

BETTER THE DEVIL YOU KNOW: A NEW THEORY OF NEGOTIATION IN  
COLLABORATIVE GOVERNANCE AND EVIDENCE FROM ENDANGERED  
SPECIES MANAGEMENT

A Dissertation

by

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## ABSTRACT

While a growing literature in collaborative public management has made progress in our understanding of stakeholder collaboration, it has generally evaluated such efforts on criteria such as inclusiveness and the emergence of consensus. However, this theoretical framework, while not necessarily incorrect, has left us wanting for detailed explanations of individual and group decision-making processes, negotiation strategies, and the differential influence of competing interest groups within collaborative negotiations. How do individuals or groups involved in collaborative governance make decisions when their preferences and values are opposed? How do they reach a unified outcome that all can accept? Who compromises, on what, how much, and why? What role does the technical complexity of the problem play in this decision calculus? These are the key motivating questions behind this dissertation.

I provide answers to these theoretical questions first by proposing a decision-making theory that draws from procrastination, obedience, and rational addiction theories in behavioral economics literature. I then show how this theory can be applied to explain why sometimes interest groups involved in long-term negotiations, such as those in collaborative governance arrangements, sometimes make decisions and agree to solutions that, on the surface, seem inconsistent with their preferences. I argue that one of the key elements driving this type of behavior is the technical complexity so frequently involved in these cases.

The dissertation then examines this theory empirically through studies of two recent cases of collaborative governance drawn from Habitat Conservation Plans under the Endangered Species Act: the Florida Beaches Habitat Conservation Plan and the Charlotte County (Florida) Scrub-Jay Habitat Conservation Plan. The case selection is designed to give maximum variation in technical complexity between the two cases. I employ archival research and in-depth interviews with individuals involved in the negotiation processes over these two cases in order to understand the most important factors affecting individual and group decisions throughout the process. The results are consistent with the predictions drawn from the theory. In the higher complexity case, the interaction of technical and political complexity has resulted in perpetual delay and thus the least effective alternative for preserving the species. In the comparison case, however, negotiations resulted in the most robust conservation alternative that was practicable under the circumstances.

## DEDICATION

To Garrett, Jackson, and Nora.

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## NOMENCLATURE

BBCS	Bureau of Beaches and Coastal Systems
CCCL	Coastal Construction Control Line
DEP	Florida Department of Environmental Protection
ESA	Endangered Species Act of 1973
FBHCP	Florida Beaches Habitat Conservation Plan
FWC	Florida Fish & Wildlife Conservation Commission
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
NMFS	National Marine Fisheries Service
STC	Sea Turtle Conservancy
USFWS	U.S. Fish & Wildlife Service

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## CHAPTER I

### INTRODUCTION

Over the past 25 years there has been a collaborative revolution in public policy and public administration. In many policy areas, though particularly in environmental and natural resources management, buzzwords like cooperative policymaking and collaborative management have become synonymous with efforts to replace old top-down, command and control regulatory regimes with new ones that emphasize cooperation, compromise, and consensus (Ansell and Gash 2008). These new methods of solving collective action problems deemphasize the traditional adversarial relationships between regulators and regulated interests, as well as between industry and public interest groups (Agranoff and McGuire 2003). These practices range from local watershed collaboratives (Heikkila and Gerlak 2005), to large-scale efforts at conserving imperiled wildlife (Layzer 2008), and even cooperation between agencies and regulated industries at the highest levels of government (Coglianese 1997). They have generated a large and growing body of literature that explains why these groups and governments choose to collaborate, and even what conditions favor the formation of consensus.

However, much less scholarly focus has been placed on explaining outcomes in cases of collaborative governance. Many of these scholars, intentionally or not, seem to assume that a successful collaboration is one that produces consensus. However, this does little good if we want to predict substantive outcomes. What type of consensus will be produced? Which parties to the collaborative negotiations will give more and which

ones will take more? These are the important questions if we want to build predictive theories of collaborative governance that will explain substantive outcomes, rather than just the occurrence of collaboration.

The contribution of this dissertation is to offer a theory that can help to bridge the divide between explaining when and under what circumstances collaboration occurs, to explaining when and under what circumstances particular outcomes emerge from collaboration. To do this, I argue, we must understand how actors are making decisions about conflict, compromise, and alternative courses of action within collaborative decision-making bodies. It is important to understand how the circumstances of the collaboration, such as evaluation of alternatives, costs, and payoffs over time affect decision-making.

Economic theories that explain how people's preferences can vary over time and how payoffs can be discounted differently over time can be usefully adapted to gain insight into how people in collaborative governance, where decisions are made incrementally over long periods of time, evaluate their alternatives. These are the same theories that explain various behaviors that appear to be irrational, such as addiction and procrastination. I draw from these theories to incorporate them into a new framework of decision making in collaborative governance. The framework incorporates the effects of the technical complexity and uncertainty over the issue that is being negotiated on the presence of these time-inconsistent behaviors in members' decision making. I then evaluate the theory by using a similar systems case study design, comparing two cases of collaborative habitat conservation plans in the state of Florida.

## **Theory**

The chief goal of this theory is to explain why one group in a negotiation over a collaborative governance undertaking, might in some circumstances be induced to accept an outcome that is far removed from the group's ideal point. Why, for example, might an environmental interest group participate in a collaboration that produces an outcome that is far less protective than the group would otherwise be willing to accept?

One way to answer this question is to explain how a group can be taken far off course through a series of marginal moves over a long period of time. One key point to keep in mind is that frequently the length of negotiations over a collaborative undertaking is measured in years, and decisions are not made all at once, they are made, revised, and remade over dozens or even hundreds of iterations over that time. Economic theories of time-inconsistent preferences provide an interesting way to gain insight into this phenomenon. For decades economists have been investigating phenomena, such as addiction, overspending, and procrastination, that seem to defy rational choice assumptions (e.g., Akerlof 1991, Becker and Murphy 1988, O'Donoghue and Rabin 1999, Strotz 1956). At the core of the problem lie a human propensity for present-biased preferences, or a preference for immediate rewards, even if they come at greater long-term costs. When an individual makes one decision that is at odds with his or her long-term best interests, its effect might be so small as barely to be noticeable. However, where this causes problems for people is when they make the same decision over and over again to the point where these marginal impacts compound into one large one.

The argument I present here is that individuals participating in collaborative governance negotiations, because they take place over long periods of time and decisions are made in marginal increments, can under the right circumstances succumb to these same present-biased preferences that lead them off course from what they might have hoped to accomplish at the outset. However, predicting when and under what circumstances this will happen requires some additional theorizing. I argue that this present-biased behavior is more likely to occur when the complexity of the task, or the subject matter that is being negotiated, is particularly high. The reason for this is that the uncertainty generated by a higher complexity scenario can make decision making more difficult by making alternatives more difficult to evaluate effectively. A savvy interest group can capitalize on this confusion to bring the negotiations closer to its own preferences. At each stage of negotiations one group is faced with accepting a marginal loss or leaving the process, thus invoking some outcome potentially of even greater uncertainty. Where uncertainty is high, judgments about what is the best course of action will be more difficult to make, so these groups will ultimately hesitate to make the big, irreversible decision of leaving.

A helpful way to think about this might be to think of the analogy of a pilot on a cross-country flight, making course corrections in bad weather. The weather presents some uncertainty as to the appropriate heading at which the pilot should point the plane. Each minor course correction might carry the aircraft farther off course, to the point where in the end a major course correction is necessary. To bring this back to the realm of negotiating over collaborative governance, we might think of a hypothetical of two

groups with competing interests negotiating over some policy. If there is sufficient uncertainty over the outcome of any particular course of action, and there is sufficient uncertainty about what outcome would be induced in the event that a group decides to defect, It might seem like the perfectly rational thing to do is to accept a small defeat in the current round of negotiations rather than invoking an uncertain, and potentially worse outcome.

Of course, there are similarities between the theory offered here and other public policy theories, perhaps most notably the advocacy coalition framework (ACF) originally created by Sabatier and Jenkins-Smith (1993). While the theory that I articulate here is not intended to be an add-on to ACF theory, it is also not intended to be a competitor, and the possibility remains that with some adjustments this theory could function under the umbrella of ACF theory. There are, however, some key differences that are worth noting. Probably the most important difference is the distinction between the purposes of the two projects. ACF theory is a model of policy change over long periods of time, focusing on large policy subsystems that include all those with expertise and/or interests in a given policy area. The focus of my theory is to explain the specific outcomes of individual negotiations that may or may not take place within one of these larger policy subsystems. While ACF theory also includes some treatment of negotiated agreements within policy subsystems, they are handled very differently from the way I theorize about them here. Most importantly, ACF theory borrows heavily from alternative dispute resolution (ADR) literature, which, in addition to ignoring various rational choice assumptions to which I adhere, focuses largely on reducing conflict and

producing consensus as a goal in itself (Sabatier and Weible 2007). Instead of focusing on explaining the conditions that produce consensus and avoid stalemate, I focus here on building a framework that can explain substantively what the consensus that emerges from a negotiation is likely to look like.

### **Research Design**

I evaluate the theory by analyzing two selected cases of habitat conservation plans in Florida. I selected these cases to achieve maximum variation on the key independent variable of technical complexity while holding constant as many potentially confounding factors as possible. The case with the high technical complexity and uncertainty is the Florida Beaches Habitat Conservation Plan (FBHCP). This is the largest scale and most technically complex HCP that has ever been attempted. It includes 25 coastal counties in Florida and 19 different imperiled species, including sea turtles, beach mice, and shorebirds. The simpler case, with much less technical complexity and uncertainty is the Charlotte County Scrub-Jay HCP, which provides minimization and mitigation for impacts to the Florida Scrub-Jay throughout the county from habitat loss due to residential and commercial development.

I compare the outcomes of the two cases. The theory predicts that, due to the much less complicated task of preserving the Florida Scrub-Jay in Charlotte County, this case should produce a stronger outcome in which environmental interests have to yield less territory to development interests than will be the case in the FBHCP. In the FBHCP case, on the other hand, a high amount of scientific uncertainty, particularly with regard to the shorebird species included in the plan, creates a very different scenario in which



those with an interest in a less protective, smaller plan have induced the environmental groups to make some compromises by making arguments about the uncertainty involved in estimating shorebird populations and determining the best scenarios for their survival. With a few caveats that will be discussed both in the case studies and in the concluding chapter, the cases are largely consistent with the theory.

### **Plan for the Dissertation**

The next chapter begins with a detailed review of existing literature on collaborative governance. It then delves into greater detail on the theory that I introduced above, including an in-depth discussion of the economics literature on time-inconsistent preferences from which it is partially adapted. Chapter 3 introduces the subject matter for the empirical component of the study, beginning with some background on habitat conservation plans and their origins. Chapter 3 then goes on to introduce some basic background on the two cases, including why each one was selected for the study. I close Chapter 3 by discussing the interview and archival research methods employed to analyze the cases. Chapter 4 presents the case study of the FBHCP, including the story of its origins, a detailed account of the negotiation process, and an assessment of its outcomes. This chapter also presents some conclusions from the case concerning how it conforms, with a couple of caveats, with what was predicted. Chapter 5 presents the case study of the Charlotte County HCP in a similar format. Finally, Chapter 6 concludes the study by drawing some direct comparisons between the cases, discussing the ways in which the results of the case studies fit the theory, as well as ways in which they suggest some possible modifications for the theory. Chapter 6 also includes a reflection upon the

broader implications of the findings for the theory and practice of collaborative governance. The chapter closes with some reflections on the limitations of this study and some future directions for improving and expanding this work.

## CHAPTER II

### SHOULD I STAY OR SHOULD I GO NOW? BARGAINING AND NEGOTIATION IN COLLABORATIVE GOVERNANCE

Management of the environment and natural resources in the United States has been traditionally adversarial, frequently characterized by conflict between polluter/extractor interests and environmental interest groups, and disputes between both types of groups and government agencies. Historically, environmental policy was also characterized by a top-down federal regulatory regime (Layzer 2008). However, over the past few decades this has begun to change, perhaps beginning with the push for informal, cooperative approaches to environmental enforcement in the early 1980s (Bardach and Kagan 1982). Experts and participants on all sides of the issues have become frustrated with the shortcomings of the contentious adversarial system, and have sought to usher in a new era in environmental and natural resource management defined by a more cooperative relationship between the interested parties.

This move toward collaborative solutions to contentious problems has generated a rich literature in public administration and policy, which has shed light on some aspects of the internal mechanics of such groups, important questions remain unanswered, or the answers remain incomplete. How do individuals or groups involved in collaborative governance make decisions when their preferences and values are opposed? How do they reach a unified outcome that all can accept? What determines who will compromise, on what, how much, and why? These are the key motivating

questions behind this project. I will argue that the answers to these questions are conditional upon a range of political factors both internal and external to a collaborative governance effort. I bring together theories from political science, public management, behavioral economics, and psychology to develop a theory of decision making in a large collaborative governance effort.

### **The Collaborative Revolution**

Collaborative governance includes a broad spectrum of networked governance and management concepts that are closely related. These various concepts all focus on collections of interested groups and individuals, as well as governing entities that have a stake in the policy area, joining together to address a problem in a deliberative, cooperative way, in which no one member or group has coercive authority over another. The lack of coercive authority, of course, may contradict the requirement that relevant governing entities, which by definition have coercive authority, be involved. This type of networked governance strategy has proliferated as a possible solution to complex, intractable problems on which consensus is difficult or impossible to achieve (see, for example, Rittel and Webber 1973 on “wicked problems”).

I use the term collaborative governance as an umbrella term because the field seems to lack a unified language on this topic. Among the nearly interchangeable terms in this category are stakeholder partnerships (Leach, Pelkey, and Sabatier 2002), collaborative public management (Agranoff and McGuire 2003, Lubell 2004), collaborative policymaking (Leach and Sabatier 2005), ecosystem-based management (Layzer 2008), and coregulation (Steelman 2010). These collaborative undertakings are

as diverse as the multitude of scholarly terms for them suggests. They can range in size from small local watershed-scale partnerships to massive multi-state compacts. They also range in formality from informal agreements between private stakeholders to formal agreements that carry the force of a legally binding contract.

The diversity in types of collaboration might be one barrier to unifying collaborative governance theory. Though there are certainly similarities, there are also reasons to believe, for example, that incentives, decision-making processes, and negotiation strategies might differ when a collaborative process is informal and nonbinding, versus when it is formal, binding, and enforced by a governmental authority. I focus here on formal collaborative structures that are formed with the intention of reaching a binding, enforced solution to a specific problem. To that end, I borrow the working definition of collaborative governance proposed by Ansell and Gash (2008, 544), in which collaborative governance is “a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets.”

Collaborative governance, along with a spate of very closely related cooperation-based, local flexibility-driven management concepts, has been popularized in scholarship and in practical application in recent years in response to the difficulties of implementing some of the landmark environmental legislation of the 1970s. It is a tool that came forth out of a series of policy innovations intended to deal more effectively, and more democratically, with the difficulties of environmental and natural resources management

(Steelman 2010). Environmentalists complained that the centralized, inflexible classical regulatory approach of these laws was a poor match for problems that ignore political boundaries and thus require context-based, localized, flexible responses. Simultaneously, industry groups balked at rigid, top-down regulation implemented by technocrats (Layzer 2008). If environmentalist and regulated industry groups could agree on one thing it was that the old approach to environmental regulation was untenable from both perspectives, and a new system that incorporated local flexibility and cooperation into the regulatory process was necessary. It is also worth noting, however, that collaboration became popular amid the early 1980s conservative backlash and the Reagan era of American conservatism. As Layzer (2012) points out, American conservatives define themselves in opposition to the government intervention in markets that characterizes New Deal liberalism, preferring instead to align themselves with neoliberal principles that emphasize market based solutions to public problems.

At the same time, political economists began to challenge 300-year-old Hobbesian assumptions that managing common pool resources is an inexorable prisoner's dilemma that can only be ameliorated by strong, coercive government authority (e.g., Hardin 1968, Ophuls 1977). Most prominently, Elinor Ostrom (1990) showed that if we relax some of the debatable assumptions that Hardin and others make, it is actually possible for stakeholders in a common pool resource to come together and work out self-enforced, consensual schema for sustainable use, at least on a small, local scale.

One of the key points of contention among environmentalists with the classical regulatory model is that its basis in geographically arbitrary political boundaries renders the approach fragmentary, ineffective, and in some cases even counterproductive (Layzer 2008). A new regulatory approach focused at the landscape scale was needed. Consequently, much of the scholarly literature on collaborative governance to date has focused on efforts to maintain or restore water quality to distressed local and regional watersheds throughout the U.S. (e.g., Heikkila and Gerlak 2005; Leach, Pelkey, and Sabatier 2002; Lubell 2004; Sabatier et al. 2005), or to manage other common pool natural resources, such as irrigation water (Ostrom et al. 1999) and endangered species (Layzer 2008).

Though previous scholarly work on managing natural resources through collaborative governance structures is varied, much of it has focused on identifying the conditions that produce collaboration. Less emphasis has been placed in the literature on what produces a successful collaboration. Even less scholarly work has focused on answering the question of whether, and under what circumstances, collaboration produces ecologically preferable outcomes as opposed to its alternatives. One reason for this is that determining how to measure and operationalize that concept is a difficult task. In fact, just how success should be defined is itself a point of contention within the literature. For many, success lies at least in part in the completion of a process that is legitimate on specific criteria, such as inclusiveness, usually derived from deliberative democratic theory (Sabel, Fung, and Karkkainen 1999, Vanderheiden 2001), and the achievement of at least rough consensus among stakeholders as a good in itself.

Where collaborative theory is influenced by more general democratic theory, however, it places an emphasis on the outcomes of collaboration, and is critical of an approach that focuses on consensus as a goal in itself. Thus others argue that success should be defined by the empirical effects of the collaborative action on the system it is tasked with managing (e.g., Koontz and Thomas 2006, Thomas and Koontz 2011). However, due to the nature of many collaborative governance entities, data for evaluating them on these criteria are frequently unavailable, leaving scholars to evaluate them using perceptual measures collected from participant surveys (e.g., Leach, Pelkey, and Sabatier 2002; Lubell 2004; Sabatier et al. 2006; and others), which are problematic because of potential “halo” effects and the selection bias induced by selecting only those who were invited and chose to participate.

Though we lack a unified framework for evaluating the merits of collaboration, progress has been made in determining the causes that make collaboration most likely. One of the most important of these seems to be the presence of trust and familiarity between stakeholders. This thesis has especially been advanced by scholars from the Advocacy Coalition Framework (ACF) perspective (Sabatier and Jenkins-Smith 1993). Sabatier et al. (2006, 196), for example, pull together frameworks from both the ACF and alternative dispute resolution (ADR) literature to create their theoretical framework for collaborative watershed management, a central pillar of which is the importance of building trust as “a necessary condition for reaching agreement.” As promoters of the virtues of social capital frequently argue, one of its key benefits is the building of trust (Putnam 2000). Other collaborative governance scholars include social capital in their



theoretical frameworks as a conduit for building and fostering trusting and productive relationships between stakeholders (e.g., Heikkila and Gerlak 2005, Lubell 2004). More recently, this group of scholars has made further strides in understanding the importance of trust, seeking to explain the determinants of trust in collaborative governance (Leach and Sabatier 2005, Lubell 2007). Leach and Sabatier (2005), for example, find that social psychology theory generates variables that reliably predict interpersonal trust among stakeholders in collaborative groups, such as norms of consensus, belief that procedures are fair, and belief that failure to cooperate would result in mutual stalemate.

Other frequently cited components determining the relative success of collaborative action include leadership, incentives for good faith participation, decision rules, duration of the partnership, and commitment levels (Sabatier et al. 2006). Ansell and Gash (2007) echo the importance placed on all of these variables by Sabatier et al. and add an emphasis on the importance of starting conditions, such as power, knowledge, and resource asymmetries, and the history of cooperation or conflict between the members.

Another important piece of the collaborative governance puzzle that has rightly received a great deal of attention is the role of scientific information in defining problems and evaluating alternatives (Gerlak and Heikkila 2005). In order to solve any policy problem one must first understand its cause. Similarly, in order to weigh alternatives for action one first needs to understand their effects. Scientific data thus constitute an integral part of any policy or management decision. The role of science features particularly prominently in studies of collaborative governance because, as

noted above, one of the problems with the classical regulatory approach leading to the proliferation of collaborative alternatives was that it lacked the flexibility to incorporate ecosystem-specific scientific data into the policymaking and management processes (Babbitt 2005, Layzer 2008). Almost every theoretical framework of the policy process, from Kingdon's (2003) "multiple streams" theory to Sabatier and Jenkins-Smith's (1993) ACF theory, relies on problem definition through gathering new information as one of the first steps toward policy change. Applying problem definition theories to collaborative watershed management, Gerlak and Heikkila (2005) show that scientific information spurs policy action through increasing concurrence on problem salience. In other words, stakeholder partners broadly agree on the importance of the problem at hand. Similarly, Schlager and Blomquist (2008, 94) note that, "well-defined problems with clear causal mechanisms are likely to present clearer courses of action and consequently lower decision-making costs." Of course, most of the problems typically addressed by collaborative governance are, by definition, poorly defined and technically complex to varying degrees. Failed efforts to solve them by other means are often the reason for employing the collaborative approach.

Though this literature has produced knowledge of the causes of collaborative governance in certain ways, it leaves us wanting when we try to explain the outputs and outcomes of collaboration. I argue that in order to improve that understanding, improvement is needed at the micro-level. The model is in need of updating to include the internal decision making processes within collaborative groups. Trust, inclusiveness, decision rules, and other factors tell part of the story by showing us that they can foster

cooperative environments that are conducive to consensus decision making. But how consensus is produced is an extremely important component to the model that is currently not well understood. When multiple players come to the table with divergent, sometimes diametrically opposed preferences, achieving consensus means that one or more parties must move from their initial preferences. Who moves, and how far? That is the central question here and it is important because the outputs and outcomes of any attempt at collaboration hinge upon it. However, we know little about the decision-making processes that lead to the compromise that is inherent in the requirement for consensus. Previous work on mutual trust, for example, might explain when a consensus is likely to be reached. However, it does not explain which group or groups will compromise further from their ideal points than others. Gaining insight into these decision-making processes, and what internal and external factors affect them, can bring the field closer to being able to predict outputs and outcomes in collaborative governance. The key contribution is to predict when collaboration is likely to produce a successful policy outcome, rather than just predicting the occurrence of collaboration or the emergence of consensus, thus allowing distinction between those times in which collaboration might be the best method for solving a problem from those in which some other method might be more effective.

### **Decision-Making and Hyperbolic Discounting**

I propose an addition to current models of collaborative governance to incorporate key factors influencing the negotiation and decision-making processes at the individual level. While the collaborative governance literature discussed above has

revealed important factors affecting the collaborative process, questions remain about how individuals within collaborative governance frameworks make decisions about compromise and conflict, such as when to yield, when to cede territory, when to stand firm, and when to push for more. Answering these questions provide two theoretical advancements in the study of collaborative governance. First, providing theoretically sound and empirically defensible answers to these questions is essential to the ability of the field to build predictive theories of collaborative governance. Without understanding why some individuals or groups choose to compromise while others stand firm or exit negotiations in favor of other tactics, modeling the outputs and outcomes of collaborative governance will remain unachievable. Second, answering these questions will shed light on the negotiation process and offer a richer view of the power asymmetries, and their determinants, which have been explored but not fully theorized in the existing literature. I offer here a theory of decision making in collaborative governance, focusing on the options in front of collaborative stakeholders at a given decision point in the process and what factors, both internal and external to the institution, might cause them to choose a particular course of action, even if it seems to take them on a path that leads away from their ideal points.

To achieve this goal any theory must be thoroughly grounded in a micro-theory of behavior. We must consider the tradeoffs that individuals face at each decision point in a negotiation over a prospective collaboration. For answers to how individuals view these tradeoffs and make decisions I look to well-developed theories in behavioral

economics and psychology that have successfully reconciled the paradox of behavior that appears to be inconsistent with preferences.

Actions that seem to be inconsistent with one's preferences or best interest has puzzled scholars and confounded our ability to explain many phenomena of human behavior. For years economists have pointed out that certain self-destructive behaviors, such as substance abuse (Becker and Murphy 1988), overeating (Lowe 1982), and procrastination (Akerlof 1991), defy classical assumptions about rationality. These authors and others have reconciled these anomalies by incorporating time-inconsistent preferences into models of economic behavior. Of course, time bias in preferences is nothing new. The human propensity to prefer immediate reward to delayed gratification has been understood for centuries. When offered a choice between \$500 today and \$550 six months from now, most people will choose to accept the smaller reward today. To account for this, exponential discounting to account for present-biased preferences has become a universal maxim in behavioral economics, in spite of the fact that even the creator of exponential discounting understood that it was a poor reflection of reality in many circumstances (Loewenstein 1992). However, behaviors frequently observed in the world present challenges to the typical discounted utility model (Frederick, Loewenstein, and O'Donoghue 2002).

Scholars in both behavioral economics and psychology have taken interest in solving these anomalies. In economics, Strotz (1956) was the first to acknowledge that discounting functions might not be exponential, and that when people understand that their preferences might be inconsistent over time, they frequently utilize commitment

mechanisms to constrain their own behavior to protect their best interest from their future selves. Others have also discussed the phenomenon of self-imposed restraint of the future self (e.g., Elster 1979). O'Donoghue and Rabin (1999) later elaborated upon this by showing that individuals with more sophisticated understandings of their time-inconsistent preferences will be disproportionately negatively impacted when benefits are immediate and costs come in the future.

The core element of these models is the empirical fact that frequently people's preferences vary over time. This is different from a standard discounted utility (DU) function because, while the DU function assumes a constant discount rate, models that account for time-inconsistent preferences do not make this assumption. Thaler (1981) found evidence in experiments that discount rates can decrease over longer time horizons versus shorter ones. Seeking to find the point that would make subjects indifferent between receiving \$15 today and some other amount of money one month, one year, and 10 years from today, the discount rates revealed by the median responses indicated a more than 300% decrease in discount rate between a one month time horizon and a 10 year time horizon. Frederick, Loewenstein, and O'Donoghue (2002, 361) give a useful example to illustrate how time can alter, or even reverse, preferences for immediate reward. "[S]omeone may prefer \$110 in 31 days over \$100 in 30 days, but also prefer \$100 now over \$110 tomorrow." Though in the economics literature these behaviors, or the absence of these behaviors, is frequently reduced to whether or not an individual is sophisticated (e.g., O'Donoghue and Rabin 1999), there is evidence from psychology that sophistication or naiveté have little or nothing to do with it, and that in

fact these are natural patterns in the way the human brain processes decisions about costs and benefits, pleasure and pain (Ainslie 1992).

Akerlof (1991) presents an elegant formal argument that shows precisely how time-inconsistent discounting functions can lead to perverse outcomes. Building on models of rational addiction and other time-inconsistent behaviors, Akerlof argues that two things, over-salience of present costs and over-discounting of future benefits, can lead to the initiation and continuation of behaviors that may not be in one's best interest. The end result of these behaviors looks outrageous and irrational, but they are actually the results of not one big decision, but rather several smaller decisions over a period of time. To illustrate this point, Akerlof cites the famous Milgram (1974) experiments. Milgram, inspired by examples of countless human rights atrocities throughout history, wanted to examine how ordinary people could be induced to do sadistic things by an authority. Akerlof explains the results of the Milgram experiments as a sort of path dependent obedience to authority. The key is that the subjects were asked to administer shocks to "patients," increasing in voltage in very small increments. At each stage, the subjects must weigh the costs and benefits of the decision to follow the order to administer the next shock. The "cost" of administering the shock is a burden on the subject's conscience. The "cost" of refusing is the distress of standing up to an authority figure, or appearing uncooperative in front of peers. For the subjects who chose obedience (the majority), the cost of the latter was determined to be greater than that of the former. Thus, just as in Becker and Murphy's (1988) model of rational addiction, in which past consumption of a product and discounting the future benefits of not

consuming it lead to addiction, so in the Milgram experiments past obedience to authority and discounting the future benefits of stopping, predict continued obedience.

The same decision-making process, Akerlof shows, applies to explaining why people procrastinate or engage in other behaviors that are not in their best interest over the long term. For example, say that I know I need to file my income taxes. I could do it today, but there are also much more enjoyable things I would like to do with my spare time today, such as, well just about anything. If I value my today's leisure time more than tomorrow's, I am likely to put off filing my taxes today, with good intentions to do them tomorrow. This, of course, becomes problematic when I make the same decision tomorrow under the same circumstances, and the next day and the day after, until suddenly it is April 15 and putting it off until tomorrow is no longer an option. Of course this end result looks irrational. I would be a lot happier if I had filed my taxes months ago. I would have my refund already and my free time today would be mine to do with as I please. However, each individual decision to delay was only a minor, individually insignificant, setback.

The connection between the literature on time-inconsistent preferences and collaborative governance is in the iterative decision making process at the individual level that takes place as a collaboration unfolds and the various parties attempt to negotiate a solution that resolves their differences. The logic of the economic theories reviewed above can be applied to explaining how individuals and groups make decisions in collaborative governance scenarios. Furthermore, there are important factors in the collaborative governance process that influence how this behavior manifests itself in any



given collaboration. When individuals or groups make the initial decision to participate in collaborative action it is generally a given that they will have to make compromises and give up something in the interest of cooperation. However, exactly what, and how much, they will have to give can be a source of great uncertainty at the beginning of negotiations. While some of this uncertainty can be mitigated by previous experiences with the collaborative process and with the other actors involved, there will always be some degree of uncertainty.

Time preference theories can be useful in helping to predict what decisions the actors will make and explain why, particularly in cases in which the end result appears to be inconsistent with one group's preferences. Just what type of compromise is brokered and who gives up what to the process is determined in multiple rounds of negotiations over an extended period of time, usually several years, and plans come together incrementally, with marginal shifts in either direction at each stage. Thus each participant must decide first at the outset whether to participate or take some alternative course of action to effect his or her desired outcome, and then again at each cut point in the extended negotiation process. Much like the "rational addict," whose previous consumption of a substance makes his or her continued consumption more likely (Becker and Murphy 1988), the player in an extended negotiation game potentially must be willing to part with a great deal of sunk costs to exit the process, and will only do so if it is clear that the benefit of exit is likely to exceed these costs. The argument does not rely on some participants being naïve, unsophisticated, or misunderstanding the benefit of cutting sunk costs and exiting the process if such a decision will probabilistically

produce a more favorable outcome. Rather, the argument focuses on the situational factors clouding the rational actor's ability to weigh the expected value of both outcomes. In other words, while an individual might have a sophisticated understanding of her preferences, where technical complexity and uncertainty make it difficult to determine which decision is most likely to realize those preferences, opportunities are created for opposing parties to use this uncertainty to their advantage. Technical uncertainty about outcomes, which subsequently affects the discounting of costs and benefits, becomes central here because it determines the individuals' assessments of the costs and benefits. It shapes individuals' abilities to recognize their interests clearly and coherently. In the next subsection I will clarify and elaborate by walking through a simple formal model to illustrate the important points of the theory.

#### *A Rudimentary Game to Illustrate*

The game has three players: a government agency (A) and two interest groups (B and C) with opposing preferences. These players come together in a collaborative effort to address some policy problem. I will begin with some preliminaries and simplifying assumptions. First, it is important to note that the relative power of the players in this scenario is already unequally distributed. The agency has a formal veto, as it gets final approval over whatever plan emerges from the process. An agency veto invokes an outcome of unknown cost to the interest groups. It is important to note that this alternative is not the same as the status quo, around which there is very little uncertainty. There is an assumption that the collaboration is initiated by the agency, which has already declared the status quo unacceptable for some reason, or by agreement of all

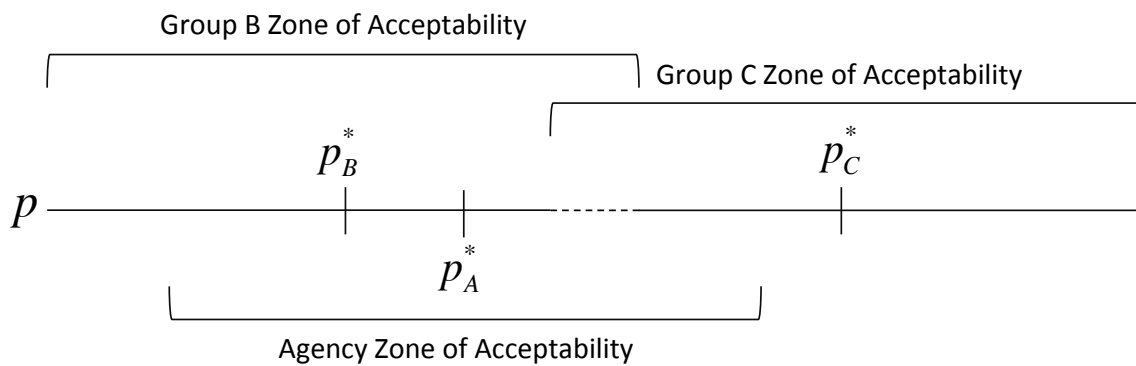
parties that the status quo is untenable. Though the agency wields a formal veto, there are checks on the agency veto power. An unmeritorious veto can trigger high costs for the agency, such as lawsuits or punishment from political principals. Thus the agency is likely to use its veto power judiciously.

It is important to note that the agency, much like the two interest group players, has a policy ideal point. This ideal point is not inconsequential, and it does not necessarily lie at some neutral midway point between the ideal points of parties B and C. Thus it would be inaccurate to treat the agency as some sort of unbiased mediator (see, for example, Nordinger 1981 on how government officials are often guided by their own policy preferences). This ideal point will likely contribute to setting the tone of the relationships between the agency and each of the other two players, and this is an important factor in assessing power asymmetries, and each player's initial assessment of whether or not to come to the negotiating table. However, the agency's discretion is bounded by some statutory mandate and by the ability of dissatisfied parties to seek recourse in other venues. The very real threat of legislative sanction or litigation on behalf of the dissatisfied party limits the agency's discretion and induces it to prioritize consensus building. As one interviewee with experience in collaborative governance negotiations from the agency perspective remarked, a successful outcome is one with which nobody is happy because everybody had to give up something. Thus the satisfactory outcome for the agency in this game might be different from its ideal outcome.

The interested parties (B and C) do not have the same sort of formal veto that the agency has. The process can move forward if one group walks away. However, this results in an outcome to which all interested parties have not agreed. Because this would leave the agency vulnerable to political and legal challenges, it will not favor this outcome. In short, the agency's commitment to consensus keeps the cost of exit relatively high for the other two players.

The decisions are made along a one-dimensional policy space, hereafter denoted as  $p$ . In a natural resources context this might represent the allocation of water between two interested parties, the amount of space set aside as a preserve for endangered species, or the amount of money paid into some sort of mitigation fund for offsetting an environmental impact. Group B has an ideal point  $p_B^*$ , and Group C has ideal point  $p_C^*$ . Admittedly, this is an abstraction for the sake of parsimony. In reality the policy space and the actors' preferences are frequently multi-dimensional. For example, environmental groups might value more than the simple maximization of raw acreage of preserve space; they also value the contiguity of the space and the overall quality of the habitat present on the land. Thus a group might have multiple ideal points representing different combinations of the multiple dimensions that it finds suitable. However, for the sake of keeping the model manageable at this stage I employ this simplifying assumption. Each player has an ideal point along  $p$  and it will seek to move the final policy as close to this ideal point as possible. Figure 1 illustrates a hypothetical set of ideal points for the players across the total range of the policy space  $p$ , represented by the horizontal line. Each player's willingness to negotiate is presumably bounded by

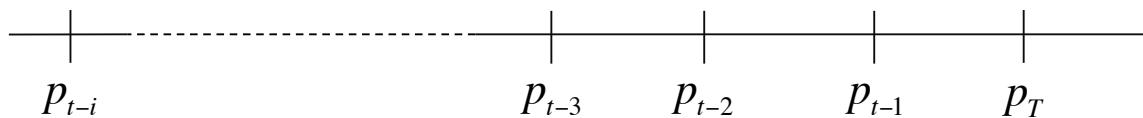
some zone of acceptability. A group can live with anything inside its zone of acceptability, but will not accept anything outside this zone. The dashed portion of the horizontal line marks the area where all three zones of acceptability overlap. This is the space in which it is possible to find a solution that all parties can accept.



**Figure 1.** Relative preferences of each player within policy space  $p$

If this were the end of the game, it would be quite straightforward, and not particularly interesting. We could conclude that the ultimate policy decision will be somewhere within the dashed area and we could use already existing models of power asymmetries, bargaining, and inter-group dynamics to approximate where along the dashed line our participants would land. However, the innovation here is in taking into account the extended timeline over which these types of negotiations typically take place and incorporating the contributions from behavioral economics to our understanding of the way people's preferences can shift over time. This relaxes the assumption that the

players' zones of acceptability are static through time. Figure 2 illustrates the iterative nature of the process, showing how  $p$  can vary at each decision point. Each player evaluates its expected utility of the proposed policy at each time period and decides whether to accept the proposal and continue the collaboration or to end participation. The final policy that will be implemented is the one that emerges at time T.



**Figure 2.** Iterative decision-making process and prospective policy movement

An initial move is made at period  $t - i$ . This is an important move because it determines the starting point for the negotiation process, thus to some extent setting the agenda and framing interaction between the players in the initial and future iterations of the game. However, the game does not require an assumption that one player is the agenda setter. The prime mover might be the agency or some neutral third party, such as a panel of experts who make a policy recommendation that becomes the starting point for negotiations ( $p_{t-i}$ ).

At each stage of the process a player may propose an amendment to  $p$ . One group, for example, might seek to move  $p$  closer to its own ideal point, and likely will do so if it calculates that such a move would not induce the other strategic player's

defection or an agency veto. Each player now has to evaluate its two options in each time period  $t$  after an updated proposal has been offered. Each group may choose to defect or cooperate. The groups compare the expected utility of defection versus cooperation. Say, for example, this round of negotiations has favored Group C and moved  $p$  closer to its ideal point and further from that of Group B. Group B must now decide how to react to this marginal loss. If Group B decides to defect, its payoff will be:

$$U(B)_t = -D(1 + \delta)$$

where  $D$  is the cost of defection. This cost might come in the form of putting itself at a structural disadvantage by not being able to continue to influence the process. It might also be the cost of pursuing legal action to assert its influence. The  $\delta$  term represents all the factors that might inflate Group B's assessment of the costs of immediate exit. This might be affected by scientific uncertainty that makes unclear what the ultimate outcome will be, or political uncertainty over what outcome the collaboration will produce in Group B's absence. I will discuss this in greater detail in the next section.

Group B's other option is to accept the marginal loss, continue to play for now, and plan to defect when negotiations reach some threshold  $t^*$ , which is the point at which it has determined that even with its continued participation,  $p_T$  is likely to be outside its zone of acceptability. In this case, its utility function will be:

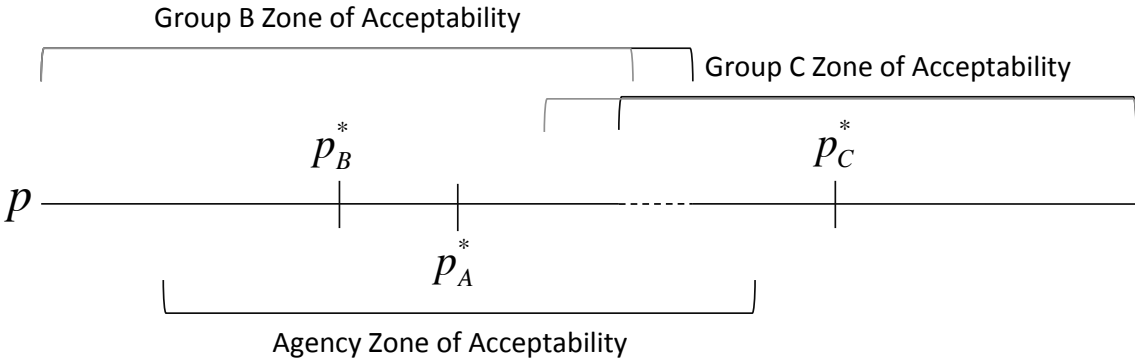
$$U(B)_t = -D - C \sum_t^{t^*-1} (p_t - p_{t-1})$$

where  $p_t$  is the proposed policy offered at time  $t$ ,  $p_{t-1}$  is the policy that Group B already agreed to in the previous iteration, and  $C$  represents the costs of the marginal loss in each

round summed over all rounds up to and including the round immediately prior to  $t^*$ .

We can see in the first equation that an increase in  $\delta$  decreases the expected utility of immediate defection. Therefore, as long as  $\delta$  is sufficiently high, Group B will be willing to accept a marginally decreasing utility in each iteration of the game. In other words, as long as the cost of exit is high and Group B still believes it might be able to influence the process in its favor with continued participation, it will be willing to continue to compromise away from its ideal point.

It is important to note that  $\delta$  is not necessarily static throughout the negotiations. It might increase and decrease over time, as new information becomes available and as political circumstances change. Returning to the diagram in Figure 1, then, an increase in Group B's  $\delta$  term might expand its zone of acceptability closer to Group C's ideal point. A savvy Group C might recognize this and seize the opportunity to shrink the outer limit of its own zone of acceptability. I have illustrated this hypothetical scenario in Figure 3, with the old zones of acceptability overlaid in gray to highlight the shifts.



**Figure 3.** Movement in zones of acceptability



We can see here that under these circumstances the negotiation space has been shifted to the right, closer to Group C's ideal point. Ultimately, the primary implication of the game is that whichever party has a lower value of  $\delta$  will have the power to move policy incrementally closer to its own ideal point by inducing the other player to make concessions in the interest of continued cooperation.

### **Factors Influencing Decisions in the Game**

In the model above, the decisions each player makes at each cut point are directly affected by the value of the  $\delta$  term. This term represents the factors that exacerbate or make unclear the costs associated with leaving. This is predominantly a function of uncertainty that can come in multiple forms. Specifically, uncertainty can be technical or political. Complicating things even further is the fact that technical uncertainty can interact with political uncertainty. Often in collaborative governance arrangements there is a great deal of technical complexity. In fact, collaborative governance is frequently employed specifically to address stalemate over highly complicated issues in which stakeholders are at an impasse. However, there can still be variability between cases with regard to just how complex the problem is. With policy areas ranging from cooperative economic development to collaborative environmental management at the landscape scale, some problems contain more moving parts than others.

I argue that the role of this technical complexity is important because it can affect political uncertainty. A policy problem characterized by a high amount of technical complexity frequently forces policymakers to deal with a correspondingly high amount of scientific and technical uncertainty about alternatives for solving it. Endangered

species present a good example of this. In addition to the usual philosophical disagreements over the utility of preventing extinctions, opponents of conservation frequently challenge the ability of science to discern human impact on species populations from natural cycles. The same phenomenon can be seen in the popular discourse over global warming. Though 97 percent of climate scientists have reached consensus that anthropogenic climate change is happening, opponents of environmental regulation frame the issue as though it were an open debate in which experts are split 50/50. This strategy of questioning the accuracy of the science behind environmental regulation dates back at least as far as the anti-environmentalist backlash of the 1970s (Layzer 2012). Furthermore, Michaels and Tyre (2012) find that even policymakers are frequently stymied by indeterminacy or uncertainty in scientific data. They find that the breadth of what is unknown about an ecological system, and its interactions with social and political activity predicts how amenable policymakers will be to using scientific expertise to make policy. In a collaborative negotiation, this can lead to disagreement between groups of opposing viewpoints over how scientific data, and the uncertainty that necessarily comes with them, are to be interpreted. It can even lead to disagreements over whether enough can be known to determine the proper course of action, or whether there is sufficient evidence that the conservation efforts would ultimately prove effective or fruitless and wasteful.

The additional salience placed on the cost of exiting negotiations (the  $\delta$  term in the model) is rooted largely in uncertainty about what will happen if one exits. The key variables influencing the value of  $\delta$  are the sources of this uncertainty. First is the quality

and quantity of scientific information available on the policy problem to be addressed, and who wins the battle over its interpretation. Second is the level of technical complexity of the issue being addressed. Finally, the political climate and uncertainty about the political climate also play a role here.

The implication of this is that wherever one party has an opportunity to gain advantage from the data, or lack thereof, they can use this advantage to get more of what it wants out of the negotiation, and force the opposing party to accept less. Let's take two hypothetical examples. In the first example, parties are negotiating over policy on a relatively straightforward and well-understood problem. There is very little uncertainty as to the cause of the problem or the effects of the proposed solutions. There is going to be very little room in this scenario for one party to gain advantage by calling the validity of the data into question or offering a self-serving interpretation of them. In the second example, the same parties might be negotiating over a very contentious policy problem in which perhaps they cannot even agree on whether the problem is truly a problem. Furthermore, the problem is so complex or poorly understood that scientific data are scarce or some question their reliability. Here one group might exploit these circumstances to argue that there is no problem, or to argue for a much weaker solution than might be called for if the data were better. To put this in the terms of the model above, say group B is exploiting this situation to argue for a much weaker course of action than was initially proposed, and group C, which prefers a stronger course of action, must now decide whether to go along with group B's proposal or to walk away. This uncertainty makes the cost of exit potentially very high.

## **Conclusion**

An expansive literature on collaborative governance and management has made substantial contributions to knowledge of how such systems work, particularly regarding which variables drive collaboration that results in successful consensus between the relevant parties. However, this literature has left open questions regarding the internal dynamics of the negotiation and decision-making processes in collaborative governance arrangements. We still know relatively little about how conflicting preferences are distilled into a single coherent policy through the process of individuals and groups choosing to make the specific compromises and concessions. As a result, the field has been unable to produce predictive theories of this process.

The contribution of this project is to address these key shortcomings. Drawing from interdisciplinary theories to construct a theory of collaborative decision making will shed light into the black box of negotiating collaborative arrangements and converting conflicting preferences into a coherent policy over which there is rough consensus. Ultimately, one contribution here will be a richer understanding of the collaborative process. However, the key contribution will be that, as a result of the first contribution, this project will mark a first step toward constructing an integrative theory of collaborative governance that allows us to predict, in a given case, the outputs of the collaborative endeavor, and maybe in some cases even the outcomes.

While these contributions will constitute theoretical advances in the scholarly community on the topic, they will also have broader implications for the practice of collaborative governance. Perhaps most importantly, the project sheds critical light on

the internal workings of the collaborative process, which are not always fully exposed by proponents of the collaborative approach in practice. Obtaining a better understanding of the mechanics of collaborative action, and how these mechanics might work differently under different exogenous circumstances, such as under varying degrees of scientific uncertainty, might give practitioners a tool for assessing when collaborative governance might be a more or less useful tool for organizing collective action.

Next, I will lay out a research design for gathering empirical evidence to evaluate this theory using selected case studies of Habitat Conservation Plans (HCPs) under the Endangered Species Act. I will discuss the case selection and methodology for analyzing the cases, as well as a bit of historical context that explains why HCPs are a useful lens through which to study collaborative governance.

## CHAPTER III

### RESEARCH DESIGN AND CASE SELECTION

I apply the decision-making theory outlined in the previous chapter to negotiations over habitat conservation plans (HCPs) in the U.S. under the Endangered Species Act of 1973 (ESA). I employ a similar systems case study design, analyzing two selected HCPs in the state of Florida. HCPs are useful lenses through which to study collaborative governance because they arguably embody the concept better than any alternative. As Ansell and Gash (2008, 544) define it, collaborative governance is “a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets.” Large-scale HCPs like the ones in the cases I study here meet every criterion of this definition. They are cases in which the U.S. Fish and Wildlife Service (FWS), and sometimes state and local agencies, engage private stakeholders—usually the building development industry and conservation interest groups—to implement the requirements of the ESA and to manage endangered species habitat.

I conducted in-depth case studies of two HCPs in which the technical complexity, scientific uncertainty, and political uncertainty vary widely between the two cases. However, in order to hold constant as many other variables as possible I chose two cases within the same state and from roughly the same time frame. The Florida Beaches HCP (FBHCP) is one of the largest, most complex multi-species HCPs ever attempted. It covers a range of species from sea turtles to migratory birds that make their

homes along more than 1,200 miles of Florida coastline. The coastal nature of the FBHCP brings questions of global warming and sea level rise into the calculus when seeking to determine what the range of the species will look like in the future under these changed circumstances. The Charlotte County Scrub Jay HCP is meant to protect habitat for the Florida scrub-jay from threats related to building development in Charlotte County on Florida's Gulf coast. By comparison to the sea turtles, beach mice, and shore birds included in the FBHCP, the scrub-jay's needs are well understood and the agencies involved have lengthy experience in dealing with its habitat conservation. While the scrub jay, too, is under threat from the effects of global warming, as are all species, especially birds (National Audubon Society 2014), it is not under the same direct threat from sea level rise that imperils beach-dwelling species. However, as will be shown in the case study, scrub-jay conservation in Charlotte County is equally as politically charged and in conflict with development as its counterparts covered by the FBHCP.

While the research design is a pair of similar systems case studies, in order to highlight the disparate results that can be produced by similar political processes, the method is a combination of in-depth elite interviewing and archival research. In the next section I give a brief background on HCPs, including their origins, purpose, and structure, which will help to clarify why they are the ideal testing ground for theories of collaborative governance. Next, I give brief introductions to the FBHCP and Charlotte County Scrub Jay HCP, including explanations of how each fits into the research design. Finally, I discuss the interview and archival methods that I employed.

## **Habitat Conservation Plans**

An HCP is a collaborative partnership between the U.S. Fish and Wildlife Service (FWS)<sup>1</sup> and some party or parties seeking an incidental take permit to exempt certain activity from the ESA ban on taking listed species. The original ESA, passed in 1973, outlawed any taking of a species listed as threatened or endangered. With frustration mounting among industry over the inflexibility of the act, which culminated in national media attention over work stoppage on construction of the Tellico Dam in Tennessee, Congress used the 1982 reauthorization as an opportunity to amend the act to ease these concerns. Section 10 of the ESA was amended to allow otherwise lawful activity to be exempted from the ban on taking listed species through the issue of an incidental take permit (ITP). In order to obtain an ITP, an applicant must first create an HCP that details the steps the applicant will take to minimize the take and mitigate what cannot be avoided. Frequently this tool is used to permit real estate development that will result in habitat loss for listed species. Mitigation can come in multiple forms. Frequently it is accomplished through setting aside some negotiated amount of land to leave undeveloped—with a plan to manage and fund the conservation—or by paying a negotiated amount of money into an already existing conservation fund for the affected species that is managed by some third party.

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<sup>1</sup> The ESA designates FWS as the lead implementing agency for land-based species and the National Marine Fisheries Service (NMFS) for maritime species. While some HCPs are administered by NMFS, the majority of HCPs are for species under FWS jurisdiction. It is worth noting here that the agencies share responsibility for the sea turtles at the center of the FBHCP in this study, with the NMFS regulating the species' breeding areas at sea and the FWS in charge of its nesting habitat on shore. However, because the FBHCP only concerns the nesting habitat, the NMFS is not involved.



Though originally conceived as a tool for private property owners, over the past 20 years the use of HCPs has expanded beyond one-off negotiations between individual developers and the Fish and Wildlife Service (FWS). Now, partially spurred by the encouragement of Clinton administration Secretary of the Interior, Bruce Babbitt, city and county governments frequently negotiate large, multi-species, multi-jurisdictional HCPs to cover all development activity in a given area (Babbitt 2005). In some more recent cases, the scale of these plans has expanded even beyond the local scale. One example of this is the FBHCP. Another covers eight Midwestern states that are, as of this writing, negotiating what will be geographically the largest HCP to date, whose purpose will be to mitigate habitat loss from the construction of wind farms. These large scale HCPs become complex collaborative governance undertakings that take years to negotiate between the federal government, state and local government agencies, developers, conservation groups, and other stakeholders. Key to understanding HCPs is identifying their origins. To do this, it is important to understand the amendments to the ESA in 1982 and how they became part of the law.

Congress passed the Endangered Species Act (ESA) in 1973. The act was widely considered at the time to be the single most significant piece of environmental legislation to date (Czech and Krausman 2001). The law gave authority to the Department of the Interior to list threatened and endangered species and to protect them through the listing of critical habitat; it also outlawed any unauthorized “taking” of a listed species or its habitat. Nine years later, in 1982, Congress passed a series of important amendments to the ESA, including the addition of a provision for the Interior Department to grant

individuals authority to commit takings that are incidental to otherwise lawful activity in exchange for setting up and funding the species' preservation elsewhere through a habitat conservation plan (HCP).

In 1982, the ESA was up for its triennial reauthorization. Since its original passage in 1973, previous congresses and presidents had reauthorized the act in 1976 and 1979 with little controversy. However, by 1982 political circumstances had changed, making this reauthorization much more contentious than it had been in the past. Industrial and development interests mobilized and lobbied heavily in Congress and the executive branch, hopeful that their complaints about the ESA might fall on more sympathetic ears in the newly elected Reagan administration than they had in previous ones. One news reporter at the time wrote, "The [ESA]... is itself on the endangered list, under the sharpest attack since it was enacted by Congress in 1973" (Peterson 8 March, 1982). My own interviews with individuals who worked on the ESA on behalf of major environmental interest groups during that time confirm these groups were fearful that the ESA had become so politically unpopular that Congress might choose not to reauthorize it at all.

A frequent source of negative attention for the ESA at the time was the stoppage between 1977 and 1979 of construction on the \$129 million (about \$465 million in 2015 dollars) Tellico Dam in Tennessee due to its threat to the only known remaining population of the endangered snail darter. This was a contentious issue with developers, who found sympathy in the administration and with some members of Congress ("House Approves Bill on Endangered Species" 9 June, 1982; Peterson 8 March, 1982; Russakoff

6 May, 1982; Shabecoff 23 July, 1981; Shabecoff 8 December, 1981). Other major projects had also been slowed by the presence of listed species, including the Dickey-Lincoln Dam in Maine and a large housing development in California (Webster 1 March, 1982). Industry proposals for amending the act included one that would limit the listing of “lower forms of life,” such as plants and invertebrates, and one that would delist the grizzly bear, bald eagle, and sea otter, on grounds that large and healthy populations of these animals still existed in Alaska (Peterson 8 March, 1982).

Interest groups on both sides of the issue might have been interpreting and reacting to signals from the Reagan administration concerning its intentions for the future of the ESA. When hearings on ESA reauthorization opened in late 1981, administration officials did not offer a position, but instead indicated that they intended to “propose substantial changes, including the possible elimination of requirements for setting aside ‘critical habitats’ of endangered species” (Shabecoff 8 December, 1981). At the same time, Secretary of the Interior, James Watt, “asked for a one-year extension of the act [as opposed to the typical three-year reauthorization], saying he [wanted] time to find administrative solutions to industry’s problems.” One observer interviewed by a newspaper reporter offered his view of the true intentions behind the Interior Department’s proposed delay, stating simply, “They want to gut the act” (Peterson 8 March, 1982).

This sentiment was not isolated to the one observer. Environmental activists accused Secretary Watt of halting the endangered species listing process, citing 44 species that the Carter administration had found eligible, which had still not been listed

as of July 1981. The Environmental Defense Fund sued Watt over what it viewed as his agency's stalling of the listing process. A member of the group's leadership commented publicly that Watt's failure to list these 44 species "makes us question whether he intends ever to protect these species or any others" (Shabecoff 23 July, 1981). The Interior Department answered these critiques, arguing that the delay in the listings in question was due to the new regulatory impact analysis process mandated by President Reagan (Shabecoff 23 July, 1981), which required that the fiscal benefits of preserving a species outweigh the costs. Only one species ever cleared this cost-benefit threshold: the Hays spring amphipod, whose conservation made no imposition on industry or development, as its only known remaining individuals lived in a spring in Washington's National Zoo (Peterson 8 March, 1982). The cost-benefit requirement was later the subject of a legislative override as part of the 1982 ESA amendments, which required that only biological considerations be given weight in listing decisions (Russakoff 6 May, 1982). Moreover, the majority of the 44 species in question were Hawaiian tree snails; as such, they did not fit with the Reagan administration's prioritization of birds and mammals over "lower forms of life" ("House Approves Bill on Endangered Species" 9 June, 1982; Peterson 8 March, 1982; Shabecoff 23 July, 1981; Shabecoff 9 December, 1981). Finally, in order to list threatened and endangered species, the department depends on the fiscal ability to fund population studies that identify them. However, the budget for the Interior Department's Office of Endangered Species was cut by more than half, from \$4.1 million to \$1.9 million, severely curtailing its data gathering capabilities (Peterson 8 March, 1982). One Fish and Wildlife Service official

commented that the office responsible for monitoring endangered species “would have only enough resources to allow about 50 species to be listed each year” (Shabecoff 23 July, 1981).

These archived news articles show that the ESA was in a precarious position in 1981 and 1982, during the reauthorization process. It was under attack from interest groups whose immediate incentives do not induce them to prioritize species conservation. Exacerbating the situation was the fact that the incoming administration was sympathetic to development and industry interests and openly cold to environmental regulation on ideological principle. At best the Reagan administration was uneager to enforce the law strongly. At worst, it may have actively sought to circumvent the law, as some members of Congress accused during 1982 committee hearing over the renewal. While admittedly this does not amount to systematic proof that interest group pressure and the lack of will to enforce the current law on behalf of the administration provides a causal link to the Section 10 amendments as a compromise to save the act from falling into complete ineffectualness, it is suggestive. To provide further insight, however, we need to know the origin of these amendments.

Examining transcripts and reports from multiple committee hearings on the 1982 ESA renewal, I uncovered the source of the proposal to allow incidental takings in exchange for setting aside land in a habitat conservation plan. On February 22, 1982, Lindell Marsh, an attorney for a firm that “represents landowners and developers on a number of projects raising endangered species issues,” testified before the House

Subcommittee on Fisheries and Wildlife Conservation, of the Committee on Merchant Marine and Fisheries.

In general, we believe that there is a need to formally encourage greater cooperation and collaboration between the Federal agencies and the private sector on endangered issues, and that the act should be amended to encourage such cooperation. We suggest that the Federal wildlife agencies be authorized to participate in the development of habitat conservation plans initiated by local or State agencies to resolve present or potential endangered species conflicts on an area or regionwide basis.

Marsh goes on to testify that this suggestion is modeled after the ongoing effort to develop a habitat conservation plan for endangered butterflies in San Mateo County, California. This habitat conservation plan was proposed by the environmental consulting firm working with the developer of the San Bruno Mountain development, which was mentioned in the news coverage of ESA as an example of one of the major projects that had been halted by the act. Going back further in the history of the suggestion, Marsh claims the idea was originally modeled after the special area management plan (SAMP) process that had been previously employed in the Pacific Northwest and that is referenced in the Coastal Zone Management Act.

The proposal for habitat conservation plans does not seem to have had fierce opposition from environmental groups. Previously in the same hearing, Ken Berlin of the National Audubon Society testified on behalf of a consortium of environmental interest groups:

There are ways the companies can be creative under the act; for example, using section 10 for permits, something you may hear about from the next witness [Marsh], where a party could come in and say we have developed a management plan that helps that species; therefore, even if we affect

parts of the habitat, that is acceptable. We think that is an approach that should be considered.

The Fish and Wildlife Service also seemed to be supportive of the proposal.

Commenting on the development of the San Mateo County HCP, a spokesperson for the agency said, “I’ve talked to a lot of people...and everyone feels that [the cooperative approach] is really the wave of the future; that the Fish and Wildlife Service and the environmental groups and the developers will be working together on these conservation plans to conserve species—perhaps sometimes instead of listing them as endangered” (King 6 February, 1982). Then, in its final report on the amended ESA, the House Committee on Merchant Marine and Fisheries reported:

For private landowners, the Committee designed a solution through the permit provisions of Section 10 by authorizing the Secretary to issue permits to individuals who demonstrate that the taking of an endangered species will be incidental to, but not the purpose of, the lawful activity they will perform. In order to obtain a permit, the private applicant must present the Secretary with a conservation plan demonstrating that he will minimize the incidental taking, and specifying the number he will likely take and any proposed alternatives.

### **The Florida Statewide Beaches HCP**

In many ways the state of Florida is the archetypal case in the enduring conflict between economic development and natural resources conservation. The state’s subtropical and tropical climate, and its approximately 1,500 miles of coastline spanning the Gulf of Mexico and the Atlantic Ocean, as well as its vibrant theme park and resort industry, make it a major tourism destination. While much of this tourism is generated by theme parks, Florida’s biodiversity and natural resources, including its beaches,

forests, and the Everglades, also play a role in attracting 80 million visitors to the state each year. In addition to tourism, Florida has been experiencing massive growth in permanent residents over the past half century (FBHCP Steering Committee n.d. (a)). Florida's population continues to grow at a rapid rate, and more than a fourth of the population lives within less than one mile of the coast. It is not surprising, then, that demand is high for development of homes, hotels, retail, and restaurants in a convenient vicinity to Florida's beaches. It is also a relatively uncontroversial proposition that it is in the state's best interest economically to develop these facilities in a way that is least destructive to the natural resources that make it such a desirable destination.

Recognizing the need to strike a delicate balance between meeting development demands and conserving valuable natural resources, the Florida legislature in 1965 passed legislation creating the Coastal Construction Control Line (CCCL) Program, and tasked the state's Department of Environmental Protection (DEP) with its implementation. As the DEP describes the program, "[r]ecognizing the value of the state's beaches, the Florida legislature initiated the [CCCL] Program to protect the coastal system from improperly sited and designed structures that can destabilize or destroy the beach and dune system." Much of this activity permitted under this program involves the construction of sea walls and other shoreline stabilization efforts. While not directly related to building development, these projects' primary purpose is to protect coastal building structures.

As of the mid-2000s, Florida's other environmental agency, the Fish and Wildlife Conservation Commission (FWC) had for several years asserted that DEP was



permitting activity under the CCCL program that was resulting in take of coastal species through habitat loss. During this time, DEP denied that they would ever issue a permit that would result in take. Interviews revealed that the conflict here was a matter of interpretation. DEP was using a much narrower definition of take than the federal government, which did not include loss of habitat that was unoccupied at the time of construction.

Finally, in 2008, under threat of third-party lawsuits over takings resulting from permits issued under the CCCL permitting in violation of the ESA, Florida's DEP agreed to participate in the development of a statewide, multi-species habitat conservation plan (HCP), in order to obtain an incidental take permit to exempt the take. As of this writing, the Florida Beaches HCP (FBHCP) is still under development, with drafts completed for eight of 15 total chapters.

#### *Organizational Structure of the FBHCP*

The FBHCP is a quintessential case of collaborative management. At the top of its organizational chart is a steering committee comprised of representatives from various stakeholder groups, each with an equal vote, which meets quarterly. The steering committee operates under strong norms of collaboration and cooperation, and conflict is frowned upon. Members of the steering committee are drawn largely from the higher ranks of their organizations. The steering committee members who represent state agencies tend to be division directors or deputies, and those representing state level interest groups tend to be senior members of their organizations' legislative relations divisions. The steering committee supervises, and is advised by, a working group

comprised largely of lower-level agency employees and third-party contractors with advanced subject matter expertise. The working group occasionally breaks down into smaller, subject-focused groups. For example, there is a beach mice subgroup that includes members who specialize in beach mice, as well as some outside experts who are not regular members of the working group. While the working group does the majority of the “heavy lifting,” and the writing of the draft chapters for the HCP, the steering committee has final approval over the plan that ultimately will be submitted to the FWS for consideration.

There is one key limitation at this stage that should be noted. As of this writing, there are still a number of very important decisions, over which there is likely to be disagreement and controversy, that the FBHCP steering committee has not yet made, including the mitigation portion of the plan. The limitation here is that what the FBHCP will ultimately look like, including such questions as how much habitat will be set aside and how will this be funded, remain open. This is the result of the challenges inherent in navigating a planning process as large as this one. When I undertook study of the FBHCP, those involved planned to have a completed proposal to submit to FWS at approximately the time of this writing. Instead, the process has now been stalled for several months due to political circumstances and changes in leadership within DEP, the applicant agency. However, there is enough information in the existing documents and the interview transcripts to perform some analysis and to draw comparisons between the two cases.

### *Case Selection*

The FBHCP makes an ideal case for this study because technical complexity and scientific uncertainty are high relative to the comparison case. Much like the Charlotte County HCP, the primary threat to the included species is construction. However, due to the coastal environment and the nature of some of the specific species involved, those charged with planning and negotiating the FBHCP are faced with additional layers of scientific uncertainty and technical complexity.

While the specific needs related to conservation of sea turtles and beach mice are relatively well known, interviews revealed that the shore bird and migratory bird species included in the plan are relatively more complicated, and determining the right thing to do for their conservation is less easily determined. In fact, both the interviews and the analysis of original documents revealed that the inclusion of these bird species was the subject of debate early in the process.

Another layer of uncertainty and complexity in the FBHCP case comes from the coastal setting and growing awareness of the impending direct and indirect effects of global warming on coastal ecosystems. By direct effects I mean sea level rise, rise of ocean temperature, increases in heavy precipitation, and increases in frequency and severity of major storms. By indirect effects I mean the human reactions to the direct effects, such as increased construction of sea walls and other shoreline stabilization and reinforcement efforts. As the incidental take permit to which the HCP will be attached is for 25 years, it is fairly certain that conditions will change during the term of the permit.

The scientific uncertainty and technical complexity due to global warming quickly become thorny political issues, especially at the highest levels of the planning process, in this case the state agency. Like its federal counterpart, DEP is an executive agency led by a secretary who is appointed by and serves at the pleasure of the executive. Since the beginning of the negotiations over the FBHCP there has been a change in leadership in Florida's executive branch. The planning process for the FBHCP began under the leadership of then-Republican Governor Charlie Crist. Crist, who has since changed his party affiliation, has a reputation as a political moderate. His record on environmental issues is largely viewed positively even by environmental interest groups. The DEP Secretary whom he appointed, who initiated the FBHCP process, is a biologist by training, as opposed to a political operative. This sentiment came through in multiple interviews with members of prominent environmental groups in Florida and in casual conversations with Florida residents. Crist's successor, Rick Scott, is much more conservative by comparison. He was elected in the 2010 midterm election after running a campaign in which he repeatedly promised to decrease government regulation, which he asserted would make Florida more business friendly. Thus it is not surprising that levels of support and enthusiasm in the applicant organization for the FBHCP have changed since the beginning of the endeavor.

### **Charlotte County HCP**

Charlotte County is one of Florida's many rapidly growing areas. Situated approximately an hour and 30 minutes south of Tampa and St. Petersburg, and surrounding the edges of the Charlotte Harbor in the southern portion of the state's Gulf

coast, Charlotte County's estimated 2014 population is 168,474, about a five percent increase over 2010 (U.S. Census Bureau 2015). Charlotte County is also home to four populations of Florida scrub jay, a habitat-specific species endemic to South Florida and listed as threatened under both the federal ESA and the state's equivalent law (U.S. Fish & Wildlife Service 1999). The bird's habitat-specific needs put it in direct conflict with building development that clears the oak scrub habitat that it needs.

The scrub jay HCP in Charlotte County was given final approval by the FWS in 2014 and an incidental take permit was issued that allowed building development to take about 3,056 acres of scrub jay habitat in exchange for creating and managing a reserve of approximately 4,500 acres. However, the HCP took several years to come to fruition. Interviews revealed that the idea was first posed in the late 1990s, and the county began the process of creating a county-wide HCP. Ultimately, during that process, county officials at the time decided for financial reasons to scale back the project to a smaller HCP to cover only capital improvement projects (utility and road expansions) within the county, and not private development.

In 2007, after repeated notices from the U.S. Fish and Wildlife Service that housing development in the county was causing unauthorized take of scrub jay habitat, the county sent notices to all owners of undeveloped lots advising them that they must contact FWS before developing their properties. These were predominantly .25 acre single home lots that had been purchased by private owners anticipating building homes on them. After being bombarded with thousands of phone calls from frustrated property landowners, and knowing it did not have the human or capital resources to handle the

thousands of individual ITP applications, members of the FWS field office in Vero Beach, Florida, convinced county officials that the best solution for all involved would be to negotiate a county-wide HCP that would cover development on all affected lots.

### *Organizational Structure*

On a structural level, there are key similarities between the negotiations over the FBHCP and the Charlotte County HCP. Much of the analysis and drafting of the HCP was conducted by a technical advisory committee consisting of agency employees and private consultants with technical expertise in different areas of the plan, very similar to the working group in the FBHCP. Instead of a steering committee making the final decisions on what to submit to the FWS, however, this role was fulfilled by the county's Board of Commissioners. As the top elected officials in the county government, the board's support was required for the HCP to be created and implemented.

In addition to the input of government agencies and elected officials, the technical advisory committee, and the technical consultants, input was sought from individual citizens and advocacy groups, including home builders and local environmental groups, particularly during the planning of the reserve design.

### *Case Selection*

The Charlotte County HCP was chosen as the lower uncertainty scenario for the case comparison because it allows several variables to be held constant, while providing contrast on the key independent variable. Unlike the FBHCP, the Charlotte County Scrub Jay HCP is not the first of its kind or the first HCP completed on this scale. The species' needs are known to be quite stringent and inflexible, narrowing the range of

mitigation options. The Florida scrub jay is endemic to southern Florida and it has already been extirpated from several counties. In Charlotte County much of its habitat has already been lost and fragmented, leaving the remaining populations vulnerable. In addition to being extremely habitat-specific, the species is long-lived, sedentary, and lives in familial communities that stay together (U.S. Fish & Wildlife Service 1999). The habitat is dependent upon frequent fires. Therefore, in addition to habitat loss and fragmentation, housing development poses a threat to the habitat through fire suppression. The threat to the species in this case is particularly well defined, the HCP covers four specific metapopulations of the species in a well defined area (Charlotte County Parks & Natural Resources Division 2014), and there is very little ambiguity about the species' prospects in the county under various possible courses of action.

### **Interview and Archival Research Method**

I have selected these cases for variation on the key explanatory variable, in this case the degree of scientific uncertainty and technical complexity surrounding the conservation activity. An important component to this research design is that I selected these cases without observing the dependent variable first. As King, Keohane, and Verba (1994, 140) explain, this is the best limited-n research design for intentionally selecting cases, because only during the research do we learn the values of the dependent variable, “and then make our initial causal inference by examining the differences in the distribution of outcomes on the dependent variable for given values of the explanatory variables.” The research design, then, is a most similar systems design, selected for the maximum possible variation in the key independent variable and the least amount of

variation on any other variables that could influence the outcomes. I achieve variation on the key explanatory variable of scientific complexity and uncertainty by selecting cases with obvious differences on this variable. The cases look like the hypothetical example I used above, in which a great deal of complexity, uncertainty, and disagreement over scientific data and interpretation exists, and the other addresses a relatively simpler, better-understood problem.

I collected information on these cases using two primary methods, archival research and elite interviewing. In the FBHCP case, I was able to collect archival data from steering committee meeting minutes, draft HCP chapters, supplemental information that was released publically, and presentations given to members of the steering committee and other officials. In addition to the archival data, I conducted in-depth, face-to-face interviews with individuals who have been involved with the HCP process at all levels and from multiple perspectives, including federal and state agencies, the various interest groups involved, and private consultants. Similarly, in the Charlotte County case, I was able to collect data through original documents. Unfortunately, meeting minutes were not available. However, I was able to gather some information on what was discussed at meetings from interviews and from presentations made during the meetings by various parties involved. Again, in addition to the original document sources, I conducted interviews with individuals involved from multiple perspectives throughout the process.

I will discuss more about the specific methods, the questions asked in the interviews, and what the data collection revealed in the following two chapters. In the



next chapter, I will present the results of the FBHCP case study. In the chapter that follows I will present the results of the Charlotte County study. Finally, in the concluding chapter, I will draw comparisons and conclusions from the two cases and link them back to the theory of time-inconsistent discounting in collaborative governance.

## CHAPTER IV

### TOO BIG TO SUCCEED? STATEWIDE PROTECTION FOR SEA TURTLES, SHOREBIRDS, AND BEACH MICE IN

The Florida Beaches Habitat Conservation Plan (FBHCP) is a planned statewide habitat conservation plan that would seek to obtain authorization for take of habitat for 19 species of turtles, birds, and beach mice that is incidental to construction on Florida's coastline. As of this writing, the FBHCP is still in the negotiation process and a final proposal has not been submitted to the U.S. Fish and Wildlife Service (FWS) for review. However, the negotiations over the FBHCP have persisted for more than five years and a number of decisions have been made.

The FBHCP was chosen as a case study for its high degree of technical complexity and uncertainty. There is no example of another HCP that has attempted to accomplish what the FBHCP is attempting to do. It is a statewide, multi-species HCP that seeks to protect species from direct and indirect threats from multiple types of human activity. For the shorebird species in particular, their location and status are not well known, largely due to their nomadic and migratory nature (FBHCP Steering Committee n.d.(b)). As a result, the data and population models are full of assumptions and uncertainty. In addition to the technical complexity, the multi-species, multi-activity, and multi-jurisdictional nature of the FBHCP has made it particularly sensitive to political opposition from many sources.

To conduct this case study, I gathered data about the background and negotiation process for the FBHCP using both archival and interview research methods. I conducted

in-depth interviews with 15 individuals, all of whom had been involved in the planning and negotiation process over the FBHCP. Some are currently involved, while others have since moved on to other positions or agencies/organizations and are no longer involved in the process. The interviewees represent a broad sampling of the groups and governments involved, including federal and state governments, a broad array of interest groups, and private consultants who have played advisory roles. In addition to the interviews I also gathered information from original documentation that the process has produced, including draft HCP chapters, meeting minutes, and issue briefs on various matters on which the steering committee has been faced with decisions.

While it is difficult to make a final assessment of the outcome of the FBHCP because it is not yet completed, the decisions that have been made to this point, as well as the current status of the negotiations, provide insights into the negotiation process that allow conclusions to be drawn concerning how the findings in this case fit those that were expected based on the theory. Because of the complexity involved in the FBHCP, the theory would predict that the collaborative process would produce a less successful outcome than what would be produced in the less complex comparison case. The expected outcome in this case was that the technical complexity would create an environment in which the environmental groups were induced to accept decreased protection for the species. While that happened in a couple of cases, the most stark contrast between this case and the comparison is that the complexity and fear of political controversy induced the environmental interests to accept increasingly longer delay in acting to protect the species.

In the next section I discuss the background and purpose of the FBHCP, including the circumstances leading to its inception. Then I take an in-depth look at the negotiation process that has transpired thus far, drawing both from meeting minutes and the information gleaned from the interviews. Finally, I conclude with an outline of the current state of negotiations over the FBHCP and a discussion of the implications of the findings for the theory outlined in Chapter 2.

### **Background and Purpose of the FBHCP**

The Florida Department of Environmental Protection (DEP) Bureau of Beaches and Coastal Systems (BBCS) has statutory authority for implementing a state coastal construction permitting program called the Coastal Construction Control Line (CCCL). This program protects the state's beaches from "imprudent construction that could jeopardize the stability of the beach-dune system, accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties, or interfere with public beach access" (FBHCP Steering Committee n.d.(a), 5). The "coastal zone" within which activity is regulated under the CCCL program extends from the mean high water line landward to the area subject to flooding and erosion from a 100-year storm surge.

At some point in the late 1990s or early 2000s, the FWS and its state counterpart, the Florida Fish and Wildlife Conservation Commission (FWC) became aware that DEP was issuing construction permits under the CCCL program that were resulting in take of listed sea turtle species through habitat loss (FBHCP Interview #4 2014). FWS and FWC notified DEP informally that it was responsible for take that resulted from activity that it permitted, and for the next several years DEP denied that it would ever issue a CCCL

permit that would result in take. However, in 2007 DEP came under the leadership of Secretary Mike Sole, a biologist by training. With this change in leadership, FWS and FWC were able to convince Secretary Sole that the CCCL program was, in fact, causing take (FBHCP Interview #4 2014, #12 2015). Under Sole's leadership, DEP entered into an agreement with these other two agencies for the development of a habitat conservation plan (HCP) in order to obtain authorization for take that would protect the state from federal sanctions and third-party lawsuits (FBHCP Working Group n.d.).<sup>2</sup>

#### *Governance Structure and Representation in the FBHCP*

As habitat management is outside the normal purview of DEP, it enlisted the help of FWC as a partner in developing the HCP. However, DEP remains the applicant and the HCP is ultimately the applicant's document. As such, the Secretary of DEP has final authority over what is submitted to the FWS for review. Although at the top of the organizational chart for the FBHCP, the Secretary has not been involved in its negotiation and development. He delegated this to a nine-member steering committee. The founding members of this committee were appointed by Secretary Sole in an effort to represent the broad range of interested agencies and organizations, as well as technical

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<sup>2</sup> It is important to note that, while the primary threat to sea turtles in the coastal zone is shoreline development, this is not the primary threat to the species' overall long-term survival. The much larger threat that the turtles face comes from fishing practices at sea. As the Florida DEP does not regulate these practices and they are unrelated to coastal development, they are outside the scope of the FBHCP (FBHCP Draft Chapter 2). The FBHCP has some ability to preserve land habitat for sea turtles ashore. However, relative to the far graver threat that sea turtles face in the water, the FBHCP will be relatively inconsequential in determining whether, or how long, these species will survive before human activities cause their extinction (FBHCP Interview #9 2014).

expertise. The chair of the committee comes from FWC, and the vice chair from DEP. The local government perspective is represented by delegates from the Florida Association of Counties and the League of Cities, which share a seat. A member of the Lee County Tourism Development Council represents the hotel and tourism industry. Environmental advocacy groups have two seats on the steering committee, belonging to the state chapter of the National Audubon Society and the Sea Turtle Conservancy, respectively. A partner from a coastal engineering firm represents the regulated community, as coastal engineers are the most frequent applicants for CCCL permits. The scientific community is represented by a senior FWC scientist who is a sea turtle expert. Finally, a member of the Florida Department of Community Affairs was appointed for her expertise in county comprehensive development plans, which were viewed as important potential mechanisms for implementation of the eventual FBHCP.<sup>3</sup> Largely, the steering committee members are drawn from the senior ranks of their respective organizations. On the agency side, they tend to be section heads or equivalent. In the interest groups they are senior legislative relations staff, and the coastal engineer who represents the regulated community is a named partner in his firm.

There has been some turnover in these steering committee seats since the beginning of the process. The first round of this turnover occurred in 2011. Part of this was the result of the election of Rick Scott as Governor and the subsequent appointment

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<sup>3</sup> In 2011, the Department of Community Affairs was dissolved and its functions incorporated into the newly formed Department of Economic Opportunity. The member who held this seat reported she did not feel her new agency was appropriate for the steering committee. As a result, this seat on the steering committee was eliminated (Meeting Minutes August 30, 2011).

of a new DEP secretary. Other turnovers at the same time were merely coincidental. However, the turmoil caused by the turnover is illustrative of how complex and politically sensitive this process is.

In 2011, the chair of the steering committee announced his retirement, the vice chair left his position with DEP, the member from the Florida Association of Counties left the organization for a new job, and the member from the former Department of Community Affairs determined that the new agency into which DCA's functions had been absorbed did not have an appropriate role on the steering committee. According to its charter, the steering committee needed a quorum of seven to hold a vote. The charter also designated the original steering committee members by name, as opposed to agency, organization, or community, and it specifically gave appointment authority to the DEP Secretary. The problem became evident when, in discussions on replacement members, the outgoing vice chair and DEP representative indicated that the new Secretary was neither aware of the steering committee's existence, nor had he been briefed about the HCP (Meeting Minutes June 1, 2011).

Remarks in the minutes from this meeting suggest some concern among the outgoing DEP member and the other members of the steering committee that the HCP might not have the same robust support from the new leadership that it had in the beginning. When discussing the procedure for briefing the new secretary on the HCP, the DEP representative on the steering committee remarked, "I just don't know when or how that will go" (Meeting Minutes June 1, 2011, 7). The discussion continued, focused predominantly on the strategy for convincing the new DEP leadership of the HCP's

importance and its benefits for all involved, especially for DEP and for CCCL permittees.

The committee decided that, in order to avoid this problem in the future and make turnover on the committee less tumultuous, the charter should be amended to delegate appointment authority to the Deputy Secretary for Regulatory Programs. It was also agreed that the charter should be amended so that seats are designated by organization or community, rather than individual by name. A consensus was reached that briefings with the new DEP leadership would be required to get approval for these changes and to ensure there was still support for the HCP. All agreed that the FWS should be involved in these briefings in order to explain to the Secretary that DEP is responsible under federal law for the take associated with its CCCL program, and why an HCP is its best alternative for avoiding federal intervention or third-party litigation. However, it was decided that it would be best not to bog down these presentations with details that would raise additional questions. Near the end of the conversation the FWC scientist on the steering committee summed up the strategy succinctly. “It might not be we have to sell all the details of what’s inside the sausage, just that it tastes really good and people like it” (Meeting Minutes June 1, 2011, 9). Minutes from a meeting later that year indicate that the Secretary and Deputy Secretary were briefed. While they approved of the amendments to the charter, appointed new members to the steering committee, and allowed the project to continue, some concern remained among steering committee members that support within DEP had waned (Meeting Minutes December 14, 2011).



This incident in which instability resulted from the first round of turnover on the steering committee is important because it illustrates how delicate and politically sensitive the process is. The November 2010 election of Rick Scott as Governor of Florida brought about significant changes in the orientation of the state's executive branch towards regulatory policy. Scott ran on a platform that was openly critical of regulation, and he made promises to reduce regulatory "red tape" for businesses in the state (Rick Scott for Governor Campaign 2014). Secretary Mike Sole, a biologist, who had been reluctant initially but ultimately was very supportive of the development of the FBHCP (FBHCP Interview #4), was no longer at the helm of DEP. Governor Scott appointed in his place a corporate environmental attorney from the private sector, Herschel Vineyard (Florida Department of Environmental Protection Press Office 2011). Given this context it is easy to see why members of the steering committee, who had invested years of time and effort into the HCP process at this point, were apprehensive about whether the new administration would support their efforts or return to the previous policy of ignoring the ESA in CCCL permitting. Negotiating an HCP is a long and arduous process that requires the support of elected and appointed political principals who naturally turn over with some frequency. As in the FBHCP example, this sometimes includes shifts in partisan ideology and attitudes toward regulation. This adds an additional layer of political complexity to a process that is already extremely technically complex.

## **The Negotiation Process**

While the final product of the negotiations over the FBHCP is still uncertain, with many important decisions yet to be made—or possibly never to be made—the negotiations have persisted for more than five years. In that time, the steering committee has considered and reached consensus on some issues, including the biological goal of the HCP, the species that will be included, and how take will be calculated for the purposes of the incidental take permit (ITP). Understanding how these negotiations proceeded, what controversies have surfaced, and how they have been resolved shows what the various players are hoping to achieve through the process and how they have pursued those goals through the negotiations.

One of the most important early decision points in the process revolved around determining what the goals of the HCP would be, how they would be measured, and how specific they would be. The broad goal of the HCP is important because this serves as the guiding objective for all of the smaller decisions on specific conservation tactics and measures that come later. The FWS issuance criteria for an ITP are broad, leaving flexibility in how biological goals are specified. As long as the application meets these broad criteria, FWS is required to issue the permit. On minimization and mitigation of take, the statutory requirement is ambiguous at best. The requirement is that the minimization and mitigation procedures be “the maximum that can be practically implemented by the applicant” (U.S. Department of the Interior 1996, 7-3). On the issue of take itself, the issuance criteria simply state that the proposed take may not place the species in jeopardy. To place a species in jeopardy is “to engage in an action that

reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species” (U.S. Department of the Interior 1996, 7-4). The key point here is that an HCP is not required to contribute to the recovery of a species. Rather, it is only required not to reduce the species’ chances of recovery.

This shows the multitude of discretionary issues involved in developing an HCP. An applicant has the ability to develop a plan that ranges from providing the bare minimum of protection for the species to one that goes above and beyond the minimums—and there are good reasons why an applicant might go beyond the minimum, even though it usually means additional expense. Additionally, however, the vagueness of the minimum requirements provides another point of discretion, leaving them open to negotiations with FWS on a case-by-case basis. This was evident in early discussions between the FBHCP steering committee and working group. In one of the early meetings a steering committee member asked the head of the working group what types of discretionary issues were likely to come before the committee for decisions. She responded, “Basically the law requires us [to] minimize and mitigate to the maximum extent practicable. One decision is, well, what’s practicable?” Another member of the working group elaborated, explaining that, while there are specific elements that FWS requires to be present in the application, such as adaptive management and unforeseen circumstances, the extent to which those elements are developed and much of the specific content is discretionary (Meeting Minutes June 3, 2010, 7).

In the case of the FBHCP, the steering committee and working group members had discussions in early meetings about whether their HCP would simply meet the minimum requirements or would strive to go above and beyond. At this early stage, a goal was set out that indicated intent to exceed the minimum requirements. Steering committee meeting minutes reveal that all parties involved were supportive of setting a goal that included supporting recovery of the species. The environmental groups favored this idea for obvious reasons. The regulated community seemed to be supportive because its members wanted to create a plan that would be above reproach and that would attract as little negative attention as possible from “naysayers” (Meeting Minutes December 16, 2009, 11). Although, as will be seen as the case unfolds, the greatest threat to both consensus and a successful outcome has not been “naysayers” on the environmental side, but rather those who fear a large new regulatory program.

#### *Covered Species*

The limits of the consensus for creating a plan that exceeds minimum requirements began to show when deliberations initiated over whether to include additional species beyond those absolutely necessary. While the plan was originally conceived due to loss of sea turtle habitat, there are other listed species affected by development under the CCCL program, as well as candidate species—those not yet federally listed but with some probability of being listed in the near to medium term. Candidate species present challenges to HCP planners because including them adds complexity. More species means more threat assessments, more data to collect, models to estimate, and more minimization and mitigation measures. Dealing with these

challenges of course brings increased costs and time. However, excluding them risks the need for costly, time-consuming amendments in the future. If applicants choose to include candidate species they build minimization and mitigation measures for them into the plan, just as they do for listed species. Then, in the event that the species is listed during the term of the permit, the permittee has to take minimal, or possibly no additional actions to obtain authorization for take of the newly listed species (U.S. Department of the Interior 1996). While inclusion of nonlisted species is entirely at the discretion of the applicant, and does not affect the FWS decision on permitting, it is clear that the Service views the inclusion of nonlisted species as a signal that the applicant is serious about creating a robust and proactive HCP. One of the reasons they cite for inclusion of nonlisted species is “to increase the biological value of HCPs through comprehensive multi-species or ecosystem planning that provides early, proactive consideration of the needs of unlisted species” (U.S. Department of the Interior 1996, 4-1).

In the case of the FBHCP, there were 11 federally listed animal species<sup>4</sup> whose inclusion in the plan was a foregone conclusion from the beginning because DEP needed to obtain authorization for take to protect itself from federal sanctions or third-party lawsuits. They included five species of sea turtle, five sub-species of beach mouse, and one species of shorebird (the piping plover). However, the working group identified 13

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<sup>4</sup> There are also three federally listed plant species included in the plan. I do not deal with the plant species here, as the ITP does not grant take permission for listed plants. The animal species are the central species of import for the HCP, and the vast majority of the negotiations over inclusion and calculation of take regard animals.

currently non-listed but imperiled species whose habitat was impacted by CCCL activity (FBHCP Working Group 2010). The steering committee had to make the decision on which, if any, of these candidate species to include in the HCP. This decision involved some lengthy debate and weighing of pros and cons, which also included the debate over the length of term for the application.

The term of the incidental take permit is another matter that is at the discretion of the applicant, and the range runs from five years to 100 years.<sup>5</sup> The medium-term range of 20-30 years has been the most common in county-level cases. However, as this was the first statewide HCP, there was no direct precedent to which the steering committee could look. While there was a good deal of discussion on the matter, there seemed to be very little disagreement and consensus came relatively easily on this matter. The steering committee considered three primary alternatives: long term (50-75 years), medium term (20-30 years), and a hybrid alternative. The hybrid alternative followed precedent set by a Volusia County HCP for beach driving, in which the county initially applied for a five-year permit as a trial period and then renewed for a longer term, having gained experience. The long term alternative was unanimously rejected quickly. The major drawback of longer term permits is that, if future circumstances cannot be reliably predicted, the FWS requires a robust adaptive management plan to deal with unforeseen circumstances. The longer the term, the more robust and detailed the adaptive

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<sup>5</sup> 100 year permits are rare exceptions. Generally, they are reserved for permits related to logging activities in the Pacific Northwest, where impacts are well defined, easily quantifiable, and unlikely to change due to unforeseen, unpredictable events (Meeting Minutes June 3, 2010).

management is expected to be. In the FBHCP case, projections are difficult to make due to climate change and other unpredictable events. With climate models, for example, even the best ones are only reliable out to about 30 years. Therefore, the options were narrowed to two. When members began to realize how long and difficult the renewal process would be the hybrid option, which would require the renewal process to begin almost immediately upon issuance of the original permit, became unattractive. Thus consensus quickly emerged around the medium term option, and a term of 25 years was supported by all (Meeting Minutes September 8, 2010).

With the length of term decided, this gave the steering committee more direction as to which of the 13 proposed non-listed species would be sensible to include because they could now ask the working group for guidance as to which of those species were most likely to be considered for federal listing over the next 25 years. Over this decision, those on the steering committee who favored keeping the list of covered species short began to use arguments regarding uncertainty and complexity. This emerged both in the meeting minutes and the in-person interviews with individuals involved in the negotiations.

In one of the early meetings when the possibility of including non-listed species was discussed, the idea was favored by some members of the steering committee. The Audubon Society representative remarked that everyone in the room recognizes there are impacts to these species through CCCL permitted activities, and she concluded that the HCP is a good opportunity to protect the species from these impacts. However, others were tentative about adding other species. The consequence of adding additional species

is that it draws out the process longer because of the additional data gathering and modeling that each additional species requires. This was particularly true of the shorebirds that were at issue. In discussion on this issue during one meeting, a biologist consultant from the working group explained to the steering committee that on some of the species there was such a dearth of information that performing a valid threat assessment might be difficult (Meeting Minutes September 8, 2010). Additional species also make the process more complex and more expensive to implement in the end, which comes with political costs. The DEP representative immediately expressed concern about expanding the scope of the HCP beyond what his agency is able to handle, given budgetary and human resources constraints (Meeting Minutes February 15, 2010). The representative from the Sea Turtle Conservancy expressed concerns about adding time to the process. And the coastal engineer on the steering committee was concerned about adding too much beyond what the HCP was originally proposed to do. He remarked, “it’s not that I don’t agree with all the positives [of adding the additional species], I just don’t want us to get too far away from what we set out to try to do. Let’s not try to piggy back too much on it” (Meeting Minutes February 15, 2010, 13).

In addition to concerns over adding technical complexity, cost, and time, concerns about politics were brought into the discussion of whether or not to include additional species. In spite of the early consensus for creating a robust plan that exceeded the bare minimum requirements, some members began to show trepidation over the political implications of pursuing that goal. The steering committee members representing the Department of Community Affairs and the Florida Association of



Counties both raised concerns about political pushback that might result from going too far above and beyond the minimum legally required. A member of the working group responded that there could be resistance from people who do not want the additional mitigation requirements that come along with additional species. The Florida Association of Counties representative asked whether it was worth the additional cost to protect species that are not even state listed. In response to this, the Audubon Society representative cautioned that, just because a species is not listed, does not mean that it is doing fine (Meeting Minutes June 3, 2010).

The decision was made ultimately to include seven of the 13 non-listed species that were proposed. The Audubon Society made compromises on the other species under pressure from the other members of the steering committee, including the member from the Sea Turtle Conservancy, who argued that including all of the additional species would increase time and costs due to the technical complexity that would be added. In one meeting, the Sea Turtle Conservancy representative remarked that, “for marine turtles, it’s pretty straightforward. For birds, there’s a whole suite of activities they’re doing on the beach” (Meeting Minutes September 8, 2010, 18). These arguments highlighted the uncertainty that is brought into the process by adding the additional shorebirds. For example, in addition to just nesting in the coastal zone, birds also forage on the beach, which brings issues of indirect impacts from beach cleaning into the discussion. They are migratory, so they bring issues of determining temporary impacts during specific times of year versus permanent impacts. One interviewee in the summer

of 2014 asserted that, had the shorebirds not been included, the process likely would have concluded already and the HCP would be complete (FBHCP Interview #9 2014).

The arguments made by the members advocating caution about including additional species largely revolved around the additional data gathering that would have to be done in order to calculate take, assess threats, and determine proper minimization and mitigation procedures. Arguments were made that protection for some of the additional species could be captured through side benefits of the minimization and mitigation measures employed for the others, without actually having to include them, and the additional data and analysis that would come along with that. The Audubon Society member of the steering committee conceded that there could be “umbrella” benefits for some of the excluded species. However, she argued that if those benefits could be captured it would make sense to include those species in the plan (Meeting Minutes September 8, 2010). Ultimately, one interviewee with expertise on the shorebird component of the HCP told me, those advocating for the inclusion of the bird species had made sacrifices and compromises from what they originally wanted, specifically in response to arguments about the complexity and uncertainty of the birds’ needs (FBHCP Interview #3).

The way the compromises on covered species came about is consistent with what the theory predicts for this case. A proposal was made to exclude six species that the Audubon Society representative on the steering committee wanted to include. She was faced with a decision. She could dig in her heels, but this would risk running afoul of the group’s strong norms of cooperation, potentially affecting her ability to exert influence

later in the process. After all, the groups involved were selected for their perceived willingness to cooperate, and groups perceived to be uncooperative or that had unrealistic demands were sidelined early in the process (FBHCP Interview #4 2014). Her other option would be to exit the negotiations, wait for the plan that excludes the birds to be completed and permitted, and then pursue litigation to get protection for the birds. This is an unattractive option for multiple reasons. First, it is very costly. Second, in this particular instance getting relief through litigation might be difficult unless one of the birds actually became federally listed in the meantime. Finally, and most importantly for the theory, the outcome becomes very uncertain under this course of action, but the worst case scenario here is probably worse from Audubon's perspective than the outcome of making this small compromise. Therefore, as we would expect, the Audubon member accepted this loss and remained a part of the negotiations.

#### *Calculation of Take*

Another important component of the process of creating an HCP is determining how take will be measured. This decision has important implications for how protective the HCP will be because how much take is estimated determines how much mitigation will be completed. If take is underestimated, too little mitigation might be performed, resulting in a plan that does a poor job of offsetting impacts on species. Of course, the regulated community and DEP in this case are wary of using a method that would be broader than necessary because their interests in keeping mitigation costs as low as possible will lead them to want the smallest possible estimation of take. Again, this is shown in both the meeting minutes and the interview results.

It is probably an understatement to say that calculation of take for the FBHCP is a daunting task. County-by-county predictions had to be made estimating the numbers of various types of structures that would be added to the coastal zone over the next 25 years. This involves projecting storm activity, erosion, and a best guess at the effects that economic booms and busts will have on coastal development. For example, in estimating the number of permits for the next 25 years, the working group's approach was to gather data by county on the number of permits over a 10-year period and use that as the baseline for projections. They thought this was a sound approach because the period included both periods of economic growth and decline. However, they faced criticism from the coastal engineer on the steering committee because it also included the 2004 hurricane season, which was a particularly active one that resulted in extreme levels of post-storm activity on the beaches in some counties. He was concerned that this baseline would result in overestimating take in these counties (Meeting Minutes March 20, 2012).

However, beyond the difficulties of fine-tuning the formula itself, a key point of debate among the steering committee was determining what forms of take should be included in the assessments. Specifically, what had to be dialed in was just how broad the definition of take would be. For example, how would the HCP deal with indirect impacts from coastal projects, such as lighting, which causes take by disorienting turtles? The focus of the division among the steering committee on this issue was how broad and inclusive the definition of take should be. Again here, FWS provides some basic guidelines, but there is also latitude for the applicant to decide, especially in a case such as this one in which there is no precedent to follow.

In discussing indirect impacts, the committee, at least initially, did not have a common understanding of what should be considered in assessing the total impact of coastal development on the species. On this matter, there was some distance between the DEP members of the steering committee and the environmental groups, particularly Audubon. Throughout the process, the DEP sought to keep the scope of the HCP as narrow as possible to avoid taking on additional regulatory authority that it did not want and did not feel it was authorized to take on (FBHCP Interview #3 2014, #9 2014). The debate over indirect impacts provides a useful example of this. In one meeting, the Audubon member raised concerns over the nomadic nature of shorebirds. Determining where they are and where they are likely to be in the future can be difficult. They might leave a particular nesting ground one year, but return the next, or a few years later. This makes determining which habitat is truly unoccupied can be a thorny problem. If take is permitted while a particular area is temporarily unoccupied, there can still be an impact on the species. It is still habitat loss. When this issue was brought up, other members countered that it was simply too difficult and complicated, and that by making conservative assumptions on other measures they would hope to make up for any underestimation of take in this regard. Again, as in the deliberation over covered species, this was another issue on which compromises were made on protections for shorebirds (FBHCP Interview #3 2014, Meeting Minutes December 14, 2011). This is also consistent with the theory. Again, as the theory predicts these those seeking the less protective course of action used arguments about technical complexity and uncertainty to support their case.

In a subsequent meeting, the Sea Turtle Conservancy member brought up the issue of indirect take due to disorientations from lighting. Immediately, the DEP member did not want to address this issue, arguing that DEP does not have jurisdiction over lighting and the agency does not issue permits for lighting under the CCCL program. However, others countered, lighting comes along with the construction projects that the CCCL program does permit, both in temporary forms during construction and sometimes in permanent form as a result of lighting affixed to structures (Meeting Minutes March 20, 2012). The Audubon member expressed her view here that even broader indirect impacts were being overlooked, including the impacts of dogs, cats, and raccoons. Similar to lighting, these are things that come along with coastal development and present a threat to the imperiled species, but that are not explicitly regulated in CCCL permitting. The argument, from the Audubon perspective, was that there would be opportunities on the mitigation side here by building incentives into the HCP for people to keep domestic animals off the beach and to use locking trashcans to avoid attracting other predators such as raccoons. Again here, the DEP and some others on the steering committee argued that these were outside the scope of what the HCP was originally supposed to do, as well as beyond what DEP was interested in doing (Meeting Minutes March 20, 2012). Ultimately, DEP relented and agreed to include lighting and other indirect impacts, such as pets, into the assessments of threats to the species (FBHCP Steering Committee n.d.(c)).

### *Legislative Changes*

As of the time of this writing, progress on the FBHCP is at a standstill. Eight out of 15 total chapters have currently been drafted. Three of the most important chapters in assessing how robust the plan will be have not yet been written, including the chapters that detail the minimization and mitigation procedures, as well as the one that outlines the adaptive management strategy. According to interviews, some of the reasons for the stall are unavoidable elements of the process. For example, the contract for the main third-party consulting group that has been doing much of the analysis for the working group, has expired and there have been administrative delays in getting the contract renewed. According to the same interviewee, additional rounds of turnover within DEP have caused further shake-ups on the steering committee, which have resulted in delays (FBHCP Interview #12 2015).

Another reason for the delay, however, is that DEP is in the unenviable position of being an environmental agency attempting to expand its regulatory authority under the leadership of a very conservative governor and legislature. From the perspective of DEP, certain legislative changes must be made in order to give the agency legal authority to implement the HCP once it is approved by FWS. The agency's current statutory authority only allows it to regulate for the protection of sea turtles, and not the other species involved (FBHCP Interview #5 2014). According to the interviews, this has been a source of some consternation even among the members of the steering committee. One member of the steering committee reasoned that the legislative changes were completely unnecessary because DEP has statutory authority to implement the

CCCL program. Implicit in that mandate, according to this member, is authorization for whatever the agency must do in order to implement the program without running afoul of federal law (FBHCP Interview #9 2014). This came up in other interviews as well. A member of the working group was also unconvinced that statutory changes were necessary, but deferred to the opinion of DEP (FBHCP Interview #11 2015). Another interviewee told me that contacts inside DEP had indicated that they are beginning to view the FBHCP as “an exercise without a final solution” (FBHCP Interview #8 2014).

While the need for statutory changes turns up in the meeting minutes as early as 2010, and there is general agreement on a strategy of reaching out to legislative staff as soon as possible (Meeting Minutes February 15, 2010), this has not happened yet as of the summer of 2015. In the minutes from a later meeting in 2010, the question of when to begin reaching out to legislators came up again, and this time the DEP member argued that they should not rush into it because questions would likely come up that could not be answered yet, as the process was not far enough along (Meeting Minutes June 3, 2010). The following year, the issue was raised again and the head of the working group stated, “As far as the plan for legislators, at the outset there was a desire from the Steering Committee to take it to them sooner, but the feeling I’m getting now is to wait we get into more of the implementation strategy” (Meeting Minutes February 22, 2011).

While perpetual delay in moving forward with the HCP is not what was expected from the beginning based on the theory, it is an outcome nonetheless. Moreover, this outcome is consistent with the theory. The acceptance of marginally further delay at multiple points in the negotiations is consistent with the type of procrastination behavior



that the theory predicts for a highly complex case such as this one. The incentives for DEP to delay continually are fairly straightforward. The agency is in a position in which neither of its options is especially attractive, but the option of delay is clearly the more attractive of the two. At this point, at each point in the negotiations in which delay is extended, the other interests involved must decide whether to accept the delay or to pursue their alternate options, which would likely involve leaving the negotiation process and taking legal action against DEP for its failure to comply with federal law. However, the latter option here is unattractive not only because of reluctance to part with the sunk costs accrued during years of negotiations, but also because of the extreme amount of uncertainty concerning what outcome such an action might trigger. I discuss this further in the next section, including an outline of the various possible outcomes, should the HCP fail, all of which are likely to be unattractive from the perspective of both FWS and the environmental interests.

### **Conclusion**

The picture of the FBHCP that emerges from the current state of its planning process suggests that, if a completed plan emerges, it is likely to be less robust than what was proposed at the outset, due to some compromises that have been made. One caveat to this is that the FBHCP steering committee was hand selected at the outset to minimize conflict and maximize consensus, thus minimizing the need for compromise. One interviewee who was involved in the earliest stages of the process indicated that meetings with broad participation were held early, but that ultimately the moderate groups and individuals pushed out the “extremists.” Some of the groups with more

forceful views, including environmental groups, the Chamber of Commerce, and beach access advocates, chose not to participate any longer once they felt their concerns had been heard. This interviewee also estimated that the level of shared values among those who ended up on the steering committee was around 70% (FBHCP Interview #4 2014).

Given that there was less need for compromise than anticipated to reach consensus on the specifics of the plan itself, it is not surprising that in the relatively few decisions that have been made we do not see drastic shifts. We do see that the environmental groups have, as expected, appeared to compromise more than any other interests represented in the negotiations. The Audubon Society, in particular, compromised on the covered species. Both groups were pressured to accept standards for calculation of take that they believed to be too narrow, though they appear to have won that battle for now. Although, fear that decisions like this might be reversed if they were to exit the negotiations to pursue legal action is likely one of the factors pushing these groups to accept perpetual delay rather than to use the legal tools at their disposal to try to push things along.

One source of the delay is the additional requirements brought on by the technical complexity. However, another is the political complexity that is exacerbated by technical complexity. A theme that emerges in the meeting minutes is an acute awareness among all involved that once the public became aware of the FBHCP, and specific details about this new regulatory framework were divulged, there might be strong opposition from various sources. This is reflected in the reluctance to brief the new DEP Secretary on the project in 2011. It is also reflected in discussions between the

steering committee and working group concerning specific language in the draft chapters and in a primer on the HCP that was prepared at one point to begin getting information out to the public. The steering committee went to painstaking detail to ensure there was not language in that document that would set off alarm bells for any particular group, and that ultimately the HCP was framed as a tool for streamlining permitting, rather than creating new regulations to protect species (Meeting Minutes February 22, 2011). Multiple interviewees reiterated the importance that the HCP be “sold” to legislators and the public as regulatory streamlining, rather than as a new regulation. One even noted that if it were to end up being pitted as a fight between species and beach access, the species would surely lose (FBHCP Interview #1 2014, #2 2014, #3 2014).

Another example of anxiety over political backlash comes from the discussion of the draft chapter considering alternative courses of action to the HCP. FWS requires an alternatives analysis chapter with the HCP that considers the recommended alternative (the HCP), the no action alternative, and other alternatives for addressing the problem. The chapter is largely a formality. It is obvious that the HCP will be the preferred alternative, the no action alternative has already been determined to be untenable, and the other alternatives considered do not even have to be realistic (Meeting Minutes March 20, 2012). However, it is a requirement in order for the proposal to be considered complete. One concern among some members of the steering committee was, what if members of the public, the leadership within DEP, or legislators see these other alternatives and find one of them more attractive than an HCP? This came up with regard to one alternative in particular that the working group had included, which was

the abolishment of the CCCL program altogether. This would presumably devolve coastal construction permitting authority to county and local governments, which would then be responsible to the federal government for the associated take. No member of the steering committee openly favored this option, but some worried that others might, and that treating it as a viable alternative would undermine their preference to present the plan to the public, legislators, and DEP leadership as a *fait accompli*, with no other credible alternatives. The chair of the steering committee remarked, “what jumps out to me is that prior to getting this to the Feds it has to run the gauntlet of State politics” (Meeting Minutes March 20, 2012, 14).

This illustrates how susceptible the FBHCP is to toppling under the weight of political interests and expectations. With a plan this large and comprehensive, there is no shortage of constituencies to offend. Political scientists will not find this result surprising, as they have long known that an increase in the number of veto players whose approval is required decreases the probability of approval (Tsebelis 1999). The process of planning and gaining approval for the FBHCP is rife with veto players, both formal and informal. As an example, one steering committee member who was particularly pessimistic that the plan would ultimately come to fruition raised the hypothetical that, if for some reason the Disney Corporation decided to oppose the HCP, it could likely singlehandedly kill it. The same might be true of the Home Builders Association, which to date has not been involved in the process (FBHCP Interview #8).

With the lack of substantive decisions in many instances in this case it would not be accurate to say that the environmental groups have been induced to retreat from their

ideal points through a series of marginal decisions, from a substantive standpoint.

However, much of the compromise from the conservation groups' ideal points that has taken place has been from a temporal standpoint, in continuing to accept the perpetual delay. This is a movement away from the stated goals of the conservation groups because it is the worst possible outcome for the preservation of habitat for the species.

While the HCP is tied up in negotiations and political stalling, the status quo—unmitigated take—continues. Eventually, if the HCP fails to come to fruition, DEP will be forced to act either by federal enforcement action, third-party lawsuit, or both. In this case, DEP would probably simply refuse to issue CCCL permits that might cause take until the individual permittee has cleared his or her activity through FWS by obtaining an individual incidental take permit. This outcome has serious drawbacks for both permittees and the species. It is likely to be a far more expensive and time-consuming process for permittees. For the species, it will result in less robust protection because a patchwork of individual HCPs will fragment the habitat, as opposed to a comprehensive HCP, which would allow for larger parcels of habitat to be protected. In some cases individual counties might move to create county-wide HCPs to cover CCCL permitting. This would likely be a slightly better option than project-by-project permitting. The process could also likely be simplified because much of the rich county-level data that the FBHCP working group collected could be used in these county level plans. However, there is no guarantee that all 25 counties would do this. Even if they were to do so, getting all of these county level plans in place would take several more years, during which unmitigated take would likely continue.

The theory outlined in Chapter 2 builds a framework for predicting when collaboration is likely to produce a successful outcome, as opposed to an unsuccessful one. From that perspective, these probable outcomes for the FBHCP are unsuccessful ones. As the theory predicts, the technical complexity resulted in barriers to successful collaboration by creating an environment in which it is difficult for those favoring the more protective outcome for the species to exert influence and resist efforts to weaken or delay the process.

The lesson from the FBHCP is that the political complications that come along with a project of this scope and complexity have created perverse incentives for the agency responsible for moving it forward. The Florida DEP is in the unenviable position of angering political principals or facing federal sanction and/or third-party litigation for being noncompliant with federal law. Holding up the HCP is its best option at this point because it can delay both of these consequences, perhaps until another transition in the executive branch. From the perspective of FWS and the conservation groups, they could exit the process and take action against DEP, invoking one of the alternatives discussed above. However, these alternatives are costly, only marginally better than the status quo, and the outcomes of them are uncertain at best, terrible at worst. Thus it is not surprising that they choose to hold out hope that the HCP will begin moving forward again and to continue with the process in which they have invested years of effort at this point.

In the next chapter I discuss the much simpler case of the Charlotte County Scrub Jay HCP, and show how different the outcomes are in a case that is much less complex, and of smaller scope and scale. Then, in the final chapter I make comparisons between

the two cases and draw conclusions regarding the implications of the findings for the theory outlined in Chapter 2, including limitations and needs for further testing in future research.

CHAPTER V  
RESCUING THE FLORIDA SCRUB-JAY FROM CHARLOTTE COUNTY'S WEB  
OF DEVELOPMENT

This chapter analyzes the negotiation process and results that were produced by the Charlotte County Scrub-Jay Habitat Conservation Plan. The Charlotte County case provides a contrast to the Florida Beaches HCP in the previous chapter because, unlike the shorebirds that have been the source of a great deal of political consternation and, ultimately, inaction in that case, the Florida Scrub-Jay is an extremely well understood—if equally imperiled—species, whose conservation needs are as uncomplicated as they could be from the standpoint of scientific uncertainty.

Charlotte County on Southwest Florida's gulf coast is a rapidly growing area in which the survival of the federally listed Florida Scrub-Jay—the state's only endemic species—is in direct and inflexible conflict with increasing development. Residential development has fragmented the habitat of this sedentary and habitat-specific species to the point where it is on the brink of being extirpated from the county, as it already has from nine other counties in the state (U.S. Department of the Interior 1999). However, the county government entered into a partnership with the U.S. Fish and Wildlife Service to attempt to conserve the remaining populations in the county by developing a county-wide habitat conservation plan. As the first county-wide HCP for the Florida Scrub-Jay, the Charlotte County plan is pioneering and may ultimately become a model for the remaining counties in the state that are also dealing with conflict between development and these birds.



In what follows I analyze the Charlotte County HCP in detail, asking whether it faces the same struggles with regard to political delay and continual compromise on the part of the environmental interests with which the Florida Beaches HCP has endured in its effort to protect imperiled coastal species throughout the state. In the next section, I introduce the background of the Charlotte County HCP, including the story of its inception, its organizational structure, and a brief introduction to the Florida Scrub-Jay to explain why this HCP is a useful case study for evaluating the theory. Next, I discuss the negotiation processes that produced consensus between the various interests involved on the final plan. Finally, I explain the outcome that the collaborative governance process produced in this case, before concluding with some remarks on what the findings mean for the evaluation of the theory.

### **Background**

Charlotte County, Florida lies on peninsular Florida's Gulf coast, about 90 minutes south of the Tampa Bay area. With a 2014 estimated population of 168,474, the county is small but quickly growing, with building development proceeding at a rapid pace, as it is throughout most of the state (U.S. Department of Commerce 2015). The history of development in Charlotte County dates back to the 1950s, when the General Development Corporation bought hundreds of thousands of acres of land throughout the state and subdivided them to build communities. As a result, much of Charlotte County is divided into quarter acre residential lots, some of which have been developed, while others are owned by individuals who plan to build houses on them in the future (Charlotte County Interview #1 2013). The conflict arises when people prepare to build

on their lots and are told they must get clearance from the Fish and Wildlife Service for potential impacts to scrub-jays. This conflict set the stage for what is now the Charlotte County Scrub-Jay HCP.

The origins of the Charlotte County HCP were similar in some regards to those of the statewide Florida Beaches Habitat Conservation Plan (FBHCP). In the early 1990s it came to the attention of staff in the Vero Beach, Florida field office of the U.S. Fish and Wildlife Service (FWS) that residential development was taking place in Charlotte County, specifically in areas that were home to the county's remaining populations of the Florida Scrub-Jay, which is federally listed as threatened under the Endangered Species Act (Charlotte County Parks & Natural Resources Division 2013). The response of FWS was to contact the county officials responsible for issuing building permits to inform them that the county is liable for take of habitat for listed species. The county responded by sending letters to all owners of undeveloped residential lots, notifying them that before they could build on their lots they must contact the FWS (Charlotte County Interview #1 2013, #2 2015, Charlotte County Parks & Natural Resources Division 2013). FWS was inundated with inquiries and knew it could not process all of those applications for individual incidental take permits (ITPs). The situation was equally untenable for private landowners. Individuals were faced with the prospects of paying as much as \$69,000 to develop an individual HCP for a lot that was worth only \$2,000 to \$3,000 (Charlotte County Interview #2 2015).

In 2004, FWS convinced the county Board of Commissioners that the solution was to develop a county-wide HCP, which would give umbrella permitting for all

residential development in the county. However, after being plagued with funding issues (Charlotte County Interview #2 2015) and poor relations between the county commission and FWS (Charlotte County Interview #1 2013), the county's board of commissioners took out the residential development component of the HCP and proceeded with a much more limited one that only covered four capital improvement projects in the county (Charlotte County Parks & Natural Resources Division 2013).

This left the position of both landowners and FWS unchanged until, in 2007, turnover on the Board of Commissioners and repaired relations between the county and FWS led the board to direct county staff to begin the process of preparing a county-wide HCP for residential development (Charlotte County Interview #1 2013). The HCP was completed and the application for ITP submitted to FWS in March 2013, and it was approved and the ITP issued in December 2014.

#### *Organizational Structure*

Like the FBHCP, the majority of the labor of developing the Charlotte County HCP was done by a technical advisory group. However, in this case the technical group served in a sort of hybrid capacity as both working group and steering committee. This group would meet at various stages throughout the process to discuss the status of the plan and where to go next. The group consisted of two employees from the Charlotte County Parks and Natural Resources Division, a Florida Scrub-Jay expert from the state's Archbold Biological Station, and representation from FWS, the Florida Fish and Wildlife Conservation Commission (FWC), development interests, and environmental interests. This is the core stakeholder group that developed the HCP. The committee then

brought the plan before the county Board of Commissioners for final approval (Charlotte County Interview #2 2015).

*The Florida Scrub-Jay (Aphelocoma coerulescens)*

To understand why the Charlotte County Scrub-Jay HCP makes a useful case for evaluating the framework in Chapter 2, it is helpful to introduce a bit of background on the species itself. The species<sup>6</sup>, endemic to peninsular Florida, is a holdover species of the xeric oak scrub habitat that historically covered much of the region, characterized by infertile, well-drained sandy soil and various types of dry shrub ground cover (U.S. Department of the Interior 1999). Some of the more human-like life history characteristics of the Florida Scrub-Jay provide insight into why the species is in such inflexible conflict with building development. It is stubbornly sedentary. Scrub-Jay pairs mate for life, live together in families with the fledglings staying on as helpers until it is time for them to pair off and start their own families, they remain in the same territory, and are relatively long-lived, living as long as 15.5 years (Charlotte County Parks & Natural Resources Division 2013, U.S. Department of the Interior 1999).

The Florida Scrub-Jay shares some key similarities with the shorebirds that have proven to be a major complicating factor for the FBHCP. One of the key similarities

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<sup>6</sup> Given the geographical specificity in its common name, it might seem likely that the Florida Scrub-Jay is a subspecies of some larger group making up the scrub-jay species. It is closely related to two other types of scrub-jay, whose range covers much of the far western United States and Mexico, as well as being a more distant relative of the blue jay. For much of recent history it was officially considered a subspecies. However, due to “genetic, morphological and behavioral differences” between the Florida Scrub-Jay and its western cousins, the American Ornithologists’ Union gave it full species status in 1995 (U.S. Department of the Interior 1999, 4-262).

they share is their severely imperiled status. Also like shorebirds, and all the other species in the FBHCP, the Florida Scrub-Jay is a charismatic species that draws support for its protection from environmentalists and wildlife enthusiasts, as well as detractors who question its worth (Charlotte County Interview #1 2013, #2 2015). However, the species also differ in important ways. First, rather than being directly coastal, the Scrub-Jay occupies higher and dryer territory in the inland parts of the county, leaving its less directly vulnerable to the impacts of rising sea level due to climate change (Charlotte County Interview #2 2015). There is, however, some long-term risk as rising sea level pushes building development inland, though this is not considered a direct threat during the 30-year term of the initial ITP (Charlotte County Interview #3 2015).

The Florida Scrub-Jay is also set apart from the shorebirds of the FBHCP by some key differences that bring the two cases into stark contrast on the key independent variable, technical complexity. Unlike the shorebirds, the Florida Scrub-Jay's needs and activities are exceptionally well known and understood. One interviewee who has spent decades studying this species and others as a biologist, told me that more is known about the Florida Scrub-Jay's life history than any other threatened bird in the state (Charlotte County Interview #3 2015). One reason for this is that it has been a well studied species for a long time. Another reason, however, is the nature of the species itself. Unlike its distant shore-dwelling relatives, the Florida Scrub-Jay is sedentary and extremely habitat specific. When development encroaches on a scrub-jay family's territory the jays will not move, and they will not adapt to a different habitat. They will stay until they eventually die out (U.S. Department of the Interior 1999).

The species is thus extremely inflexible, which puts it in unyielding conflict with construction development. However, these same characteristics make assessments of what the species needs in order to be conserved very straightforward and certain. It is well established in scientific literature, for example, that an effective Florida Scrub-Jay reserve design should include about 300 hectares of xeric oak scrub habitat, containing 15 to 30 territories, located within four kilometers of at least one other population also containing 30 territories at 10 hectares per territory (U.S. Department of the Interior 1999). Because the Scrub-Jay is neither a migratory nor a habitat shifting species, population assessments can be made very easily, and survival models can be constructed without the need to fill them with assumptions. Thus the territories of Charlotte County's three remaining Scrub-Jay populations are known precisely and will not change unpredictably in future years (Charlotte County Interview #3 2015). This might seem like a lot of technical minutiae, however it is included to convey how highly specific, inflexible, and well known the species' needs are. This is what makes a Florida Scrub-Jay HCP like the one in Charlotte County an ideal case for the low technical complexity condition to evaluate the theory. While many of the other conditions are the same or similar, the baseline conditions of uncertainty and technical complexity with regard to conserving the species could not be more different between the FBHCP and the Charlotte County case.

### **Negotiations**

Of course, the certainty of the location, status, and conservation needs of the Florida Scrub-Jay in Charlotte County did not spare this HCP planning and negotiation

process from its share of political controversy and fighting. The species has few friends in the local development community or on the county's Board of Commissioners.

However, these conditions meant that in the debate over the design of the HCP itself, conservationists and scientific experts—who had the benefit of unassailably accurate data on their side—had the high ground from the beginning.

While once the negotiation process began moving forward it produced a consensus that provides relatively robust protection for the species<sup>7</sup>, getting to a point where there was consensus that an HCP was the best course of action was difficult and contentious. In fact, two interviewees who were involved in the Charlotte County HCP from the beginning to the end told me that getting the process started was actually where most of the conflict took place (Charlotte County Interview #2 2015, #3 2015). As mentioned above, interviews also revealed that relations between the county and FWS were deeply strained from the beginning (Charlotte County Interview #1 2013), and that one impetus for finally moving forward with the HCP was turnover on the Board of Commissioners and subsequent repairing of relationships.

However, even the new Board of Commissioners was hesitant to direct the staff to pursue an HCP for two reasons. First, members viewed it as an unfunded federal mandate. Second, they viewed it as a regulatory taking because they were concerned it

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<sup>7</sup> It is important to note that the remaining populations of Florida Scrub-Jays in Charlotte County are in such a dire condition that their long-term survival is not guaranteed even under the most protective possible preserve design. As one interviewee remarked, while the HCP will provide some protection and it is the best that could be done at this point, it came about 10 years too late to have the best chances of saving the species (Charlotte County Interview #3 2015).

would decrease citizens' property values (Charlotte County Interview #2 2015). To convince them, FWS employees reached out to a group of core constituents that they knew held political capital with the commissioners, and brought them on board. This group included local realtors and the Home Builders Association (HBA) (Charlotte County Interview #2 2015). Both of these are organizations with historically contentious relations with FWS, and were initially hesitant to support the development of the HCP. In fact, according to one interviewee, early in the process the local realtors had been a chief source of disseminating bad information about the HCP to county citizens (Charlotte County Interview #1 2013). However, FWS was able to build some level of trust with these groups, and then was able to explain to them what an HCP was and what the benefits of it would be to developers and property owners. The primary benefits for these groups is that it streamlines the development permitting process because the minimization and mitigation is done up-front, and therefore there is no need to get clearance from FWS on each individual project. Also, because the mitigation for all of the development is done together at once, the overall cost of mitigation is drastically reduced due to economies of scale. These groups, whose opinion carried a good deal more weight with the members of the Board of Commissioners than did those of FWS and environmentalists, were then able to convince the Board that a county-wide HCP for residential development was the best thing to do for the citizens of the county and those who have financial interests in building development, regardless of what they thought about the birds (Charlotte County Interview #1 2013).



Unfortunately, the same fine-grained detail that was available for much of the FBHCP negotiations through the steering committee meeting minutes is not available here because the technical advisory committee which did most of the negotiating did not keep formal minutes. Thus the best information available on the content and tone of the negotiations is from the perceptions of the interviewees who were involved, and is based on what they were willing to share.

The first thing that had to be accomplished before the negotiations could begin was to establish a baseline. This involved first conducting a new Scrub-Jay population survey within the county to update knowledge of how many families there were, where they were, and where there was still viable habitat (Charlotte County Interview #3 2015). The subsequent population viability assessment then became the primary guiding information source for designing the preserve (Charlotte County Interview #2 2015, #3 2015).

The first matter that had to be negotiated and debated among the group arose when the analysis showed that there were still three main populations of jays in the county, but that one of them was not viable over the long-term because its territory was already too densely developed. This population in the western portion of the county once had about 300 acres of territory. However, now about half of that is developed (Charlotte County Interview #2 2015). One of the key requirements for managing Scrub-Jay habitat is periodic prescribed burning to prevent the brush from becoming overgrown (U.S. Department of the Interior 1999). For obvious reasons, this cannot be done in areas that are already developed with homes. Therefore, acquiring additional land in that particular

area to try to conserve that population of jays would have been impractical and, ultimately, not biologically beneficial because that population would eventually die off anyway. According to two interviewees, there was some pushback from environmental groups who wanted to acquire preserve space for this population (Charlotte County Interview #2 2015, #3 2015). This is one area in which the environmental interests had to make a concession away from what they ideally wanted. The needs of the species and the status of the population are so certain and specific, that it made little sense from a biological or financial perspective to focus any effort on saving a population that was doomed regardless of how much land could be acquired for it. As one biological consultant remarked, this was less a compromise than a limitation. “We wanted to buy everything but it was futile to buy land in places that you still wouldn’t have a viable population” (Charlotte County Interview #3 2015).

Interviewees attested that, as expected, those with financial interests, such as home builders and realtors, were often reluctant to come along, and as expected they wanted the plan to have the smallest possible impact on their interests. From the perspective of the home builders, they wanted to ensure that fees would remain as low as possible and that the jays would no longer interfere with development. The realtors were predominantly concerned with effects on property values (Charlotte County Interview #3 2015). These concerns were legitimate. Values of properties in the Scrub-Jay review area did decrease when the process began. The county addressed these concerns by discounting property tax assessments for these properties. Though now that the HCP is

in place the values of those properties should rebound and those tax discounts will expire (Charlotte County Interview #1 2013).

### **Outcomes**

In spite of these few concessions that had to be made, including some financial concessions by the county and the compromise by environmental groups on the doomed population of jays, there was very little difference between the starting point of negotiations and what was ultimately submitted as the completed HCP. It is important to note that one key reason for this is that by the time this process began—10 years too late according to one interviewee—there were few options remaining for an effective reserve design. However, another reason is that the certainty and specificity concerning the data and the needs of the species played the expected role in the Charlotte County case in that it left very little room for negotiation. Because the data were so reliable, the same kinds of arguments about uncertainty and complexity that have beleaguered the FBHCP case could not be made in Charlotte County. One interviewee, when asked if there was any difficulty getting any of the stakeholder groups to accept the science, or any quibbles over the interpretation of data, said that there was some learning curve on the technical aspects of the plan, particularly with the realtors and home builders. However, they were able to explain the big picture of the plan and establish a baseline of trust with these groups such that they “trusted that we weren’t just making things up” (Charlotte County Interview #2 2015).

One important way in which certainty affected the final reserve design was that the science experts were able to set the most robust design possible as the baseline

design. They were then able to sell that to the Board of Commissioners as the worst-case scenario. After the initial population survey and viability analysis were complete, the biological consultant prepared a recommended reserve design for presentation to the board that included the most robust protection possible which, from their perspective was the worst-case scenario because it also was the most costly option. They specifically presented that baseline to make the remainder of the process as predictable as possible so there would not be any surprises. It also allowed them to compare the most costly HCP scenario directly with the economic burden created by the status quo and show that even under what was the worst-case scenario for the board with the HCP it was still vastly less expensive than doing nothing (Charlotte County Interview #3 2015).

The reserve design itself consists of approximately 3,000 acres on two large tracts that are already owned and managed by the county, and another 1,300 acres of privately owned land throughout the county that will need to be acquired through purchase or conservation easement. This will serve as mitigation for an estimated take of 3,056 acres of occupied habitat from building development throughout the county (Charlotte County Parks & Natural Resources Division 2013). Thus the conservation set-aside in the HCP will conserve almost 150% of the take authorized under the ITP. A complicating factor in making an assessment of the level of robustness of this protection is that the county was allowed to use land as mitigation here that it had already set aside for conservation under its previous HCP for capital improvement projects. Normally an applicant would not be allowed to count mitigation from another HCP toward the current one. However, FWS made an exception in this case for two reasons. First, without being

able to use the existing conservation lands, there would not have been enough habitat left in the county to complete this HCP (Charlotte County Interview #1 2013). Second, this conservation land was set aside for capital improvement projects that, as of completion of the current HCP, had not been started and thus there had been no impacts, although the impacts of these projects were factored into the population viability analysis for the current plan (Charlotte County Parks & Natural Resources Division 2013). In short, a decision was made that not only was this a biologically viable option, but it was the only biologically viable option.

On one hand, some might legitimately view this as a weakness in this HCP, as if the county was allowed to get away with “double counting” its mitigation. That remains one caveat of assessing this as providing robust protection for the species, and thus interpreting this as a successful case of collaborative governance. On the other hand, this analysis was conducted and this alternative recommended by a professional research biologist who, based on the best population modeling available, determined this design reduced the extinction risk of the county’s remaining populations of jays more than any other alternative (Bowman 2011).

It is also important to note that there are more dimensions on which to evaluate an HCP than just the area of the reserve design. For example, the plan requires the county to restore and manage both the existing conservation lands and the ones that will be acquired. The plan also specifies that the additional 1,300 acres will be acquired in areas in which the parcels can serve as “stepping stones” connecting the two larger conservation areas, which is important for long-term population viability because it

allows for increased genetic diversity within the populations. Finally, the plan also includes translocation of jay families from the areas in which long-term conservation is not viable to the reserve. The county is also required to manage the reserve in perpetuity—even after expiration of the initial 30-year permit—and mechanisms are in place to fully fund the \$56 million total cost of the HCP, including land acquisition and creating a permanent management fund for the reserve. Under the county-wide HCP, owners of quarter-acre lots who want to build on them will pay a permitting fee of \$2,200, as opposed to as much as \$69,000 to create individual HCPs (Charlotte County Interview #2 2015, Charlotte County Parks & Natural Resources Division 2013).

### **Conclusion**

With the exception of a couple of caveats, the Charlotte County HCP should be considered a mostly successful case of collaborative governance due to the fact that, according to the population modeling, it sets aside and requires management of sufficient reserve space to increase the long-term prospects of the species in the plan area. While the Charlotte County Scrub-Jay HCP is not perfect, it is unambiguously better than what came before it, which resulted in bad outcomes for both the species and landowner. Because the HCP preserves two large tracts of habitat and will obtain other land in order to connect them, it alleviates the development pressures on the species due to fragmentation, which would have only been continued under the individual HCP model. The HCP also will increase the baseline populations in the reserve space by translocating populations from the more heavily fragmented areas of the county. Without the HCP, the species would have likely been extirpated from Charlotte County in a

matter of years. With the HCP it at least has some hope of long-term survival in the county.

The outcome of the Charlotte County HCP case is consistent with what the theory predicted. A cooperative species created an environment of very little uncertainty over what needed to be done in order to conserve it. This presented no opportunities for opponents of robust protection for the species to use the uncertainty as a tool for decreases in the amount of protection. The result is that the best available science generated the recommended course of action for the reserve design and the development community and Board of Commissioners accepted it, even if reluctantly. In the next chapter, I will go into greater depth in comparing and contrasting the two case studies, and drawing conclusions regarding where these results fit the theory and where they suggest possible areas for refinement in the theory.

## CHAPTER VI

### CONCLUSION

The purpose of this project has been to propose and empirically evaluate a theory of decision-making in collaborative governance negotiations. In Chapter 2, I outlined a new framework for explaining outcomes in collaborative governance, drawing from economic theories of time-inconsistent behavior and procrastination. I incorporated into this framework a proposition that the level of technical complexity of the issue that is being negotiated can play a role in determining the outcomes, specifically with regard to which groups will tend to be induced to compromise. At the core of this proposition is the idea that a more complex subject matter, which generally will present more uncertainty about the outcomes of various alternative courses of action, will leave room in the negotiations for one savvy group to make convincing arguments for a less robust course of action. This will, in turn, induce the other groups to make repeated marginal compromises away from their ideal points throughout the process because in each round of negotiations they would prefer a marginal loss to the much worse outcome that defection might provoke.

To evaluate this theory I implemented two case studies of similar systems that I expected, based on the theory, to produce disparate outcomes. The Florida Beaches Habitat Conservation Plan (FBHCP) is one of the most complex multi-species, multi-jurisdictional HCPs ever attempted in all the 33 years that HCPs have existed. By contrast, the Charlotte County Scrub-Jay HCP is a much simpler case because it seeks protection for a species whose needs are comparatively very well understood. Rich data



on this species' current population and status provide scientists the ability to model future population viability under alternative courses of action with a degree of precision that frequently is not available for other species, including several of those in the FBHCP. I hypothesized, therefore, that the Charlotte County case would produce a more successful outcome from the perspective of conserving the species than would the FBHCP because those financially or politically interested in a less protective outcome would have fewer opportunities to exploit uncertainty to their advantage.

In this chapter I will draw detailed comparisons between these two case studies with a focus on assessing how well their outcomes conformed—or did not conform—to what the theory predicted. I will discuss what these findings mean for my theory, as well as broader implications for ideas of increasing popularity in both scholarship and practice of the collaborative governance and management of natural resources. Overall, the results suggest that the theory I have proposed is a useful framework for explaining decision-making, and ultimately outcomes, in collaborative governance. However, there are also key limitations to the research presented here, and future study that includes more cases will be necessary to identify refinements and provide more robust testing of the theory if it is to become a truly predictive theory of collaborative governance. Thus I will close this chapter with some reflections on these limitations and some possible future directions that this line of research might take in order to make further contributions to scholarship on this issue.

## **Empirical Evidence**

Data on the two case studies was gathered through a combination of interview and archival research methods. Meeting minutes, briefing documents, the HCP documents themselves, and supplemental material that came along with them were all analyzed with a focus on piecing together the stories of how these two HCPs originated, how negotiations over their details proceeded, and what the ultimate conservation policy they produced looked like. In-depth interviews were then used to fill in the gaps in the documents and, most importantly, to bring in the viewpoints of those involved in the negotiations from as many different perspectives as possible. I will briefly review the key findings of each case, drawing comparisons between them, before discussing their implications for the theory.

### *The Florida Beaches Habitat Conservation Plan*

The most important finding in the FBHCP case is that political conflict over whether or not the plan should go forward, and lack of support within the organization that will be the applicant, have stalled the HCP indefinitely. As of this writing, it is not clear whether this plan will ever come to fruition, however multiple sources involved in the process have expressed doubts. One key source of this delay has been a turnover in the executive branch in Florida and the subsequent change in leadership within the state's Department of Environmental Protection (DEP). Another source is the fact that legislative changes have to be made in order to expand DEP's authority to allow it to implement the HCP. Though all parties acknowledged as early in the process as 2009

that it would be best to begin reaching out to legislative staff as soon as possible to put these changes on the agenda, as of 2015 this process has not begun.

The stalemate that has ensued is in large part a consequence of the fact that the FBHCP was developed under the radar of a number of people and organizations whose final approval it will ultimately need if it is going to become a reality. One interviewee with years of HCP experience told me that this is frequently the way these plans develop, but that ultimately a successful HCP is one that, even if it is developed under the radar, has a good chance of being approved by whatever body needs to approve it. If that cannot be done, it is not a successful HCP because it becomes a waste of time and resources, with no benefit for the species or the regulated community (Charlotte County Interview #1 2013).

On the other hand, from the perspective of all who would like to see an HCP like this one become a reality, there is good reason to want to keep it under the radar, especially in the early stages. This was evident in the FBHCP. Countless examples from the meeting minutes show that the members of the steering committee were clearly aware of what the perceptions of the public or legislators could be, and how they could have detrimental effects on the prospects for the HCP being completed and authorized. This showed up in discussions of draft chapters of the HCP, in planning for briefings with DEP leadership and legislative staff, and in preparing a primer document to begin selectively disseminating information about the HCP to the public. This also became evident in conversation with one particularly candid interviewee who went on at length about all the groups that could ultimately end up having a problem with the HCP that

could likely stop it from becoming policy (FBHCP Interview #8 2014). If word got out to the public that DEP was developing a large, costly new regulatory program alarm bells in all sorts of offices throughout Tallahassee could begin sounding. It is not surprising that those crafting such a large and impactful policy as the FBHCP would be leery of releasing too much information too early in much the same way that those writing healthcare legislation might be, lest somebody decide to announce there are going to be death panels.

The need for the public and its elected representatives to be looking the other way while something like this is developed, however, is an interesting juxtaposition against the classic image of a collaborative governance undertaking, among the virtues of which are supposed to be transparency, deliberativeness, and representation. It speaks to the possible mismatch of the collaborative method with policy efforts as large as this one and entangled in so many disparate interests. The result, at least in the FBHCP case, is the presence of additional transaction costs that incentivize delaying action. From the perspective of DEP, the incentive to delay is clear. It can push forward with the HCP, which comes with the potentially heavy cost of incurring the wrath of powerful political allies of the Governor, or it can simply delay, perhaps hoping for better prospects under the next Governor. Meanwhile, the delay produces the worst possible outcome for the species.

From the perspective of the Fish & Wildlife Service and the environmental groups, presumably one of them could put a foot down and induce some sort of action on the part of DEP, but it is not clear that the incentives are in place for them to do this.

FWS is a beleaguered federal agency that is consistently being called to task for standing in the way of economic development. Its abilities to perform its endangered species functions have been curtailed by successive budget cuts over the past several years (Center for Biological Diversity 2014, Defenders of Wildlife 2012). It constantly has to be mindful of potential political backlash for its actions. Though it has the authority to do so, it rarely takes action against states or local governments for violations of the Endangered Species Act's Section 9 prohibition on take, relying instead on environmental interest groups to carry the burden through litigation (Charlotte County Interview #1 2013). The environmental groups could sue to induce DEP into action. However, they have invested years in the collaborative process, and would much rather see it succeed. Lawsuits are also extremely costly, and it is not clear in this scenario that this would induce an outcome that is appreciably better than continuing to wait and see what will happen next. Thus at each stage in which further delay is proposed, the incentives of the environmental groups are to continue holding hope that things will move forward again. Of course, this interpretation is in part speculative, as it remains to be seen how the FBHCP negotiation process will end, and if it will ever produce a complete plan. However, it is very unlikely to happen under the current conditions.

*The Charlotte County Scrub-Jay Habitat Conservation Plan*

By contrast, the Charlotte County HCP, at least once it was finally authorized by the county Board of Commissioners, has not suffered from the same perverse incentives that we see in the FBHCP. It bears discussion, however, that in the much broader picture the Charlotte County case is also an example of a similar sort of delay and

procrastination to what has occurred in the FBHCP. It was 13 years from the time the Fish & Wildlife Service first sent a letter to the county notifying it that it was responsible for take of Scrub-Jay habitat to the time the Board of Commissioners entered into agreement to prepare its first HCP, which ended up excluding residential development. It took another three years after to convince the Board to direct county staff to begin preparing a second HCP that included residential development (Charlotte County Parks & Natural Resources Division 2013). In that time the habitat continued to be fragmented and degraded by development (Charlotte County Interview #3 2015). Why the county chose to delay is fairly clear. They were hoping the birds would die and the problem would solve itself before they would be forced to act (Charlotte County Interview #1 2013). Why FWS waited so long to take action is less clear. One possibility is that, as mentioned before, FWS is wary of political backlash, and as a result it prefers the carrot to the stick in terms of the tools it uses to bring counties into compliance. Also as I mentioned before, for much of this time relations between the agency and the county were strained. In fact, they were so bad that that at one point a member of the county Board of Commissioners allegedly threatened the FWS field supervisor with physical violence (Charlotte County Interview #1 2013).

This is all to show that the Charlotte County case was no less politically contentious than the FBHCP. In fact, the political fight over the Charlotte County HCP was probably more intense because did not have the benefit of flying under the radar for so long. Once FWS stopped delaying the political fight and convinced the county that an HCP was its best bet for getting the agency out of its way, they were able to work

together toward a solution that satisfied everybody's needs while also conserving the resource.

So, in spite of the fact that the Charlotte County HCP was equally as politically contentious as the FBHCP, why was it, at least to this point, more successful? Why were the powerful interests involved, who would have preferred to continue playing for more time until the last of the Scrub-Jays died, unable to do this? Why were they unable to minimize the reserve design to lower the \$56 million price tag for their mitigation?

Admittedly, a part of this answer probably has something to do with the unique properties of the Scrub-Jay itself. Waiting for it to die was going to take longer than these people had assumed. Scrub-Jays will continue to live, and even breed for some time in degraded habitat. They will eventually die off after a few generations, but with each individual jay living up to 15.5 years, it could literally be decades before the problem "solved itself," from the county's perspective.

However, the rest of the answer to explaining the differences in outcomes between Charlotte County and the FBHCP is in the technical complexity, or lack thereof. While the FBHCP fell victim mostly to political gridlock, this was itself a side effect of taking on a project of such massive scope geographically and scientifically. The uncertainty that the additional species presented, particularly the shorebirds, made the political problems larger because it increased the size and scope of this new regulatory program. This exacerbated the political uncertainty and resulted in the current state of affairs. Charlotte County, because of the nature of the species at the center of the fight, did not have these problems, in spite of having its share of political conflict.

With very reliable data about the species' status and needs for conservation on their side, the environmental interests and scientific community in the Charlotte County case were able to construct precise models showing how much reserve space and what type of design was necessary in order to improve the long-term prognosis the species in the county. They also had the advantage of understanding the technical subject matter better than the members of the board or the development interests, so once they established a level of trust there was very little questioning of the science, and they were left to let the science dictate the plan.

The relative simplicity of the case also created less political uncertainty than what the FBHCP experienced. Though they were politically powerful interests, the Charlotte County case had relatively few interests involved, and thus fewer constituencies to please and fewer players to create political turmoil in the negotiation process. By organizing these interests up front, including the legislative body ultimately responsible for authorizing the implementation of the HCP, the organizers of the Charlotte County case were able to avoid the same problems that have stalled the FBHCP.

#### *Implications for the Theory*

Overall, these results are consistent with what was hypothesized and thus they suggest support for the basic framework that was constructed in Chapter 2. However, at the risk of being accused of overstating the case, it should be noted that everything did not turn out exactly as hypothesized. These weaknesses highlight some areas in which the theory might be refined and re-evaluated in the future. Probably the largest of these



limitations is the non-outcome observed in the FBHCP case. While the theory is not necessarily inconsistent with this outcome, as I have argued above and in Chapter 4, it would not have necessarily predicted this outcome either. Further refinements might be made to explain and predict such a stalemate that has been observed in this case.

What the original theory would have predicted for this case would be an outcome that is a completed HCP, but one that would be at or close to the bare minimum that the Fish & Wildlife Service could consider statutorily complete. The theory predicted that a focus on the uncertainty and complexity of taking the more protective path would have induced the environmental groups to make marginal compromises throughout the process, ultimately leading to an outcome that they might not have been willing to accept in the beginning. Instead, what we see is that the complexity of the case has produced an outcome that is, perhaps biologically similar, but that differs from what was expected in some important ways.

One problem with this, of course, is that the non-outcome means that the predicted outcome is unobservable at this point, preventing any direct comparisons between the two cases on specific outcomes. However, the outcome of the FBHCP also differs from what was expected in that the environmental groups were not moved toward accepting a less protective form of mitigation, but rather they were moved from their temporal preferences for completing the process as quickly as possible to put the mitigation measures in place before the habitat could be further degraded. One way in which this kind of outcome might be predicted with theoretical refinements in the future is through incorporating transaction costs that increase directly proportional to the

number of affected interests that are entangled in the policy. The theory in its current statement predicts increased likelihood of an unsuccessful outcome in a highly technically complex case such as the FBHCP, and a successful outcome in a less complicated case such as Charlotte County. However, it might be appropriate to differentiate between the two possible types of unsuccessful outcome, the one that is unsuccessful from a substantive perspective and the non-outcome. The FBHCP is clearly a case of the latter type of unsuccessful outcome.

One possible critique of this interpretation of the findings is that it is neither surprising nor theoretically interesting to show that technical complexity causes delay. I would argue instead that the case has shown that technical complexity increases decision-making costs through increased uncertainty about the consequences of decisions. The hypothesis as originally stated was that this uncertainty would lead to the acceptance of an incrementally less protective conservation plan. Instead, however, the results in this case reveal that the uncertainty created incentives for all those involved to accept incrementally further delay each time it was offered as a temporary solution. Instead of accepting, for example, an incrementally smaller amount of preserve space for the species, FWS and the environmental groups accepted incrementally longer delay. This is equally as unsuccessful an outcome from the perspective of conserving the species, or worse, than shrinking the preserve space. It might be fair to say that this is a case in the power to force non-decisions was equally as consequential as exerting influence over decisions (Bachrach and Baratz 1963). However, this does not mitigate the actual decisions of FWS and the environmental interests to be drawn incrementally

further away from a successful outcome throughout the negotiation process, in spite of the fact that all have tools at their disposal to induce a different outcome.

This might lead to questions regarding how success is defined in these cases for the purpose of this analysis. There are multiple ways in which success could be defined in an HCP. For many scholars of collaboration, as well as the Fish and Wildlife Service, success is at least in part defined by the occurrence of collaboration or compromise itself. This is the definition that I explicitly avoid here for reasons that I have elaborated in the first two chapters, but most importantly because it tells us nothing about the substantive impact of collaboration on conservation of the resource. However, even from a substantive standpoint there are different ways to understand success from different perspectives. For example, success as defined by the informal yet often-stated objectives of the HCP program is a streamlining of the development permitting process. It is an outcome that allows development to continue relatively unaffected by the presence of species, but with some assurances that harms to species will be minimized and mitigated.

However, this yardstick only allows us to measure how good collaboration is for development, but not for the species impacted by development. If the goal is to prevent species extinctions and biodiversity loss related to human activities, as is the explicitly stated goal of the ESA, then we need a yardstick that tells us what the outcome looks like from the species perspective. This is a more difficult thing to measure because we do not have the advantage of the kind of time we would need to look at results of longitudinal population studies to determine if an HCP has truly achieved its goal of stabilizing the population. So we are left to assess this through proxies, such as how

much preserve space was set aside, how contiguous it is, how aggressive the adaptive management plan is, and how ambitious, overall, the HCP is. Ultimately, I have assessed the Charlotte County case as a success because the plan that ultimately emerged and is currently being implemented in that case is the one that the scientific modeling showed gave the Scrub-Jay the best possible chances for survival of any alternative that was practicable.

However, examining outcomes as a dependent variable rather than process alone does not hinge only upon calling one case a success and the other one a failure. We can also look at the ideal points of the various players and the movement on them. In the Charlotte County case, it was the development and pro-development political interests that were forced to move from their ideal points, which were essentially to continue doing nothing about the Scrub-Jay until it was eventually extirpated from the county and there would be no more conflict. However, due to the relatively low level of technical complexity in this case it was easy for the scientific experts and the pro-conservation interests to demonstrate that this option would not work because it would require a longer delay than could be sustained. Essentially, the conservation interests played the “savvy” role here while the development interests allowed them mostly to dictate the terms.

By contrast, the political complexity in the FBHCP case allowed the process to be halted indefinitely by the interests that benefit from that outcome. In this case, it is helpful to think about ideal points not only spatially, but also temporally. The longer the delay, the more difficult it will be to complete the HCP. Property values on the land that

will need to be acquired will continue to increase as real estate prices rise and suitable land becomes scarcer. The Sea Turtle Conservancy, in particular, has been explicit in the meeting minutes about the fact that its ideal point is to complete the HCP and get it into implementation as quickly and expediently as possible. Obviously the group has moved far from that ideal point by continuing to accept delay. Meanwhile, there is no evidence that development interests have given up anything in the negotiations. These interests benefit from the delay, at least over the near-to-medium term. Whether this is in their best interest over the longer-term is not as obvious.

It might be necessary here also to clarify the roles of the two types of complexity that are having effects here, and also how they interplay with one another. The two types of complexity at play here are technical and political. These two types of complexity are not unrelated. Specifically, the results suggest that the technical complexity is a contributing factor exacerbating the political complexity. I will give an example. The FBHCP was originally conceived to address losses of sea turtle nesting habitat, with relatively strong support from DEP, albeit reluctant. As the realization set in among the members of the steering committee that they were going to have to incorporate several additional species, which added complexity and expense, several members of the steering committee, including the Sea Turtle Conservancy, began to express concerns not only about the additional time required to obtain the necessary data to guide the decisions, but also about the potential political pitfalls of expanding the scope of the HCP beyond that which was originally intended. Members expressed concerns about the potential backlash of doing anything that would be perceived as larger or beyond what

was minimally necessary. The more people think the HCP is going above and beyond the minimum, the more apt they are to be convinced it as a large new regulatory program or a land grab. Also, the more species are include, the more conservation land must be acquired, and in different places. All of this means more interests potentially affected. It was when these issues cropped up that divisions began to appear between the members of the steering committee. Many openly worried that anything more than the minimum absolutely necessary would be especially difficult to sell to legislators. This is how technical and political complexity worked together in the FBHCP case to make delay the most attractive option, even for the parties that do not benefit from it.

However, there is also the individual effect of political uncertainty itself to consider. The results suggest a status quo bias of political uncertainty. The other source of political complexity here is the electoral turnover, which is independent of the technical complexity. While the technical complexity makes the HCP tougher to sell to the public and elected officials, the electoral turmoil makes it even more difficult, and increases the uncertainty surrounding the outcomes of any course of action. When Rick Scott was elected Governor in 2010, the members of the steering committee did not know what to expect. What they knew was that he had run on an anti-regulation platform and filled key cabinet positions with industry standard-bearers. There was a great deal of uncertainty and apprehension surrounding what would happen when the new governor's people were finally briefed on the HCP project. They still are uncertain what to expect. In interviews, members of the steering committee expressed concerns to me that DEP might still act on its own to weaken the HCP before submitting it to FWS. Considering

FWS is a relatively weak actor as discussed above, it would be able to do little about this as long as it is technically statutorily complete. It is fair to say is that the environmental groups are quite certain that this is what would happen if they chose to exit the negotiations. In that event, they would have to try their luck in the courts in hope of getting something better, which is expensive and far from a guarantee. We can see then how this creates a bias toward going along with the delay in the hope that something will change, or that they will be able to convince everyone that a robust HCP is good for them. The effect of this then is to favor inaction and perpetuation of the status quo.

### **Broader Implications for Collaborative Governance**

In addition to evaluating the theory proposed in this project, the results carry lessons for the broader theory and practice of collaborative governance. Perhaps the most important implication to be drawn from this is that of scale. The contrast in outcomes between the Florida Beaches and Charlotte County HCPs might be an interesting cautionary tale in expanding the scope of collaborative governance beyond that for which it is ideally suited. This presents an interesting quandary with regard to finding the ideal scale on which to address problems, especially environmental and natural resources ones.

With environmental problems, the best science of the day tells us that the most effective way to address them is at the ecosystem scale (e.g., Layzer 2008). Even the U.S. Fish & Wildlife Service, in its Habitat Conservation Planning Handbook, encourages the inclusion of multiple species in large, cooperative HCPs (U.S. Department of the Interior 1996). With habitat fragmentation as a major threat to many

species, the science tells us that bigger is better. However, the empirical evidence from the two cases analyzed here suggests that from a political standpoint, too big might not work at all. Both of these cases serve as illustrative examples of this phenomenon. The FBHCP appears poised to collapse under its own weight because its organizers have realized that, once they put a proposed plan in front of legislators and the public to be scrutinized, there will be too many opportunities for too many interested parties to find a reason not to like it. With the Charlotte County HCP, while we saw that they created a plan that was likely the most ecologically sound one they could given what was left in the county to work with, we also saw that, had they been able to partner with neighboring Sarasota County they might have been able to do even better. However, that just was not possible because they could not force Sarasota County to engage in a parallel effort.

This lesson regarding scale applies not only to the theory, but also to the practice of collaborative governance. It could also be important beyond efforts to conserve endangered species, and even beyond environmental and natural resources problems. There are, indeed, all manner of problems that inconveniently fail to heed arbitrary political boundaries. Just as a few examples we might think of areas such as immigration, transportation, criminal justice, and even education to some extent, as potentially having issues that spill across multiple political boundaries and affect varied and competing interests. The federal criminal background check system for the purchasing of firearms is a timely and tragic example. The system, which relies on cooperation from fifty state and thousands of local governments has been long known to



be in disarray due to poor cooperation of many of these state and local governments with reporting guidelines (Ferris 2014). The issue is, of course, rife with powerful political interests that sound public alarm bells whenever any changes are proposed.

On the other hand, it is perhaps not terribly surprising that there might be a threshold beyond which collaborative governance is an ill suited instrument for making public decisions. After all, it is not clear that it was ever intended to work beyond very small-scale negotiations between handfuls of individuals who know each other well, to solve very local level collective action dilemmas.

Another point that bears discussion is the implications of these findings for the role of leadership in collaborative governance. There are two levels of leadership at play here: the political level and what I will call the administrative level. By administrative level I mean the people on the ground facilitating the negotiations, participating in them, and moving them forward. At this level it is fair to say that leadership was basically a constant in these cases. Both cases had relatively savvy leaders who understood well both the technical and political complexities with which they were dealing. In fact, there was even some degree of overlap in the actual individuals involved at this level, particularly within the FWS.

However, at the political level, there is stark contrast between the leadership in both cases. In the Charlotte County case, there was strong political support at the top (post-electoral turnover and repaired relations with FWS). By contrast, nearly the opposite happened in the FBHCP case, wherein electoral turnover resulted in a decrease in support at the top of the organizational chart. However, I do not view this as a

challenge to the theory because the electoral turnover and accompanying fluctuations in leadership are merely additional sources of political complexity that generate political uncertainty.

However, another way to think about leadership is that one of the problems here is a lack of strong leadership overall. In theory, there is a threat of a “leviathan” showing up and imposing a solution on the actors in the FBHCP case. And perhaps if this were the case there would be some incentive to avoid the delay that has been observed. Practically, however, this seems unlikely because the FWS and other pro-conservation interests are in relatively weak positions to act in this role. We do not see strong leadership entering and taking control for precisely the reasons that were hypothesized from the beginning. The technical circumstances, combined with the norms of cooperative spirit, keep these players in relatively weak positions in which they are averse to rocking the boat for fear of inducing a bad outcome if they do.

This raises the question, how could such an outcome be avoided in the future? How can the perverse effects of technical and political uncertainty demonstrated here be avoided? To address that, one would have to address the fact that nearly everything about the political structure of the FBHCP and the HCP program is pushing it in the direction of inaction. First, economic imperatives push the political principals involved toward the most politically expedient outcome, which is the cheapest, least intrusive one. The uncertainty about political backlash makes FWS a weak negotiator, even though in theory it is supposed to be the strong federal agency that has formal veto power. The likelihood of relieving state and local officials of those economic imperatives is

essentially zero. Also, barring some major and equally unlikely shift to the left in both Congress and the White House, FWS is only going to become weaker still.

Therefore, to change this outcome, what would likely need to happen is for some procedure to be institutionalized that would privilege conservation in any event that there is reasonable doubt about the impacts of an action. This precautionary principle has already been used elsewhere in environmental management. It could be incorporated into the habitat conservation planning guidelines. Then, in cases where technical complexity creates ambiguity over the correct path to protect the species, no negotiations would be necessary. The rules would force the actors to choose the more protective alternative. Of course, this might only go so far to help produce better outcomes because there would still likely be plenty of ambiguity over how much uncertainty there must be to invoke this failsafe. It would also likely make large-scale HCPs a less attractive tool for development interests. Currently their major selling point, as demonstrated in the Charlotte County HCP, is that they make mitigation cheaper and simpler, like buying in bulk versus buying one-at-a-time. If this method were to make them more expensive with stricter requirements—and it likely would—it might be more difficult to convince developers that it is worthwhile.

Another option might be to borrow from European-style corporatist negotiations, which produce a binding agreement. In these negotiations, suing later because one does not like the outcome is not an option, so parties have to get everything they want up front. This type of credible commitment to seeing through negotiations and abiding by the outcome could de-incentivize procrastination by disabusing the environmental

groups of the delusion that they will defect and sue at some point in the future if things continue to go poorly for them. All parties would have to make credible commitments up front to producing something that everyone can live with. Though again, this would make the larger-scale HCPs less attractive.

The best option is probably to attempt to replicate in other cases what happened in Charlotte County's second attempt at an HCP. There political uncertainty was alleviated for the county commissioners. When the realtors and builders were convinced to come along, they convinced the board that, not only would there be no political backlash if they went along with the HCP, but that it was in fact in line with their economic imperative because it would get FWS and the environmental groups off their backs. At the same time, this again bumps up against the idea that perhaps, even though the science tells us larger, ecosystem scale planning is better, it might not be practicable in some cases because the number of interests that would need to be successfully brought on board is simply too high.

### **Limitations and Future Directions**

Of course, the lessons drawn from these cases should be taken with a few caveats. In addition to those already discussed above, probably the most important caveat to consider when interpreting these cases is the limited-n research design. Although these cases were selected with a focus on creating the most effective limited-n research design possible, there are still, of course, weaknesses to this research design. First is the problem of generalizability. Would similar results have been found had the subject of the empirical work been habitat conservation planning in some other state

instead of Florida? Could these results be generalized beyond the case of habitat conservation planning, perhaps even to a policy area outside of environmental policy altogether?

To answer these questions will require further research in the future. Specifically, it will require the subject matter to be broadened beyond habitat conservation planning in Florida. The results from this initial study are promising and they indicate that this theory warrants further testing and evaluation. Certainly the increasing popularity of the collaborative approach to managing natural resources in the U.S., and around the world, creates a practical demand for building a better understanding of how collaboration works and moving toward predictive theories of collaborative governance. Continuing to study these phenomena in different settings will not only provide further testing of the theory, but it will also continue to suggest further refinements that can be incorporated to make it truly predictive.

However, another reasonable critique could be raised regarding the drawbacks of limited-n research. It is difficult with these two cases to flesh out whether the observed results were caused by technical complexity or scale. Admittedly, this is a drawback to this project. The source of the problem is that complexity and scale are highly correlated. The FBHCP serves as an example of why this is the case. In the FBHCP, one of the major sources of technical complexity is its scale, both geographically and in its broad inclusion of so many species. This is an issue that should be addressed in future research if appropriate cases can be identified and studied. One possibility would be to find a case of an HCP for a single species in a smaller geographical area, such as a single county,

but in which the nature of the species itself or the particular threat to the species brings a high level of technical complexity and scientific uncertainty into the picture.

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