (part115)” that would be called upon when “issues came up and [having] represent[ation] from members of the steering committee (part115).” The partner responsible for the development of the initial workgroup structure explained that they “setup a technical support group to work closely together on issues was the most important to moving the process forward (part115)” while producing “a quick turnaround decision (part115)” to avoid “flounder[ring] really early on if everything has to go all the way through the process (part115).” The streamlined, decentralized structure was expressed as a beneficial practice for promoting “creativity in a short amount of timespan (part109)” because they “used a smaller group at the critical times when we had to make some decisions and keep some things moving but we engaged the steering committee as well (part217)” to ensure buy-in across the diversity of partners and stakeholders.

Adaptive Management: Planning, Evaluation and Monitoring

Since the Sentinel Landscapes partnership did not employ a strategic planning approach from the offset, the program partners interviewed believed that the establishment of goals and objectives were done “too little too late (part115, part217).” Multiple interviewees believe that the process should have started “in the first couple of meetings (part115, part205)” and because the overarching direction was not established from the beginning that

“it took a little too long for the program office to have effect (part109).” One partner asserted their frustration with the initial approach explaining that it is “difficult in the middle of the pilot to then officially adopt your goals and objectives (part115).” This sentiment was echoed by multiple partners who were also concerned that the lack of strategic planning from the offset would compromise the ability to improve the program as well as demonstrate the value of the partnership to key stakeholders outside of the group (part109, part111, part205).

Multiple partners (part106, part107, part109, part115) explained that the partnership could not “go back and evaluate later [what has already happened] because you didn’t know until mid-way through the process that you were going to need to evaluate it (part115).” The partners cited that in the initial stages, the partnership “went through that process organically when they had that science, economics, and policy committee setup (part115)” but identified a loss of institutional knowledge because “they just didn’t produce a document that could be passed down (part115).”

The loss of institutional knowledge for internal improvement as well as external accountability was echoed as a valuable lesson learned related to the absence of a program evaluation and monitoring framework. The partners explained frustration that “the original economic, policy, and science committees did not produce a full set of notes from those past meetings (part115)” that may have leveraged in future efforts. The program sponsors echoed that concern explaining that “a lesson learned goes back to the documentation, the sharing of [documentation], and the communication of it on a consistent basis (part101)” which they believed was “absolutely central to rapidly mov[ing] forward to bring and get those people in a room, have them say their peace, keep them at the table (part101).” The partners all explained that due to this void, many external stakeholders “had no idea how much went into

it (part101, part104, part106, part107)" and among that group of people who knew so little about it "they may have the perception that the efforts were an ill-conceived, ill-designed, uninformed, non-documented occurrence (part101)." The partners explained in their interviews that the lack of program evaluation, monitoring and related documentation early on, "there wasn't any valuable lessons learned that could have been fed into process [because] it wasn't a continual reiteration of what was discovered (part115)."

Once the partnership embarked on the strategic planning process many of the partners expressed that the "goals and objectives for the program were approached in a very holistic manner (part101)." Several partners believed that the partners focused on the ability to "create the partnership with a broader group (part104)." Meeting notes following strategic planning sessions demonstrated the holistic approach from the development of the goals and objectives of the partnership based on the integration of the interests related to working lands, conservation and national defense.

The partnership did ensure a sense of collaborative accountability among the internal members of the partnership and other key stakeholders through regular program reporting (part002, part104, part106, part109, part115, part205). Program reporting was originally structured around the deliverables identified in the program proposal and subsequent agreement. Program partners believed that "the reporting side help[ed] ground [the partnership] programs in contractual metrics (part109)" and would be able to then "report them out programmatically to another program lead (part109)." Several partners (part002, part104, part106, part109, part115, part205) explained that the reporting structure worked well and was focused on "accountability of the dollars but also of what was accomplished and with whom (part102)."

Even though program reporting was one of the components of the partnership that was given some sort of structure from the beginning, the partners explained during interviews that “the reporting content could have been a little more structured (part109)” and “a more formal or more formatted reporting system would have been beneficial (part109).” Multiple partners (part106, part109, part115, part215) explain that there needed to be “more focus on consistency at the program level in terms of reporting formats and reporting data points (part109)” because “everyone was reporting what they felt was important (part109)” within the broad reporting categories.

Recurring Engagement for the Development of Working Relationships and Trust

The partnership identified the importance of engaging with each other both formally and informally for the development of effective of working relationships and trust (part101, part102, part104, part106, part107, part109, part111, part115, part205, part217). One of the program sponsors expressed this sentiment explaining that “being able to get together informally as well as formally...was very, very important (part101). Another partner expressed the partnership’s approach as the “rules of engagement (part205)” explaining that “there’s the pre-meeting, there’s the meeting, and there’s the after meeting (part205).” This partner went on to explain that several of the partners would “meet for breakfast at Pam’s farmhouse at 6:30 before the 8:30 meeting (part205)” describing it as a “pretty regular thing (part205).” The partners explained that there was “a lot of informal (part107)” activities that the partnership engaged in including “going out to eat (part217)”, “sitting down over a beer (part107)” and attending “social events (part115)” that assisted in the development of relationships and trust.

The partnership dedicated a significant amount of time towards informal engagement because as one partner stated “you need time to build that personal relationship outside of the physical meeting that you are sitting in (part217).” Once the relationships were built, a program lead explained “that [it] helped create the trust and closeness necessary for them to work closely together and explore where their minds were going (part109)” and promoted a sense of “commit[ment] to making all of this work (part107).” Another partner expanded on this dynamic explaining that they “had no problem with calling anybody within the team or teams informally and then formally tak[ing] care of it in the meetings (part107).”

All of the partners cited the development of these relationships as the contributing factor towards the continued success of the partnership and the desire for the partners to continue to move forward collaboratively. A program lead explained that “those [personal relationships] were vital stakes in the ground (part106)” resulting in a mentality among all involved of “how can I help or how can I reach out or how can I bring resources that would address that concern (part106).” This dynamic also enhanced relationships with “the folks down at Camp Lejeune and Marine Corps Installations East (part115)” as well as “NRCS (part101)” who became more involved than the program sponsor anticipated.

The partners expressed that the development of personal relationships resulted in a team approach facilitated by the presence of friendship among the group (part002, part104, part106, part107, part115). One partner explained that “once you’ve got that trust and bond of friendship together it became almost like a little brotherhood or sisterhood of being able to work together for a common goal (part205).” This partner went on to explain that “we’re working so long together, we know family members, we know spouses, you know what’s going on in their lives and so you can temper some of that potential conflict or differences

(part205)." Another partner within the core leadership groups further explained that "the working relationships would adequately allow any disagreements to be resolved in a collaborative consensus forming kind of discussion (part104)."

The development of these relationships and trust also allowed for creative thinking among the partners. A program lead explained that "the trust factor allowed people to say things in a safe environment and explore ideas that may in the end sound silly but they were never judged as silly (part109)." This partner went on to explain "that trust, in order to get that creativity going was critical (part109)." Other partners believed that these relationships resulted in an understanding of "where the other people are coming from (part316)" and allowed for "people [to] recognize their strengths and recognize that there are people who do certain things, who get things done, and kind of fit into those roles (part205)."

Several program leaders (part101, part104, part106, part111, part115) vocalized the importance of "consisten[cy] with communication and meetings (part106)" explaining that "once you lose communication you cannot build trust (part106)." A program lead provided insight into the communication dynamics explaining that initially the partnership wasn't "[conducting] monthly calls (part115)" which they believed "would have been great if we were doing it early on (part115)." The partnership eventually developed a robust engagement structure that included face-to-face social interaction, telephone and electronic exchanges based on lessons learned through the pilot process (part101, part104, part106, part107, part115, part217).

When the partnership evoked the aforementioned engagement structure they also integrated a recurring engagement schedule with dates set by the partners. The program

coordinator worked with the partners to develop “meeting schedules (part109)” that the partners felt “were appropriately spaced (part109)” by ensuring that “all had input on when that exact date and time was going to be set permanently (part115).” The partners thought this approach was beneficial and one of the program leads explained that

“if you don’t put something in place it takes time to pull everyone together to even host a meeting [and] you [have to] have a date far enough out that everybody can make [and] works best if you have set meeting dates that everyone can put on their calendar (part115).”

While several partners believed that “the frequency with which communication occurred via telephone was beneficial to keeping all of the players informed (part102)” all the partners felt that “being able to meet face-to-face was critical (part106).” Even though the program partners viewed the face-to-face engagement of the partners and key stakeholder to be critical, the quarterly meetings were not always structured in a way that encouraged collaborative problem-solving. One of the program leads expressed a sentiment shared among multiple partners (part101, part102, part104, part109, part115) who thought that the quarterly meetings were simply a “forum [that] was conducive to interchanges between the element leads and the program office (part109).” Another program lead believed that these meetings “got into that level of rut (part115)” where they eventually morphed into a one-way communication. A collaborating partner who regularly attending the meeting provided insight into the format explaining that “we would go to Quarterly meetings and people would stand up and give an update and sit back down, give an update, sit back down (part217).” Several partners explained that “there was no conversation time, there was no brainstorming time (part104).” A key stakeholder that represented the interests of the conservation and

environmental markets explained that they stopped going to “the overall Sentinel Landscapes meetings because I didn’t feel that they were a very good use of my time (part316)” and went on to explain that “people kept reaching out and it seemed like it was important to them that I be there as the environmental person but I didn’t feel like I was getting anything out of it (part316).”

Fortunately, the partnership realized that the meetings were not producing the type of outcomes they wanted and altered that specific engagement structure. The program coordinator developed a new structure that promoted group discussion in order to explore links between the program elements and other program outside of the partnership that may be leveraged for mutual gain. A key program leader expressed their satisfaction with the change in structure explaining that the “meetings improved over time when they became less of a stand up and report out and more interaction and discussion (part104).” A program initiative lead expanded on the utility of the change asserting that “if [the new format for quarterly meetings] would have been done all through the process you would have maybe some different outcomes, maybe additional outcomes than what we have seen (part115).” This program lead explained that “you will get more out of it if you have the partners with all their perspectives brainstorming about directions and solutions and not just listening to reports (part115),” which aligns with the sentiments of multiple partners (part101, part104, part106, part109). The new structure helped to bring back some of the key stakeholders that stopped attending because they felt like they had a voice and it was a better use of their time (part316).

Strategic Communication to Increase Social Capital

Reflecting on their initial experience with the program pilot, the military partners expressed that “[the partnership] underestimated how new this would be viewed by a lot of different groups (part101)” and in turn “underestimated that that newness required a degree of communication that exceeded what [the partnership] was communicating (part101).”

Many partners realized that partnership efficacy hinged on “sharing of information between cylinder groups of folks that had different assignments or different responsibilities in government or in the private sector (part106)” in order to “link things together and develop a common knowledge of what each [group] was doing and how it interfaced (part106).”

The communication approach initially evoked by the partnership was effectively summarized by one of the university partners as being less about formal structures and processes more about “an open line of communication (part106)” through the aforementioned engagement schedule, which the majority of partners (part002, part101, part104, part106, part107, part109, part115, part205, part217) expressed was important for the development of trust. A program lead summarized that approach outlined by several partners (part101, part106, part107, part109, part115, part217) explaining that in addition to the open line communication that “the process of communication was [at] multiple levels (part106)” where the core leadership would serve as advocacy group for the Sentinel Landscapes efforts, targeting priority groups “with other organizational activities like the working lands group (part106).” One of the program partners described the structure by explaining that they “took ideas from one and transpose[d] it or linked it to other groups (part106)” using a variety of formats in addition to face-to-face meetings such as “emails to share [relevant] documents for everybody to see and review (part102).” The partners

believed initially the aforementioned approach along with “group discussions at [the] Sentinel Landscapes meetings (part106)” had the capacity to achieve the immediate goals of the partnership.

Even though the partnership was working to assimilate themselves within other groups to disseminate the partnership message and educate a broad group of stakeholders of the issues the partnership was trying to address, the partners expressed the realization that one of the greater ‘headaches that still exists and must be worked on is constantly communicat[ing] between the different levels of authority (part106).’ Several partners (part101, part102, part106, part107, part115, part217) explained that it is a challenge to simply “keep our leadership in our respective areas informed (part106)” but expressed an additional challenge in keeping leadership informed across the context of management. In specific, many partners (part001, part002, part101, part104, part106, part107, part109, part111, part115, part205, part217) identified the complexity of communicating and effectively educating the military stakeholders because in “the military you’ve got a department of defense and then in the department of defense you’ve got the different branches that have their own little cliques or organizational [mandates] to address (part106).”

The partners explained that communicating up the chain of the command is not isolated to the military and encompasses state and federal government agencies and well as academic institutions. The partners also expressed that each entity has its leadership that must be informed and effectively educated in order to receive the support needed from each agency or organization. Several partners cited the dynamic of “constant turnover (part101, part104, part107, part109, part111, part115, part205)” as an important factor to consider when developing a communication and education strategy because “there’s people that are

appointed or not reappointed to positions, and if you don't have the ability to keep everybody at least aware, people's opinions get formed in a vacuum (part101)." The partners reiterated that it is "an education issue (part101, part102, part104, part106, part107)" where the partners must "communicate almost excessively (part101)" and it is their responsibility "to continue to encourage that communication, not just for themselves but towards the upward management (part106)."

Insights from a military partner in the Sentinel Landscapes Partnership spoke to the philosophy of educating military commanders across the breadth of services because as the military partner explained "from a military perspective how it approaches its challenges is so varied from service to service that if adequate care and feeding and communication isn't occurring during a changeover in administration or a changeover in command, that you run the risk of not having the same level of visibility going forward (part101)."

Using Geographic Information (GIS) Maps for the Communication of Military Priorities

During strategic planning sessions and partner interviews, a need was expressed for better communication of the needs of the military for the efforts of Sentinel Landscapes. During strategic planning, a partner vocalized the need to better understand "where are the Marine's greatest needs (part205)" in order to "focus some of those resources from existing programs on those areas (part205)." This partner went on to explain that "if we have a partnership and we're asking that partnership to bring all their tools and programs to bear on these types of issues they gotta know where to work (part205)." Another partner in the core leadership group further explained that "it's important for the military to communicate to its partners what its priorities are in order for the partners to be able to help the military achieve or protect those priorities (part104)."

This scenario was explicitly evident within the MBCI. The program initiative lead explained that the military presented them with a “flight path (part115)” that was presented as “one of the most critical flight paths in the military system and they wanted to do whatever they had to do to protect the integrity of that flight path (part115).” This partner went on to explain that “we presented it like that to the landowners (part115)” but “that did not turn out to be exactly the truth” and “they have now shifted to where they are looking at common airspace (part115).” Another partner shared this sentiment explaining that “every one of the partners who went in understood [the training route] was a priority, we’d like your help on this and then I think we were all astonished at the end when out of [a] dispute came some word that maybe it wasn’t a priority (part104).”

The aforementioned scenario highlights the evolving training needs of the military and the need to communicate these needs with their partners. One of the key stakeholders that collaborates with the partnership asked “how are we going to know what the changing military needs are going to be? (part203)” This concern was identified withinin strategic planning notes (doc2) where discussion revolved around the flux of military training needs and the importance of communicating high priority areas. A key stakeholder expressed a concern of merging the military needs with the trends that partnership already knows will already be an issue related to “growth (part205)” and “land-use conversion (part205).”

The partners did identify the utility of a Geographic Information System (GIS) map that highlighted the original training route of interest. The initial program manager explained that the map “enhanced [the partnership’s] understanding of what the military is looking for” going on to explain that it “opens the door for future collaboration, particularly on land conservation, land use issues that can either benefit or be to the detriment of the military

(part111)." This sentiment was shared among multiple partners (part101, part102, part104, part106, part115) and a core leader expressed the value of "a good map that has the operational footprints of the military services as they currently exist and has the different services envision them to the best they can currently envision them (part104)."

The military partner along with other partners that have worked closely with the military over time expressed this challenge in association with the military's thirty year planning period (part101, part102, part 205). During strategic planning, the program sponsor expressed that they felt like they had "a realistic footprint of what we think the needs looks like going out 30 years (part101)." This partner went on to express frustration that "we will never have the ability, even if we had the money, to buy all that land so now we are really looking at" so "the services just see no value in sharing [the whole footprint] yet (part101)." While a long-term footprint did not seem plausible based on feedback from interviews and strategic planning, having a short-term footprint was seen to be of value to the partners for immediate programmatic action (part101, part104, part205).

Research Question Three

What roles did individuals and partnering organizations play in the collaboration?

Leveraging Pre-Existing Relationships

A key strength of the Sentinel Landscapes leadership was its ability to leverage pre-existing relationship to create a diverse partnership. Before the partnership was established, brainstorming meetings were held that included approximately 30 different agencies and organizations that represented the interests of working lands, conservation and national defense in order to understand how to move forward in a collaborative fashion (part001,

part002, part101). Partners that attended these meetings explained that the stakeholders recognized that the issues facing eastern North Carolina extended beyond a single species, ecosystem or military training route and required a pathway to connect the aforementioned interests across a broad landscape.

The partnership cited their ability to leverage their “relationship with both Camp Lejeune and Farm Bureau (part001)” as a key factor to getting the partnership off the ground. Multiple interviewees (part104, part106, part107) also explained that “[the partnership] basically came out of some other working relationships between the Department of [Environment and] Natural Resources and the Department of Agriculture [and Consumer Services] (part106).” The partnership was able to coalesce based on a complex network of previously established working relationships on projects ranging from mapping installation footprint to evaluating landowner interests in conservation incentives program (part001, part002, part101, part205). The partners served as a link to bring these stakeholders together with one interviewee explaining that “we all kind of came together and had been working together for 6 to 8 years (part106).” One of the military partners also explained that the relationships leveraged through previous work between the North Carolina Farm Bureau Federation, the Association of Soil and Water Conservation Districts and the Department of Agriculture [and Consumer Services] were “key to the development of the Market-Based Conservation Initiative (part001).”

Multiple partners and key stakeholders (part001, part002, part106, part109, part205) explained that along with the network of typical state and federal actors, the network that was tapped into provided capital from “several private industry folks across the state and the military (part106).” A common theme that emerged during the interview process related to

building social capital and the long-term process required to effectively leverage pre-existing relationships. A key leader in the development of the partnership explained the long process for his organization started with “all types of meetings with our colleagues from Texas up at the pentagon (part002).” During the process, this partner made a key connection with a military civilian who provided an important bridge to the military community. This key partner involved in the inception of the partnership outlined the evolution of discussions among several organizations explaining that “whole process morphed from this focus on [Red Cockaded Woodpecker] into looking at longleaf pine, and discussions with [Department of Defense] came to bigger issues of open space and dark skies (part205).” The initial principle investigator of the partnership explained that the long discussions finally led to:

“this program Sentinel lands that would seek to evaluate the potential for and begin to do some pilot studies to environmentally conserve land outside the fence that then would sustain those traditional economic activities and sustain the capacity of the military to train and be ready (part002).”

Multiple partners (part001, part002, part101, part104, part115, part205) interviewed explained that while the process was lengthy it was worthwhile because by “having folks early on like North Carolina Department of Environment and Natural Resources, sitting at the table, North Carolina department of ag[riculture and Consumer Services] fully engaged they’re able to bring their resources to the table (part205).” All of the interviewees mentioned the importance of these pre-existing relationships going as far as citing them for being “vital stakes in the ground (part106).” They explained that because these relationships were in place before the partnership and allowed to developed over time, when leveraged they lead to

partnering agencies and organizations “bring[ing] resources that would address [partnership needs] versus just skim[ing] over [partnership requests] (part106).”

The partners understood the challenges of bringing together a diverse group of partners and believed that this partnership served as an example of how the partners are able to utilize their own social capital for the benefit of the group. One partner that represented the interests of the farmers on the steering committee clarified that “a lot of us had the same vision of having the interests come together and we respected each other’s abilities and that’s part of the challenging part (part107).” He further explained during strategic planning that it is important to outline the overall process and not necessarily the specific players involved because “the players in Tennessee or Missouri will be possibly different than the players that are here (part107).” This individual went on to explain the essence of the Sentinel Landscapes Partnership is related to social capital and identifies the need for:

“a framework that is large so that you can pull in those that are willing to work at it because I mean there are some people that we’ve brought to the table that dropped out because it wasn’t high on their priority list to be working on it at this time. It wasn’t that they weren’t supportive; they weren’t willing to put in the extra time and money to get to the finished product (part107).”

The partners discussed this concept in depth throughout the strategic planning process which shows the interrelatedness of social capital and the concept of Sentinel Landscapes. A program leader went as far to assert that if future efforts are going to be successful that it is “part of our charge here is to develop this if you were going to roll it out in Tennessee or in Missouri [and show] how you got these partners together (part107).”

Even though the partnership was able to bring together a diverse set of interests, key partners explained that additional representation from the environmental community would be beneficial (part115, part316, part319). Multiple survey respondents (part115, part311) identified a shortage of environmental non-governmental organizations, besides the Environmental Defense Fund, as well as wildlife organizations that they believed should be more actively involved. One respondent suggested reaching out to the National Fish and Wildlife foundation that serves as a coordinating body for the larger breadth of individuals, government agencies, non-profit organizations and corporations to leverage resources to benefit natural resources and the environment (part115).

The Work of Program Champions

Leaders of the Sentinel Landscapes Partnership cited the work of program champions leveraged by the partnership as being important toward overall program success but believe program champions are needed in more sectors for increased social capital. The commissioner of agriculture was the first program champion identified and was cited as being “a force in making sure this project stayed on everybody’s radar (part111)” as well as providing “some influence at the national level with this because he wanted to get to that point (part111).” Several key partners (part101, part104, part106, part109, part115) explained that this person has “done a lot to open things up with the military installations and I think they’ve been supportive of a lot of the food and fuel for the force’s efforts (part111).” Interviewees explained that the support from this champion’s parent organization lead to an important partnership tool “the [Agriculture Development and Farmland Preservation] trust fund” that the partnership was able to effectively leverage for “funding through Marine Corps that has been crucial to us keeping the dialogues going (part106).” The trust fund was

credited with helping to “[provide] a tool and a vehicle to accomplish some of the goals of this project (part101, part102).”

The partners explained that based on the work of the commissioner to support the partnership it created a “vested interest in the process (part115, part217)” for finding ways for how “ag[riculture] can partner with the military (part115, part217).” The commissioner’s attendance and participation in several development meetings during early partnership efforts showed a commitment and vested interest in the efforts of the partnership. The commissioner also worked closely with program partners and key stakeholders during the development of the Market-Based Conservation Initiative, where valuable input was provided in discussions “with the science, policy and economic [committees] (part 115).” Several partners (part001, part002, part101, part106, part111, part115, part217) explained that the commissioner eventually became the president of the National State Departments of Agriculture Association where “he saw an avenue (part115)” and “was able to feed that information at a national level for other states to look and say this is a great way for the military and ag[riculture] to partner (part115).” The element lead that worked the closest with the commissioner explained that by “tying in with the military and other resource partners allowed that goals and objectives to become even broader and more resources for a more common partnership (part106).”

During partnership interviews, several partners (part001, part101, part102, part104, part106, part109, part111, part115, part 205, part217) identified that “there’s a real challenge to sustaining a champion in the military particularly because every few years [leadership] change[s] (part102).” Originally the partnership had two uniformed officers that were “huge advocates (part001)” and cited for being “very valuable (part001)” in engaging the right

military stakeholders to attain social capital within the military. One partner with several years of experience working with the military went on to explain that their involvement was “very important (part101)” because there are not very many “two star generals in the Marine Corps (part101).” He explained that the fact that they initially had “a general, a colonel and [their] staff at meetings fully engaged says a lot (part001).”

Partnership documents (doc6, doc7, doc8) show that these individuals are no longer involved in the partnership although the partnership was successful in maintaining a program champion “on the civilian side (part205)” of the Marine Corps. Having the initial support from these military partners is what resulted in over five million dollars in partnership funding. Multiple partners (part001, part101, part104, part115, part 205) cited the role of these program champions in attaining this funding and one interviewee with experience working in leveraging funds for large collaborative partnerships stated that “it’s rare to find sponsors willing to put down over a million dollars a year for several years to push these sorts of things forward (part205).” Even though the partnership was able to maintain the support of the military civilian side of the Marine Corps there was concern related to “institutional change on the Marine Corps civilian’s side (part205),” bringing to question who would be the next program champion or “the next innovator within their group, that’s going to push these things forward (part205)?” There is a strong belief within the group that “you need a champion there on the civilian’s side (part205)” but those within the military strongly believe that “that champion needs to be a uniform in the military (part101).”

The Role of Land Grant Universities and Extension

Based on the reflection of program leadership, the reach of the land-grant university and Extension provided an appropriate administrative structure for coordinating diverse

stakeholder groups within a statewide partnership. The initial leadership group (part001, part002, part101, part104) explained that land-grant universities and Cooperative Extension were an appropriate administrative body because of the need to “administer [the program] at a state level (part115)” as well having the capacity to “administer a robust funding stream (part115).” Interviewees also explained the universities exhibit a “certain amount of flexibility to respond to emerging issues (part205)” and are generally “responsible for going out and finding [their] own funds (part205)”, which the partners valued based on limited budgets for these types of programs. Based on the aforementioned needs, the principle investigator responsible for the initial development of the partnership explained that it “put [the university] at the head of the table (part002).” The partnership gave the university the responsibility of a “facilitating and coordinating structure as well as [being] one of the partners (part002).” Several partners (part101, part102, part104, part109, part111, part115) explained that they thought that having the university as a coordinating entity was a positive experience based on their ability to “monitor [performance] and pull the official meetings together because of the different aspects of Sentinel Landscapes and its diversity (part104).” The majority of partners explained the university was an “effective convener of diverse interests and parties (part104)” based on their “network of partners and relationships that [they’ve] built with different federal agencies, state agencies, and [non-governmental organizations] (part205).”

Several partners (part001, part002, part101, part102, part104) identified that this type of effort is “front and center to land grant universities (part101).” A key program leader went on to explain that “this is what land grant universities do (part101)” and it helps for institutionalization of the model because “you have a national organization (part101)”

speaking to the national land-grant and Cooperative Extension system. Multiple interviewees (part001, part002, part101, part104, part111, part115) expressed that land grant universities exhibited a “natural aspect to the fit for this project for its outreach, research, and teaching functions (part001)” as well as it being “part of [the] mission [for] “solving the problems of the people of the state (part001).” The university and Extension partners agreed that in Extension solving the problems of the state “in definition is part of your job (part001).” Due to the aforementioned alignment, the military partners envisioned this “natural fit for the university to be, supporting the military presence in the state (part104).” The interviewees that spoke to the interests of the military explained that they understood the robust nature of the land-grant university and its ability to provide “technical expertise, research, outreach, [and] education (part205),” which drove their decision for choosing a university with Cooperative Extension as the coordinating entity. Multiple program partners (part101, part104, part109, part115) vocalized the value added of the land-grant university for its ability to “translat[e] research to on the ground application through extension and outreach (part205).”

The natural fit for land-grant universities to serve as a coordinating entity for large collaborative partnerships was expanded on by key program leaders explaining that these institutions are well position with the “expertise to solve the problems of the state (part001)” and “recognize[ed] there’s a lot of really good science that can be applied to some of these socially relevant issues that are out there that we’re all having to deal with (part205).” These impressions outline as science-based approach that helps these type of partnerships mitigate the influence of special interest. A former leader of a prominent state agency felt that “the neutral but supportive nature of the university was a plus (part104).”

The university and Extension was able to mobilize expertise across the system, which was an additional value added to the partnership. The military sponsor cited the benefit of the university's proficiencies in the broad disciplines of "science, economics, and policy (part101)" as well as "expertise related to natural resource conservation and management (part101)" in the development of the partnership elements. The partners (part001, part002, part205) representing the two land-grant universities involved in the partnership explained that they were called upon early on because of their "expertise with endangered species and working with private landowners and developing solutions to recovery (part205)." Along with the aforementioned expertise the partners identified the resources that land-grant universities bring to bear including and "information technology team and communications team (part205)", "the university library system (part111)" and "access to some of the latest and greatest software (part205)."

The partners further explained that the university and Cooperative Extension were appropriate entity to coordinate the partnership because as a key leader of the partnership stated, "there was a leveraging aspect to bringing the partners together under the umbrella of the university that made that a good deal for the Marine Corps (part104)." Various partners (part101, part104, part107, part109) also stated that by housing the partnership under the university that it "ended up delivering value to the Marine Corps that exceeded their investment (part104)" based on the "oversight and leadership (part104)" provided as well as the fact that "the deans were personally involved (part104)." Multiple partners (part101, part104, part106, part107) also believed that "the relationship between the university and the state agencies worked particularly well and I thought that was one of the highlights of the project (part111)."

Managing for Change and Turnover

Based on the extent of stakeholder groups residing within the partnership and context of management, the partnership identified a role for the program coordinator as well as all of the partners to help manage change and turnover. All of the partners interviewed explained that turnover strongly influenced the success of the partnership especially due to the changes in internal leadership during the program pilot. One of the program element leads explained that the changeover in leadership was such a significant challenge because the partnership “lost certain values when [turnover] occurred (part106)” and believed that with the accompaniment of a steep learning curve for new members that “it took a while for them to become fully reengaged with the process (part115).” Several partners also explained that due to the changes in program leadership, the program manager “was less effective at being able to champion or provide that Sentinel Landscapes level concept (part109)” and as a result they “weren’t able to get that message out early enough (part109).”

A key coordinating partner provided some additional insight explaining that turnover in leadership up the chain of command internal to his organization “early on in the project (part111)” was a significant challenge because as he explained, “the four people that I interviewed with, none of them were here a month later (part111).” This partner went on to explain that he felt as if he was “drifting aimlessly for a while (part111)” because the knowledge and values of the initial leadership group was lost and in turn reduced the partnership’s ability develop a holistic and comprehensive picture of the partnership direction. This individual explained that “he leaned on the statement of work (part111)” to orient himself with the direction of the partnership, which simply produced a picture of deliverables and associated timelines. This further propagated a project-minded approach that

has been sighted by several partners as a factor that compromised the overall effectiveness of the partnership.

Along with internal changes to leadership, the partners expressed more general changes in the form and direction of the partnership. One partner simply stated that “we’ve evolved (part106)” while another partner explained that “we’ve brought new partners in and there have been others that set back because the resources they had they were not compatible (part101).” The partners believe that this too speaks to the constant change that occurs within the context of management especially in government and in the private sector. One of the element leads that worked directly with program match funding explained that “over a period of time new interests arose and new toys came into play (part102)” and in relation to the evolution of the partnership “the knowledge about and interest in the program diminished because there were two or three changes of personalities (part102).”

The result of this whole process resulted in a general “lack of focus on part of the individuals within the partnership (part107)” because there was so much effort dedicated to “getting them to the same point because of all that turnover, there is a learning curve (part107).” One of the program leads witnessed these efforts directly and went on to explain that “it seemed like as the project evolved some of the early work that was done and new people were brought on midway they didn’t know about the early work (part115). This sentiment was shared by another of the key leaders of the partnership that asserted that by “having not been in at the ground level, they may not grasp the full significance of where we were trying to go, and a lot of us came off the former background where we had developed and moved collaboration forward and we were trying to keep that going (part107).”

Since the partnership had to deal with a relatively high rate of turnover, the partners expressed a general sense of hesitation to move their efforts forward. One partner summarized the group's sentiment by stating that "they hesitate because you'd be moving and then all of a sudden that person is gone [and] somebody else comes in [to] fill their slot (part107)" and it created a unique and troublesome dynamic where both the partner and the new member are "trying to figure out what their role is, the program's moving forward and so it took a while for them to figure out (part205)." There was no identification of a formal measure for assimilating new members and existing partners with the changing dynamics in the partnership, which provides an important lesson learned for this partnership and others. One partner who became involved mid-way through the effort explained that "it would have been nice as me walking in, if I could have ran through a year's worth of the notes for however long they met and then I could have gotten a better handle on things a lot quicker (part115)."

The partnership also cited significant changes on the military side that impact the overall support of the partnership. One of the partners detailed this turbulence explaining:

"In the time that this partnership has been developed, part400 was head of the REPI program, he retired, part401 took over and she passed away unexpectedly. Part401 was a big advocate for things, not that part400 wasn't, part 400 was, but passed the torch to part401 and she was looking at these things and she was just getting her feet wet, and of course she passed away, and brand new part402 comes in, she's a little younger, not quite as experienced and she's having to learn quickly and without jeopardizing her career early on (part205)."

Another partner in the core leadership group expanded on these changes explaining that “once some of those transitions took place, the new people in place didn’t necessarily understand the challenges that were ongoing on some of those bases for space, endangered species, training, whatever that might be (part107).” This partner explained that due to this dynamic “there was not always universal support (part107).”

The partners expressed the need to “move as fast as you could while you’ve got a good advocate (part205).” Fast movement was required for multiple reasons including the extended time that is required to move through the military’s “bureaucratic hurdles (part205)” as well as the fact that there are frequent changes in military leadership so “commanders want victory quickly (part101).” The program sponsor explained that “short-lived tenure in a particular position (part101)” and the desire to create a “legacy (part101)” develops a mindset among commanders to desire significant accomplishments “during their time period [and] don’t want to pass it down to someone else (part101).” The challenge that was brought up by one of the program leads was the timeframe needed of “three to five years in order to start seeing the impact on the larger bureaucracy like the military or any of the military related industries like commissary agency and the defense logistics agency (part109).” One of the program leads that frequently works with the military summarized this dynamic stating that “you gotta [have] buy-in at all levels (part205)”, which frequently elongates the process.

Research Question Four

Which governing policies or guidelines of the partnering organizations affected the development and implementation of the collaboration?

Navy Policy and Process Requirements

All of the partners interviewed expressed significant frustration with the Navy's policy and associated process for developing conservation agreements with landowners. The policy that the partners identified was called 2684A that evoked a real estate transaction process for these agreements. A program lead explained that "the people that I worked with in Navy that handled the 2684A process told me that they had never had an agreement with outside partners (part115)" and that "their agreements were always between them and the base (part115)." This partner went on to explain that "it was military to military talking to each other and that's a whole different dynamic" than what was involved in Sentinel Landscapes (part115). One of the key leaders of the partnership explained that since this approach was used for conservation agreements it ultimately functioned as "acquiring a fee simple interest in real estate [that] was a policy that was a serious drawback (part104). This partner further explained this policy imposed "procedural restraints (part104)" that made developing agreements with landowners unrealistic and the initiative was "not worthwhile (part104)" moving forward with it as the funding authority.

A key stakeholder that sat on the steering committee of the MBCI explained that "we had demand but then it seemed like the kind of the bureaucratic process really bogged things down and eventually ended the project early (part316)." This was frustrating to the partners because they approached the initiative with a different funding authority but as one partner explained "the NAVFAC group was sort of take it or leave it (part104)." Another partner expanded on the general frustration of the partners explaining that "[the Navy] was able to create a cloud that slowed us down and the fact that it got protracted out, we should have

signed a contract two years ago, or more early but them lawyers and the bean counters have kept us from doing that (part107)."

This prolonged process for establishing agreements was echoed by several partners and key stakeholders (part101, part102, part104, part106, part107, part111, part115, part205, part217, part 316) as a challenge associated with the military funding authority. The aforementioned MBCI steering committee member explained that there "seemed to be a lot of hang-ups [in] getting through the process of approving transactions (part316)." This sentiment was shared by the program sponsor who explained that the policy and associated process "bogged it down (part101)" further explaining that "a whole lot of energy [was spent] going through processes and steps that were unnecessary (part101).

The program initiative lead shed some light on the prolonged and costly process that ultimately resulted in the suspension of the MBCI. They explained that "every contract ended up requiring a 60 year title search (part115)." This partner elaborated on the situation explaining that based on the guidance of the Navy they "subcontract[ed] an attorney at the county level to do a title search (part115)." The program initiative lead explained that "the county attorneys did their work pretty cheaply but then title work went to Navy and they did the entire title search all over again (part115)." Several partners expressed that this process of due diligence resulted in extremely high administrative costs that were not anticipated by the Navy and resulted in their decision to abruptly terminate the pilot of the MBCI (part101, part102, part104, part106, part107, part111, part115, part, 205, part217, part316).

Research Question Five

Did the availability of resources impact the collaboration? If so, how?

Match Funding to Develop Multiple Benefit Projects

The partnership realized that in order to achieve their overarching goals in the midst of public funding limitations it would require the adoption of a match funding strategy (part106). Based on the experience of the program pilot, the program sponsor realized that the essence of Sentinel Landscapes is promoting projects that stack benefits and leverage funding from “multiple stakeholders to engage (part101)” partnership activities that achieve mutual gain. A survey participant also identified the importance of the match funding approach expressing the realization of “[partnership] value” when “a mix of stakeholders [are] willing to help continue to fund the efforts (part109).”

Even though the partnership realized the need for a funding strategy that leveraged diverse funding sources, multiple partners (part101, part102, part106, part115) felt that the partnership initially fell short of attaining the necessary funding needed for long-term success. One of the partners felt that this outcome was “the most negative (part101)” aspect that may have compromised the partnership’s ability “to achieve the mission and the goals that everybody had in common (part106).” The program sponsor expressed a concern that the partnership’s inability to achieve robust funding may be as a result of the perception that the “DOD [is] a cash cow (part101).” This partner went on to qualify the extent of the concern based on the limitation of funds available from the DoD because “if you were looking at it from the military side it’s pretty tight (part101).” Another of the military partners went on to explain that “the military cannot fund the whole thing (part102)” and that “being able to

sustain what comes out of the pilot will require more participants (part102)” coming to the table willing to fund these efforts.

The partners identified two dynamics where match funding would facilitate success through partnership coordination and mutual gain projects. Multiple program leads expressed that in order for some of these projects to get off the ground, the idea of match funds must be expanded (part101, part106, par115, part217). One of these program leads expressed the need to explain the administrative component of these efforts because many stakeholders “didn’t grasp the full concept of leverage and what that means because they are used to looking at that dollar for dollar match and it was very hard to explain to people like that all of the work that went into the front end of setting up the process and building the partnerships (part115).”

The partners believe that prioritization of projects that achieve multiple benefits will “encourage match where you are having to reach out for matches so you bring those individuals together as a collective partner you’re also looking across different cylinders of activities (part106).” The initiative lead in charge of evaluating such projects explained that this approach required detailed evaluation of the submitted projects and associated efforts which were “dependent upon the primary needs of [Sentinel Landscapes] and the overall objectives (part106).” This partner explained that “the partnership basically brought the resources that were available from the trust fund to availability, including the concerns or desires of those in the partnership in our grant process (part106).” This process helps to promote collaboration among a broad range of groups and open themselves up “to receive the ideas or concerns they may have had in their resources they wanted to mix with it to achieve the objectives (part106).”

It was evident that the partnership understood the benefit of match funding based on a subsequent funding proposal submitted to REPI. In this proposal, match funding was attained from over twenty organizations that would be brought to bear within the partnership's area of interest. This approach was recognized as a best practice among key stakeholders that were responsible for the evaluation of the proposal and resulted in increased funding from the DoD. While this funding was viewed by the partnership as a win, it did not cover the administrative components for the management of the partnership and related projects that is viewed by multiple partners (part101, part104, part106, part 109, part115) as an important component to such efforts. In order to effectively develop and implement these multiple benefit projects, the partners (part101, part104, part106, part109, part115) felt that there is a significant amount of coordination and administration that must be taken into consideration in the match funding paradigm in order to develop a true match scenario.

Funding Structures for the Dissemination of Program Funds

In order to successfully coordinate the breadth of projects under the Sentinel Landscapes umbrella, it requires multiple avenues to disseminate funds that provide enhanced flexibility. The partnership utilized the DoD's Cooperative Ecosystem Studies Unite (CESU) to channel funds from the military to the land-grant university who served as the administrative entity to further disseminate funds. The initial principle investigator of the partnership explained that the "funds that were delivered to NC State (part002)" were used for both internal costs associated to coordination of the partnership while other were disseminated to the partners "through various kind of subcontracts (part002)." Many of the partners expressed the value of using this funding structure to disseminate funds (part002, part101, part102, part106, part111, part109) because it did provided the partnership with

some of the flexibility it needed. One of the program leads highlighted the utility of the approach stating that, “I think that the fact that the military didn’t try to direct the funding to a dollar amount but rather they allowed the creative minds to work to determine the cost, from a funding standpoint was pivotal (part109).”

While the partnership experienced relative flexibility through the use of the CESU for administering program funds, multiple partners expressed a heightened level of frustration related to the timeliness of the overall process. One partner was very blunt in their criticism explaining that “the biggest headache [was] just the sheer amount of time it takes to move funds from the Marines, through the Army Corps, down to NC State and then to the other partners (part205)” further explaining that “the whole CESU process, that’s a royal pain (part205).” Meeting notes (doc9) show the overall frustration expressed by the partners due to the manifestation of the aforementioned issues in the attainment of a no-cost contract extension. These notes show that several attempts were made to contact the program administrator to assist in the process, which remained largely ignored. Meeting notes also show that significant effort was required over multiple months and from multiple partners, in order to formalize the no-cost extension by the very last day of the contract.

Multiple partners (part101, part107, part111, part115, part217) who believe that the CESU currently provides a good avenue to disseminate funds for these efforts also expressed a need to improve “the national CESU network (part205),” in order to mitigate these types of issues. Additionally, multiple partners explained that due to the issues encountered through the use of the CESU that it interjected “uncertainty into the next year (part107, part205)” because the partnership was unsure of future funding and “everybody comes to a screeching halt (part205).” This was evident in the review of meeting notes that showed the discussion

of this aforementioned concern in several meetings and the subsequent delay of multiple program elements due to uncertainty in funding.

A lesson learned identified by the partnership is the need for ongoing evaluation of current and potential funding mechanisms. The program sponsor (part101) expressed a belief that if the initial program planning committees remained throughout the pilot that these funding issues would have been better addressed. This partner explained that “with the policy group continuing to function, looking for a better way, we can create a better mechanism for federal and state or non-governmental funds to flow into a pot and therefore be used (part101).” Another partner also expressed that a lack of familiarity with the CESU funding mechanism resulted in some administrative “growing pains (part106).” The military sponsors explained that the lack of familiarity was not isolated to Sentinel Landscapes explaining that within the DoD the “CESU and the existence of it for some reason was supposedly not known at Headquarters, even though it’s used widely by Marine Corps and Navy Installations out west (part102).”

The partnership has admitted that not enough attention has been provided to the level of flexibility in funding due to the over reliance on a single mechanism for administering program funds (part101, part102, part106). Flexibility is important for a match funding strategy because as one partner stated “once you bring additional resources to the table it shifts the dynamics of where your resources being used or how it was being used (part106).” The partners expressed an ability to create flexibility through the utilization of multiple funding structures as well as developing related funding contracts that integrate flexibility. Several partners (part101, part106, part107, part109, part115) believe that based on the experience from the program pilot that partnerships should “build into the structure

(part102)" measures that enhance flexibility and specifically, "flexibility for future funding (part102)."

Research Question Six

What key factors influenced the outcomes of the Market Based Conservation Initiative (MBCI)?

The Military's Misunderstanding of a Pilot and the Associated Risk

Since the MBCI represented a ground-breaking approach for protecting the military training footprint, it resulted in heightened focus and attention during the program pilot as well as the interviews that are included in this study. It became apparent that the distinctive organizational characteristics of the military and the associated organizational culture became a challenge for the partnership's ability to pilot a market-based conservation concept. A misunderstanding of the purpose of a market-based pilot as well as its associated risk was evident among the broader group of military stakeholders based on the feedback of program partners and key stakeholders. The military partners explained that while the overarching goal of the pilot was to "test a concept (part102)" in order to sell the initiative to the military "you need some sort of concrete program (part101)." The hope of the initial leadership group that developed the MBCI pilot was to understand "how best to [protect the MTR] and [the pilot] would further inform a discussion as to whether this was the right tool to use or not to protect it (part101)." Their initial intention was to "have a random sampl[e] large enough to provide the data of the landowners' preferences in Eastern North Carolina (part102)" but again it was hard for the military to understand the value of the approach and overall concept until the partnership "put in on the map (part102)" in regards to the footprint of interest.

The idea of demonstrating an area of impact based on the military's misunderstanding of a pilot was pivotal in getting the support that the initiative initially received. The military partners explained that ultimately to get the support of the military they "need to see the battlefield (part102)" which requires approaching them with an idea that is "concrete instead of abstract (part101)." This need led to the designation of the military training route (MTR) as the Sentinel Landscape of interest and a concrete aspect that the military could wrap their minds around.

Since the initiative was presented as a "concrete program (part102)" that was perceived to be intended to protect the MTR, there was a perception that the pilot would protect the entirety of the MTR. The military partners expressed their frustration explaining that "the value of market base was to answer that question – how much - and how long will a landowner tolerate" but since the broader military group misunderstood they "felt we failed because it wasn't protection of MTR (part101)." This disconnect was addressed during multiple conference calls with the internal group of partners and brought to the table during discussions with the Navy when initial considerations were made for termination of the pilot. Even though those discussions were held, the military partners felt that the partnership "didn't convey sufficiently, routinely enough, and an understandable manner what the primary goal of the program was, because if that had been understood that question never would have not come up because that wasn't the intent of market base conservation, was not to protect the MTR (part101)."

The military also misunderstood the level of risk associated with a market based pilot that eventually led to its early termination (part101, 102, part104, part115, part217). The military sponsor explained that "there is a general lack of understanding that when you push

new programs there's a risk [of] failure component of anything anyone tries (part101)." The program lead responsible for the initiative explained that "the military...did not seem to have done any pre-calculation for what it would take for them to deliver the pilot (part115)." Another partner heavily engaged in the initiative felt that the military "did not go into it understanding what the cost was going to be (part115)" which this partner explained was evident when the military presented "the due diligence costs for a typical contract (part115)." This partner along with a close collaborator (part217) expressed a level of frustration related to the lack of risk analysis explaining that multiple partners came together to create "massive spreadsheets calculating what we are going to need (part115)."

A key member of the MBCI steering committee effectively summarized the situation by stating that "[MBCI] never would have happened without [the military] but also they were kind of instrumental in the abbreviation of the project. (part316)." This individual further explained that they witnessed "some shifts from them [the military] as far as the support that was available (part316)" based on a minimal understanding of the program. A key program partner explained that for a pilot of this nature to work, "the military needs to look really hard at the Farm Bill programs, how they are structured and be willing to accept the level of risk that's assumed with the Farm Bill programs (part217)." This partner also explained that if "you talk to any attorney here they will say in eastern North Carolina there is no such thing as a squeaky clean title because it's gone through so many generations (part217)."

Navy Perceptions of Eastern North Carolina

The unique organizational characteristics of the Navy and their lack of engagement with local communities in eastern North Carolina resulted in significant challenges for engaging in conservation agreements with private landowners. Multiple partners identified

the Navy's misperception of land ownership in eastern North Carolina as a contributing factor towards the outcomes of the MBCI (part101, part102, part104, part107, part115, part217). A key partner regularly engaged with North Carolina landowners explained that the military's engagement and understanding of these landowners varies from "the different branches of the service" and the fact that the Navy is predominantly "in the middle of the ocean...they don't care about relationships (part217)." This partner further explained that the Navy provides an "interesting comparison to those branches that deal more with the people in land (part217)" in regards to their understanding of the rural landowner context.

Additionally, a program initiative lead echoed the aforementioned sentiment explaining that the "one thing that set the Navy back is they had not thought through what property ownership looks like in North Carolina (part115)." The perception was that the Navy could simply purchase a few tracts of land with large acreages that in turn would achieve their land conservation goals. The associated program initiative lead provided clarity on this dynamic, explaining that "[the Navy] didn't realize that there are many, many tracts of land out there that are 120 acres or 75 acres (part115)" that would require several contracts to achieve acreage conservation goals. A key military partner explained that "a big lesson learned [was] the amount of energy that had to go into individual properties... whether you're dealing with a hundred acres or a thousand acres, it's pretty much the same (part102)." Another key military partner explained that based on the aforementioned land ownership context, "if you can't scale these things from an administrative process standpoint to the risk involved and the size and land involved, then there isn't going to be a lot of attention paid to small landownership which is predominantly what drives southeast (part101)."

Multiple partners (part101, part104, part115, part217) identified this misperception or misunderstanding as a “major stumbling block for the Navy (part115)” because they did not understand “local landowners, and the landscape, and the tracts, and the size and the numbers that [the partnership was] dealing with (part115).” The partners identified that these misperceptions impacted the implementation of MBCI because the associated military process requirements of the selected funding authority resulted in “restrictions on [landowners] not matching up with the realities of famers on the ground (part316).” A key stakeholder on the MBCI steering committee provided clarity on this dynamic explaining that “the example that comes to mind is farmers not necessarily having perfect land tenure records and the military needing that (part316).” The program initiative lead explained that since the military had federal “lawyers and real estate contract specialists (part115)” manage the process on the Navy’s side, they were using individuals who “don’t know agriculture (part115),” “don’t know farming (part115)” and “don’t know what landownership looks like in eastern North Carolina. (part115).”

Insufficient Bidding Iterations for Market Identification

The institutional mandates of the Navy proved to be detrimental for the implementation of a market-based conservation initiative, ultimately resulting in its early termination. Based on the early termination of MBCI, the partnership was unable to effectively test the market based concept and identify an acceptable market for landowners and the military. The program initiative lead explained that they “still contend that because the pilot was terminated early that we don’t have the data and we cannot analyze the results of the pilot to maximize what went on (part115).” This partner further explained that

“we still can’t say that the market had an opportunity to work in terms of the bids because in some of the phases they only had one bid round [and] there were a lot of things that we hoped to find out during the pilot that we were not able and are not going to be able to analyze because it was terminated (part115).”

A key stakeholder on the MBCI steering committee who is regularly involved in environmental markets echoed the aforementioned sentiment explaining that they didn’t “think we had enough bid rounds to really [identify a market] but it did seem like the prices were starting to go into a range that was acceptable to the military (part316).”

A military partner in the core leadership group agreed with the opinions of those intimately involved with MBCI explaining that “the only shortfall in my opinion is we didn’t have quite enough loops around the track for me to feel confident that the floor of what that landowner is willing to pay had been set (part101).” This partner further explained that the partnership “got a good idea (part101)” of where the market was “but as someone that was trying to get more absolute with something as new as that, I don’t think we went far enough (part101).” Another partner agreed that the pilot did not go far enough because “you don’t develop a market with one bid round” going on to explain that the partnership wanted “3 bid rounds in every phase (part217)” and “thought even 2 bid rounds was not sufficient to really look at the market (part217).” The MBCI steering committee member asserted that “if we were able to have more rounds I think that the famers would see which bids were being accepted and the ones who were willing to go for that price or lower would continue to bid (part316).”

Multiple bid rounds and phases were also needed to understand if the market based mechanism would promote conservation among a broad range of landowners. The MBCI steering committee member explained that “this type of contract could potentially take some value from your farm if you wanted to sell it (part316)” and the program would need to consider “how much these contracts were just going towards famers who would not have changed their land anyways (part316).” Multiple partners (part101, part102, part104, part111, part115, part205, part217) explained that understanding the payment range needed to promote the extent of action needed by landowners would require multiple considerations that would have been achieved by multiple bid iterations.

Additionally, the partnership felt that a true valuation of the airspace and the associated landscape was not possible due to the single bid iteration. A key partner involved with MBCI explained that due to the “termination of the pilot and the lack of different bid rounds and the analysis (part217)” the military put “very little consideration into the difference in the Value in Bertie County versus Johnston County on the edge of Raleigh (part217).” The program initiative lead provided additional clarity explaining that “we’re trying to figure out what is the best value for the airspace above your property and the people using the airspace to keep the land under it in the compatible use (part115).” This partner went on to explain that “I don’t know that they even took a stab at analyzing the value of the airspace (part115)” and while internal appraisers simply looked at the value of “development rights (part115)” that if multiple iterations were allowed valuation may “have been able to tease out more than just development rights (part115).”

Multiple partners identified that the Navy’s strong desire to achieve a pre-determined bid range as a factor that resulted in the exclusion of valuation analysis as well as the

realization of the need for multiple bid rounds. The program initiative lead explained that “[the Navy] basically stayed within their narrow sweet-spot (part115)” not recognizing that they may have to pay landowners more or less based on “different aspects of the property: where it is, how big it is, and other things like that (part115).” Based on the events that occurred within MBCI, a steering committee member explained that “having a strong source of demand and kind of a clear signal is really important” but in the case of MBCI “it seemed like we had it and then we didn’t (part316).” The military originally was willing to allow the landowners to drive the market but eventually developed their own market value of the land that became a significant criteria for selection. A MBCI steering committee member explained that “the military didn’t accept ones that clearly fell out of the range [\$25] of what they wanted to accept in terms of the market signal (part316).” The program initiative lead explained that this defined market as a result of “the narrowing of the market on the buyers’ side that sellers could have known about (part115)” through the use of multiple bid rounds.

Funding Authority to Establish Landowner Agreements

The most significant factor that contributed to the outcomes of MBCI was the funding authority used to establish conservation agreements with landowners. The funding authority used was 2684A that evokes a real estate transaction for the establishment of conservation agreements. This was not the original funding authority that the program was established under which was frustrating to the partnership. A key partner involved with MBCI explained that “when all the dust settled we had shifted from the Sikes Act to another authority called 2684A...Well by the nature of that authority it kicks in the acquisition process, considers it as a real estate acquisition (part217).” This partner further explained that the use of 2684

“complicated tremendously the process of doing the due diligence, title searches, the question about appraisals, the questions about do we need surveys or not, on and on and on (part217).”

A key partner within the core leadership group asserted that “unless you get your project setup under an authority that will let it work, it’s not worth doing because when the rules require you to incur transaction costs that are so high, you won’t be able to justify the investment ultimately (part104).” The program initiative lead explained that costs related to due diligence were “running higher than the actual contract to the landowner (part115).” The example given by this partner was the “60 year title search (part115)” that was a “part of the department of defense standards” that resulted in the escalated costs as a result of involving various lawyers in the process. Another partner that worked very closely with the initiative lead explained that “the military decided no more bid rounds part of their official reasoning was that internally to manage the due diligence side of it was very costly (part217).” This partner also echoed the military sentiment that “the cost for their real estate staff to interpret through and work with the foundation on the various pieces was running higher than the actual contract an individual landowner would get. (part217). Multiple partners (part115, part217) explained that they believed the rationale for using 2684A “boils down to...[the Navy] want[s] to assume zero risk (part217).”

The funding authority not only resulted in a program that was not cost-effective but was also not timely in the establishment of the contracts. A key partner in the core leadership group explained that “the flow of funding from NAVFAC to the foundation and to landowners was unworkable (part104).” Several partners (part101, part102, part104, part107, part111, part11, part205, part217, part316) identified a significant issues with timeliness related to the amount of time between a landowner bid and an accepted application. Records

show that the MBCI program received its first set of bids in the spring of 2013 and its first set of contracts weren't signed until the summer of 2015.

The military sponsor explained that in order to make MBCI effective, it must "simplify the process to where it is not...does not require the same level of attention as a real estate acquisition might. (part101). Several partners (part101, part102, part104, part115, part217, part316) believe that this can be accomplished by "pursu[ing] this under a different authority (part316)" because of "the land buying and contracts issues having to do with specific authority under which this was pursued (part316)." A steering committee member of MBCI echoed these sentiment explaining that a significant "lesson learned" that is beneficial to understand if the partnership is going to "pursue that military source of funding again (part316)."

The program initiative lead among others (part104, part217, part316) believe that the SIKES act provides more of a compatible authority for a market based program. The initiative lead explained that while the SIKES act was traditionally a military authority used for "environmental work inside the bases...it had never been used as an authority to address natural resources issues outside the base (part115)." This partner further explained that even though it has not been used in the aforementioned context it provides "more flexibility and was natural resource focused (part115)" that this individual felt was compatible because "the Market based project was focusing on agricultural land, keeping the land in forestry, working lands, having a conservation plan, so on an so forth (part115). A military partner explained that some work will be needed to acclimate the military and others in the use of this authority for such program because it "took a lot of people out of their comfort level that were part of

the review cycle of using the vehicle (part101)” and “people weren’t viewing working lands as a natural resource (part101).”

Intermediary Organizations to Develop Landowner Trust and Program Credibility

A key factor identified by all partners that lead to positive outcomes related to MBCI was the trust that certain partners held among local landowners in eastern North Carolina. One of the military partners explained that it was key to have leaders that were “trusted going into the community [because] the military did not have that trust (part101).” Another military partner explained the benefit of partnering with organizations that were trusted among landowners asserting that “the partnership worked so well that they took care of the equation and that’s a huge win, huge success (part102).” This sentiment was shared among the partners, with one of the program leads explaining that the “[public perception of the military] was part of the reason why we looked into an avenue...to partner with organizations that already had established relationships with landowners (part115).”

The program initiative lead summarized the dynamic as an ongoing “relationship and communication that the conservation community has going on with the military is more than it’s ever been. (part115).” A partner involved with similar efforts in Texas echoed this sentiment and asserted that the value of having the aforementioned relationship was due to the fact that they are “so well respected within the North Carolina community as a whole (part205).” This partner further explained that “just the fact that we got them on our team, it buys you a lot of street cred (part205). The partnership was able to access what one partner explained was “the gatekeeper to the community” that had rich and ongoing relationships with a large number of landowners because they “live in the community [and] are shopping at the same grocery stores (part217).” The provided perception that the partnership included

people that the landowners could relate with and turn fostered trust among landowners, ultimately leading to increased program credibility.

One of the core partners involved in the inception of the MBCI pilot provided further insights into the specific dynamics as they manifested with the specific group of partners:

“The way we had the partnership organized, we had enough credible partners with contacts in eastern North Carolina. From the soil and water conservation community to the Farm Bureau community to the environmental community. Our partners were responsible enough and credible enough that it helped make the people we were trying to deal with from landowners to local governments willing to hear. (part104).”

Another core program partner spoke specifically to the utility of the soil and water conservation districts explaining that “by going through them, and then providing them the tools to outreach to landowners, developing those tools, we were basically embraced by a lot of landowners, we brought a lot of new landowners to the table (part107).” This partner further explained that by having these landowners at the table the pilot was able to have “discussions about ways to protect their land or get a revenue stream for their land (part107),” which was identified as an important precursor to the bidding and application process.

Multiple partners (part104, part107, part115, part205, part217) cited the landowner workshops held by the soil and water conservation districts as an effective medium for holding such discussion. The program initiative lead shared several best management practices that helped create a forum for meaningful discussion, one being the solicitation of a recently retired and highly esteemed individual to lead the workshops. The initiative lead

explained that “we encouraged a member of the board an elected soil and water supervisor to get up introduce the agenda for the evening, the purpose of the meeting and it communicates a lot when they get up and say I am a farmer in Sampson County (part115).” This partner explained that by using the aforementioned approach it “automatically creates an environment of trust (part115).” Another partner that worked closely with the program lead explained that because “of his background with the forest service (part217)” and the fact that “he knows 90% of everybody that lives east of 95 (part217)” that it was a “major asset (part217).”

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this qualitative case study is to (a) understand how the variables that shape the cross sector partnerships impact the initial stages of military-based partnerships and (b) describe important lessons learned and best management practices that should be considered for refinement and replication of the program. In order to accomplish these goals, the following guiding questions were established:

- How did the social and political climate of the state influence the collaboration?
- Why were some communication and problem-solving processes considered priorities by people in leadership positions?
- What roles did individuals and partnering organizations play in the collaboration?
- Which governing policies or guidelines of the partnering organizations affected the development and implementation of the collaboration?
- Did the availability of resources impact the collaboration? If so, how?
- What key factors influenced the outcomes of the Market Based Conservation Initiative (MBCI) pilot?

Summary of Key Findings and Conclusions for each Research Question

Due to the nature of this study, key findings are presented with conclusions and implications for each research question.

Research Question One

How did the social and political climate of the state influence the collaboration?

This question focused on understanding how the social and political climate of North Carolina impacted the creation, development and implementation of the collaborative

partnership. Three major themes emerged as factors that impacted the climate that the partnership was thrust into: a broad recognition of issues and needs, public perceptions of the military in eastern North Carolina, and the cyclical influence of the MBCI on the continued implementation of innovative conservation strategies.

A broad group of stakeholders across the state recognized the issues facing rural landscapes in the eastern part of North Carolina as well as the compatible needs that would require collaboration. Many of the stakeholders had already begun to work on disparate projects to address the needs of the diverse group of interests but had not yet linked together to move forward in a collaborative fashion. Stakeholders representing the specific interests of agriculture, forestry and conservation witnessed the transition of their lands to development and thusly seemed to be at the forefront of addressing these issues. This aligns with what Melaville and Blank (1991) portray as the most supportive climate where the solution to a problem with multiple causes and consequences is a top priority and where previously established working relationships exist among potential partners (Melaville & Blank, 1991).

These groups saw value in partnering with the military because of the large military footprint in the eastern part of the state and represented a land-use type that was compatible with their interests. A mutual understanding existed prior to the formation of the partnership of the potential to create solutions that would help the interests of rural stakeholders by helping to maintain the military training mission. This aligns with the work of Wondelleck and Yaffee (2000) that identify the importance of recognizing when to give help, which enables others to do things that they would otherwise not be able to do and in turn promotes a mutual interest. The realization of the interconnectedness interests developed an

understanding of the value-added of partnering with the various entities that represented the interests of the landscape.

The broad recognition of the issues also resulted in beneficial policies and mandates that drove the partners to the table to collaborate. North Carolina was interested in becoming the most military friendly state in the country and developed policies to ensure realization of that goal. Also through the work of the Governor's Land-Use Compatibility Task Force, the state of North Carolina increased the awareness of the issues and needs of the landscapes as well as the value of cross sector partnerships. The overall climate demonstrated a good mix of a recognized need, compatible public sentiment, associated legislative priorities and institutional urgency for what Melaville and Blank (1991) outline as conditions conducive of effective collaboration.

The social climate was not completely positive as many stakeholders across the state had a negative perception of the military. Local community members in eastern North Carolina developed a negative perception based on previous experience with conservation efforts to maintain the military training footprint. The stigma of being land grabbers followed these military efforts based on previous efforts that included the perceived dissemination of misinformation to potential supporters in order to achieve their conservation goals. This approach has resulted in contentious relationships with local leaders and landowners as well as state actors who advocated on behalf of the military. This negative perception impacted the overall partnership's ability to implement certain initiatives that were intended to achieve mutual gain among the rural stakeholder groups. Local leaders viewed these initiatives as a means to take a different angle at the same approach of taking land away for the communities.

In addition, the manner for which the partnership implemented the MBCI only exacerbated these perceptions. MBCI was a new and highly innovative initiative that developed lofty expectations with the landowner base in eastern North Carolina. Due to the novelty of the initiative, the partnership overemphasized it and in turn resulted in the public perception that MBCI was the Sentinel Landscapes Partnership. The initiative was initially presented to landowners as a market-based landowner driven initiative but quickly became a traditional easement program with an elongated approval process.

As a result, the scrutiny that the initiative garnered had negative implications on future cooperative arrangement with the military. The aforementioned public perception issues aligns with Melaville and Blank's (1991) classification of a less than favorable climate where collaborative participants have developed negative relationships. In this case, the military came to the table with negative perceptions from a cross-section of stakeholders but did not learn from previous experience to foster better relationships. This impacts the continued implementation of similar efforts but provides an opportunity to improve the climate for change by evaluating their own need to improve services (Melaville & Blank, 1991). As Wondelleck and Yaffee (2000) note, this provides the partnership with an opportunity to seek help from colleagues in other fields to promote successful collaboration in the future.

Research Question Two

Why were some communication and problem-solving processes considered priorities by people in leadership positions?

This question focused on understanding the communication and problem-solving dynamics of the partnership and in turn why certain processes were considered priorities

among leadership. Melaville and Blank (1991) identify that in order to create and sustain cross sector efforts communication and problem-solving processes used must be structured to “establish goals and objectives, agree on roles, make decisions, and resolve conflicts” (p.22). Eight major approaches were viewed among leadership as priorities including: partnership building processes, consensus building process, a mix of informal processes and formal structures, use of a steering committee, adaptive management (planning, evaluation and monitoring), recurring engagement, strategic communication, and using GIS maps for the communication of military priorities.

Collective gain may have been compromised by the initial utilization of a project-based approach that resulted in the partnership’s inability to leverage existing and potential opportunities that aligned with their mission. Leadership quickly identified building a broader partnership as a priority and transformed the Sentinel Landscapes project into a Sentinel Landscapes Partnership. The aforementioned transformation allowed for the development of goals and objectives that focused on the broader partnership rather than the individual needs of the various projects. The partnership evoked cooperative agreements in the early years as well as partnership plans through the inclusion of a diversity of participants that required a significant amount of communication. This aligns with the work of Maurassee (2013) whose findings show that successful partnerships leverage cooperative agreements that provide lasting impacts in their ability to achieve their intended goals. Leadership saw this transformation as an opportunity to promote synergy amongst the group and allow for the development of a focused strategy grounded in mutual gain. Maurassee (2013) cites the importance of creating partnership synergy early on in order to develop of integrative solutions and the success of partnerships throughout subsequent stages.

Through a consensus-driven model, the partnership welcomed a diverse set of ideas which was cited as the trademark of the partnership. The partnership's ability to bring together a broad range of interests through the inclusion of various stakeholders produced a diversity of cultures that required significant consideration. Leadership cited the importance of this approach for the development of mutual understanding among the partners and key stakeholders for the promotion of a shared vision. The partnership was able to constructively explore differences and develop solutions that meet the needs and interests of everyone involved. This aligns with the work of Wondelleck and Yaffee (2000) that shows how successful partnership motivate the involvement of diverse individuals and pay attention to the cultural dimensions of the issues and of the people involved in the process. Additionally, Maurrassee (2012) found that by promoting deliberate honest dialogue to clarify intentions among all partners at the outset, it can enhance the ongoing implementation of partnership projects.

Discussions resulted in the broad realization that the private landowner served as a common link that bridged the interests of all involved. If the partnership is able to provide landowners with a service compatible with their needs, the vision of the partnership is possible. This aligns with the work of Wondelleck and Yaffee (2000) whose findings show that successful partnership work to identify their commonalities rather their differences and also highlight common interests or find ways to bridge compatible yet disparate interests. Wondelleck and Yaffee (2000) cite a partnership's ability to build on common ground as a critical success factor for the development of successful collaborative arrangements. In most cases, Wondelleck and Yaffee (2000) evidenced shared decision making in which choices within the group were made by consensus.

The partnership developed a steering committee in order to represent the diverse interests and needs associated with the context of management. The steering committee was responsible for setting partnership policies and guiding the overall direction of the partnership. This aligns with the findings of Melaville and Blank (1991) that shows that leaders must ensure that participants are fully involved in the partnership process. The steering committee also served as the mouthpiece of the partnership building credibility and awareness among their constituents. Leadership viewed the steering committee as a priority because it allowed the partnership to stay in tune with the needs of the key stakeholders as well as ensuring continued buy-in, which was necessary to achieve their goals. The steering committee approach provided the partnership with a process of communication and problem-solving that was sufficient to enable partners to accept each other's respective goals for the partnership and to resolve difficulties as they arose (Melaville & Blank, 1991). The process was structured to develop ownership of the problem-solving approach and its outcomes by a full range of participants (Wondelleck & Yaffee, 2000). This aligns with the work of Wondelleck and Yaffee (2000) that shows that effective partnership help to produce an environment of collaborative learning in order to foster mutual understanding while building productive relationships.

An adaptive management approach resulted in the development of a strategic plan, a program evaluation framework and monitoring plan to ensure nimble movement and proactive response of the partnership. The partnership plans established clear targeting goals and objectives, and benchmarks to monitor progress on a continuous basis, in order to provide important feedback (Gray, 1985; Melaville & Blank, 1991). The evaluation plan and program reporting were grounded in the goals of the overall partnership and ensured the

ability to take remedial action when needed. This aligns with the work of Melaville and Blank (1991) that found that by developing realistic goals, measuring the partnership's ability to attain the aforementioned goals and ultimately market impact was important for attaining public support and funding. Wondelleck and Yaffee (2000) explain that successful efforts at collaboration not only establish meaningful and effective processes for interaction, they find ways to make them endure over time. The plans and associated processes created a model for decision-making that was grounded in the goals of the partnership but also provided a pathway for continued collaboration. This approach aligns with the findings of Maurausse's (2103) work showing that effective partnerships recognize how to create the structural components that enable their participants, processes, and goals.

The development of a recurring engagement structure of in-person, electronic and telephonic exchanges allowed for the maintenance of an open line of communication between the partners and key stakeholders. This aligns with the findings of Melaville and Blank (1991) and Wondelleck and Yaffee (2000) that assert that frequent communication is necessary that allow for issues to be put on the agenda and stay on the agenda. The success of many collaborative processes can be attributed quite simply to the establishment of an opportunity for interaction between parties where one did not previously exist (Wondolleck, 1988; Wondelleck & Yaffee, 2000). The engagement structure created a forum for collaboration that was not available before the creation and development of the partnership. Leadership viewed this as a priority because it allowed the partnership to develop a sense of shared accountability and develop effective working relationship with a foundation of trust among its members. Car et al. (2012) asserts that social capital predicated on the development of trust is paramount for effective resource management that requires collective

action. This also aligns with the assessment conducted by Lachman et al. (2006) that found that in military-based conservation partnerships, having and building long-term positive relationships between military and its partners was important to success.

Leadership also identified the importance of strategic communication in order to increase social capital. Car et al., (2012) identify a main connection of social capital with environmental issues derives from the fact that it may positively influence the environmental behavior and attitudes of individuals. The novelty of the program required a strategic approach towards educating a diverse group of stakeholders of the issues the partnership sought to address and in turn the value of the partnership. Additionally, the extent of actors that are needed to take compatible action required extensive strategic efforts to communicate up the hierarchy of leadership as well as across the silos of interest. Melaville and Blank (1991) identify the value of this approach explaining that these efforts will influence the joint effort's ability to mitigate turf battles, reconcile differences in institutional mandates and professional perspectives, and make critical corrections in strategy and implementation. As it relates to the military, these findings align with the findings of Lachman et al. (2006) that indicate that military staff need to be educated about the need and importance of also focusing on environmental issues, "especially long-term strategic efforts to protect ecosystems and other ecological systems" (p.89).

In order to ensure that action is taken on lands that are of value to the military, the military must communicate its priority to the group of partners and key stakeholders to ensure collective gain. The military planning period presents significant challenges in that regard, which must be overcome to ensure that the partners' resources may be effectively leveraged. Leadership believes that outlining a landscape of interest using GIS maps may

help interested parties target their resources in that area and as a result achieve conservation of the military training footprint. This aligns with the work of Wondelleck and Yaffee (2000) whose finding show that identification with a specific geographic location or biophysical feature has provided the foundation on which successful cooperative efforts are built. The approach used by the Sentinel Landscape Partnership also provides a means for the partnership to focus on the problem in new and different ways that was cited by Wondelleck and Yaffee (2000) as an indicator of successful collaborative partnerships.

Research Question Three

What roles did individuals and partnering organizations play in the collaboration?

This question focused on understanding the roles of individuals and organizations within the partnership that promoted collaborative success. Various roles emerged including: the role of the partners to leverage pre-existing relationships, the promotional roles of program champions, the leadership roles of land grant universities and Extension, and the role of the core group of partners for managing change and turnover.

A key success of the partnership was the ability of its members to leverage pre-existing relationships for the development of a diverse partnership. This aligns with the work of Pretty and Ward (2001) who found that social capital sparked remarkable advances in group formation for collaboration in watershed management, irrigation, mircro-finance, forestry, integrated pest management, and for farmers' research. By leveraging these relationships, the group was able to bring together 30 different agencies and organizations that were interested in exploring means towards moving forward in a collaborative fashion. The partnership was able to bring to the table actors from state and federal government as

well private industry. The process of integrating these relationships was an ongoing process that required significant time and effort. These relationships helped the partnership build a sound foundation predicated on the development of working relationships that allowed it to endure conflict and mobilize necessary resources. This aligns with the findings of Lachman et al. (2006) that observed the success of REPI partnerships when they were able to leverage relationships that included a broad range of interests. This also aligns with the philosophy of Melaville and Blank (1991) that assert that leaders of collaborative must work to leverage current linkages as well as create new linkages to promote effective collaboration among the group. These efforts have built on preexisting networks of people in communities and have used the incentives facing individual stakeholder groups as leverage to motivate others to get involved (Wondelleck & Yaffee, 2000).

Many collaborative partnerships have gotten underway and succeeded due to the efforts of dedicated, energetic individuals who worked at being proactive and entrepreneurial (Wondelleck & Yaffee, 2000). Program champions helped to play an important role in ensuring that the partnership remained on everyone's radar and that the needs of the partnership would be taken into consideration among various organizations. Program champions provided influence at a national level to promote federal policies compatible with the partnership's mission and specifically helped to open doors with the Department of Defense. The support of the program champions also lead the development of policy tools (i.e trust funds) that were focused on promoting the diverse interests of Sentinel Landscapes. This aligns with the work of Wondelleck and Yaffee (2000) whose findings show that in successful collaborative partnerships, program champions take an important role in securing resources, attaining institutional support, marketing the efforts and pushing for effective

implementation. In addition, their connections can expand the resources potentially available to the partnership and increase the interest of the press and potential funders in its activities (Melaville & Blank, 1991).

While Leaders of the Sentinel Landscapes Partnership cited the work of program champions leveraged by the partnership as being important toward overall program success, they believe additional program champions for increased social capital. The attainment and support of civilian and uniformed military officers were pivotal for the attainment of overall military support. Unfortunately, the involvement of the uniformed officers was short lived due to the inherent nature of turnover within the military. This demonstrates a point of improvement for the partnership based on the findings of Melaville and Blank (1991) that identify an indicator of a partnership's effectiveness to be the creation of new champions or believers whose additional actions on behalf of shared goals build strength in the community.

The reach of land-grant universities and Extension provides an appropriate administrative structure for coordinating diverse stakeholder groups within a statewide partnership. These institutions have the ability to administer a robust funding stream and address emerging issues based on the breadth of expertise available. Land-grant universities and Extension also have the available leadership to facilitate the process of agreeing on a common goal and negotiating a practical vision (Melaville & Blank, 1991). This aligns with the work of Melaville and Blank (1991) whose findings show that effective leaders press each side to understand their partners' point of view and the way they perceive the issues and problems at hand (Melaville & Blank, 1991). Land grant universities and Extension generated alternative solutions and pursued, from the many interests identified, those that constitute common ground. Based on the organizational mission of land-grant universities, it

provides the necessary leadership that represents the goals and interests to the community at large and cultivates potential allies, which aligns with the belief of Melaville and Blank (1991) of what constitutes an effective leadership organization. This approach also helps to overcome a significant shortcoming identified by Lachman et al. (2006) within REPI partnerships. The overall lack of guidance resulted in an inefficient use of time and money as a result of needing to redo things and resolve conflict during implementation (Lachman et al., 2006).

The coordinating entity (land grant universities and extension) also serves an important role, in conjunction with the partners, of managing for turnover and change within the context of management. Leadership within the partnership and across the stakeholder groups of interest will continuously change requiring a process for assimilating new members to the partnership. The Sentinel Landscapes Partnership did not have such a process in place, which compromised their ability to move forward expeditiously as new members were introduced into the group. The coordinating entity must also lead the charge in facilitating organizational change as new issues and needs arise. Using established structures like the steering committee and adaptive management processes provides the coordinating entity and the partnership as a whole a means for adaptation. This aligns with the work of Wondelleck and Yaffee (2000) whose findings show that successful partnership institutionalize collaboration by creating structures that will allow for the management of change and allow the partnership to continue beyond its initial efforts (Wondelleck & Yaffee, 2000).

Research Question Four

Which governing policies or guidelines of the partnering organizations affected the development and implementation of the collaboration?

This question focused on the influence that policies and guidelines from the partnering organizations had on the overall partnership. One main policy emerged which was the Navy's Policy for developing conservation agreements with landowners, known as 2684A.

Naval organizational policies proved to be a significant obstacle in the partnership's ability to achieve its intended goals and effectively implement related projects. The Naval funding authority, 2684A, is the traditional policy leveraged to conduct real-estate transactions for purchasing land with the intention of conserving the military training footprint. In the context of Sentinel Landscapes, this policy transformed a market based conservation approach into a fee simple real-estate transaction that was not the intention of the partnership. As a result, developing agreements with landowner under this policy required a lengthy due diligence process that proved to be costly and time inefficient. The requirement of including lawyers and real-estate professionals in the process resulted in excessive overhead costs that proved to be a significant issue.

Lachman et al. (2006) identified that the military's process for developing, approving, and completing deals could be improved. The military process, particularly the Navy and US Marine Corps process, takes too long to develop, assess, approve, and fund property deals (Lachman et al., 2006). Since it can be difficult to engage landowners without funding in hand, "such processes need to be streamlined and other flexibility needs to be built into the system to enable the military to respond faster to real estate opportunities" (Lachman et al., 2006, p. xxi).

Research Question Five

Did the availability of resources impact the collaboration? If so, how?

The focus of this question is to understand if and how the availability of resources impacted the collaboration. Funding emerged as a major factor that influenced the collaboration, which resulted in a strategy of match funding and the use of multiple avenues to disseminate funds.

DoD funding provided the necessary resources to create and develop the partnership as well as the associated initiatives. Funding from a single source will not be sufficient to sustain the partnership and require the partnership to leverage funding from multiple sources. This aligns with the work of Melaville and Blank (1991) that found that in collaborative ventures, resources of all kinds must be pooled and reconfigured to achieve the hoped for results. The DoD has asked for help from its collaborating partners to develop a robust funding stream to ensure that the partnership had the resources it needs to achieve its goals. The strategy of match funding provides the opportunity to attain funds from multiple sources. Melaville and Blank (1991) believe that the commitment of resources is the litmus test “of any joint effort’s determination to make a difference and a prime factor in determining whether partnership goals are likely to be institutionalized, replicated, and expanded” (p.32). Alternatively, Lachman et al. (2006) findings show that the REPI programs have placed too much emphasis on cost efficiency issues at the expense of program effectiveness. They believe that REPI over emphasizes having partners provide funds for conservation buffering, which is an unrealistic expectation for all buffering projects to have partners who can match or even come close to matching military funds (Lachman et al., 2006).

In order to promote cohesive collaboration, administrative costs must be considered for a true match scenario. Program coordination requires administrative work to develop a collaborative forum and associated structure to achieve the stacking of benefits this strategy seeks. A match funding strategy also promotes the convergence of multiple interests including those of working lands, conservation and national defense through projects that are developed to achieve multiple gain. By seeking help from others and taking into consideration the interests of a diverse set of stakeholders, partnerships are able to build support, which leads to the necessary authorizations and resources and allowed their efforts to proceed (Wondelleck & Yaffee, 2000).

In order to successfully coordinate the breadth of projects under the Sentinel Landscapes umbrella, it requires multiple avenues to disseminate funds that provide enhanced flexibility. The DoD's Cooperative Ecosystem Studies Unit (CESU) provided an avenue to disseminate funds from the military to the land-grant institution in order administer the program and further disseminate funds for various sub-contracts. While this funding mechanism provides relative flexibility, there are challenges related to future funding and contract extension as a result of DoD process requirements that must be considered, understood and be managed for. Trusts also provide an additional avenue to disseminate funds to landowners and local communities who participate in related initiatives. Flexibility must be a significant consideration when using funding mechanisms and developing cooperative funding agreements to ensure the availability of resources. Melaville and Blank's (1991) findings show that a partnership ability to reconfigure and attain resource flexibility allows for continuation of funding that is a critical component for collaborative success.

Research Question Six

What key factors influenced the outcomes of the Market Based Conservation Initiative (MBCI) pilot?

This research question focuses on understanding the most significant factors that influenced the outcomes of the MBCI. Five main factors emerged: the military's misunderstanding of a pilot and the associated risk, Navy's perception of Eastern North Carolina, insufficient bidding iterations for market identification, the funding authority to establish landowner agreements, and intermediary organizations to develop landowner trust and program credibility.

The Navy ultimately misunderstood the purpose of a pilot and the associated risk that is entailed in testing a concept. The partnership was required to present a concrete program with a visible footprint to attain the necessary support to develop and implement the initiative. This only further skewed the perception of the pilot with the assumption that the initiative would protect the entirety of the Military Training Route (MTR). Since the military was disoriented with direction of the pilot initiative, they did not properly assess the associated financial risk involved. While the partnership felt that this was a shortfall within the military, Perrot-Maitre's (2006) analysis shows that estimating costs and benefits of a payment for services approach is not always possible because "Not all information is public knowledge, and costs are not broken down in a way that allows the separation of costs associated with the PES scheme from others" (Perrot-Maitre, 2006, p. 5). This inability to accurately anticipate the programmatic costs resulted in a disconnect between the anticipated costs of due diligence and the elevated costs realized during the pilot. Misunderstanding the

purpose of a pilot and not accurately understanding the financial risk of the program were two significant factors that contributed to the abbreviation of the program pilot.

The abbreviation of the project resulted in insufficient bidding iteration that compromised the program's ability to identify a salient market. MBCI simply had one bidding iteration in each county that prevented the program from understanding the composite value of the land across the MTR. Valuation requires significant data to determine the value to landowners to restrict develop across the rural, suburban and rural gradient. These efforts typically require at least three iterations to identify the market, provide the data to inform future efforts, and promote the engagement of landowners separate from early adopters. This aligns with the work of Sanchez-Azofeifa et al. (2007) that identified the need for multiple bidding iterations because without them a large fraction of payments will go to landowners that would have kept their lands in forest regardless of payments due to low opportunity. Sanchez-Azofeifa et al. (2007) believe it resulted from a policy design in which the PES contracts were fixed across space- each of the locations in the country is assumed to provide the same services and is offered the same level of payment per hectare.

Additionally, the Navy had significant misperceptions of land ownership in eastern North Carolina. The belief was that by purchasing a few thousand acres properties that they would be able to achieve their conservation goals in relation to the MTR. In contrast, land ownership in eastern North Carolina does not follow that trend and is in fact comprised of small acreage landowners. With an over-emphasis on cost-effectiveness, the Navy will continue to ignore small landowners, which compromises the success of such efforts in North Carolina. This misperception also lead to process restrictions that did not match with the reality of landownership on the ground. The Navy expected perfect land tenure over a 60

year period that is rarity in eastern North Carolina. Perrot-Maitre (2006) found that the ability to link incentives to land tenure and debt cycle issues and to substitute the old technical and social support networks with new ones, were all fundamental conditions of successful market based solutions. This scenario was facilitated through the development of a long-term participatory process to identify alternative practices and a mutually acceptable set of incentives (Perrot-Maitre, 2006).

As previously mentioned, the funding authority used by the Navy to establish the agreements with landowners was a significant obstacle in the implementation of the MBCI. Landowners were initially engaged with the understanding that it would function as a landowner driven program but due to the use of 2684A, which evoked a real-estate transaction process, it became a traditional easement program. This produced skepticism among landowners that the military would approach this initiative as it did with previously efforts that resulted in negative outcomes. This aligns with the work of Jones (2010) whose findings indicate that higher levels of institutional trust indicate that citizens tend to rely on the effectiveness of institutions and consider that provision of information towards such actors will facilitate the resolution of environmental problems.

Process requirements also resulted in landowners being removed from consideration that were in the area of interest due to title issues and land tenure. This issue was demonstrated in the work of Lachman et al. (2006) whose findings show that it is more important to focus on relationships rather than on the best real estate deal for the military because over emphasis on fair market value defined by DoD's appraisal process has caused effectiveness problems, such as lost deals. Due diligence became more expensive than the anticipated landowners contracts and the time required to conduct due diligence elongated

the process to the detriment of the partnership's reputation with landowners. Since it can be difficult to engage landowners without funding in hand, "such processes need to be streamlined and other flexibility needs to be built into the system to enable the military to respond faster to real estate opportunities" (Lachman et al., 2006, p. xxi).

Using trusted intermediary organizations to engage with landowners helped MBCI with reputation management as they worked to overcome issues of trust. This aligns with the work of Perrot-Maitre (2006) who found that trust-building through an intermediary institution that was sympathetic to the needs of the landowners was critical to program success. Already existing relationships and increased levels of trust allowed this organizations to maintain the engagement of landowners throughout the long process and mitigate any potential ill-will towards the partnership. This aligns with the work of Maurraussee (2013) who found that selecting the right partners is important not only to bring a breadth of experiences, resources, and expertise to the table but also to increase the credibility of the program.

In order to maintain a successful program, the partners need to spend a large amount of time on community outreach for a variety of reasons (Lachman et al., 2006). Extensive public outreach was a keystone to the progress of this initiative in order to educate local communities and landowners of the value added of the program as well as mitigate issues of trust. This aligns with the work of Lachman et al (2006) whose findings show that military-based partnerships need to explain the benefits of the program to the public so that landowners and other organizations will learn about the program and help support it (Lachman et al., 2006). Lachman et al. (2006) also found that public outreach is needed to help overcome some landowner distrust and bad feelings toward the military because of

historical land takings to create and/or expand the installation (Lachman et al., 2006).

Gaining credibility with landowners is critical to having landowners volunteer to participate in the program (Lachman et al., 2006). Leveraging the assistance of trusted members of the communities also helps increases the program's reputation and credibility. These members understand the landowners, are trusted by the landowners, and are emphatic to various organizational cultures associated with the administration of the initiative.

Recommendations

This study provided a way to gain an understanding of the influence that the variables that shape cross sector partnerships have on military-based landscape-scale partnerships. Based on the findings, the researcher has suggestions for both further research and future practices for these types of partnerships.

Future Research Suggestions

1. The partners identified issues with the public perception of the military as a contributing factor toward the climate of the partnership, it is suggested that interviews be conducted with landowners to develop a better understanding of these perceptions.
2. Since this case study was focused on the perspective of the leadership of the Sentinel Landscapes partnership at a state level, it is suggested that surveys be conducted with leaders of the local communities of interest to better understand how the partnership met the needs of stakeholders at a local level.
3. The partners identified the benefit of strategic communication up the hierarchy of leadership and across organizational silos to promote the partnership's mission, it is

- suggested that a follow-up evaluation be conducted in the form of a survey to understand the effectiveness of these efforts.
4. The partnership identified the benefit of creating an adaptive system through the development of a strategic plan, program evaluation framework and program monitoring plan. It is suggested that a follow-up study be conducted to find out if these processes produced the intended goals of the partnership and if not, how they may be adapted.
 5. Since this study of a Sentinel Landscapes Partnership involved the Navy, it is suggested that the results of this study be compared against partnerships involving the other branches of the military using a multi-case study method.
 6. Landowner outreach was identified as a beneficial practice for educating landowners about the program and addressing questions as well as misperceptions. It is suggested that a follow up evaluation consisting of landowner interviews be conducted to garner their impressions of the workshops as well as identify behavioral change as a result.

Suggestions for Practice

Partnership Building

1. Leverage pre-existing relationships to build a diverse partnership.
2. Select the right partners that will serve as a trust link to landowners and local communities.
3. Form a steering committee of trusted leaders that represent the interests that exist across the landscape.

4. Evoke a stakeholder-driven, consensus building approach for organizational development (i.e. strategic planning and program evaluation).
5. Employ a skilled facilitator to guide organizational development efforts as well as engagement activities.
6. Design a program evaluation and monitoring framework that promotes collaborative accountability and proactive program improvement.

Communication, Education and Engagement

1. Develop a structured engagement schedule of face-to-face meetings, conference calls, and email exchanges to maintain an open line of communication.
2. Face-to-face meetings should engage program partners and key stakeholders in a meaningful way, allowing for open dialogue and the effective exchange of ideas.
3. Develop a robust communications and education plan structured within the framework of social marketing that promotes program compatible action. Melaville and Blank (1991) explain that a much more detailed process is necessary for partners and key stakeholders to reach agreement on a common goal, the hallmark of collaboration, and to work through the accommodations and institutional changes that achieving shared goals entail” (Melaville & Blank, 1991; p22).
4. Create engagement opportunities that promote discussion.
5. Allow for informal interactions among stakeholders outside of meetings and conference call for the development of personal relationships.

Funding Authority and Structure

1. Build similar programs based on matching funding provided by all partners that can be disseminated through multiple avenues.
2. Manage a market-based program under a different authority that allows for a quicker and more cost-effective approach. Lachman et al. (2006) recommend a cooperative agreement approach, with more authority shared with the partner, that fosters more of a true partnership relationship, since the partner has a more significant role and more responsibilities in the buffering process (Lachman et al., 2006).

REFERENCES

- Alter, K., & Hage, J. (1993). *Organizations working together*. Newbury Park, CA: Sage.
- Ashcraft, D. (2007). The End of An Era. *Forest Landowners, May/June 2007*. Retrieved from
http://c.ymcdn.com/sites/www.forestlandowners.com/resource/resmgr/imported/MJ07_The_End_of_an_Era.pdf
- Austin, J. E. (2000). Strategic collaboration between nonprofits and business. *Nonprofit and voluntary sector quarterly*, 29(suppl 1), 69-97.
- Berg, B. L. (2004). *Qualitative research methods* (5th ed.). Boston: Pearson Education, Inc.
- Bogdan, R.C., & Biklen, S.K. (1992). *Qualitative research for education: An introduction to theory and methods*. Boston: Allyn & Bacon.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review*, (Special Issue), 44-55.
- Butler, B., & Wear, D. (2013). Forest Ownership Dynamics of Southern Forests. In *The Southern Forest Futures Project: technical report* (Chapter 6). Retrieved from
http://www.srs.fs.fed.us/pubs/gtr/gtr_srs178.pdf
- Caffyn, A. (2000). Is there a tourism partnership life cycle? In *Tourism, Collaboration, and Partnerships: Politics, Practice and Sustainability*, 200-228.
- Castle, E. "Social Capital: An Inter-disciplinary Concept." *Rural Sociology* 67(2002):331-49.

Clarke, A., & Fuller, M. (2010). Collaborative strategic management: strategy formulation and implementation by multi-organizational cross-sector social partnerships. *Journal of Business Ethics*, 94(1), 85-101.

Clont, J.G. (1992). *The concept of reliability as it pertains to data from qualitative studies*. Paper presented at the annual meeting of the South West Educational Research Association. Houston, TX.

Corbin, J., and Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria, *Qualitative Sociology*, 13(1), 3-21.

Creswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications, Inc.

Das, T. K., & Teng, B. S. (1998). Resource and risk management in the strategic alliance making process. *Journal of management*, 24(1), 21-42.

Das, T. K., & Teng, B. S. (2000). A resource-based theory of strategic alliances. *Journal of management*, 26(1), 31-61.

Department Of Defense (DoD) Office of Economic Adjustment. 2005. *Practical Guide to Compatible Civilian Development near Military Installations*. Washington, DC.
Retrieved from <http://www.floridodefense.org/documents/Practical-Guide-web-combo.pdf>

Department of Defense (DoD) Readiness and Environmental Protection Integration (REPI) Program (2013). The Department of Defense's Readiness and Environmental Protection Integration (REPI) Program Buffer Partnership: A Guide for State, Local,

and Private Partners. Retrieved from
http://www.repi.mil/Portals/44/Documents/Primers/Primer_REPIBufferPartnerships.pdf.

Department of Defense (DoD) Readiness and Environmental Protection Integration (REPI) Program. (2015). U.S. Marine Corps: MCB Camp Lejeune: North Carolina with MCAS New River. Retrieved from
<http://www.repi.mil/Portals/44/Documents/Current%20Year%20Fact%20Sheets/MCCBCampLejeune.pdf>.

Denzin, N. K. (1989). *Interpretive biography* (Vol. 17). Sage.

Dooley, K.E. (2007). Viewing agricultural education research through a qualitative lens. *Journal of Agricultural Education*, 48(4), 32-42.

Dutzik, T., & Schneider, J. (2012). Securing North Carolina's Future: A Five Year Plan for Investing in Our Land, Water, and Quality of Life. *Environment North Carolina Research & Policy Center*.

Eigenraam, M., Strappazzon, L., Lansdell, N., Ha, A., Beverly, C., Todd, J. (2006). EcoTender: auction for multiple environmental outcomes. National Action Plan for Salinity and Water Quality, National Market Based Instruments Pilot Program. Final project report. Australia Department of Primary Industries, Melbourne.

Eisenhardt, K. M., & Schoonhoven, C. B. (1996). Resource-based view of strategic alliance formation: Strategic and social effects of entrepreneurial firms. *Organization Science*, 7: 136–150.

Elwood, J. (2008). Too Close for Comfort Encroachment on Military Lands. *Conserving biodiversity on military lands: A guide for natural resources managers*. Arlington, VA: NatureServe.

Erlandson, D.A., Harris, E.L., Skipper, B.A., & Allen, S.D. (1993). *Doing naturalistic inquiry: A guide to methods*. Newbury Park, CA: Sage.

Flora, J. L. (1998). Social capital and communities of place1. *Rural sociology*, 63(4), 481-506.

Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York: Basic Books.

Gharis, L., Bardon, R., Belk, D., Diaz, J., Hazel, D., Ross, W., Snelgrove, T. 2014. *North Carolina Sentinel Landscapes Partnership White Paper: Linking Lands and Linking Missions to Advance Working Lands, Conservation and National Defense*. NC State University, Raleigh. 8 pp.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607.

Governor's Land Compatibility Task Force (GLCTF) report. (2012). North Carolina Digital Collections: North Carolina Department of Environment and Natural Resources.

Gray, B. (1989). *Collaborating: Finding Common Ground for Multiparty Problems*. 1st ed. San Francisco: Jossey-Bass.

Gray, B. (1985). Conditions facilitating interorganizational collaboration. *Human Relations*, 38, 911–936.

Green, G.P., Browne, I., and Tigges, L.M. (1995). Social Resources, Job Search, and Poverty in Atlanta." *Research in Community Sociology* 5, 161–82.

Greenhalgh, S., Guiling, J., Selman, M., & St. John, J. (2007). *Paying for Environmental Performance: Using Reverse Auctions to Allocate Funding for Conservation*. WRI Policy Note, vol. 3. World Resources Institute, Washington, DC.

Greiner, L.E. (1972). Evolution and revolution as organizations grow. *Harvard Business Review* July/August, 37-46.

Gruber, J. S. (2010). Key principles of community-based natural resource management: A synthesis and interpretation of identified effective approaches for managing the commons. *Environmental Management*, 45, 52-66.

Hamilton, D. (Ed.). (1977). *Beyond the Numbers Game: a reader in educational evaluation*. McCutchan.

Hibbs, M. (2012). Spending for military grows, report shows. *Carteret County News-Times*. Retrieved from
http://www.carolinacoastonline.com/news_times/news/article_fd89ed37-21ce-570a-8110-8ea653a703ea.html.

Huberman, A.M., & Miles, M.B. (1994). *Data management and analysis methods*. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (p. 428-444). Thousand Oaks, CA: Sage Publications, Inc.

Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, 602-611.

Jones, C., Hesterly, W., & Borgatti, S. (1997). A general theory of network governance: exchange conditions and social mechanisms. *Academy of Management Review*, 22, 911 – 45.

Kish, L. (1965). *Survey Sampling*. New York: John Wiley & Sons, Inc.

Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214-222.

Kroeger, T., & Casey, F. (2007). An assessment of market-based approaches to providing ecosystem services on agricultural lands. *Ecological Economics*, 64(2), 321-332.

Lasker, R. D., Weiss, E. S., & Miller, R. (2001). Partnership synergy: a practical framework for studying and strengthening the collaborative advantage. *The Milbank Quarterly*, 79, 179-205.

Lefebvre, R. C. (2013). *Social marketing and social change: Strategies and tools for improving health, well-being, and the environment*. John Wiley & Sons.

Legal Information Institute (LII). (2015). 10 US Code 2684a – Agreements to limit encroachments and other constraints on military training, testing, and operations. Retrieved from <https://www.law.cornell.edu/uscode/text/10/2684a>.

Levine, S., & White, P. E. (1961). Exchange as a conceptual framework for the study of interorganizational relationships. *Administrative science quarterly*, 583-601.

Libby, L. W., & Sharp, J. S. (2003). Land-use compatibility, change, and policy at the rural-urban fringe: Insights from social capital. *American Journal of Agricultural Economics*, 85(5), 1194-1200.

- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications, Inc.
- Lubell, M. (2007), Familiarity breeds trust: Collective action in a policy domain, *J. Politics*, 69(1), 237–250.
- Marstel-Day. (2009). *Regional Growth Management Plan*. Retrieved from <http://nceastmgtf.org/modules/evolvecms/upload/FINALRGMP2009-10-11.pdf>.
- Mathison, S. (1988). Why triangulate? *Educational Researcher*, 17, 13.
- Maurrasse, D.J. (2013). Strategic Public Private Partnerships: Innovation and Development. Edward Elgar Publishing. United Kingdom.
- Mayo, M. (1997). Partnerships for Regeneration and Community Development. *Critical Social Policy*, 17, 3-26.
- McKelvey, B. (1997). Perspective-quasi-natural organization science. *Organization Science*, 8(4), 351-380.
- McKinney, M., & Johnson, S. (2009). *Working across boundaries: People, nature, and regions*. Cambridge, MA: Lincoln Institute of Land Policy.
- McKinney, M., Scarleet, L., & Kemis, D. (2010). *Large Landscape Conservation: A Strategic Framework for Policy and Action*. Cambridge, MA: Lincoln Institute of Land Policy.
- Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.

- Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Miller, D., & Shamsie, J. (1996). The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965. *Academy of management journal*, 39(3), 519-543.
- Munford, M. (2010). *What Is Market-Based Conservation?*. Retrieved from <https://www.forestfoundation.org/what-is-market-based-conservation->
- Muñoz-Erickson, T. A., Aguilar-González, B., Loeser, M. R. R., & Sisk, T. D. (2010). A framework to evaluate ecological and social outcomes of collaborative management: lessons from implementation with a northern Arizona collaborative group. *Environmental Management*, 45:132–144. doi: 10.1007/s00267-009-9400-y.
- National Association of Conservation Districts (NACD). (2008). *Market Based Initiatives White Paper*. Washington, D.C.: NACD.
- Nelson, J., & Zadek, S. 2000. Partnership alchemy: New social partnerships in Europe. Copenhagen, Denmark: The Copenhagen Centre.
- North Carolina Cooperative Extension Service. (2015). *Economic Impact Data*. Retrieved from <http://www.ces.ncsu.edu/economic-impact-data/>.
- North Carolina Forestry Association (NCFA). (2014). New Approaches to Conserving Working Land in North Carolina. Retrieved from <http://www.ncadfp.org/documents/WorkingLandsConservationNCFADiscussionPaper.pdf>.

- Oliver, Z., Levy, J., & Debellis, J. (2013). *The Economic Impact of the Military on North Carolina*. Retrieved from
<http://www.nccommerce.com/Portals/47/Publications/Industry%20Reports/The%20Economic%20Impact%20of%20the%20Military%20on%20North%20Carolina.pdf>.
- Ostrom, E. (1990). *Governing the Commons*. New York: Cambridge University Press.
- Policy and Politics, 32, 61-71.
- Patton, M. Q. (2001). *Qualitative evaluation and research methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Paxton, P. "Is Social Capital Declining in the United States? A Multiple Indicator Assessment." *American Journal of Sociology* 105(1999):88–127.
- Plummer, R., Telfer, D., & Hashimoto, A. (2006). The rise and fall of the waterloo-wellington ale trail: A study of collaboration within the tourism industry. *Current Issues in Tourism*, 9, 191-205.
- Ponterotto, J.G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept “thick description”. *The Qualitative Report*, 11(3), 538-549.
- Porter, D.R. and A.D. Wallis. 2002. *Exploring ad hoc regionalism*. Cambridge, MA: Lincoln Institute of Land Policy.
- Quinn, R.E., & Cameron, K. (1983). Organizational life cycles and shifting criteria of effectiveness: Some preliminary evidence. *Management Science*, 29(1): 33-51.
- Seale, C. (1999). Quality in qualitative research. *Qualitative Inquiry*, 5(4), 465-478.

Seitanidi, M., Koufopoulos, D., & Palmer, R. (2010). Partnership Formation for Change: Indicators for Transformative Potential in Cross Sector Social Partnerships. *Journal of Business Ethics*, 94 (1): 139-61.

Simons, H. (Ed.). (1980). *Towards a science of the singular: Essays about case study in educational research and evaluation*. Norwich: Centre for Applied Research in Education, University of East Anglia.

Sentinel Landscapes. (2015). *Readiness and Environmental Protection Integration*. Department of Defense, Available online at <http://www.repi.mil/LargeLandscapes/SentinelLandscapes.aspx>.

Sternberg, E. (1993). Preparing for the hybrid economy: The new world of public-private partnerships. *Business Horizons*, 36(6), 11-15.

Stone, M. M. (2000). Exploring the effects of collaborations on member organizations: Washington county's welfare-to-work partnership. *Nonprofit and Voluntary Sector Quarterly*, 29(suppl 1), 98-119.

Sugden, R., 1998. Normative expectations: the simultaneous evolution of institutions and norms. In Ben-Ner, A. and Puterman, L. (eds), *Economics, Value, and Organization*. Cambridge: Cambridge University Press.

Timberlands Unlimited. (2015). *North Carolina Forest Facts*. Retrieved August 26, 2015, from http://www.timberlandsunlimited.com/forest_facts.php?id=2.

Trust for Public Land. (2011). *North Carolina's Return on Investment in Land Conservation*.

Retrieved from <http://cloud.tpl.org/pubs/benefits-nc-return-on-investment.pdf>.

United States Fish and Wildlife Service (USFWS). (2015). *Legislative History of the Sikes Act*. Retrieved from http://www.fws.gov/fisheries/sikes_act/sikes_act_history.html.

Waddell, S. (2005). Societal learning and change. *How Governments, Business and Civil Society are Creating Solutions to Complex Multi-Stakeholder Problems*. Sheffield: Greenleaf, 20.

Waddock, S. A. (1989). Understanding Social Partnerships An Evolutionary Model of Partnership Organizations. *Administration & Society*, 21(1), 78-100.

Waddock, S. A. (1991). A typology of social partnership organizations. *Administration & Society*, 22(4), 480-515.

Waldon, M. (2014). *Agriculture and Agribusiness: North Carolina's Number One Industry*. Retrieved from <http://ag-econ.ncsu.edu/sites/ag-econ.ncsu.edu/files/faculty/walden/agribusiness-2014.pdf>.

Wall, E., G. Ferrazzi, and F. Schryer. "Getting the Goods on Social Capital." *Rural Sociology* 63(1998):300–22.

Wildridge, V., Childs, S., Cawthra, L. and Madge, B. (2004), How to create successful partnerships—a review of the literature. *Health Information & Libraries Journal*, 21: 3–19. doi: 10.1111/j.1740-3324.2004.00497.x

Wolcott, H.F. (1994). *Transforming qualitative data: Description, analysis, and interpretation*. Thousand Oaks, CA: Sage.

Wondolleck, J. (1988). The role of training in providing opportunities for environmental and natural resource dispute resolution. *Environmental Impact Assessment Review*, 8(3), 233-248.

Wondolleck, J.M., & Yaffee, S.L. (2000). *Making collaboration work: Lessons from innovation in natural resource management*. Washington, DC: Island Press.

Yin, R. K. (2003). Case study research design and methods third edition. *Applied social research methods series*, 5.

Yin, R. K. (2013). *Case study research: Design and methods*. Sage publications.

Young, D. R. (1999). Nonprofit management studies in the United States: Current developments and future prospects. *Journal of Public Affairs Education*, 13-23.

APPENDICES

APPENDIX A: INTERVIEW GUIDE

1. How would you describe your experience with the North Carolina Sentinel Landscapes Pilot?
 - a. (Probe) What worked well?
 - b. (Probe) What didn't?
2. What were the key factors that influenced the outcome of the pilot?
 - a. (Probe): [For each key factor identified] How did [it] impact the outcome of the pilot?
 - b. (Probe): Why should future collaborative partnerships take into consideration the aforementioned factors when developing their own Sentinel Landscapes program?
3. Did policies and/or guidelines of an agency or organization influence decision making in your organization?
 - a. If so, how?
4. How did state mandates help or hinder the collaboration?

5. How did federal mandates help or hinder the collaboration?
6. How did funding structures help or hinder the collaboration?
7. How did board (steering committee) policies help or hinder the collaboration?
8. How would you describe the partnership's leadership during the program pilot?
 - a. Strengths?
 - b. Weaknesses?
9. How did the partnership establish goals and objectives during the pilot?
 - a. (Probe) How did the partnership agree on roles?
 - b. (Probe) How did the partnership make decisions?
 - c. (Probe) How did the partnership resolve conflicts?
10. Which of the problem-solving processes were most important to you?

- a. (Probe): Why?
11. Which of the communication processes were most important to you?
- a. (Probe): Why?
12. Describe your relationship with leaders of the other agencies/organization in the partnership.
- a. (Probe) What impact did personal relationships have on the collaboration?
13. Were there any shifts in perspectives or relationships among key stakeholders that impacted the outcome of the pilot?
- a. (Probe): If so, what were they?
 - b. (Probe): How did these shifts impact the outcome of the pilot?
14. How would you describe the human resources available to your organization?
15. How would you describe the financial resources available to your organization?
- a. (Probe) What other resources were available to you?
 - b. (Probe) What resources did your organization have that were able to be exchanged in the collaboration?

16. Describe the general feelings, attitudes, beliefs, and/or opinions of the stakeholders in eastern North Carolina toward the social issues impacting their communities?

17. Describe the general feelings, attitudes, beliefs, and/or opinions of the stakeholders in eastern North Carolina toward the political issues impacting their communities?

18. What impact did the aforementioned social and political climate have on the [creation, development, and implementation] partnership?

19. What would you tell the leadership of future endeavors to ensure the success of respective programs?

20. What would you or your organization do differently based from the program pilot?

21. What additional observations would you offer?

APPENDIX B: PARTICIPANT SURVEY

This form provides a basis for gathering input from our key stakeholders. Responses will be entered into a database to be used for further analysis toward the objective of structuring a plan to 'institutionalize' Sentinel Landscapes.

Name:
Title/Position
Organization
Date:

1. When did your organization become involved in the Sentinel Landscapes Program?

2. What is your organization's stake/involvement in the program?

3. What is your organization's objective for involvement in the program?

4. What information does your organization need if we evaluate the program?

4a. Why is this information needed?

4b. What stakeholders are missing that should be involved in this program?

5. What would you consider to be indicators that the program is moving in the right direction?

6. What would you consider as program success?

6a. If the program is successful, what results would expect to see in the short-term, medium-term, and long-term?

Short-term:

Medium-term:

Long-term:

7. What would you suggest to further improve the Sentinel Landscapes Program?

7a. Do you know of grants that would help further the program?

8. What possible challenges do you anticipate may compromise program success?

9. How long do you see yourself being involved with the program?

APPENDIX C: EMAIL TO PROSPECTIVE INTERVIEW PARTICIPANTS

Dear Potential Research Participant,

My name is John Diaz and I am a PhD student at North Carolina State University conducting case study research on the North Carolina Sentinel Landscapes Partnership. In order to understand the potential for creating a sustainable partnership that may be replicated across the country, we must first gain insight from the key decision makers of the NC Sentinel Landscapes Partnership. Being a program element lead, I would like to get your insight into best management practices and lesson learned from the program pilot. Please let me know what dates and times would work best for your schedule for a 1 hour interview based on the time slots identified in the attachment. I may be reached via email at jmdiaz2@ncsu.edu or phone at 919-621-9911 at your earliest convenience. I can send you a copy of the interview guide and informed consent so you can gain an initial understanding of the study. Let me know if you have any questions or concerns.

Regards,

John M. Diaz

Program Evaluation Specialist, Forestry Extension
North Carolina State University
PhD Candidate: Forestry and Environmental Resources
M.S. Natural Resources: Policy and Administration
(919) 621-9911, jmdiaz2@ncsu.edu
www.ces.ncsu.edu/forestry

APPENDIX D: EMAIL TO PROSPECTIVE SURVEY PARTICIPANTS

Dear Sentinel Landscapes Stakeholder:

As you know, Element 1 of the Sentinel Landscapes Project (SLP) is entitled “Enhancing the Network and Linkages between Conservation, Military, and Community Goals for Sentinel Landscapes.” With three distinct but interrelated Tasks, the Element 1 scope of work calls for close coordination with the other Elements during project development. Mr. John Diaz, my colleague on the Element 1 project team, and I will work closely together to ensure that our efforts go smoothly and in concert with you, our fellow Element Leads, and other Key Stakeholders.

Among the sub-tasks for Element 1 is to develop new analytical tools (or assess existing ones) for evaluating the ‘lessons learned’ through the foundational stages of the Pilot Project and for tracking the progress of and recommending improvements to efforts toward a sustainable and ‘institutionalized’ program. Gathering data from and consulting with the Element Leads and Key Stakeholders is a crucial part of this task. John has developed an ‘interview protocol’ for this purpose, which also provides a baseline for gathering input toward the ultimate Task 3 objective of structuring a resource continuation process for Sentinel Landscapes.

Click [here](#) to access the Interview Protocol. Please complete your responses to the questions in the form provided and ***submit to us no later than June 12, 2013.*** (A Word version is attached for reference).

Please contact John or me if you have any questions about the survey form.

Thanks for all your efforts in making the Sentinel Landscapes Project a success!

Don Belk

John Diaz

APPENDIX E: INTERVIEW INFORMED CONSENT FORM

North Carolina State University

INFORMED CONSENT FORM for RESEARCH

Sentinel Landscapes Program

Principal Investigator: John M. Diaz

Faculty Sponsor: Dr.

Robert Bardon

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of this study is to understand the process of collaborative planning and design to enhance network linkages between Military, Conservation, and local communities. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researchers named above.

What is the purpose of this study?

The purpose of the study is to understand best management practices and lessons learned from the Sentinel Landscapes Partnership Pilot in order to gain insight into the potential transferability of the Sentinel Landscapes model.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to engage in a qualitative interview focused on understanding stakeholder perceptions of the strengths, weaknesses, opportunities

and threats for program success based on best management practices and lessons learned for the program pilot. Study participants will be audio recorded in order to ensure participants comments are captured accurately. Study participants will be required to participate in an interview that will take place either face-to-face or over the phone. The interview venue will be selected on a case by case basis.

Risks

The risks associated with this interview are minimal. Readers may be able to identify the informants of this study based on the relatively small group of program partners and key stakeholders. You may decline to participate in any portion of the study and/or withdraw from participation at any time. Findings generated from this study will either be reported in aggregate or will utilize pseudonyms to protect the identity of participants.

Benefits

Direct benefits of this study include receiving a copy of the study's result, in manuscript form, that will identify ways in which the collaborative could be improved to facilitate program success.

Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law. You will not be identified in any report by name or title. Findings generated from this study will either be reported in aggregate form or will utilize pseudonyms to protect the identity of participants. The information in the study records will be used to generate a manuscript at the end of the study. Audio recordings will be destroyed following the conclusion of this study.

Compensation

You will not receive anything for participating.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, John M. Diaz, at [919-621-9911].

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

Subject's signature _____ Date _____

Investigator's signature _____ Date _____

APPENDIX F: PARTICIPANT OBSERVATION INFORMED CONSENT

North Carolina State University

INFORMED CONSENT FORM for RESEARCH

Sentinel Landscapes Program

Principal Investigator: John M. Diaz
Robert Bardon

Faculty Sponsor: Dr.

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of this study is to understand the process of collaborative planning and design to enhance network linkages between Military, Conservation, and local communities. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researchers named above.

What is the purpose of this study?

The purpose of the study is to evaluate the effectiveness of facilitated advisory committee discussion towards integrating the various perspectives of multiple stakeholder groups concerned with land-use compatibility.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to engage in advisory committee discussion for the creation of a strategic plan and an evaluation and monitoring framework. Study participants will be videotaped for observation of the process. Study participants will be required to attend each of the strategic planning and evaluation design advisory committee meeting. Meeting venues will be chosen based on availability.

Risks

The risks associated with this interview are minimal. You may decline to participate in any portion of the study and/or withdraw from participation at any time. As part of the study, you will be asked to participate in facilitated advisory committee discussion, which will be videotaped. Findings generated from this study will either be reported in aggregate or will utilize pseudonyms to protect the identity of participants. As a result, the risk of personal identification is very low.

Benefits

Direct benefits of this study include receiving a copy of the study's result, in manuscript form, that will identify ways in which the collaborative could be improved to facilitate program success.

Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law. You will not be identified in any report by name or title. Findings generated from this study will either be reported in aggregate form or will utilize pseudonyms to protect the identity of participants. The information in the study records will be used to generate a manuscript at the end of the study. Videotapes will be destroyed following the conclusion of this study.

Compensation

You will not receive anything for participating.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, John M. Diaz, at [919-621-9911].

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

Subject's signature _____ Date _____
Investigator's signature _____ Date _____

APPENDIX G: PEER DEBRIEF MEMORANDUM #1

Dear Peer Debrief Team,

I have completed the first stage of data analysis on the first four qualitative interviews of the Sentinel Landscapes leadership group. I conducted open coding on each individual interview, which was followed by axial coding that aggregated the open codes from each interview transcript. Below you will find my initial impressions based on this first wave of analysis and some of the corresponding interview data that shaped those impressions. The text in parentheses following each bulleted data point refers to the document, participant and line within the document that you may find the data.

My goal for the peer debrief process is to increase the credibility of my dissertation by allowing this committee to remain informed throughout the study and provide related input. . I would like to make sure that I complete an accurate portrayal of the experience that this group experienced and explore an aspect(s) of this partnership that may provide a larger impact towards the paradigm of military-based conservation. My desire is for this committee to make sure that bias isn't blinding me from seeing the holistic picture the data are painting and negatively affecting the direction of the study since I am somewhat embedded in Sentinel Landscapes Partnership. I also want to make sure that my previous academic and professional experience doesn't overly influence the direction of this study. Please let me know what your thoughts/questions are regarding my initial impressions of the data collected and themes that have emerged.

The next step is to continue to work through data analysis of the interview transcripts, which will entail three separate phases that will build on itself. Phase two and three of analysis will follow the same sequence of events as this phase, open coding followed by axial coding. There will be a total of 13 interviews based on the group of program leaders with four interviews in wave 2 and five interviews in wave 3. I would like to make sure that I complete an accurate portrayal of the experience that this group experienced and explore an aspect(s) of this partnership that may provide a larger implication towards the establishment of military-based conservation. Once the interviews have been completed, this process will help to inform selective coding process where I will pull data from surveys, interviews, participant observation, and partnership documents. The surveys are focused on key stakeholder expectations for a successful program while participant observation is focused on gaining insight into the internal dynamics of program leadership during strategic planning. Please look over this memo and get back to me in one to two weeks with your feedback. I look forward to hearing back from you and appreciate your support in reviewing these documents and keeping me on track.

Preliminary Impressions from Data Analysis

After initial analysis, I was left with 11 key impressions garnered from participants' survey responses and observations. The impressions are as follows:

1. Due to the inherent turnover present internal to the partnership as well as among key stakeholder groups external to the partnership, something needs to be done to address it and familiarize new stakeholders to the partnership and the value of the partnership.
2. There are some major lessons learned regarding the role of steering committees and their value for Sentinel Landscapes efforts for engaging key stakeholders.
3. Due to inconsistencies at the program management level and failure to plan strategically from the onset, the partnership evoked more of a project piecemeal approach than a holistic process approach.
4. The way the partnership was managed allowed for creativity but the lack of unified structure throughout (i.e. reporting) decrease the partnership ability to leverage each other's efforts.
5. The program pilot shed some light on difficulties related to partnering with the Navy based on organizational mission, changes in perspectives, changes in leadership, misunderstanding of what a pilot is and the overall bureaucracy of the military, while providing some lessons learned for the partners.
6. Many of the public perception issues the partnership had to overcome were related to "the military" partner and may have been exacerbated based on the MBCI pilot.
7. The partners' experience of partnering with "the military" shed some light into a philosophy shift that may allow for the adoption of innovative policy and management strategies.
8. By bringing together a diverse group of partners and facilitating open communication with ongoing engagements, it allowed the partnership to build trust among the core group which was the glue that kept everyone together through the various bumps in the road.
9. The partnership was able to effectively build social capital through pre-existing relationships and a broad recognition of the problems facing working lands, conservation and national defense.
10. The "conservation partnership" was integral for program delivery to overcome public perception issues related to the interests of eastern North Carolina and serve as a trusted link to local communities.
11. While there were definitely some positives that came out of the market-based conservation initiative, there is still a lot of work that is needed for a military-based environmental market paradigm to work based on the experience of the program pilot.

My overall impressions from this wave of interviews is that the key success of the partnership was its ability to build trust among the leadership group. Through formal and informal engagement they kept an open line of communication which led to the development

of trust. The group was also able to tap into their network to build social capital based on a collective recognition of the issues the partnership is trying to address. The trust factor help create candid dialogue among the partners while creating the “glue” to keep the group together through adversity. The main obstacle/headache seemed to come from having the Navy at the table. Rather than simplifying the process for the intention of a pilot the Navy seemed to complicate things. This manifested primarily in the authority that was chosen to administer funds for MBCI. The Navy also did not provide a clarity in its decision for stopping the pilot but partners believe that is due to the unnecessary costs incurred due to the associated authority used for MBCI and changes in perspectives due to changes in leadership led to the abrupt halt of MBCI. Also since the Navy did not understand what a pilot was as well as the associated risk in developing a new program, the market was not correctly tested which means a correct market price was not identified. They did in fact provide a clear market signal, which is needed for the market, but could have achieved their conservation goals at a lower price if they would have simply let the pilot play out the way the partnership intended.

The way the Navy handled the MBCI pilot impacted not only the ability to test the approach but also created a negative stigma of the program among landowners. This was due not only because the pilot was cut short but the massive delay in approving bids and working towards a contract. There was also evidence that there were perception issues on both sides of the fence (landowner and military) that impacted the way the partnership was structured and implemented their projects. The landowners seemed to have a negative perception of the military that seemed to be directly related to their experience with military programs (i.e. OLF). Also the Navy was very unfamiliar with the ownership patterns in the eastern part of the state which impacted there choice to choose the MBCI authority and then the subsequent complications due to the number of tracts they had to evaluate.

The failure to plan strategically definitely impacted the progress of the partnership and their ability to propagate a holistic vision to outside stakeholders. The partners identified an inability to leverage each other’s work and a piecemeal project like approach which compromised the collective impact of the efforts of the partnership. They also explained that with the failure to plan strategically and the inconsistencies at the program management level they were not able to effectively articulate the value of Sentinel Landscapes to increase the participation of key stakeholders. While the lack of overall structure provided the partners with a level of autonomy, which is necessary for this type of program the lack of structure as it relates to reporting, messaging and planning impacted the overall effectiveness of the partnership. The partners believe that this is a result of changeover in leadership and the absence of a Sentinel Landscapes steering committee focused on the big picture. Each interviewee identified the value of the science, policy and economics committee but were unsure why they were not kept. Although the partners have identified several lessons learned they believe that the model of having NC State (a land grant university) as the administrative

entity and a nonprofit (the foundation) managing an MBCI type project is not only innovative but provides a structure that can be applied elsewhere.

The partnership seemed to take a project approach which the interviewees felt was piecemeal and compromised the collective gain that could have been accomplished with a holistic process approach. Rather than having a “Sentinel Landscapes” lens there was more of an element lens and the lens seemed to be focused on one element. Due to all of the aforementioned complexity of MBCI, it seemed to receive more attention than any of the other elements. Other elements within the partnership could have been improved from input by the group but it seemed that the group’s interests initially lied in MBCI. This overemphasis of MBCI may have given outsiders the impression that Sentinel Landscapes was MBCI. These impressions are not categories or themes that are part of data analysis but simply impressions. They also don’t touch on all of the concepts that rose to the top based on this first wave of interviews. Please let me know if you have any other impressions from the data that you feel are important that I may have missed or have comments about my identified impressions.

Impressions with Supporting Data

1. Due to the inherent turnover present internal to the partnership as well as among key stakeholder groups external to the partnership, something needs to be done to address it and familiarize new stakeholders to the partnership and the value of the partnership
 - I mean we really didn’t have any idea what we were doing. We had these notions and so I think that as we went along goals and objectives progressively evolved and were revealed. And I don’t think...I mean if we add new elements to a Sentinel Landscapes Program we could probably do it better but I don’t know how we could have done much better early on because we really didn’t...it was all new ground being plowed (Int_part109_lines 181-185)
 - I remember going to the meetings of the Farm Bureau with the economic group and the policy group and this group, and that where I had trouble fitting it all together and it was really not until first meeting of the Sentinel Landscapes Quarterly Meeting when things began to come into focus. (Int_part115_part217_lines 35-38)
 - Whoever the new person was we’d have to reorient them to what the process is as we understood. And it just meant spending more time then maybe we would have needed spent. (Int_part115_part217_lines 59-63)
2. The partners have provided some lessons learned for the steering committee based on its need to provide feedback to all elements while not overemphasizing a single element (MBCI), evoke sub-committees to keep things moving forward (i.e. technical support

group), and educate the military partners on the decision making structure using steering committee.

- a. The fact that the MBCI steering committee allowed us to setup a technical support group to work closely together on issues was the most important to moving the process forward. (Int_part115_part217_lines 952 &953)
 - b. On the MBCI side the steering committee from a staff perspective it worked really well because I had a technical support group that I could touch base with as issues came up and they represented members of the steering committee. (Int_part115_part217_lines 729-731)
 - c. the steering committee might have taken a broader look at all the elements. It is my personal perspective, that the steering committee had little or no input to what I was doing in a proactive manner. They were more concerned with the Market Based Conservation Initiative program within Sentinel Landscapes. So I didn't feel like there was less a Sentinel Landscapes steering committee it was more of Market Based Conservation steering committee. (Int_part109_lines 116-120)
 - d. the creative minds of the folks within the room could have been brought to bear on all of the elements more. Again, it was unique because I was already up and running while Market Based was not. Market Based needed a lot of coming up to speed. It was a lot weirder than what I was doing. So I think from a lessons learned standpoint the steering committee needs to be, needs to provide guidance at least creative input to all elements. (Int_part109_lines 124-129)
 - e. The military did not understand steering committees though. The middle management folks that we were dealing with. They saw it as there's an agreement between the foundation and the navy. And yes there's a steering committee written into it but they didn't always understand that some decision had to go through the steering committee before the foundation could give them an answer. (Int_part115_part217_lines 733-737)
3. Due to inconsistencies at the program management level and failure to plan strategically from the onset with clearly defined objectives, the partnership evoked more of a project piecemeal approach than a holistic process approach.
 - a. I think the only weakness that I can point to was the inconsistency of program management for the program management level. We went through at least 4 different program managers, and then so even though the element leads all stayed the same, the programmatic piece that NC State had, went through like 4 or 5 people. (Int_part109_lines 147-150)
 - b. Too little too late [establishment of goals and objectives]. It should have been done in the first couple of meetings. I think they went through that process organically when they had that science, economics, and policy committee setup but they just didn't produce a document that could be passed down. (Int_part115_part217_lines 851-853)

- c. I think that if you break it out into individual projects and piecemeal out the projects you lose the integration necessary to have a focused strategy around Sentinel Lands. So I think without the programmatic piece. You would be hard pressed to create the synergies. (Int_part109_lines 165-167)
 - d. It [program leadership] was less effective at being able to champion or provide that Sentinel Landscapes level, not the program element level, but Sentinel landscapes level concept. We weren't able to get that message out early enough because of the changeover. (Int_part109_lines 160-162)
 - e. because one of the questions was what didn't work. Part of it was the changing leadership. Especially who was facilitating the project. We would have been ok changing from one dean to the next but when we had to change the administrative point of contact a couple of different times. That made some things not flow as smooth as it could have. (Int_part115_part217_lines 44-48)
 - f. The process is way more difficult than delivering a project...One could have been stronger facilitated leadership out of NC State. Record keeping so that we weren't reiterating the same conversations that had already happened a couple of years ago (Int_part115_part217_lines 288-295)
4. The way the partnership was managed allowed for autonomy but the lack of unified structure throughout (i.e. reporting) decrease the partnership ability to leverage each other's efforts.
- a. the reporting content could have been a little more structured, but then again if the reporting content satisfied the programmatic lead then that's not a big deal (Int_part109_lines 222-224);
 - b. I think it did not leverage the synergy of the elements to be able to articulate the value of the umbrella program of Sentinel Landscapes. It wasn't able to promote the Sentinel Landscapes early on, not until later on in the pilot. (Int_part109_lines 156-158)
 - c. it [programmatic structure]makes sure that each of the elements are focusing on the prime objectives of the Sentinel Landscapes and not going down rabbit holes that are of little or no value to the overall strategy of Sentinel Landscapes. (Int_part109_lines 50-52)
 - d. the leeway that was given to the element leads to explore the possibilities was critical to getting as far as we did. And I think that the decentralization help. (Int_part109_lines 32 & 33)
 - e. because it is a very creative process that the creative piece, which is the building of the elements, needs to be somewhat autonomous but then brought together to feed from insights of the other elements in the program. So that they don't get into a myopic cylinder about what they are doing. It is very important for them in order to have the creativity in a short amount of timespan. The reporting side is to help ground those programs in contractual metrics and would be able to then

report them out programmatically to another program lead. It's like trying to heard the cats if you will, at the program office but still let the cats be cats.
(Int_part109_lines 40-46)

- f. So the processes connecting different shops [elements] with each other trying to get a foot into multiple shops was a challenge; is a challenge. (Int_part109_lines 69 &70)
 - g. could have been more focus on consistency at the program level in terms of reporting formats and reporting data points. It took a while to get on board and everyone was reporting what they felt was important. It took a little too long for the program office to have effect. (Int_part109_lines 23-25)
5. The program pilot shed some light on difficulties of partnering with the Navy based on organizational mission, changes in perspectives, changes in leadership, misunderstanding of what a pilot is and the overall bureaucracy of the military, while providing some lessons learned for the partners.
- a. it's [the military] such a big entity that you could never have all the people you needed in a room to agree. (Int_part316_lines 133 & 134)
 - b. this never would have happened without them but also they were kind of instrumental in the abbreviation of the project. (Int_part316_lines 52 & 53);
 - c. The military structure was not as flexible as the Sentinel Landscapes creative model needs to be. So it was working with the military, I think on each of the elements but I can speak specifically to mine, it's a challenge because it is out of the norm and it is both a large and bureaucratic organization that doesn't turn well. (Int_part109_lines 58-61);
 - d. there turned out to be a tremendous confusion in what the word pilot means. We went into it as a 3 year pilot and to us it meant you implement the full 3 years of the pilot with multiple bid rounds. We had 3 groupings of counties, 3 phases and the design was to do at least 2 bid rounds in each phase. Uh...our interpretation was that a pilot means you stick with it be it good or bad, pretty or ugly. You stick with it for the pilot and then you evaluate the pilot and then that determines how you move forward. They [the military] unitarily made the decision that after we made 1 bid round in every phase plus a second bid round. They basically terminated the pilot and they said it is no longer cost-effective for us to do that. (Int_part115_part217_lines 343-350);
 - e. The people that I worked with in Navy that handled the 2684A process told me that they had never had an agreement with outside partners. Their agreements were always between them and the base. So it was military to military talking to each other and that's a whole different dynamic. (Int_part115_part217_lines 738-741);
 - f. That's the official answer we are going to get but I still say there are undercurrents as to why we couldn't use. Because there was a very long time we

- couldn't get an answer as to why we couldn't use the Sikes Act. They just said that's a no go. (Int_part115_part217_lines216-218);
- g. the higher ups in the military and I think primarily the Department of the Navy, they couldn't agree within themselves whether the Sikes Act was an appropriate authority to use or not. So some said we don't see any problem in trying this as a pilot and others said, oh no no no no it won't fit. Uh...the Sikes Act allowed for more flexibility in contracting. Entering into agreements with landowners and we were promoting (Int_part115_part217_lines 170-174);
 - h. I found our project to be extremely complicated because of the silo'd structure of the military dealing with the different branches, dealing with their protocol, the different program authorities like Sykes Act versus 2684A versus...and, and finding out that they don't even agree on what is appropriate and is not appropriate. I found that our's to be extremely difficult as compared to what our perceived on the outside looking at the some of the other programs seemed to be a little simpler. (Int_part115_part217_lines 140-144);
 - i. Communication, and I don't think it unexpected, is a little more difficult as you move up the pecking order in the military. Naval facilities wants you to then go on up to the office of the secretary of defense then it gets more burdensome, which I think is to be expected (Int_part115_part217_lines 966-968);
6. Many of the public perception issues the partnership had to overcome were related to "the military" partner and may have been exacerbated based on the MBCI pilot.
- a. some folks have kind of a negative view of that military presence. (Int_part316_lines 299 & 300);
 - b. The residual effects of OLF is the sole reason why we never delivered market based in Beaufort County. Sole reason....The district was interested but select county commissioners had the attitude that market based was an end run to come at the concept of an outlying landing field from a different angle. It failed over here, let's make an end run and come at it from over here. Their trust in what we said was the purpose and how this program was going...market based was going to run with zero. (Int_part115_part217_lines 558 &559; 563-566);
 - c. I think the county commissioners didn't want them to participate. Even though we heard from some landowners that they did want to participate. So I forget what there issue was but that would be important to note. (Int_part316_lines 280-283);
 - d. The people that live near the base they feel the economics of having the military there. They own the restaurants, they own the hotels. They are receiving economic benefit of the base being there. Where the people across the rural landscapes where the military needs the space for training. They might not actually see an economic return on what they offered and this was one of the ways to test it. That was one of the things with OLF, OLF could have been structure differently. (Int_part115_part217_lines 550-555);

- e. Landowners were smart enough to say well this is just term easement why don't you just call it what it is. Why do you call it a contract? Well we were encouraging the military to look at contracts based on the findings of the Rodriguez study out of NC State that the strong preference of landowners of eastern North Carolina is contracts. They will participate in contracts. Well that's what we started out telling landowners. We talked about contracts and then over time it sort of migrated a little bit closer to actually what some would call term easements. (Int_part115_part217_lines 225-230);
 - f. I don't know how you change the trust or lack of trust that landowners have with the military. Obviously OLF didn't help that. To me, I don't know how significant it is but to me it didn't help improve that trust with the termination of the pilot early when we told landowners you will have 2 hopefully 3 opportunities. This is a very, very important flight path. We hope this turns into a 12 to 15 year program. I don't know this for a fact but I am afraid landowners are going to say well here we go again. (Int_part115_part217_lines 613-618);
7. The partners' experience of partnering with "the military" shed some light into a philosophy shift that may allow for the adoption of innovative policy and management strategies.
- a. I think the military is beginning to think in a way that they have not thought before. I think will open up some avenues down the road for Sikes Act. I think it will expand the concept of Sentinel and help expand the concept. I think the relationship and the communication that the conservation community has going on with the military is more than it's ever been. (Int_part115_part217_lines 684-687)
 - b. the department of defense was very forward thinking and unusually receptive to the oddness of what we've been doing. You know were able to get a federal policy to allow farmer's markets on the military installations. We were able to work with the defense commissary agency on increasing their concept of what local is. And the defense logistics agency was willing to change their policies or procedures for the online catalog. (Int_part109_lines 80-84)
 - c. I think that the fact that the military didn't try to direct the funding to a dollar amount but rather they allowed the creative minds to work to determine the cost, from a funding standpoint was pivotal. (Int_part109_lines 91-93)
 - d. something that could have helped and may prove dividends done the road was now the office of the secretary of defense is starting to classify different projects as Sentinel Landscapes projects. They've bought into the concept and we were ahead of the curve which is many times how it happens when you're dealing with what we call locally led conservation. When it's a community sitting together trying to solve a problem. So I think that just helps version 2 of whatever Sentinel

becomes that now there's a national umbrella that it can sit under as well.

(Int_part115_part217_lines 672-677)

8. By bringing together a diverse group of partners and facilitating open communication with ongoing engagements, it allowed the partnership to build trust among the core group which was the glue that kept everyone together through the various bumps in the road.
 - a. I think it was building the trust factor. Those personal attributes contributed to the trust factor and the trust factor allowed people to say things in a safe environment and explore ideas that may in the end sound silly but they were never judged as silly. They were judged as exploratory. So I think that trust, in order to get that creativity going was critical. (Int_part109_lines 232-235);
 - b. I really think it was the individuals that came together. I think that the fact that they were able to bring together visionary people that thought outside the box. I don't know how that happened. I don't know how you got a part205, and a part101, and a part106, and a part107 all together to have that kind of synergy. The people are every bit more important than the organization. You need to know the organizations that need to be involved. We have a good handle on that, academia, the military, etc., but attention really needs to be paid to individual qualities of the person that's representing the organization. And that person needs to be collaborative minded. And they need to be, I guess; they need to be generous, not rule the roust and collaborate. (Int_part109_lines 137-144);
 - c. I think that there was great voice given to each person's opinion and I think they took the time, you know again, which is needed for the 3 to 5 years, they took the time to explore and fully internalize the partners concerns and opinions to come up with something that worked for everyone. I think from the get-go the collaborative partnership piece was the hallmark of what we were doing and I think we stayed true to that throughout with nobody becoming a dictator, nobody trying to take control of the process. (Int_part109_lines 192-197)
 - d. everyone knows where the other people are coming from and there is pre-existing goodwill. So where if we hadn't know each other you might expect like an environmental group and org not to get along but since I worked with part107 I know and I like him. (Int_part316_lines 230-232);
9. The existing social capital and a broad recognition of the problems facing working lands, conservation and national defense has helped to build the partnership.
 - a. They wanted to put a million acres under permanent easement. You saw an increase in funding for the trust funds. Then on the flipside you had transitions going on in agriculture. You had the tobacco buyout process. So all those people in groups were already talking before these discussions started with the military. (Int_part115_part217_lines 529-532);

- b. and I think sometimes partnerships developed outside of the official Sentinel Landscapes meetings. Some of that has to do with the relationships that were already established. (Int_part115_part217_lines 874-876);
- c. I think I can speak to that from a MBCI standpoint. It was interesting how it happened. Chester Lowder and myself and Dewitt Hardee and the NRCS state conservationist and the Division of Soil and Water Director, we were in the western part of the state judging conservation fall family nominees. We were in Brevard and we were sitting in a restaurant on the second floor having a beer and waiting for them to bring out our food and they started talking about this project with the military and they couldn't figure out how to deliver it. One of the proposals was early on to deliver Market-Based through the Farmland Preservation local group. (Int_part115_part217_lines 883-889);
- d. I think the other human resources that helped us is networked with many different organizations that are the voice for local landowners. So there was the districts, Dick's association, there was the State Grange, there was Farm Bureau, there was the forestry association. So any one of those, if there listening to the meetings and they hear something that doesn't quite make sense to them they have a whole other network of people that they can go back home pick up the phone and say this is what I heard. (Int_part115_part217_lines 1083-1087);
- e. a commissioner of agriculture that had a vested interest in the process not just MBCI but ag can partner with the military in the early years when they were sitting down with the science, policy and economic and I think he saw an avenue. He sees a vision with it all and then he becomes the president of the National State Departments of Agriculture Association. See he was able to feed that information at a National level for other states to look and say this is a great way for the military and ag to partner. (Int_part115_part217_lines 509-514);
- f. I think we do that fairly well with like the folks down at Camp Lejeune and Marine Corps Installations East. We've gotten to know those people over the years. We go out to eat. We go out and have a beer. We do things...We go to their retirement parties when they retire. (Int_part115_part217_lines 1029-1032);

10. The partnership with conservation districts was integral for delivering the Market-Based Conservation Initiative because of their level of engagement and trust within local communities.

- a. I think that's [public perception of the military] part of the reason why we looked into an avenue...to partner with organizations that already had established relationships with landowners. And in this case the districts are the best example, we believe. In different states in may not be districts but there are districts across the nation. So that is a working infrastructure that is already out there. (Int_part115_part217_lines 608-612)

- b. the gatekeeper to the community because the districts even though we've said a handful of times they were working with people they don't know. They at least live in the community. They are shopping at the same grocery stores. Unless you vet somebody into that community you can't just come out of Raleigh and go to Sampson County and say hey I'm here to help you because they are not always going to be receptive to that. (Int_part115_part217_lines 1060-1064);
 - c. I don't think they [the Navy] had a clue going into this the importance and the strength of the conservation partnership in North Carolina that's required to roll out a program like this. And I agree they were used to working with the real estate division of Navy directly with Camp Lejeune or on occasion directly with a landowner that they are doing an easement on adjacent to their base. They weren't, they had no knowledge of a partnership like we've got between the association, the foundation, local conservation districts, the Farm Bureau, and on and on and on. That is why a lot of these kinds of things are successful in North Carolina. (Int_part115_part217_lines 742-748);
 - d. Well big relationship that made the market-based pilot a success in terms of outreach goes back to the conservation districts and the relationship that they had with landowners and have had for many, many, many years. And the willingness of the staff to take on something that was added to their plate.
(Int_part115_part217_lines 1052-1055);
 - e. the soil and water network, um, without them I don't think this could have been implemented. (Int_part316_lines 53 & 54);
11. While there was a clear demand signal and an innovative method of delivering the market-based conservation initiative through the soil and water conservation districts, military centric environmental markets must consider pursuing similar program under another authority like the Sikes Act and ensure that the pilot allows for 3 bid rounds to ensure the actual development of a market.
- a. having a strong source of demand and kind of a clear signal is really important. And so, that was...it seemed like we had it and then we didn't. (Int_part316_lines 60-62); they [the Navy] really only wanted things around \$25 an acre or less.
(int_part306_lines)
 - b. They basically stayed within their narrow sweet-spot on what they decided to go to contract for and didn't recognize, well during the pilot we may have to pay \$10 more per acre on some of these counties next to the urban area or for whatever reason still realizing that if we fully implement the pilot we will finally find a sweet spot that will probably be less than that but in the pilot you've got to consider some different aspects of the property: where it is, how big it is, and other things like that. I didn't think that they ever did that.
(Int_part115_part217_lines 402-407);

- c. the military decided no more bid rounds part of their official reasoning was that internally to manage the due diligence side of it was very costly. They made the comment that in some cases the cost for their real estate staff to interpret through and work with the foundation on the various pieces was running higher than the actual contract an individual landowner would get. (Int_part115_part217_lines 408-412);
- d. I think it boils down to when it went 2684A and became a real estate transaction they...it appears to me, I may be totally wrong, but they want to assume zero risk and you talk to any attorney here they will say in eastern North Carolina there is no such thing as a squeaky clean title because it's gone through so many generations. (Int_part115_part217_lines 1220-1223)
- e. We thought the Sikes Act was perfect for several reasons. It had more flexibility and it uh...it was natural resource focused and we felt like the Market based project was focusing on agricultural land, keeping the land in forestry, working lands, having a conservation plan, so on an so forth. (Int_part115_part217_lines 163-169);
- f. we still contend that because the pilot was terminated early that we don't have the data and we cannot analyze the results of the pilot to maximize what went on. We still don't know, we still can't say that the market had an opportunity to work in terms of the bids. Because in some of the phases they only had one bid round. You don't develop a market with one bid round. We really wanted to have 3 bid rounds and every phase. We thought even 2 bid rounds was not sufficient to really look at the market. There were a lot of things that we hoped to find out during the pilot that we were not able and are not going to be able to analyze because it was terminated. And that was a decision on their part not us.
(Int_part115_part217_lines 356-363);
- g. The other thing that came about with 2684A...we took a contract program and turned it really into a term-easement program. Term-easements have not been used greatly in this state but they have been tested. So we weren't really testing as new as a new of a concept as we could have by using term-easements.
(Int_part115_part217_lines 198-204);
- h. method of implementing market through the conservation districts is great and really innovative and um I think that that, you know if the future um, I think that things are going towards more markets. And it's great to educate the soil and water district folks on kind of how that works. And I think that those skills will be useful in the future in a variety of contexts. (Int_part316_lines 28-31);
- i. I think that's why the people that were looking at the element of MBCI and how to deliver it. It was decided to go through a non-profit process because if you would have, you could have delivered it potentially through a state division within a department but then you are dealing with federal and your dealing with state. It

wasn't that we were trying to circumvent the process we were just trying to make sure it didn't become too cumbersome early on for a pilot. Just to see if it works. (Int_part115_part217_lines 335-339);

- j. in the Sikes Act the legal reason that we couldn't use it is at the time you had to obligate and expend funds within 18 months. So we needed a mechanism to where long-term monitoring funds could transferred as well as long term contract funds. And so some people were viewing it a black and white, very strict reading of it. Because we weren't going to pay Dick the landowner within 18 months for whatever he was gonna do that it wasn't a valid program. We need something that had a longer funding cycle and 2684A is a five year window to expend the funds. (Int_part115_part217_lines 192-198);
- k. when all the dust settled we had shifted from the Sikes Act to another authority called 2684A...Well by the nature of that authority it kicks in the acquisition process, considers it as a real estate acquisition. Which complicated tremendously the process of doing the due diligence, title searches, the question about appraisals, the questions about do we need surveys or not, on and on and on. We used that for the 2 years we implemented the program. We still feel like the better match is the Sikes Act. (Int_part115_part217_lines 176-183);

APPENDIX H: PEER DEBRIEF MEMORANDUM #2

Dear Peer Debrief Team,

I have completed the second stage of data analysis on the next four qualitative interviews of the Sentinel Landscapes leadership group. I conducted open coding on each individual interview, which was followed by axial coding that aggregated the open codes from each interview transcript. Below you will find my initial impressions based on this first wave of analysis and some of the corresponding interview data that shaped those impressions. The text in parentheses following each bulleted data point refers to the document, participant and line within the document that you may find the data.

Again, my goal for the peer debrief process is to increase the credibility of my dissertation by allowing this committee to remain informed throughout the study and provide related input. I would like to make sure that I complete an accurate portrayal of the experience that this group experienced and explore an aspect(s) of this partnership that may provide a larger impact towards the paradigm of military-based conservation. My desire for this committee is to make sure that bias isn't blinding me from seeing holistic picture the data is painting and negatively affecting the direction of the study since I am somewhat embedded in Sentinel Landscapes Partnership. I also want to make sure that my previous academic and professional experience doesn't overly influence the direction of this study. Please let me know what your thoughts/questions are regarding my initial impressions of the data collected and themes that have emerged.

The next step in analysis is to finalize data the third wave three of analysis which will include 5 qualitative interviews. The third phase will evoke same sequence of events as the first two phases, open coding followed by axial coding and a corresponding debrief memo. The difference will be that once the third phase is complete, the selective coding process will begin where I will pull data from surveys, interviewers, participant observation, and partnership documents based on the impressions of the first three phases. This process is intended to strengthen the credibility of my results through triangulation among the aforementioned data sources. Just as a reminder, the surveys are focused on key stakeholder expectations for a successful program while participant observation is focused on gaining insight into the internal dynamics of program leadership during strategic planning. Please look over this memo and get back to me in one to two weeks with your feedback. I look forward to hearing back from you and appreciate your support in reviewing these documents and keeping me on track.

Preliminary Impressions from Data Analysis

After initial analysis, I was left with 12 key impressions garnered from participants' interview responses. The impressions are as follows:

1. There was a natural convergence of diverse stakeholders based on the recognition of an issue and pre-existing working relationship
2. Trust again is a key ingredient for success among the partners and key stakeholder, which was facilitated by open communication and collaborative learning and resulted in a holistic/comprehensive problem focus.
3. Creating a shared vision was key to bringing everyone together in light of varying organizational mandates.
4. The partnership made decisions via open discussion and sharing of knowledge which was a result of enlightened leadership with credibility.
5. The formal structure for decision making did not remain consistent throughout the tenure of the partnership with a committee structure to begin with that quickly turned into a project based approach based on a contract with associated deliverables and finally re-assimilated back into a committee approach that was preferred by the partners for it's strategic approach.
6. The Land-Grant university seems to be the ideal fit for the coordinating entity due to mission and resources.
7. Engagement, communication and education resonate as key components for a successful program.
8. The program pilot shed some light on difficulties related to partnering with the Navy based on organizational mission, changes in perspectives, changes in leadership, misunderstanding of what a pilot is and the overall bureaucracy of the military, while providing some lessons learned for the partners.
9. Many of the public perception issues the partnership had to overcome were related to "the military" partner and may have been exacerbated based on the MBCI pilot.
10. The experience of the pilot provided some valuable lessons learned and best management practices for creating a military centric environmental markets and enhancing economic linkages with the military.

11. The partners believe that it is important to navigate the policy landscape in order to effectively stack and leverage benefits while also finding ways to create collaborative synergy for program management.
12. The lack of an appropriate funding structures inhibited the progress of the partnership but the partners believe by encouraging the paradigm of fund matching from a broader standpoint may provide hope for leveraging benefits from other programs that achieve the partnership mission

The overall impression that I got from this wave of interview analysis was the reinforcement of the need for engagement, education and communication. These practices are needed not only within the partners and key stakeholders that have already collaborated with the partnership but also the broader public. That being said, the type of education/communication touches many different angles which must be addressed for program sustainability and success. The first education dynamic is internal to the partnership and deals with the use of collaborative learning to increase the partnerships ability to focus on the problem and create a shared vision. The partners at the table have varying expertise and the process of collaborative learning allows the partnership to develop a more holistic view of the problem and solutions that go beyond what a single agency/organization can develop. Communication and learning must remain constant in order to further trust among the partners as well as staying in touch with changes to resources.

Developing this comprehensive understanding will help promote such practices as stacking and leveraging program benefits because of the holistic view of the problem facing the interests of the partnership. This ability to develop a comprehensive problem focus resulted in such policy changes as USDA and DoD funds being accepted as matching funds. This was a huge win for the partnership because traditionally federal funds could not be leveraged as a match. So for example, the ADFP element functioned better because they were able to accept a wider range of conservation proposals. This policy change is expected to continue to further the mission of the partnership and the partners hope that similar policy changes occur based on the goal of the model which is to stack and leverage benefits.

As far as external engagement, it was viewed among the interviewees that the partnership still has work to do. The partners believe that they must do a better job of engaging all services of the military as well as landowners. The partnership wants to engage all services so that they have a better understanding of how the military works, maintain program champions in the face of turnover, and promote collaborative learning so that “military” can recognize the shared vision of the partnership. They also explain that the military must be educated on the purpose of a pilot and the risk of developing and implementing new programs if they are to be effective partners for Sentinel Landscapes. Interviewees explained that communication must almost be excessive if it is going to permeate the right channels while working its way up the leadership ladder.

Another engagement dynamic that was addressed was that of landowner engagement. The interviewees believed that the partnership did a really good job of taking the landowners interest at heart and bridging the gap through “gatekeeper” groups (i.e. conservation districts, Farm Bureau). It was suggested that the partnership still needs to invite landowners to the table in order to address false perception, build trust and understand their needs for related conservation programs. This engagement scenario like those previously mentioned needs to focus on collaborative learning so that the landowner gains a better understanding of the value of the partnership while the partnership gains a better understanding of a target audience which will allow them to design programs more effectively and manage the partnerships reputation real-time.

Finally, it appears that the link between land-grant universities and the DoD will be very important for the propagation of the Sentinel Landscapes Model. The land-grant universities bring resources, expertise and communication/education mechanisms that are needed to develop the convergence for stacking and leveraging benefits. For example, the policy committee was touted as being an effective working group for the development of MBCI and understanding what policies exist that may need to be leveraged. The turnover that occurred within the university only highlighted their importance. During periods of turnover the workgroup structure disappeared and the institutional knowledge of previous efforts were lost. Land-grant universities along with their extension arm need to take the lead in coordination, organizational development, communications and education that all have been identified as key factors for success as the partnership tries to navigate through the policy and management paradigm.

Impressions with Corresponding Data

1. There was a natural convergence of diverse stakeholders based on the recognition of an issue and pre-existing working relationship
 - The reason that the partnership came together was to address political and social concerns and so no one likes to talk about BRAC but it's on some certain stakeholder's minds quite often. There's a group of people that do nothing but help prepare for that kind of thing. Okay. It's kind of like the member of the family that nobody wants to talk about. This coming together of these folks from Sentinel Landscapes, the very creation of it and development and implementation of the whole partnership was to address those perceptions. I think we've done a good job of it.
(Int_part101_part102_lines 1211-1217);

- In this state those people were already there and starting to think about aspects of this even before we were on the scene. There was already some momentum. They weren't necessarily everybody congealed together to go down a path but there was certainly the emergence of some undeniable themes, some undeniable trends that were of concern going in.
(Int_part101_part102_lines 267-272);
 - and it basically came out of some other working relationships between DENR which is the Department of Natural Resources and the department I work for the Department of Agriculture. Others involved several private industry folks across the state and the military. So we all kind of came together and have been working together for 6 to 8 years now on different projects.
(Int_part106_lines 12-15)
 - both department of ag and department of defense who are actively working to find these solutions too. They recognize that. There's a problem with working lands, conservation and that nexus with military training. I also recognized that current federal policy, say, ten years ago didn't fully address those, so there have been initiatives and mandates that people looking for the solutions.
(Int_part205_lines 112-116)
2. Trust again is a key ingredient for success among the partners and key stakeholder, which was facilitated by open communication and collaborative learning and resulted in a holistic/comprehensive problem focus.
- I think that the trust amongst that core group of individuals whose been working on this, it is invaluable. (Int_part205_lines 200-201)
 - I think the beauty of this bonding was to create a relationship of education on both sides that was of that nature. I think it was a natural alliance to begin with, and I think it was an understanding from the agricultural conservation community of, what could the military do that would better their livelihood and an understanding of what they were doing; how that benefits ours, and what could each do. (Int_part101_part102_lines 1228-1233);
 - Well the number one thing is the trust and communication. You've gotta have the communication. You've gotta lay things on the table and look at those common things you can work at. Do not focus on the negatives or the things that are selfish. You have to look at what is in common. (Int_part106_lines 281-283);
 - Those [personal relationships] were vital stakes in the ground. When somebody would come to you and they would have a concern you would look

at a concern with more detail and more focus and how can I help or how can I reach out or how can I bring resources that would address that concern.

Versus just kind of yes how you doing and skim over it. (Int_part106_lines 194-197)

- I think mutual respect was absolutely present among all of those involved here at the state level. That mutual respect led for candid dialogue which allowed for building a teamwork factor. (Int_part101_part102_lines 62-64)
 - so many of us were working so long together, we know family members, we know spouses, you know what's going on in their lives and so you can temper some of that potential conflict or differences with the fact that, hey, we're kind of pretty good friends. (Int_part205_lines 294-297)
 - Diversity. I say diversity from the standpoint, everybody has strength they bring to the table and the common bond around us was like a bundle of sticks or a bundle of matches. The rubber band was our common denominator of what we needed to do and each one of us had a match stick or match sticks that we could put into the bundle that made it better, a more collective whole. (Int_part106_lines 122-125);
3. Creating a shared vision was key to bringing everyone together in light of varying organizational mandates.
- Without the mutual common organizational desire or goal to achieve we would have all gone to our separate corners and put up our little shields and cooperation would have ceased. (Int_part106_lines 45-47)
 - Sometimes the policies of the different organizations or the structures in which they were designed did not always lend themselves to compatibility to work across the lines. As time goes along we have been able to work and create those bridges. (Int_part106_lines 22-24)
 - Initially we were all in our separate corners. I say separate corners from the standpoint we had our directions and missions that we were supposed to accomplish and we begin to share what our respective needs were to accomplish the missions. We began to look at the common links and they intersected when you put all the circles together. Where was that common link? And that would become that desire. (Int_part106_lines 55-59)
 - every department has its own so called mission statement. Sometimes you were trying to understand the partners mission how to get the MOU or the agreements of understanding between different agencies to mutual fit

collectively. So you had to cross, intersect and work collectively together to shape the mutual interest. (Int_part106_lines 74-77)

4. The partnership made decisions via open discussion and sharing of knowledge which was a result of enlightened leadership with credibility.

- I think that the strength [of the program leadership] was maybe the willingness to share that knowledge. People came and it was very candid. I mean it was just...I don't know how you'd put together a team like that. (Int_part101_part102_lines 817-819);
- I'm still not an expert, never will be an expert on the agricultural programs. But I think that I felt comfortable enough with the partners to know that they knew what programs and what people to contact and discuss it with that it never even crossed my mind that we weren't getting to the right people because it seemed like every time an issue surfaced a well-credentialed individual showed up that shed light on it for us all. (Int_part101_part102_lines 1005-1010)
- One of the better aspects of it was the welcoming and the invitation of diverse ideas. That was tremendous and that welcoming those ideas and thoughts, different expertise, and if we didn't have it at the table – let's go find it, let's get somebody here who can speak to that. That part of it I think helped reduce risks we encountered. (Int_part101_part102_lines 248-252);
- group discussion and a work session, where you express what are your concerns. We did the break-out groups trying to put things together to make it occur. (Int_part106_lines 138-139);
- We reached a consensus of what the underlying issues were or the challenges. We then discussed what the opportunities were. It took a little while to identify what might the pilot be. We had a good bit of discussion about that. But there really wasn't much debate on whether we should try something in a pilot form. (Int_part101_part102_lines 905-908)

5. The formal structure for decision making did not remain consistent throughout the tenure of the partnership with a committee structure to begin with that quickly turned into a project based approach based on a contract with associated deliverables and finally re-assimilated back into a committee approach that was preferred by the partners for its strategic approach.

- I think it took a while to get the steering committee process going but how it's working now I think is much better than it was in the first couple years.

This idea that we do have a formal steering committee and a core team, it's thinking strategically. That wouldn't fully realize that first couple years.
(Int_part205_lines 177-180)

- I think you got a pretty independent group of thinkers and with that comes a certain amount of herding cats. I don't know, I think the steering committee process is in a better place than it was two years ago and it's good to see a little structure but I don't think with this group, a formal governance process would serve it well. (Int_part205_lines 188-192)
- I think that the goals and objectives for the program were approached in a very holistic manner. Holistic, meaning if the land is in farming and forestry and the military doesn't train on all of that ag and forested land, what steps do you need to take to create the partnership with a broader group
(Int_part101_part102_lines 910-913)
- while they're trying to sit there trying to figure out what their role is, the program's moving forward and so it took a while for them to figure out, okay, we're in a leadership/administrative role and for this overall partnership we need to be pushing it forward, and I think now, we're there. But because of all that turnover, there is a learning curve. (Int_part205_lines 210-214)
- It depended on the issue. Some of them came with just a simple lack of understanding of what parameters each party was operating under. Sometimes by discussing those parameters eliminated perhaps options from the table everybody seemed to understand, recognize, and accept.
(Int_part101_part102_lines 974-977);
- Lots and lots of dialogue. And where needed, seeking counsel, external entities to advise us. Invariably when you're testing new waters there's a shark in there you weren't expecting. Okay. You've got to get the right advice. (Int_part101_part102_lines 968-970)
- so through the formation of market-based we had a steering committee, the science team, the economics team, and the policy team, so all looking at different pieces of market-based puzzles and there's a hybrid between those three teams and the steering committee, that core team kind of pushing things forward, and having that structure in place, that ensured buy-in, because everyone who was in the steering committee was representing a stakeholder and having all of them in place really, that implied they're buying from their organizations and they were able to "give direction and sign off."
(Int_part205_lines 524-531)

- Because of the vehicle that we used for the funding we had to put in writing what the expectations or outcomes for the deliverables would be, and so if you look back at the agreement, that gave some guidance and direction as to what was being proposed by the commander and what he was thinking about, he outlined what was market based, what is the entire Sentinel Landscape's picture and then it helped to see it in writing. (Int_part101_part102_lines 925-929)
 - I think that the goals and objectives for the program were approached in a very holistic manner. Holistic, meaning if the land is in farming and forestry and the military doesn't train on all of that ag and forested land, what steps do you need to take to create the partnership with a broader group (Int_part101_part102_lines 910-913)
6. The Land-Grant university seems to be the ideal fit for the coordinating entity due to mission, diversity of expertise and resources.
- This is front and center to land grant universities. This is what land grant universities do, and you have a national organization. How to move forward to me is not a North Carolina issue. It's not an N.C. State issue. It is of national significance that North Carolina is taking quite a bit of lead on. I think that taking lessons learned from where we are now with the hope that this will on its own, or through other means, continue not just at the national level steering level but within states, that one of the issues that has to get answered is how does one make that work. (Int_part101_part102_lines 636-642)
 - Recognizing there's a lot of really good science that can be applied to some of these socially relevant issues that are out there that we're all having to deal with. And that the universities, especially the land grant institutions because of their mission of research and then translating that research to on the ground application through extension and outreach, whose better place to do that? (Int_part205_lines 377-381)
 - DOD come to us [land grant university] with a pretty specific problem, there's common interest there, but really listen to what their needs are, their mission is, figure out how we can bring the resources and partnership has to the rest of those, especially the shared interest. (Int_part205_lines 568-570)
 - and one of things is lobbying or advocacy, so we can provide technical expertise, we can provide research, science, outreach, education, (Int_part205_lines 80-86)

- we've been very successful through our network of partners and relationships that we've built with different federal agencies, state agencies, NGOs, securing funding. (Int_part205_lines 390-392);
 - early on the Marines and several others reached to us because of our expertise with endangered species and working with private landowners and developing solutions to recovery. And then some of the work we did early on with Department of Defense and the Army here in Texas was really groundbreaking with the way DOD was looking at some of their species issues (Int_part205_lines 409-413);
 - that's a strength in the partnership is being aware of the social and cultural issues effecting the local rural communities and being sensitive to that, that's been a strength of this partnership. They know what's going on in Duplin County. (Int_part205_lines 462-464)
 - We had to walk fine lines in advocacy and the lobbying part of it. Much of it has been pushed, been through political channels, but there's I think one of the strengths of the partnership is that there are people within the partnership who can do that. And that was actually brought up yesterday, I think Bob brought that up. There are things that the university can do and cannot do (Int_part205_lines)
 - the structure of the economic group, policy group, kind of the implementation, more of the science group were extremely important to make sure we were hitting those three biggies. That seemed to work well. Again, we have adopted that model but it seemed to work extremely well. We tried not to let science drive only. We tried not to let economics drive only. We tried not to let policy inadvertently cover any avenue that we had. But we wanted to make sure that all three were out there. If you've got too much of one but not the others you don't have a great chance of success. (Int_part101_part102_lines 804-810)
7. Engagement, communication and education resonate as the key components for a successful program.
- if you brought them in early in the process, 9 times out of 10 it aligns with them. You talk to a lot of farm ranchers or landowners, the vast majority of them are going to say "yeah, I'd like to see this continue in farming, I'd like to see it continue in ranching and I want to see this passed on to the next generation." But this idea of "we're gonna restrict development on your," and

they go “wait a minute, you’re gonna take away our property rights?” No, we want the same thing you want! (Int_part205_lines 455-460)

- they recognize that and that’s why you see such a push toward local-led efforts or at least if they’re not local-led, the organizations that represent those local interests are heavily engaged. (Int_part205_lines 443-445)
- one of the greater headaches that still exists and must be worked on constantly is communication between the different levels of authority. You’ve have a federal level authority for example. Let’s say for the military you’ve got a department of defense and then in the department of defense let’s say you’ve got the different branches that have their own little cliques or organizational concerns they are mandated to address. Then you compare that with the state government with its resources and its cylinders. I say cylinders for example department of DENR is under the leadership of the governor. The department of agriculture is under the leadership of the Commissioner of Agriculture. You look at the school of forestry over at NC State University which is under the dean and also under the chancellor. All of those have a different set of missions basically. So sometimes those cylinders exist we’ve gotta figure out how to link across for that common goal. (Int_part106_lines 27-36)
- The key is to make sure that we try our best to keep our leadership in our respective areas informed. Sometimes we’ve lost that communication between leaders of different departments. And I say leaders of different departments, the military was constantly changing their leadership. So you have an education issue. (Int_part106_lines 288-291)
- I think that I would spend a lot more of my time trying to inform and educate the gatekeepers that I mentioned earlier. Whether they felt slighted or whatever, just educate them, “Here’s what we’re trying to do” so that the purpose of the pilot stood to the fore and not some misunderstanding about the MTR. (Int_part101_part102_lines 895-899);
- You had several factors going on and still exist in eastern North Carolina. One thing that created a lot of this was what happened with the OLF. A lot of it came out of OLF as far as trying to bind or to cover those wounds between local landowners, state government, federal government and private industry. There were some very nasty activities and we had to heal those scars and there was a common outreach from the Marine Corps East. As we were working on this which was connected with the Navy. We had representatives and senators. We had local leaders in county governments that were just agitated. So over time we began to heal that process by working collectively together and at the

same time it's an education process with the local land, private landowners is an education process with the municipalities, the county governments because a lot of trust was lost. We've got to build that trust otherwise as I mentioned earlier, trust is by communicating and working together. You will still have that scar the key is not to aggravate the scar and to find ways to continue to heal. (Int_part106_lines 247-258)

- I think that if all of the services and every service was invited to participate, had participated in fullness beyond one military service, I think some of the issues would have come to the surface sooner. When you start discussing authorities and start discussing laws, that's why there's a congressional record, that's why there's committee reports, it's all about congressional intent. (Int_part101_part102_lines 100-104);
- people who knew so little about it and still think this was an ill-conceived, ill-designed, uninformed, non-documented occurrence that was all by happenstance that have no idea how much went into it. If there was a lesson learned, it goes back to the documentation, the sharing of that, the communication of it on a consistent basis absolutely is central to rapidly move forward to bring and get those people in a room, have them say their peace, keep them at the table. (Int_part101_part102_lines 958-963)
- Communicate almost excessively – I hate to say – because I sure thought we did a lot of it, perhaps to the excess. Recognize the dynamics of each group in changeover and turnover. Choose your subject matter well.
(Int_part101_part102_lines 1244-1246);
- from a military perspective how it approaches its challenges is so varied from service to service that if adequate care and feeding and communication isn't occurring during a changeover in administration or a changeover in command, that you run the risk of not having the same level of visibility going forward.
(Int_part101_part102_lines 147-151)
- It gets back to some very basics of people buying into the premise of what one was trying to do was to tie naturalist thoughts with working land thoughts with military thoughts and that was the newness. Each of...if you were a naturalist thinking persona and you'd been working with the military for a long time, this other party was a redheaded stepchild that was trying to come to the table and steal some of your food, if you were a working lands person you're going, "We were the first conservationists. Who are you to tell me this?" Those sorts of tugs I think also got into impacting funding and some of

the policy interpretations of laws because they are part of the review process.
(Int_part101_part102_lines 613-622);

- It's just something that is an education process of teaching lawyers and financial managers about existing programs that are available for such pilots as was conducted for Market-Based initiatives under the Sentinel Landscapes umbrella. (Int_part101_part102_lines 592-594)
 - To see a national program emerge, to see someone like Commissioner Troxler take it to SASDA, to take it to NASDA, to see folks engaging at the highest levels of the military to open eyes and further educate and pat people on the back for trying to move it forward I think was very rewarding to observe.
(Int_part101_part102_lines 833-836)
8. The program pilot shed some light on difficulties related to partnering with the Navy based on organizational mission, changes in perspectives, changes in leadership, misunderstanding of what a pilot is and the overall bureaucracy of the military, while providing some lessons learned for the partners.
- Didn't convey sufficiently, routinely enough, and an understandable manner what the primary goal of the program was, because if that had been understood that question never would have not come up because that wasn't the intent of market base conservation, was not to protect the MTR. The purpose of the discussion was to pick a geographic area of sufficient size and of sufficient land variability – urban, rural, forest, ag, wetland, developed, near risk areas, away from risk areas, and to start looking at what kind of pricing would come from that. Not necessarily to apply to protection of an MTR but to apply it wherever the tool was deemed to be workable.
(Int_part101_part102_lines 654-662)
 - We needed a visual, a concrete visual that people could look at for a pilot, a leg of an MTR or let's say we'll take an MTR. The property between Fort Bragg and McCall, a ten-mile wide swath that Fort Bragg likes to use a whole lot both vehicularily as well as rotary aircraft traveling back and forth.
(Int_part101_part102_lines 683-686)
 - I think there is a general lack of understanding that when you push new programs there's a risk failure component of anything anyone tries. I think if you're not failing you're not trying. You are going to fail. When I say fail, you're going to have short-comings, you're going to have things that don't go the way that you want them but I've just never seen a process like this go

forward without some hiccups along the way. (Int_part101_part102_lines 180-185)

- I think that the amount of energy that had to go into individual properties was...whether you're dealing with a hundred acres or a thousand acres, it's pretty much the same, which was a big lesson learned.
(Int_part101_part102_lines 559-562)
- taking something up the military chain you need some sort of concrete program. What am I looking at? I need to see the battlefield. That's a commander's thought. I need to see the battlefield so I can make my plan. Okay, here's a visual. Give them something they can cling to in the way of concrete instead of abstract. (Int_part101_part102_lines 710-713)
- something that concerns me is that institutional change on the Marine Corps, Marine Corps sat on the civilian's side. Who's the next Paul Friday? Who's the next innovator within their group, that's going to push these things forward? (Int_part205_lines 235-237);
- Move as fast as you could while you've got a good advocate. In all seriousness, whatever you gotta do to move through it, throwing up bureaucratic hurdles, you've got good buy-in at all levels, like you did for about 2, 2 ½ years. (Int_part205_lines 500-502)
- The other is, say if you're doing anything with the Department of Defense, you gotta buy-in at all levels. And if you get it done in two years or less, you got a good general on your side. Move fast. Move fast. (Int_part205_lines 491-494)
- we're forging new ideas, we're breaking down some of the way business has been done within the Department of Defense for years. So you're challenging standards that they've been working under for years. (Int_part205_lines 25-27)
- Human nature is not different but the structures are different and what I think was surprising to folks is that if we're sitting at that table and we're speaking for the military, that that military is construed of all services, all the military is behind this and we are the one voice for the process. And I think that was kind of a learning curve. I don't think they thought anybody was trying to run them down a rabbit hole or anything but I think there was a lack of understanding of how big that bureaucracy is. (Int_part101_part102_lines 220-226)

- if someone in the military is...and let's say a General Officer or a Flag Officer, Admiral in the Navy, says something people assume that "Ah, that's the marching orders. That's the way we go and here we go." That's not the case. Things can change. And so even that person who made the decision can change their mind once they're educated about it a little bit more, get more information. Sure, that would make sense for them to alter their course if they learn that there's a better way to go. (Int_part101_part102_lines 238-243)
 - And so here within the state of North Carolina if there were to be a champion, and I think that there is a champion who really has carried the work for the state, that person has been there and is able to sustain the championing drive, whereas we lost that in the military side and quite often that champion needs to be a uniform in the military. (Int_part101_part102_lines 153-157);
9. Many of the public perception issues the partnership had to overcome were related to "the military" partner and may have been exacerbated based on the MBCI pilot.
- You had several factors going on and still exist in eastern North Carolina. One thing that created a lot of this was what happened with the OLF. A lot of it came out of OLF as far as trying to bind or to cover those wounds between local landowners, state government, federal government and private industry. There were some very nasty activities and we had to heal those scars and there was a common outreach from the Marine Corps East. As we were working on this which was connected with the Navy. We had representatives and senators. We had local leaders in county governments that were just agitated. So over time we began to heal that process by working collectively together and at the same time it's an education process with the local land, private landowners is an education process with the municipalities, the county governments because a lot of trust was lost. We've got to build that trust otherwise as I mentioned earlier, trust is by communicating and working together. You will still have that scar the key is not to aggravate the scar and to find ways to continue to heal. (Int_part106_lines 247-258)
 - That was so key having people that we trusted going into the community. The military did not have that trust. (Int_part101_part102_lines 1126-1127)
 - I don't think the military was a well-trusted entity in the State of North Carolina, for not necessarily legitimate reasons. I'm not here to draw conclusions. I wasn't at the table and was not a part of other discussions but there was a perception that the military didn't understand the stakeholders in North Carolina. It was a perception. I think it was a pretty big perception. (Int_part101_part102_lines 1032-1036)

- I think it's still fragile. It wouldn't take much to destroy what has...the amount of trust that's been able to be developed with local stakeholders through Sentinel Landscapes. (Int_part101_part102_lines 1038-1039)
 - I think you go back to Sherry Rodriguez's study where they were looking at government programs and they considering NRCS and FSA and said, they're state. That's state. That's a local program. Because there's people in the county, and I get the impression that they've been burned before with DOD and there's some underlying issues like that (Int_part205_lines 435-439)
10. Lessons learned and best management practices for creating a military centric environmental markets and enhancing economic linkages with the military.
- if we did have the opportunity to roll out another type of market-based approach, it would be real quick, we know the recipe, we know what works, what doesn't work, you get the green light. Just go. Because that's the only way I can think of to front-run some of those issues of turnover on the military side and the civilian side. You've got good advocates in place. Roll with it, because you don't know when they might be leaving. (Int_part205_lines 508-513)
 - George was dealing with food specialists, marketing specialists, local farmers markets, advertising specialists, and just for food and fuel. You put that into Sentinel Landscapes and it's...you're having to deal with a tremendous number of people. So the expertise, people, money, time, energy (Int_part101_part102_lines 1077-1080)
 - you've got people who are purely experts in what they're doing and each of the different elements, especially the ones that have been the most successful, George Miller and all the work he's doing, food and fuel for the forces, I don't think any of us have a true appreciation of what the walls he has had to break down within the food fuels side of DoD (Int_part205_lines 54-58)
 - We did not succeed in that right out of the gate we decided market base was not the first program we would roll out. We would roll out food and fuel, and we did that for one major reason. For that all farmers or not all foresters benefit or would benefit from protecting just those parts of the land and we needed to have program in place that building a stronger, broader partnership. So from a design standpoint all of the major stakeholders got that. (Int_part101_part102_lines 1294-1299)

- simplify the process to where it is not...does not require the same level of attention as a real estate acquisition might. (Int_part101_part102_lines 569-570);
 - It bogged it down. It just slowed it down. A whole lot of energy and going through processes and steps that were unnecessary, and even now, even after three iterations the process has not changed at the local level. It is not treated as a CESU. It is treated as what's called an economy act contract or transaction, and so to go through a whole lot of unnecessary steps, just about six month process for what is less than a two-month process. And then because of that lack of understanding too then, what checks are there on the system. (Int_part101_part102_lines 581-587);
 - we were so engaged with Sykes Act as a plausible solution that we took a lot of people out of their comfort level that were part of the review cycle of using the vehicle. Sykes Act was used for natural resource purposes and people weren't viewing working lands as a natural resource. That argument still exists today. Not everybody would tell you that keeping the land and agricultural forest productivity is a natural resource. (Int_part101_part102_lines 607-612);
 - if we're going to be competitive in Sentinel Lands and be competitive in moving forward we have to find ways to aggregate small landowners into large land groupings, aggregating...it's kind of like what's going on in the farm itself. They're small farmers and unless they can form co-ops they can't compete in the big stage. (Int_part101_part102_lines 565-568)
11. The partners believe that it is important to navigate the policy landscape in order to effectively stack and leverage benefits while also finding ways to create collaborative synergy for program management.

- And so I think that while we had early on a working group that was dealing with policy, I think that one of the things we probably should have kept going in a more robust fashion as time went by was that policy side of the equation because I think that whether it's Sykes Act, whether it's 2684-A, whether it's the ability to stack and leverage credits, tax policy before that kind of come to mind, I think all of them are still there for the resolution. I don't think they're resolved. (Int_part101_part102_lines 332-337);
- Through the current policy structure, how to get to 'Yes', and identify where the gaps are, where 'Yes' can't be gotten and look at whether or not the

remedy of that is policy or law or some sort of legal interpretation.
(Int_part101_part102_lines 340-342);

- navigating through because as I think through the different types of programs that have a landowner concern and use of lands and about that land, there are any number of programs but they're in different agencies at state level, the federal level, and even in non-governmental arenas, there are people who have various interest and are willing to help fund. (Int_part101_part102_lines 358-362);
- if the policy group were held together longer and it just kind of went away on its own, nobody made a conscious decision for it to go, I think we jumped into the implementation phase, it's a lesson learned. (Int_part101_part102_lines 443-445);
- If a cooperative agreement can be considered a mandate, then there were some good...in writing, cooperative agreements came forward that helped hold us together. And so those mutual agreements or cooperative agreements, while they generally say that we agree to work together, well in a way at the same time the signatories are telling their staff, (Int_part101_part102_lines 455-458);
- I think one of the federal laws for a while that didn't allow DOD and U.S. Department of Ag to comingle funds to leverage each other's dollars...That's been changed now. It was a barrier (Int_part101_part102_lines 510-514);
- I think on the broader side it's the inability to stack and leverage. Programs were designed for particular reasons and people probably give great thought of what needs to go into it to accomplish that particular task and sometimes there's hindrance and sometimes a value to other stackable leverageable attributes. Again, I think if you tried to start to stack and leverage before you got moving, you would never get to stack and leverage if no one ever agreed up front. (Int_part101_part102_lines 519-524)
- NRCS forming the regional RCPP process was birthed out of this and the drivers of that will tell you it was birthed out of this. So here comes NRCS down to North Carolina and goes, "If you really want to protect this area why don't we look at our menu of programs do a land assessment and determine how much of that land was eligible for these other federal dollars that in the event of you, you may only want to put a term contract on it but we're offering term and perpetual easements to keep that land in farming. And it turned that over 70% of that land was eligible for those programs. That's the

direction that one was going independent of whether it was an MTR or designing a program to apply elsewhere, was looking at bringing multiple programs together to stack and leverage (Int_part101_part102_lines 743-752);

- We got it [private landowner and military concerns about wind energy] to the state government folks who were able to put legislation in place to provide better guidance to all people and all parties (Int_part101_part102_lines 472-473)
- Every state-wide elected official is new. 40% of the senate turned over. Politically it didn't change, but all new faces, all new senior staff, all new. And then they come in with different priorities, what was known commodity for years, the BRAC commission, it's a little bit different now. (Int_part205_lines 350-353)
- there was a complete turnover in state legislature going from Democratic to Republican, you gotta change all those political connections back and then all the agencies can change leadership and at times, trying to figure out, okay, now how do we play together? (Int_part205_lines 274-277)

12. The lack of an appropriate funding structures inhibited the progress of the partnership but the partners believe by encouraging the paradigm of fund matching from a broader standpoint may provide hope for leveraging benefits from other programs that achieve the partnership mission

- The lack of funding structures was probably the most negative to achieve the mission and the goals that everybody had in common. We need the ability to pull the resources together but because of other individual partner needs one's responsibility areas would pull against collective project needs. So you have to look at how to use what limited resources you have together for the collective good. (Int_part106_lines 88-92);
- I think that the ability to leverage state dollars is one that I would put near the top of the list. They have different ground rules for sharing and leveraging than what the federal government has. (Int_part101_part102_lines 324-326);
- Well you've got to have the encouragement from the organizational or driving governing factors that oversee each organization. For example, if you're looking at resource funding include things like encourage match where you are having to reach out for matches. So you bring those individuals together as a collective partner you're also looking across different cylinders of activities (Int_part106_lines 98-101);

- I think one of the shortcomings that is leading to the outcome of this is not enough people put skin in the game financially. I think a lot of folks did very good work and are still doing good work, pieces that they've been assigned to work on, but finding an ability to go forward and continue to evolve the program in the absence of funding by particular sources has been a shortcoming in that. (Int_part101_part102_lines 51-55);
- Being able to sustain what comes out of the pilot will require more participants. And so the funding structure, not as designed but as it is...de facto... is not going to get it done. The military cannot fund the whole thing, there's going to have to be some other partners I think. (Int_part101_part102_lines 529-532);
- Multiple avenues to disburse funds and multiple stakeholders to engage, and the very essence of why Sentinel Landscapes was coined as a term (Int_part101_part102_lines 548-549);
- I think people still on the outside view DOD as a cash cow. It is a perception that's there because there are a lot of resources that flow through the military. I think if you were looking at it from the military side it's pretty tight. (Int_part101_part102_lines 1058-1060); In our eyes it was just as important to set up a working lands...for them to set up a working lands trust not by our initiative, by theirs to help fill in the gaps if the whole working easements didn't work. (Int_part101_part102_lines 1309-1313);
- You want to talk about the whole CESU process, that's a royal pain in the ass. We're not going to fix in this interview. That's a well-known issue. And through my work with the national CESU network, they're looking for avenues to fix that. (Int_part205_lines 155-157)
- The timing, the length of time it takes to execute an agreement. That's probably the biggest headache is just the sheer amount of time it takes to move funds from the Marines, through the Army Corps, down to NC State and then to the other partners. I mean, the biggest hold up is honestly on the Corps of Engineers side getting it from the Marines to the Corps of Engineers. (Int_part205_lines 159-163)

APPENDIX I: PEER DEBRIEF MEMORANDUM #3

Dear Peer Debrief Team,

I have completed the third stage of data analysis on the final five qualitative interviews of the Sentinel Landscapes leadership group. I conducted open coding on each individual interview, which was followed by axial coding that aggregated the open codes from each interview transcript. Below you will find my initial impressions based on this first wave of analysis and some of the corresponding interview data that shaped those impressions. The text in parentheses following each bulleted data point refers to the document, participant and line within the document that you may find the data.

Again, my goal for the peer debrief process is to increase the credibility of my dissertation by allowing this committee to remain informed throughout the study and provide related input. I would like to make sure that I complete an accurate portrayal of the experience that this group experienced and explore an aspect(s) of this partnership that may provide a larger impact towards the paradigm of military-based conservation. My desire for this committee is to make sure that bias isn't blinding me from seeing holistic picture the data is painting and negatively affecting the direction of the study since I am somewhat embedded in Sentinel Landscapes Partnership. I also want to make sure that my previous academic and professional experience doesn't overly influence the direction of this study. Please let me know what your thoughts/questions are regarding my initial impressions of the data collected and themes that have emerged.

The next step in analysis is to begin the selective coding process that will help to fill in gaps and triangulate my claims. I will be using data from surveys, interviewers, participant observation, and partnership documents to strengthen the credibility of my results through triangulation among the aforementioned data sources. Just as a reminder, the surveys are focused on key stakeholder expectations for a successful program while participant observation is focused on gaining insight into the internal dynamics of program leadership during strategic planning. Once I have received feedback and the go ahead to move on, the next document for review will be the actual write up of the findings that again will include the data brought in during the selective coding process (i.e. partnership documents, survey responses, etc.). Please look over this memo and get back to me in one to two weeks with your feedback. I look forward to hearing back from you and appreciate your support in reviewing these documents and keeping me on track.

Preliminary Impressions from Data Analysis

After initial analysis, I was left with 7 key impressions garnered from participants' interview responses. The impressions are as follows:

13. The partnership was able to capitalize on pre-existing relationships, mutual interest and state mandates in order to bring in a diverse group of supportive and knowledgeable partners and organizations to the table.
14. The partnership needs to work to create a stronger recognition of the diverse perspectives and expectations that are encompassed among the stakeholders needed/involved in creating sustainable Sentinel Landscapes through communication, education and engagement.
 - a. The partnership must work to engage more stakeholders at the local level as well as maintain the engagement of the military services.
 - b. In order to increase landowner participation and buy-in you must involve them directly in a meaningful way through open communication, education, and engagement.
 - c.
15. Internal disputes along the chain of command, miscommunication of priorities, and unreasonable bureaucratic process requirements associated with the military partners made successful collaborative efforts difficult.
 - a. Food and Fuel for the Forces was successful based on its ability to work through the military bureaucracy and change internal military policies to increase the use of local, fresh foods on military bases but have struggled on the fuels side regardless of military fuel mandates due to the landscape of renewable fuels in North Carolina.
16. Land-Grant Universities have been identified as a good fit for the coordinating entity within this type of partnership based on their mission, expertise and ability to convene a broad group with diverse interests but need to but need to approach future efforts as partnership building rather than the traditional linear model that has been traditionally evoked.
17. The collaborative communication and decision-making model allowed for the candid exchange of ideas and developed a sense of accountability through a mix of formal and informal structures of engagement but the partnership needs to improve its

capacity to deal with turnover and its ability to leverage the sum of the partnership's work.

18. A military centric environmental market seemed to be well received by landowners which was facilitated by the conservation partnership that served as a vital link to local communities based on its credibility among landowners but must be managed under a different authority that provides more flexibility and does not evoke the real-estate transaction process.
19. Many of the public perception issues the partnership had to overcome were related to "the military" partner and may have been exacerbated based on the MBCI pilot.

My overall impression following this wave of interviews relates to the recurring theme of communication, education and engagement. These key themes have not been specific to one stakeholder group but seem to point toward a broad group of stakeholders. The partners realize that for the efforts of this program to work there are going to be several stakeholder groups that must be educated on the issues as well as the appropriate actions to promote their vision for the future. The partnership must work to create a holistic and comprehensive understanding of the range of perspectives and expectations at the table among the diverse group of stakeholders internally as well as externally if they hope to create a solution that is sustainable.

The participants during this phase of interviews identified the natural fit of land grant universities to serve as the coordinating entity based on its mission, expertise and ability to build social capital. This was obvious during the pilot efforts as the partnership was able to bring in a diverse group of motivated partners and organizations. The partnership does need to work on increasing engagement at the local level as well as maintaining the engagement of all military services. If local communities are to buy-in to the program and participate they must be directly involved in a meaningful way through open communication, education and engagement. The military must also remain engaged because of the issues that are cited with overall support and lack of buy-in up the chain of command. The partnership has already developed a process that has been identified by the partners as an effective means of exchanging ideas and building trust that may be brought to bear in these situations. The recurring engagement schedule as well as open collaborative discussion has built trust within the partnership but that "net" needs to be cast out farther if the partnership is going to achieve the change it is looking for.

Next, the partnership's project like approach now makes sense following this wave of interviews. The group of partners put together a proposal that they sent to the Marine Corps, which resulted in the subsequent statement of work and agreement amongst the partners. They spent two years trying to figure out what this effort would look like but only 4 days to put together a budget, statement of work, etc. The project was guided heavily by the

Sponsors, the Marines/Navy, through the deliverables in the statement of work and the work of the military partners that were at the table. The inconsistencies at the program management level only increased that project like approach because they only had these deliverable based documents to go off of and a steep learning curve to familiarize themselves with the partnership. This created a general lack of focus among the partners that again was worsened by general turnover internally as well as externally. What helped the partnership not go completely off track was the recurring engagement schedule which promoted a sense of collaborative accountability among the members. Element leads would be responsible for reporting their progress so the overall group would have an idea of what has been done, what needs to be done, and how they can help.

The partnership needs to do a better job of managing the ebbs and flows of people in the partnership as well as those key stakeholders outside of the partnership. This ties into the communication, education, and engagement piece mentioned earlier which was not a point of emphasis during the planning phases of the partnership. Since a steep learning curve inhibited the overall progress of the partnership, it is necessary to develop a process for familiarizing new folks to what the partnership is all about and how it functions. These efforts have promise for success because of the diversity of the partnership and its ability to develop a process based on the diverse perspectives and expectations brought to the table. They also have a link to local communities through the conservation partnership to familiarize landowners and governing bodies at the local level and bring information back to the partnership from their “on the ground” experience.

It is also obvious that the partnership and public sentiment about working with the military is predominantly negative. They cite internal disputes, miscommunication, unreasonable bureaucratic processes, and inherent turnover as some of the major factors that made collaboration with the military difficult. These factors have not only produced hesitance among the partners to collaborate with the military but has also worsened an already negative perception of military programs among local communities. The partnership went into things understanding the harsh perspectives of communities related to OLF and ultimately impacted the way they designed and implemented the Market-Based Conservation Initiative (MBCI). Unfortunately due to the fact that the military turned the program from what it should have been into real-estate transactions, the pilot was cut off and no contracts have been signed to this point. MBCI does show promise because it was obvious that landowners were receptive to the concept but due to the transformation of the program, partners are unsure of the future of similar efforts in eastern North Carolina. It seems like if the military is going to be effective partners they must get on the same page internally before they work with external partners and tarnish their image further.

Finally, the work of the ADFP trust fund and the Food and Fuels for the Forces (FF4F) element are cited for their success within the program. ADFP has been lauded for providing a tool and vehicle for educating landowners and funding projects that align with the goals of

working lands, conservation and national defense. The partners believe that this element has been responsible for keeping a lot of people at the table. Also the work of FF4F provides some excellent best management practices and lessons learned for establishing economic connections between local communities and the military. This element was able to navigate the complex military bureaucracy and even spark the change of internal policies that have increased the portfolio of local, fresh foods on military bases in North Carolina.

Impressions and Supporting Data

1. The partnership was able to capitalize on pre-existing relationships, mutual interest and state mandates in order to bring in a diverse group of supportive and knowledgeable partners and organizations to the table.

- We had all types of meeting with our colleagues from Texas up at the pentagon. We went up to the Marines Corps base. Met with generals, Paul Friday and all those types of folks and came up with this program Sentinel lands that would seek to evaluate the potential for and begin to do some pilot studies to environmentally conserve land outside the fence that then would sustain those traditional economic activities and sustain the capacity of the military to train and be ready. (Int_part002_lines 37-42);
- From that Ft. Hood model, which Bob knew of when he came to North Carolina, conservations began about how we can help the Marines particularly but also the other services in North Carolina as a military friendly and military engaged state (Int_part002_lines 19-21);
- I think the first meeting or two there were twenty to thirty different organizations and NGOs: Farm Bureau, the Cattleman's Association, the poultry raising people. There were a whole lot of commodity groups. Several conservation NGOs and so on. It really seemed like a positive thing for everybody. (Int_part001_lines 49-53);
- The only state mandate that comes to mind at the moment is the state mandate to try to be military friendly, the most military friendly state. That manifests itself in a variety of ways in addition to the one particular part of state law that says that's the state's goal. But that mandate was an articulation of the reason that all the partners were at the table. They saw a value in supporting the military. (Int_part104_lines 86-90)
- all the players really had two common goals. The military to keep their training routes and almost everyone in North Carolina wants the military to stay here. They are such an economic engine besides patriotic ideas of keeping the military areas to train. All those involved were interested in keeping farmers farming, keeping rural lands rural, keeping timber in timber lands and that sort of thing. (Int_part001_lines 55-59);
- Knowledge of those factors made it clear that it was desirable to have the diverse set of interests and organizations represented in the partnership and that proved true and I think we were on target with the collection of interests, which was a good collection as we went through the thing. (Int_part104_lines 247-250);

- It was a voluntary thing. They thought it was worthwhile and there were a bunch of people in the room that had previous working relationships. (Int_part104_lines 182-184);
- I know there are people in the forestry and agriculture community that are excited about anything that will help them strengthen their sector and weary of anything that like government control and this is a project that has trusted treads that can walk that line between the two things. (Int_part002_lines 265-268);
- I need to mention Steve Troxler too. He was really a force in making sure this project kind of stayed on everybody's radar. I hope he's been able to have some influence at the national level with this because he wanted to do that. He wanted to get to that point. Obviously the Department of Agriculture has done a lot to open things up with the military installations and I think they've been supportive of a lot of the food and fuel for the force's efforts that I observed. (Int_part111_lines 175-181);
- support from agriculture through the ADFP trust fund for funding through Marine Corps for funding, has been crucial to us keeping the dialogues going. (Int_part107_lines 74-75);
- one of the underlying factors that really gave us credibility and stature – the fact that the state had mandated a working lands group. They had passed the governor's executive order from Purdue which was then modified and picked up by McCrory to basically charge all of the state level departments with making sure that their activities were...that they took the military needs into account in their own programs. (Int_part111_lines 59-63);

2. The partnership needs to work to create a stronger recognition of the diverse perspectives and expectations that are encompassed among the stakeholders needed/involved in creating sustainable Sentinel Landscapes through communication, education and engagement.

- Differences in culture frankly between the military and their civilian people and what their expectations were versus the academic expectations, and some of the expectations of the private firms that were partners. Private firms are always on the clock and they are pushing and pushing wanting to be expeditious and frankly that's not how academic institutions are organized. We are not supposed to be like a business. Often time we're work at the pace of our students. (Int_part002_lines 79-84);
- The overall thing that I think there's a stronger recognition that all of the community of how military operates and how agriculture operates, they understand how agriculture operates, or private landowners make decisions. There's a lot of benefits that have come out of the program that may have not been directly related to having

every private landowner under MTR signed up or every farm in eastern North Carolina producing a biofuel or seed stuff for biofuel. But there's been a lot of progress made to understand each other's challenges, opportunities, and needs for the future. (Int_part107_lines 476-483);

- urban communities are – a developer scenario is better funded and more focused to get their points across than we in agriculture may be focused to get our points across. (Int_part107_lines 168-169);
- In North Carolina, it just keeps sprawling and sprawl is a threat to agriculture and it's also a problem for our urban areas too or for our towns and cities because as they sprawl out, they leave a dead zone in the center (Int_part107_lines 172-174);
- at the county level it enhanced the understanding of the military presence in North Carolina, if you will, and particularly dealing with landowners under that flight path. I think that was very educational. You had county leadership involved in that process. (Int_part111_lines 38-41);
- I think it enhanced their understanding of what the military is looking for. I think it really kind of opens the door for future collaboration, particularly on land conservation, land use issues that can either benefit or be to the detriment of the military. (Int_part111_lines 41-43);
- Just understanding the economics and developing the education within what I'm gonna call is the communities of agriculture, academia, government, state government and we haven't had so much local government in the Sentinel Landscapes steering committee but also in the military, there are ways for us to create working programs. (Int_part107_lines 69-73); I didn't feel like there was a good understanding of local government planning issues. (Int_part111_lines 50-51);
- Keeping the other services at the table has been harder than I would have thought it would be, but I have realized in most recent time that the Army is way ahead of us in their scenario because they're pretty much autonomous in their own efforts (Int_part107_lines 76-78);
- I would get some more people involved, and it could be the local planners. It might be the facilitators from here. Maybe if it was N.C. State, I would have NRLI involved. I really wanted to get the rural center involved if they weren't going through turmoil. I would have trained facilitators, skilled presenters working with the program directors to present this program to the community. I don't think that was done very well at all. I think that was a real weakness. (Int_part111_lines 410-415);

- try to be more engaged at the county level and don't do everything through the Soil and Water silo. Reach out more broadly in the community. (Int_part111_lines 396-397);
- Make sure that when you're dealing with these installations, particularly on some of these land conservation issues and funding opportunities, to make sure that when you're talking to them that what you are planning is supported up the chain of command. (Int_part111_lines 397-400);
- we always promote that private ownership of land and the freedom to make those decisions on the farm, but we want to do them as good actors and not bad actors, but we've gotta understand where that line changes, and just because we did it the way we did in the '60s doesn't mean that we do that in the 2015, '20s, going forward. We move the bar too, but it takes an education and an understanding of how to do that on both sides. (Int_part107_lines 143-148);
- Collaboration, private landowners, we were that private landowner piece that we brought to the table as a general farming organization, we were able to articulate this to our leadership, to our members to gain acceptance. In reality, few went out there and did cold calls on a farmer. (Int_part107_lines 498-501);
- we were able to bring a lot of people [landowners] through our education process because we've got a communications department, we focused on it on our website some too, we helped within the initial study and helped formulate questions in a non-threatening manner, if you will, to that private ownership because I think we understand that mentality of a landowner. So I think we bring that to the table. (Int_part107_lines 502-507);
- I thought among the lessons learned are that landowners are interested in these type of opportunities and will respond to a partnership that may have some belief in the credibility. (Int_part104_lines 260-262);
- Well the same thing communication with the public as what you intend to do. Doing your homework upfront as far as if you are going to do something with landowners that you inform them early on. If you want to incentivize them you have to find out what it takes to do that. (Int_part001_lines 268-271);
- You put a program together by people who are not actually the landowner, the people that are going to be implementing or being affected by it, it usually won't work. You really have to bring in the people who will be affected by something early on. So yes you can have the agencies there (federal and state agencies), you can have the NGOs, you can have the military there but if you don't actually have the people that are

going to be receiving the funds, the people that you are trying to incentivize it's not going to work. (Int_part001_lines 189-195);

- There's a lot of interest in maintaining the education and the understanding with those landowners that there's responsibility with landownership and there's also the opportunity for it to be part of your financial wealth, if you will, and provide this mechanism so that it is that and not to the detriment. (Int_part107_lines 536-539)
- I was really disappointed that the county cooperative extension centers weren't more thoroughly engaged with this project. I think that was reflected in the county meetings we did. There was very poor participation in many of these counties with cooperative extension. (Int_part111_lines 339-342)
- Department of Agriculture, the fact that they've got the agriculture farmland preservation trust fund to help with projects that are different than just easements or grants for protecting small projects, they got a bigger focus to promote agriculture and protect agricultural lands and slow the conversion to development. I think that is very important and effective. (Int_part107_lines 138-142);
- the goals of Dewitt Hardee's trust fund are a form of state mandates and they both offered a tool, the trust fund offered a vehicle to accomplish some of the goals of this project (Int_part104_lines 93-95);

3. While internal disputes along the chain of command, miscommunication of priorities, and unreasonable bureaucratic process requirements associated with the military partners made successful collaborative efforts difficult there was some evidence of success among the FF4F initiative.

- One reaction I had was and expressed to the Marine Corps was that you have an unbelievable partnership here out to try to serve your interests and it's a shame that due to these internal disputes and unreasonable process requirements you are not taking advantage of it. (Int_part104_lines 250-253);
- It was because we were talking all this stuff and Paul Friday and the Seymour Johnson guy and the Fort Bragg guy, they were all nodding their heads but that's all they were doing, and then when it went above their level someone said, "What the hell is this?" So it was that kind of thing. So make sure that there's...for a program like this – and I'm sure Nancy Cramer at SEFS is aware of this – but just make sure that there's support up the chain of command. (Int_part111_lines 402-408)

- the outside view, we citizens have of the Department of Defense is that it operates under a chain of command and when some high ranking leader in a uniform says we would like you do this you assumption automatically is the chain of command supports this. We learned to our shagreen and dismay that that wasn't true in this case. (Int_part104_lines 285-288);
- they started out saying this military training route is important to us and then at the end they seemed to say maybe not. Every one of the partners who went in understood this was a priority, we'd like your help on this and then I think we were all astonished at the end when out of this dispute came some word that maybe it wasn't a priority. (Int_part104_lines 302-305);
- Through turnover and stuff, the focus was lost on their side [military]. The leader that kept us on task or keep their side on task went by the wayside.(Int_part_lines);
- project was working on at the federal level and I think the whole procurement issues of food and fuel for the forces, they worked diligently but it's a tall order to try to change federal bureaucracy and a way of doing things that had been done for many years. (Int_part111_lines 70-73);
- There was some minor successes I think, particularly the directive from the Department of Defense regarding the presence of farmer's markets on installations was one thing. (Int_part111_lines 75-77);
- We were able to get some policies changed like food and fuel for the force where DoD had a policy that was helpful to getting local food and fresh food into the bases (Int_part104_lines 73-75);
- Military has energy mandates. So this helped them with some of those mandates to explore and look at processes or production that would help all those biofuels. Reason they looked at fiber, some of that waste, timber and stuff that when they go in and maybe they harvest logs and take the tops. (Int_part107_lines 444-447);

4. Land-Grant Universities have been identified as a good fit for the coordinating entity within this type of partnership based on their mission, expertise and ability to convene a broad group with diverse interests but need to but need to approach future efforts as partnership building rather than the traditional linear model that has been traditionally evoked while providing consistency at the program management level

- been somewhat challenging is the turnover of personnel in some of those positions have created hesitation in the movement. (Int_part107_lines 27-28);

- I don't think there's been a consistent understanding of where we were trying to go to, at that larger level that we were to collaborate, we were trying to build collaboration, nobody to my knowledge had a specific agenda or was trying to pad their pocket or any of those type things, it was more of having the time and the focus to stay on, maybe focus. Lack of focus sometimes hurt us. (Int_part107_lines 30-34);
- probably times there was some lack of focus on part of the individuals there, getting them to the same point, and then there was also turnover. (Int_part107_lines 36-38);
- they hesitate because you'd be moving and then of a sudden that person, somebody else comes in, fills their slot, and it – yeah, it just kind of start back and move them back at the line, and having not been in at the ground level, they may not grasp the full significance of where we were trying to go, and a lot of us came off the former background where we had developed and moved collaboration forward and we were trying to keep that going, also, to do that because there's a lot of mutual benefits that can be established and you just need those working relationships. (Int_part107_lines 40-46);
- lot of times kind of unsure of where we were headed. I mean we were well into it, months into it before me and Dennis and Bob. It's like we were at a steering committee meeting one day and Paul Friday is talking about all these things he's expecting and I know Dennis and Bob, it's like they looked at each other like, "Holy cow. We're in trouble." (Int_part111_lines 116-120);
- we had so many changes early on in the project with...I mentioned the four people that I interviewed with. None of them were here a month later. I think if that...We kind of had an understanding, or I felt like we did, in like, "Well this is the guy. He's the guy we need to bring on for this." I think a lot of that was lost and I think I was just sort of drifting aimlessly for a while. So that was unfortunate for me personally. (Int_part111_lines 435-440);
- I think within this group, there was some loss of focus. When I say that, between ag and Marine Corps and others. Some of those transitions occurred or we gotta challenge, who's running this show and whatnot. There's got to be a long term commitment by any of those groups and all of those groups to help move the project forward. (Int_part107_lines 302-306);
- The first year when I came, if you read what was expected of N.C. State as far as our piece of it, it was worded such that it was hard to tell exactly what it was. It was like we were...I mean I just always struggle with that. The second year I think it got a little more defined on what it was that our role was. Again, it was more get this done

by this date and it just felt like we were sort of in that box. (Int_part111_lines 207-212);

- the relationship between the university and the state agencies worked particularly well and I thought that was one of the highlights of the project. (Int_part111_lines 9-10);
- It seemed to me that the Marine Corps coming to the university and said we'd like to set this project up here ended up delivering to the Marine Corps value that exceeded their investment. There was a leveraging aspect to bringing the partners together under the umbrella of the university that made that a good deal for the Marine Corps. (Int_part104_lines 45-48);
- Well the university can be an effective convener of diverse interests and parties and was in this case. The expertise of the university related to natural resource conservation and management was helpful. The support and leadership of the dean and others in the college was helpful. The support and leadership and the sort of neutral but supportive nature of the university was a plus. I thought there was certain natural aspect to the fit for this project from the university for its outreach, research, and teaching functions. And I thought it was a natural fit for the university to be, supporting the military presence in the state. (Int_part104_lines 60-66);
- we are land-grant universities and part of our mission is solving the problems of the people of the state. Whether you're in extension which in definition is part of your job but also people like Fred Cubbage or Barry Goldfarb or others who might have been involved faculty that have their own teaching and research assignments but also will take on using their expertise to solve the problems of the state. So from that standpoint, that's not really a policy but it's a culture. (Int_part001_lines 99-104);
- It took probably over a year of meetings before we got to the point of writing a project then we had to write in about 4 and a half days because of the timing of budgets and so on (Int_part002_lines 218-220);
- the proposal itself and then the agreements that were written with the partners established a timeline, scope of work, and expectations for accomplishments. (Int_part002_lines 134-135);
- [roles] obviously drawing from the proposal, the scopes of work, and the agreements. There was a leadership role to keep in all on track that sat on my desk. Each partner had a principle that represented them. (Int_part002_lines 164-166);

- whenever we do a project for an external sponsor or with external partners then the sponsors giving us the money to achieve their objectives through academic means. (Int_part002_lines 101-102);
- And so this was very much a directed project. I mean we were there to achieve the goals of the Marine Corps. So we designed our project around those goals as you would with any sponsor. The outlook and needs of others definitely came into play in how we did it. (Int_part002_lines 106-109);
- It seemed like a collaborative, consensus driven process but with the paying sponsor [Marines Corps Installations East] having a fair amount of input and influence. (Int_part104_lines 150-151);
- They [goals and objectives] seemed to arise a little bit from each of the different sub project areas. The one I was most familiar with was the market-based. I saw how that group worked to figure out the goals there and to do it collaboratively and then test it against the Marine Corps and the NAVFAC and other processes (Int_part104_lines 136-139);
- At that point forward we were strictly geared on what deliverables we thought the Marine Corp wanted and we were kind of in that box and that was a major shift I think and was really... I wasn't expecting sort of to have that role in the project so that was a change for me as well as for N.C. State I think. (Int_part111_lines 121-124);

5. The collaborative communication and decision-making model allowed for the candid exchange of ideas and developed a sense of accountability through a mix of formal and informal structures of engagement.

- I thought the structure of the meetings, the requirement for reports and the whole process of accountability kept things moving in a good way. And I thought that the meetings improved over time when they became less of a stand up and report out and a little more interaction and discussion. (Int_part104_lines 112-115);
- We had the quarterly meetings and we had reporting. We tried to instill a sense of collaborative accountability among the partners (Int_part002_lines 131-132);
- in terms of the organizational structure of the partnership we had an extraordinarily flat organization that each partner, say at our quarterly meetings, had an equal voice at the table (Int_part002_lines 140-142);
- quarterly meeting and the formal conference calls were probably the most important because those things cannot exist with all the other communication going on but it is at those social interactions where people need to be accountable to each other where

someone who wasn't moving forward can be exposed to others, right
(Int_part002_lines 187-190);

- A discussion of the issues and getting them on the various committees, we had an economics committee within market-base, science committee and politics committee, political policy committee. So those policies were basically, all that stuff was developed through a consensus and discussion. (Int_part107_lines 386-389);
- We had a lot of informal. I had no problem with calling anybody within the team or teams informally and then we formally take care of it in the meetings.
(Int_part107_lines 417-418);
- there's got to be cores within the total effort that are also working together to help move the ball, that have likes or like goals to promote those goals forward to the larger group so that there is an understanding, so education, we'll call them focus groups or call them like-minded constituents sitting down over a beer, discussing strategies, how to make this happen. (Int_part107_lines 361-365);
- First name basis. And it built working relationships, I would not hesitate to call and trying to work with most of them. Yeah, we haven't, to my knowledge, played politics with it, we had the focus most of the time. Most of the time we were pretty much on target, we were committed to making all of this work. (Int_part107_lines 456-459);
- the working relationships would adequately allow any disagreements to be resolved, again, in a collaborative consensus forming kind of discussion. (Int_part104_lines 157-158);
- the group was characterized by open working relationships where people were out to collaborate. They used the old getting to yes directive of being hard on the issues but easy on the people. So there were a lot of intense discussions about different substantive topics but I don't recall anytime I thought the discussion turned in a way that was hard or impolite to the people. (Int_part104_lines 164-168);
- You know there wasn't much formal work done. It was basically a collaborative, consensus driven process in which the working relationships were effective for either because of previous things people had done together or the particular way this thing formed up. (Int_part104_lines 173-176); It seemed to me that the thing played out in a way that enabled the development of relationships of trust in some cases that started out as just working relationships. The way the format tended to make those effective working relationships. It moved up a level over time into some more partnership like trust containing relationship. (Int_part104_lines 191-194);

- This is not simple work but the structure that facilitates success is having team and a team is a group of people who want to work together sometimes at their own expense sometimes at the expense of others but as a team pulling in the same direction. I think that's the organizational message. (Int_part002_lines 292-295);

6. A military centric environmental market seemed to be well received by landowners which was facilitated by the conservation partnership that served as a vital link to local communities based on its credibility among landowners but must be managed under a different authority that provides more flexibility and does not evoke the real-estate transaction process.

- The way we had the partnership organized, we had enough credible partners with contacts in eastern North Carolina. From the soil and water conservation community to the Farm Bureau community to the environmental community. Our partners were responsible enough and credible enough that it helped make the people we were trying to deal with from landowners to local governments willing to hear. (Int_part104_lines 223-227);
- And with respect to the Market-Based Conservation Initiative, it was unfortunate that the pilot was not able to run its course and was constrained by the procedural requirements because it was well positioned to deliver the project that it was set out to deliver. (Int_part104_lines 22-24);
- They were able to create a cloud that slowed us down. And the fact that it got protracted out, we should have signed a contract two years ago, or more early. But them lawyers and the bean counters have kept us from doing that. (Int_part107_lines 313-315);
- the length of time from market-base standpoint, it's taken a lot longer than I thought it would have to get it to where it is today and even to hopefully having a contract signed later on this year. It needs to happen quicker because it's harder to keep the goodwill in place and the understanding of what you're trying to do the longer it gets dragged it out. (Int_part107_lines 601-605);
- constraints on the Market-Based Conservation Initiative that were not of the partnership's making but that pilot worked well for what we were able to do and would have worked even better had we been able to...would not have been limited by the procedural restraints imposed by the NAVFAC. (Int_part104_lines 38-41);
- The Navy's policy of requiring all of our transactions under the Market Based initiative to go through this process equivalent to acquiring a fee simple interest in real estate was a policy that was a serious drawback. (Int_part104_lines 71-73);

- Well it [MBCI] took forever to accomplish. It was a lot more expensive than it should have been. (Int_part104_lines 80-81);
- The flow of funding from NAVFAC to the foundation and to landowners was unworkable basically. (Int_part104_lines 107-108);
- we had a pot of money for the market based program and arriving at the execution of that program, all of the contractual details, again that was a situation where...I mean the funding was there but it was very difficult to establish. I know that the Marine Corp and the foundation had a very difficult time getting the Navy to basically sign off on how the easements were to be structured. I mean they had a pot of money that they were looking to leverage (Int_part111_lines 86-91);
- when the rules require you to incur transaction costs that are so high, you won't be able to justify the investment ultimately. (Int_part104_lines 273-275);
- The authority for the DoD was raised in the defense re-authorization act three or four months ago. So now there's the authority to do our project without having to go through the real estate process under the Sikes Act. (Int_part104_lines 277-279);
- the market based conservation stuff was really providing a new...this could be a whole We didn't have a contract. The Soil and Water Foundation, they dealt through their existing stakeholders, their clients in individual counties and so they just kind of really do that independent of us. (Int_part111_lines 256-258)
- All embraced it through education process and explanation and we did a lot of outreach to soil and water districts using the political infrastructure or the governmental infrastructure that's out there. (Int_part107_lines 549-551);
- I think we proved the concept that a willing landowner's out there. We just need to look at different strategies or a different name to put them under. (Int_part107_lines 474-475);
- Soil and waters districts are a government entity. So by going through them, and then providing them the tools to outreach to landowners, developing those tools, we were basically embraced by a lot of landowners, we brought a lot of new landowners to the table. Forward discussions about ways to protect their land or get a revenue stream for their land. (Int_part107_lines 551-555);
- the lessons learned were that hey this idea of leasing land or of getting conservation easements expands the dollars the military has in their buffer

programs and so forth, is far beyond what buying land would do.
(Int_part001_lines 81-83);

- lessons learned were the use of the market mechanism, the reverse auction, was something that landowners were not put off by, were willing to engage in and it shows promise despite the early cutoff of the project of being a pretty good way to optimize the investment of public funds in a project. (Int_part104_lines 262-265);
- If you had a 25 year easement of lease on some land for habitat that would give you time to put together a plan to solve your problems in another fashion rather than buying land. (Int_part001_lines 31-33);
- They [Onslow Bite partnership] felt that it [MBCI] didn't fit the biology of the woodpeckers and is a temporary thing therefore it doesn't solve the problem. They wanted something more substantial such as buying land. So there was some opposition I would say from both the Fish and Wildlife Service and maybe conservation groups on that. (Int_part001_lines 90-93)

7. Many of the public perception issues the partnership had to overcome were related to “the military” partner and may have been exacerbated based on the MBCI pilot.

- I think to take the history out of it there's certainly a lot of respect for the military. It's a big economic driver and sometimes there's animosities among some landowners because their granddaddy's farm was taken by the Army in 1919 or stuff like that. (Int_part111_lines 371-374);
- It [the abbreviation of the pilot] made it hard to maintain credibility with landowners. To me it impacted the credibility of both the Marines and the Navy who had an effective, innovative set of partners working hard to deliver a goal and being required to fit into a process that they didn't have to be but that had real downsides. (Int_part104_lines 81-84);
- One of the things that we've seen at Fort Bragg over the years in the private landowner community was concern that the Army's just gonna roll us over and just roll over us, they want something, they get it. We're trying to create a different climate if you will within this. (Int_part107_lines 351-354);
- OLF, maybe there was a big gate to put a big base in eastern North Carolina for the Navy down there. But the original projection that was they needed 3,500 acres. They could have gone in and bought the 3,500 acres and they bought that much. But when it came out and wanted to buy 30-some thousand acres, I think it was, or 40, and displace all those people down there, and take out of production, that's when it

became contentious and then they pitted landowner against landowner. (Int_part107_lines 560-566); If they'd used some of the tools that we were looking at market-based conservation, they could have done that. But they chose not to do that. They chose more of the "I'm from the government, I'm here to help you." And it backfired. A lot of sour grapes, and that's what the Washington County, or both the county did. (Int_part107_lines 573-577);

- Some were skeptical it seemed like for a variety of reasons ranging from previous bad experiences such as the OLF to other influencers of their views. (Int_part104_lines 221-223);
- It definitely makes you more skeptical, more cynical and wanting more assurance before you do it again. I think all the partners are interested in helping the military but you've gotta be true to the relationship if the military wants partners (Int_part104_lines 308-310);
- They were looking to setup an outlying landing field for the Navy somewhere in North Carolina among other places because the one at Oceana which is outside of Norfolk is surrounded by housing developments and lots of lights. (Int_part001_lines 115-118);
- There was such a storm raised over that and the Navy got burned badly and to some extent rightly so. They came up and bought up land without telling people they bought up land next to a waterfowl refuge, which doesn't make a lot of sense for those that are interested in flying planes. They got burned from a public relations standpoint really badly and I think there was a lot of hesitancy at the upper levels outside of Camp Lejeune perhaps at the upper levels of doing anything like this and also some hesitancy in terms of landowners trusting. (Int_part001_lines 120-126);
- So it [OLF] was on everybody's mind that this is going to be a really touchy issue particularly doing it in eastern North Carolina and we've got to be very cautious about how we inform the public about what we are about. It's not some land grab sort of thing. (Int_part001_lines 259-262);

APPENDIX J: AUDIT TRAIL

In order to keep anonymity, the program partners and key stakeholders were given three digit participant identification numbers at random that were used to identify their responses in surveys, participant observation and interviews. Participant organizational affiliation and study transcripts (surveys, participant observation and interviews) were also coded. Below is an outline of participant identification numbers and organizational codes for each study participant as well as the relevant documents with associated participant data.

Participant ID	Organization ID	Transcript 1
part101	org1	int_part101
part102	org1	int_part102
part104	org2	int_part104
part205	org3	int_part205
part106	org4	int_part106
part107	org5	int_part107
part109	org7	int_part109
part115	org11	int_part115
part316	org12	int_part316
part217	org13	int_part217
part111	org9	Int_part111
part001	org 9	Int_part001
part002	org9	Int_part002

Document	Document ID
Working meeting notes	doc1
Strategic planning notes	doc2
Conference call notes	doc3
Meeting notes (planning committees)	doc4
Meeting notes (planning committees)	doc5
Quarterly meeting notes	doc6, doc7, doc8
Conference call notes: funding extension	doc9

APPENDIX K: ADDITIONAL CODING INFORMATION

According to Creswell (1998), there are three parts to the content analysis process: open coding, axial coding and selective coding. Open coding is when the researcher sorts the data into different categories (Glaser and Strauss, 1967). Corbin and Strauss (1990) tell us that concepts that relate to the same phenomenon may be grouped together in a category. However, not all concepts will become categories. Open coding took place in this study for both documents and transcriptions. After the researcher received three survey responses, open coding took place. After another three surveys, open coding took place again. The process continued until all documents were analyzed and initial categories emerged. Open coding for the participant observation transcript was conducted all at once due to the fact that there was only one transcript.

Axial coding is when “the investigator assembles the data in new ways after open coding” (Creswell, 1998, p. 57). Interview categories were the first to be combined and coded since they were collected first. After reviewing all of the codes, the researcher combined categories to form new ones that better reflected broader themes. Interview transcription categories were also merged and rearranged in order to form new, broader categories.

Selective coding is the last step and happens when “the researcher identifies a ‘story line’ and writes a story that integrates the categories in the axial coding model” (Creswell, 1998, p. 57). In order to tell the story of this study, the researcher examined both the categories that emerged from the documents as well as the transcriptions. By viewing them together, the researcher was able to combine and create categories that gave a deeper

understanding to how the variables that shape interagency partnerships and the program partners and key stakeholders insights on critical success factors.