Nights at the Roundtable: Discourses of Public Good and Private Rights

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NIGHTS AT THE ROUNDTABLE
DISCOURSES OF PUBLIC GOOD AND PRIVATE RIGHTS

by

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A dissertation submitted to the
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Nights at the Roundtable: Discourses of Public Good and Private Rights
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The final copy of this dissertation has been examined by the signatories, and we Find that both the content and the form meet acceptable presentation standards Of scholarly work in the abovementioned discipline.
In 2005, the state of Colorado mandated the creation of water roundtables in HB05-1177. The purpose of the water roundtables was to provide a public forum for collaboration, discussion, and local decision-making in river basins. Understanding the practice of public deliberation that combines the external trappings of democracy with the substance of legal rule is a puzzle facing communication scholars. Thus far, there are few studies at the intersection of communication, environmental governance, and water. The literature has focused on the importance of public involvement and deliberation, while neglecting variations in the underlying practices of meetings. This dissertation moves beyond a focus on publics to explore processes of institutional change and renewal within a particular type of hybrid meeting: those with competing discourses of public good and private rights. The study inductively reconstructs the communicative practice of roundtables and provides analytical insights that inform communicative practices of deliberation about a critical, non-substitutable resource. First, it suggests that not all public meetings are created equal. Scholars wishing to understand the discourse of public deliberation must look beyond a public/private dichotomy to include distinctions in both the aim and criteria for deliberation. Secondly, the project offers a cautionary tale for policymakers and researchers who view public involvement as a source of democratic change. This case study develops our knowledge of the relationship between discourse and institutional forms of public deliberation and suggests that relational ways of decision-making offer strengths that have been previously overlooked.
Dedication

To Cian, Kiwi, and Curran.
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CHAPTER 1

INTRODUCTION

One of the greatest challenges facing those concerned with health and environmental risks is how to carry on a useful public dialogue on these subjects. In a democracy, it is the public that ultimately makes the key decisions on how these risks will be controlled. The stakes are too high for us not to do our very best.

Lee M. Thomas, EPA Journal, November 1985

Public awareness about the complexity and hazards of environmental issues is often credited to Rachel Carson’s Silent Spring, published in 1962 (Belsten, 1996; Rubin & Sachs, 1973). In her book, Carson brought to light the environmental dangers of the pesticides that permeate our water and soils and called for a change in government and agriculture science policies (Lear, 1997). In 1969 Congress passed the National Environmental Policy Act (NEPA), mandating public involvement in environmental policy. In 1970, the first Earth Day was a “call for new initiatives to resolve environmental problems” (Belsten 1996, p. 30). These events marked the beginning of the public’s growing interest in participation in environmental decision-making. Today, questions about what role community members should have in the development and implementation of environmental policies are still debated. As the quote at the chapter’s start notes, officials and scientists involved in environmental risk work take seriously that their decisions are made in, and directly impact, the public sphere. Still, over twenty years later concerns remain about how participation formats should be structured to maximize the value of public input while recognizing the need for technical expertise.
The magnitude of environmental problems, along with public interest in them, has increased since the early 1970s. Climate change and its entailments, both known and unknown, foreground the necessities of cooperation as difficult decisions need to be made. New practices of public participation in environmental decisions are emerging, and there is a growing literature about the tools and strategies of public participation in environmental decision-making. *This dissertation will examine the communicative practice of an emerging governance form—water roundtables, a kind of environmentally-focused public meeting much used in Colorado.*

This chapter provides the background for understanding why water issues in the western United States are of interest to communication scholars. I explain the impetus behind water roundtables and their importance as a site of water decision-making. Then, I introduce the three research questions that guide this dissertation and conclude with a preview of the dissertation.

**Purpose of Study**

The purpose of this study is to critically examine an emerging environmental governance form, the practice of water roundtables. My reason for taking a close look at the practice of water roundtables comes from a deep conviction that understanding how people strategically use talk in water roundtables is crucial to understanding how decision-making about water does and should unfold. Roundtables were instituted by law, HB05-1177 in Colorado in 2005, and they are a unique opportunity to study decision-making about water in the public sphere. Water roundtables are talk-saturated events with wide-ranging content: topics span hydrology, geology, atmospheric science, and matters of local politics. The complexity of roundtables calls for a communicative analysis in order to foreground the governance process of this emerging form.
To date, there is no comprehensive analysis of the communicative practices in and surrounding decision-making about water. Several factors point to the timeliness of this work. The critical importance of water as a non-substitutable finite resource on a global level is beginning to trickle into the mainstream public arena (Pearce, 2006; Postel, 1992; Postel & Thompson, 2005). Preliminary findings from the Western Water Assessment’s research team report that “gentlemen’s agreements” among water users in the west are eroding (Kenney, Klein, & Goemans, 2009). For good decisions about water to be made, we need to figure out how best to link scientists and other technical experts with public values. It is the public who will be affected by decisions, and it is the public who deserves to understand how decisions about water issues occur. Decision-making must account for the twin concerns of the need for public input and the technical complexity of the issues.

This dissertation follows the impulse evident in several recent reports from the National Research Council suggesting that regionally focused studies are critical to successful human environment adaptation (Dietz & Stern, 2008). Other scholars (Jasanoff, 2001, 2005; Leighinger, 2006; Sabatier et al. 2005; Wilsdon, Wynne & Stilgoe, 2005; Wynne, 1992G) have consistently advocated for a “bottom-up” approach, recognizing how inhabitants of a region hold expertise by virtue of location. In addition to being responsive to unique features of that geographic area, this study is an opportunity to examine firsthand an emerging communicative practice. In this practice participants are in the difficult position of being “neutral” advocates of the larger community, despite having very particular interests, the reflexive paradox of pragmatism (Craig, 2007). Roundtable members find themselves in this paradox as they are both water rights holders and members of the public. Allocation of water is essentially a pragmatic
problem, and a communicative analysis of roundtable talk offers an opportunity to understand how participants manage the paradoxes of environmental governance.

**Research Questions**

My research interest is motivated by the compelling nature of water as fundamental to life and the practical importance of understanding how this resource is constructed and negotiated in the public sphere. I pursue these research questions using Grounded Practical Theory (Craig & Tracy, 1995), which approaches communicative troubles from a standpoint that recognizes that people engage in communicative practices that are strategic. Analyzing the communicative practice of water roundtables using Grounded Practical Theory offers opportunities for reflection on the practice, considering how water roundtables could be done in better or worse ways.¹

This analysis of water roundtables asks the following questions: (1) what are the communicative problems in the practice of water roundtables? And (2) what are the discursive moves and strategies that reveal the problems and work to manage them? And (3) what are the ideals of good conduct that different participants in water roundtables hold?

As I pursue the answers to these questions, I begin this chapter by outlining the scope of previous research on decision-making about water. The water roundtables are an effort to build collaborative relationships where participants hold differing values must work together. Decision-making is fundamentally communicative work. Decision-making and building collaborative relationships are both central goals of the water roundtables in Colorado. In the

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¹ This normative approach is a good fit as wicked problems, such as water is, have no correct solutions, just better or worse ways of addressing problems.
next section I discuss previous research on water and the significant contribution of a communicative perspective.

Scope of Previous Research on Water

The majority of research on decision-making about water that takes into account the socio-cultural and political dimensions is either international in scope (Blatter & Ingram, 2001) or is grounded in a specific issue with a problem focus, such as salmon recovery, dam siting, water quality, or river restoration (Adams, Perrow & Carpenter, 2004; Moore, 2005; Sabatier et al. 2005). Water research that challenges contemporary modes of governance has a macro-scale focus, in that it is centrally concerned with the political impacts of globalization (Blatter & Ingram, 2001). One example of the macro-scale perspective is a study of a hydroelectric complex that ended up supplying power to warring states after the former Soviet Union separated into fifteen independent states (Conca, 2006). This hydroelectric power study involving water addressed the socio-cultural and socio-economic issues of water and the public from a political perspective.

Decision-making in water resources presents communicative challenges that are entangled in technical talk in a public sphere. As I mentioned earlier, typically, research about water decision-making has been confined to particular, fixed disciplinary frames of analysis, with but an occasional acknowledgement of the socio-cultural concerns connected to the technical decisions (cf. Sabatier et al., 2005). Members of the water community themselves sometimes lament the limitations of the traditional scientific scope. Mulroy (2008) noted that most professionals engaged in water resources have a narrow technical focus. Schenk, Roquier,
Soutter and Mermoud (2009) acknowledge the advantages of including “soft” science in water management practices, but their understanding of communication overlooks the particularities of talk and how language constructs meaning.

In contrast to the studies mentioned above, this dissertation will describe the problems and particular discourse strategies used in roundtables, and the ideals participants hold of good communication in the roundtables. The focal inquiry of this dissertation is on roundtables as an emerging governance form. The South Platte Basin Roundtable, the Denver Metro Roundtable, and the 2nd Joint Meeting of the Arkansas, Denver Metro, and South Platte Joint Roundtables are the primary sites of this study. In order to develop a rich understanding of how roundtables are situated within the larger picture of water in Colorado, I locate these meeting within a larger web of other water meetings in the state.

**Preview of Dissertation**

In Chapter 2 I introduce and explain briefly the context of water in Colorado. In the first section I provide a background of the importance of a communicative study of water. I detail the social and hydrological forces that are creating urgency about water allocation in the public sphere. I then explain the Prior Appropriation system that governs Colorado water. The next section explains water governance in Colorado, and the agencies and structure of water management. I conclude this section with an explanation of how water roundtables have emerged. “Water in the west” is a catch phrase that is often heard, and I provide an account of its significance.
Chapter 3 brings together research from the fields of communication and environmental governance providing the context for this study of water within the field of communication. I identify key perspectives and claims vis-à-vis environmental governance, collaborative decision-making, public participation and expertise. In this chapter, a review of the literature weaves together environmental decision-making and public participation. I name the fundamental challenge that the public and agencies face as they endeavor to govern private resources in the public sphere.

Chapter 4 introduces Grounded Practical Theory (Craig & Tracy, 1995), the methodology I use to investigate the communicative practice of roundtables. I begin by discussing qualitative approaches and I introduce practice theory. I explain Grounded Practical Theory (GPT) as a theoretical and methodological frame for analyzing the practice of roundtables. I discuss my specific methodological choices within GPT and show how these choices fit with the data. Discourse analysis and participant observation are the primary methods that instantiate a GPT approach. I explain my choices of ethnographic methods.

Chapter 5 outlines the journey of a communicative study of water in Colorado, situating the research sites and materials. I begin by tracing my process of ethnographic immersion in the roundtables. The second half of the chapter details the materials used for this case study.

Chapter 6 is an ethnographic composite portrait of the water roundtable meetings, drawing from the primary meetings and their routine activities. This chapter looks at water roundtables a particular kind of meeting. I create this portrait by posing seven questions about water roundtables. The questions focus on both the character of the water roundtables and how they connect to other water meetings. As I describe how roundtables are affiliated and connected to
other meetings and groups in the water domain I consider how these associations impact decision-making.

Chapter 7 shows how water roundtable participants negotiate troubles. In this chapter I describe how the perspectives of legal rights and democratic ideals collide and I discuss how environmental governance, in particular, about water, brings together people with strongly different orientations to decision-making. I illustrate how these differing orientations influence the communicative practice of water roundtables.

In Chapter 8, following a summary of this study, I identify the limitations of this dissertation and directions for future study. I conclude by forwarding a set of proposals for water roundtables.
CHAPTER 2

WATER IN THE WEST

Touch water in the west and you touch everything.

Wayne Aspinall

In this chapter I introduce the context of water. In bringing a communicative lens to water roundtables I animate the enigmatic quotation in the above epigraph, namely the complex and intertwined nature of water in the west. Water is an absolute requirement for life, not just human life, but the myriad species that sustain ecosystems. There is no substitute for water as there is for other natural resources that we rely on. The United States has the highest consumptive use of water in the world (Smith & Thomassey, 2002). It is in the water domain that the effects of climate change will be most immediately noticeable (Garrick & Jacobs, 2006), or as a noted environmental reporter remarked, “water will be the hammer that drives climate change home” (Hull, 2009, p. 13).

I begin with the social and hydrological forces motivating the urgency for a new governance model. I review water in Colorado and explain the prior appropriation water rights system. I then describe the specifics of the turn to locally-driven water governance. I conclude by describing water governance and the agencies that manage water in Colorado, beginning with a historical perspective of the state’s water agencies, then moving to connected groups and other water meetings in Colorado. I conclude by situating water roundtables, the focus of this dissertation, in the larger water governance schema.
Social and Hydrological Forces Motivating Changes

Social Forces

Over the past 25 years, a quiet revolution has been occurring in water management institutions in the United States (Sabatier et al., 2005). Many factors have precipitated the changes, including increased competition for limited fresh water resources among diverse users, often with conflicting interests, a desire to have decision-making power in the hands of those who live with the impacts, and skepticism about the effectiveness of legal measures to create viable solutions to complex water resource problems. Dissatisfactions with the legal mechanisms of governing water in the West have motivated a turn toward multistakeholder involvement that, as Sabatier et al. (2005, p. 4) note, “seeks win-win solutions to an interrelated set of social, economic, and environmental issues confronting the watershed.”

Given the importance of water in the semi-arid west and the long history of contentious (and ongoing) negotiations and collaborative efforts around water, it is surprising and curious that the communicative practices of decision-making about water in the western United States have not been studied. Competing water uses from the Colorado River system have defined Colorado history for over 100 years (Reisner, 1986).

River basins perform a wide variety of services, including the fundamental one of supplying water. In this study, river basins and watershed are interchangeable terms. Both terms define an
area of land that drains into a common water source (Postel & Thompson, 2005). Within a watershed (or sometimes larger area), there are typically competing interests among domestic users, agriculturalists, hydropower generators, recreational users, and environmentalists. Any two of these groups are often at odds with each other, and the chances of finding mutually acceptable solutions drop exponentially as more participants are involved. Local groups such as watershed assemblies are groups of citizens that tend to focus on community efforts to increase water quality and ecosystem habitat. The focus of watershed groups is rarely on larger interbasin needs or sharing water resources among competing interests.

Communicative issues in water are different than in other natural resource issues, as decision-making about water issues is a persistent and chronic task. This state of affairs points to the urgency of an investigation of the communicative practices of decision-making in water resources, especially in the western United States. A recent report in *Southwest Hydrology* noted,

> For a growing number of western states and metropolitan areas, however, the crunch is not coming in another decade or two … it is here today. For these areas, the question is not merely how to institute sustainable water management for the next quarter century, but how to get through the next five years. (Blomquist & Mosher 2009, p. 28)

A National Research Council study of Colorado River Basin water management observed that new conditions in the basin require “strong and sustained cooperation among the many entities involved” (NRC, 2007, p. 9). Building and sustaining cooperation necessitates a deeper understanding of the communicative practices among the diverse and sometimes competitive participants in water meetings. It is through explicit language analysis that key areas of intersection between science and society are made visible. Analyzing and understanding the
communicative practices underpinning the decisions about water resource allocation will enable those working in water to more closely tie decisions to societal concerns.

*Hydrological*

Systems of water management have been designed and operated under the assumption of stationarity—the idea that natural systems have a time-invariant fluctuation. In other words, the mean and variance of water flows in river basins do not change over time. This assumption is no longer viable for water resource planning (Milly et al., 2008). As Milly and others have stated, there needs to be research beyond stationarity. Moving beyond stationarity includes understanding how the public and diverse stakeholders make decisions that address the demand side of water management. This will serve the long-term goals of assessing, preparing, and adapting to the inevitable changes coming to the Colorado River Basin. Advances in hydrology and climate science will have much greater value and impact when they are tied to social and political processes. Synchronizing social values with science is a key to advancing policy that is accountable to society.

The entire water rights and distribution network of the Colorado River Basin relies on the natural storage of much water resources in the snowpacks of mountain ranges. These snowpacks are projected to decrease dramatically in coming years (IPCC, 2007; Cayan, et. al, 2001; U.S. Climate Change Science Program, 2008). With more water flowing earlier in the year, water allocations in the dry months will become increasingly destabilized; at the same time, the potential for extreme events such as flooding during wet months will increase (Christensen &
Lettenmaier, 2007). This combination will put additional stresses on agriculture, industry, and more generally on regional natural and human resources.

Water in Colorado

The Colorado River has been called the most legislated and managed (at other times, the most cussed and discussed) river in the world because of the large amount of impoundments\(^2\) and withdrawals relative to its flow (Pulwarty, Jacobs, & Dole, 2005). Or, a common sentiment that captures the same notion is; the Colorado has too many straws in it. It is well documented that the most important management agreement, the Colorado River Compact of 1922 (see “True Copy” of Colorado River Compact at chapter conclusion), was based on an overestimation of the average annual supply of water (NRC, 2007). As the National Research Council notes, the Colorado River system has experienced drought conditions in six of the last seven years. Events such as drought expose the critical vulnerabilities within the system. More urgently, though, a recent study of the hydrology of the upper Colorado River Basin (Rajagopalan, et al., 2009) identified that there is approximately a two-decade timeframe before the flow from the Colorado River exponentially diminishes. Currently the inflow at Lake Powell on the Colorado River is at 50 percent of normal.\(^3\) These factors all point to the heightened significance of decision-making about water issues in the Colorado River Basin.

Water management requires skillful nuanced negotiation and difficult choices. Decisions about water resources impact the public in a visible manner, whether decisions are about

\(^2\) A dam or other structure that contains the water for storage creates an impoundment. It can be a reservoir, or other water containment structure.

\(^3\) This hydrologic fact is from 2009.
increased water restrictions, water rate increases, metering, or bond issues to support water delivery. Unlike other scarce, consumable resources, water is used to fuel all facets of society, from ecosystems to economies to aesthetics and spiritual practices (Postel, 1992). Moreover, water availability fluctuates wildly in space and time. Water management is usually fragmented, and is often subject to vague, arcane, and sometimes contradictory legal principles (Postel, 2005; Smith & Thomassey, 2002). There is no such thing as managing water for a single purpose—all water management has multiple objectives and is based on balancing competing interests.

John Wesley Powell,⁴ in the early settling of the west, advocated that geographic features of the watersheds form divisions in the western United States, as it was clear to him that water would be the most valuable resource in the region. The Colorado River now supplies much of the water for seven U.S. states, two Mexican states, and 34 Native American tribes.

In the next section I explain the rules governing water in Colorado. I discuss the rights-based system of water, as it is this distinctively legal water management paradigm that governs water allocation in Colorado and some other parts of the western United States. In Chapter 7, I go into greater detail regarding water as a public good and the tensions that result from a competitive resource as both a private right and a public good.

**Prior Appropriation**

The scarcity of water in the west has led to the development of a system of water management that is unique to the western United States. Water is a competitive resource in that it is both a public good and a private right in the west. Rules for water use and access to water

⁴ The largest reservoir in Colorado, Lake Powell, is named after this legendary pioneer.
developed out of the ad hoc system of rules in the mining camps during the Gold Rush (Cech, 2010; Hundley 2001). The rights-based system of water allocation became a way to bring water to arid areas of the western United States in the early 1800s as the federal government touted the west as a new mecca for hardworking, enterprising Americans.

The use of water in Colorado is governed by a doctrine of prior appropriation, also known as the “Colorado Doctrine” of water law. The heart of prior appropriation is that, while no one may own the water in a stream, people, corporations, and municipalities have the right to use the water for beneficial purposes. The allocation of water in a prior appropriation state rests on the maxim, “first in time, first in right.” The “first in time, first in right” policy sets up practices that reward consumption. The first person to use water (called a “senior appropriator”) acquires the right (called a “priority”) to the water’s future use, against later users (called “junior appropriators”). The terms are most often shortened to “senior rights” and “junior rights.”

To have a water right, one must make an appropriation. An appropriation is the diversion of water and its application to a beneficial use. Irrigation, mining, and industrial applications; stock watering; and domestic and municipal use are all considered beneficial uses. In recent years beneficial use has expanded to include environmental uses and snowmaking, among others. Because the water rights system is based on beneficial use, a lack of use can result in an “abandonment” or “forfeiture” of the right. If the water is not diverted and used (beneficially) within a specified period of time (usually within 5 years, but this can vary), the water right can be lost or forfeited. In this dissertation I do not discuss forfeiture of water rights, but I mention it here to complete the broad explanation of how water rights are administered in Colorado. In Colorado, water is a private right.
Water court in Colorado, which I will not discuss in this dissertation, administers water rights. This study is focused on the local governance form of roundtables and the primary state agency connected to the roundtables is the Colorado Water Conservation Board (CWCB). This agency operates in consultation with the state engineer and other relevant agencies (Department of Natural Resources and others). In the next section I provide what is sometimes called a *dramatis personae*. It is a cast list along with short explanation of the important agencies that are the primary players in Colorado water. I then explain each agency in more detail. I conclude with a discussion of the mission and mandates of the Colorado roundtables, how they are structured, and participants in roundtable meetings.

**The Structure of Governance of Water in Colorado**

Following the Great Depression of the 1930s, the “big dam” period in the west (Wehr, 2002) provided jobs and economic growth for the region. The low-cost\(^5\) hydropower produced by large multipurpose dams such as the Grand Coulee Dam on the Columbia River, the Hoover Dam on the lower Colorado River, and the Central Valley Project in California fueled urban and industrial growth in the west. However, starting in the 1990s, the nation, and the west in particular, turned away from big dams and large water projects. In Colorado, a bitterly divisive legal battle over a proposed reservoir, Two Forks, was a watershed moment for the state. Two Forks, a proposed dam and reservoir project led by Denver Water included an impressive coalition of municipal water providers. This project, despite the enormous amount of money spent on preliminary studies (it has the largest cost to date for preliminary studies, $40 million

\(^5\) What exactly was counted to mean “low-cost” is unclear.
(Grigg, 1996)), was vetoed by the Environmental Protection Agency because of their conviction that the negative environmental impacts of the project were overwhelming and could not be mitigated. Two Forks “may have forcibly changed the direction of Colorado water management” (Nichols, Murphy & Kenney, 2001, p. 1) and a new era in water management in Colorado began. The Colorado Water for the 21st Century Act, HB05-1177 formally ushered the new era in. This key legislation established 9 basin roundtables that will be discussed in more detail later in the chapter; a larger group that ties together the basins, the InterBasin Compact Committee (IBCC), and its small workgroup, the Public Education, Participation and Outreach committee (PEPO).

**Dramatis Personae**

CWCB—the Colorado Water Conservation Board, the state’s primary water policy and planning agency.

IBCC—the Interbasin Compact Committee, a statewide group of representatives from each Basin Roundtable and other government agencies.

PEPO—a subcommittee of the IBCC designated to promote public involvement.

BRTs—basin roundtables in each river basin in the state of Colorado.
The state agency assigned to “protect and develop” the waters of the state, the Colorado Water Conservation Board (CWCB) was created in 1937. Its major programs include water supply protections, flood protection, conservation and drought planning, stream and lake protection, and water supply planning and finance.

The CWCB was instituted in part to support the Colorado Big Thompson (CBT), the largest water project to pipe water from the west slope of Colorado to the eastern portion of the state. A Board of 15 members, with the Governor appointing nine members, manages the CWCB as a state agency; the other six members are non-voting representatives of affiliated state agencies (Department of Natural Resources, the Attorney General, the State Engineer, etc.). The board members of the CWCB for years have been prominent figures in large water projects (Headwaters, 2009). Although the CWCB was instituted at a time when building large water projects meant economic growth, there was a period of time (from 1974 to 1976) when divisions among competing interests in the state were so inflammatory that the director refused to call board meetings (Poppleton, 2009). Today, the CWCB sees its mission differently. The current director of the CWCB envisions this agency’s role as “a think tank for the state’s water future” (Sibley, 2009, p. 15).

The next section is a description of the governance bodies that were formed from HB05-1177 (Appendix A): the IBCC and its smaller workgroup, the PEPO meetings. I conclude with
an overview of the roundtables with a focus on the roundtables that are central to this dissertation. The IBCC is the larger meeting between the basin roundtables members that enables the roundtable participants to participate in a statewide perspective of water management. The PEPO is the workgroup designated to cultivate public participation. The CWCB staff assists the IBCC and the roundtables and CWCB staff has designated seats on both groups.

*IBCC and Its Subcommittee, the PEPO*

The Interbasin Compact Committee (IBCC) is mandated to address issues *between* the basin roundtables. The legislation that instituted the roundtables, HB05-1177, also established the IBCC (sec. 37-75-105, Appendix A), the roundtables and the IBCC were created to work with each other. The Public Education Participation and Outreach committee (PEPO) is the only workgroup that is written in the HB05 1177 legislation.

My first introduction to the IBCC came about by attending the PEPO meeting as a member of the public and a researcher who was interested in water in Colorado. Work group meetings, including the PEPO, meet the day before each IBCC meeting. The chairwoman of the PEPO strongly urged me to attend the IBCC meeting on the next day in the same location.\(^6\)

The IBCC is a 27-member committee established to facilitate conversations between basins and to address statewide issues. The IBCC is vital to the roundtables, as it is the larger umbrella

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\(^6\) This occurred on both occasions when I attended the PEPO and consequently the IBCC meetings.
group designated in HB 1177 that ties the roundtables across the state together. Representatives from roundtables across the state are brought together to address issues among the river basins.

The mission of the IBCC states:

The Interbasin Compact Process creates a framework to encourage dialogue on water, broaden the range of stakeholders actively participating in the state’s water decisions, and creates a locally driven process where the decision-making power rests with those living in the state’s river basins. (IBCC, 2007)

The IBCC meetings are generally held four times a year in different regions in the state. A hotel in the region is booked for the attendees around the state, with conference rooms for the all day meetings. As I mentioned earlier, the day prior to the IBCC meeting, smaller workgroup meetings such as the PEPO meetings are scheduled, so that effectively the IBCC meetings are at least 2 days. Each IBCC meeting lasts most of the day. The composition of the IBCC is as follows: two members are appointed by each of the nine roundtables; six members are appointed by the Governor with these members coming from geographically diverse parts of the state. Members have expertise in environmental, recreational, local governmental, industrial, and agricultural matters. One member is appointed by the chairperson of the Senate Agriculture Committee; one member is appointed by the chairperson of the House Agriculture Committee; and the Director of Compact Negotiations, who chairs the IBCC, is appointed by the Governor.

At the IBCC meetings the tables in the room are organized into a square. IBCC members have an identifying placard in front of them with their name and affiliation; this affiliation may be a river basin, an irrigation district, an environmental group, an at-large seat, or another legally mandated designation. The larger IBCC meeting replicates the set-up of the smaller roundtable meetings.
The PEPO workgroup is charged with “creating a process to inform, involve, and educate the public on the IBCC’s activities and progress of the interbasin compact negotiations, and create a mechanism by which public input and feedback can be relayed to the IBCC and compact negotiators” (http://ibcc.state.co.us). Public involvement in environmental issues is a highly regarded ideal in the world of environmental governance. It is significant enough that Colorado designated a special committee to address public involvement. The PEPO outreach efforts are directed towards the general public. The idea is for the PEPO to create a mechanism by which public input and feedback can be relayed to the IBCC and compact negotiators (Appendix A; HB05-1177).

Another focus of PEPO is to assist the roundtables in public education and involvement. Each roundtable has a member appointed to the Public Education, Participation and Outreach (PEPO) committee. The PEPO works closely with two staff members of the Colorado Foundation for Water Education (CFWE). The CFWE is an independent non-profit agency whose mission is to promote a better understanding of Colorado’s water resources so that Coloradans can make more informed decisions about water resources (see http://www.cfwe.org/). CFWE publishes the quarterly magazine *Headwaters* (see archives at http://www.cfwe.org/index.php?option=com_content&view=article&id=242&Itemid=137), which features key issues such as the roundtables (summer 2009), the CWCB (fall 2009), and water law (fall 2007). One member from each roundtable is designated to serve on the PEPO. Figure 2.1 displays the river basins in Colorado that form the water roundtables.

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7 Retrieved from http://ibcc.state.co.us/Process/PublicEducationParticipationOutreach/ March, 2009.
Figure 2.1
Colorado River Basins (IBCC, n.d.)

**Basin Roundtables**

In the western United States, a semi-arid area\(^8\) (Wilhite & Buchanan-Smith, 2005), one kind of multi-stakeholder meeting that is becoming commonplace is the water roundtable. These meetings seek to build connections among traditionally contentious stakeholders as they discuss and sometimes make decisions about water use. Water disputes in the west have a history of violence and bloodshed (Reisner, 1986; Tyler, 2003). Although water roundtables are not a new concept, they have recently become legally mandated events in Colorado’s river basins. In 2005

\(^8\) On early maps (1859) drawn by John Wesley Powell, the western United States was labeled “The Great American Desert.”
the state of Colorado passed legislation, HB05-1177, The Colorado Water for the 21st Century Act, creating water basin roundtables as a deliberative, local governance structure.

The mission of the basin roundtables (Appendix A, HB05-1177) is to “facilitate discussion on water issues and encourage locally driven collaborative solutions. The broad-based, collaborative nature of this process is reflected in the roundtable membership.” (IBCC, 2007). Table 2.2 shows the composition of the nine roundtables in terms of square miles, the number of voting members, the number of subcommittees, type of geographic features, compositions of members, and subcommittees. One consideration behind the structure of the roundtables is the need to recognize the uniqueness of each basin’s attributes, acknowledging that different issues are associated with different geographic features. The governance structure is based on the geographic divisions formed by river basins. In the nine roundtables in each basin, meetings are held either monthly or bimonthly and involve key participants in the land, water, and policy areas.
Table 2.1
Colorado Roundtables

HB05-1177 created water roundtables in eight naturally occurring river basins, and one metro basin for a total of nine basin roundtables in Colorado. Eight of the roundtables are natural river basins and the ninth is the Denver Metro roundtable. The Denver area has the highest population concentration and is projected to continue to grow, making the Denver area one of the largest consumers of water. The primary responsibility of each roundtable, in addition
to facilitating discussions, as I showed earlier, is to develop a needs assessment for how much water the basin will need for the various sectors such as domestic, municipal, and agricultural uses.

HB05-1177 has two main parts. The first part created the nine basin roundtables and the second part created a larger committee that I discussed earlier, the IBCC. There is only one mandated subcommittee under HB05-1177, called the Public Education and Public Outreach Committee (PEPO). One member of each roundtable sits on the PEPO subcommittee, underscoring the importance roundtables place on public education and outreach efforts.

HB05-1177 is an effort to transition from a legalistic type of environmental governance to a more collaborative model. As a senior water attorney and Denver metro roundtable member stated, “there needed to be a different way of getting along, we sort of devolved into perennial litigation and fighting over who was gonna get how much water, and everybody trying to protect how much water they had… so the notion behind 1177 is to get people to sit down and talk to each other and see if there isn’t a better way to do this” (Peter Nichols Interview, 2009, Appendix D).

Water roundtables are communicative events, with the purpose of bringing together participants to, as Governor Ritter stated, “end Colorado’s divisive water wars.” Water roundtables can be conceptualized as (at least) two kinds of communicative practices, as an instance of democratic deliberation, and more particularly as public environmental meetings.

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**Roundtable Members**

Seats on a roundtable are allocated to different kinds of representatives. In the statutory decree for HB05-1177, a certain percentage of seats are designated for agriculture, environmental representation, county commissioners, members of water boards and irrigation districts, at large seats, and municipal and industrial seats. The municipalities in each basin must jointly appoint one member. Each county within the boundaries of the roundtable basin is allowed one member. One member from each water conservation district within a roundtable’s boundaries is permitted a seat. Finally, the chairpersons of the Colorado House and Senate Agriculture Committee jointly appoint one member.

HB05-1177 also mandated that each roundtable have 10 at-large members appointed in consultation with the Director of Compact Negotiations. Half of the ten appointees must be water rights holders. The interests represented include: (1) agriculture, (2) recreation, (3) local domestic water providers, (4) industrial interests, and (5) environmental interests. In addition, there is a representative from the Colorado Water Conservation Board (CWCB), the state agency that manages water. Additional seats are allotted to represent 10 agencies; (1) Bureau of Reclamation, (2) the U.S. Forest Service, (3) Bureau of Land Management, (4) the National Park Service, (5) U.S. Fish and Wildlife Service, (6) U.S. Geological Survey, (7) Division of Natural Resources, (8) Division of Wildlife, (9) Colorado Water Quality Control Division, and (10) the Colorado State University Extension Service. Most of the roundtables do not have every representative listed; in some basins there is no need for an agency to be part of the discussions, when there is, a member of that agency is recruited. In general, the roundtables have 30 to 50
members. The broad-based, collaborative nature of the roundtables is reflected in the membership.

Of the nine roundtables, some are small, others larger, depending on the geographic boundaries. In one case, i.e., Denver, the roundtable does not represent a natural river basin and thus not all of the above listed representatives are members of the metro roundtable. Tying designated members to interests is an attempt to encompass a wide range of concerns (McKinney & Harmon, 2004), working to include as many of the roundtable’s stakeholders as possible, while still recognizing that the basins have different needs and priorities.

In the next section I introduce the focal roundtables in this study, the South Platte Basin roundtable and the Denver Metropolitan Roundtable. In Chapter IV I provide the reasons that motivated the choice of these two roundtables.

Focal Roundtable #1: South Platte Basin Roundtable

The South Platte Roundtable is the first water meeting site. The South Platte River Basin supplies over 50 percent of the water for the Front Range of Colorado, including the major urban centers of Fort Collins, Greeley, and Boulder. This river basin has the second largest number of voting members at 51 (the Arkansas Basin Roundtable has 53). The South Platte Roundtable has the largest percentage of agricultural land of all the roundtables.

The geographic area covered by the South Platte Basin Roundtable is approximately 27,660 square miles in northeast Colorado, including the Republican River Basin. The largest cities in the basin are Denver (population 560,882), Aurora (population 287,216), and Lakewood (population 144,150). The South Platte River Basin has diverse topographic features creating a
wide range of hydrologic variability. Elevations range from more than 14,000 at the headwaters near the Continental Divide to 3,400 feet at the Colorado/Nebraska state line. The river emerges from the mountains southwest of Denver, flows through the metropolitan area, and then enters the High Plains. Approximately one-third of the land area in the basin is publicly owned, and one million irrigated acres are under cultivation in the South Platte Basin. The agricultural economy in Weld County alone contributes 1.1 billion dollars per year to Colorado’s economy.\(^\text{10}\)

The South Platte has approximately one million irrigated acres of land under cultivation. Its population is expected to double in size by 2030. As of June 2010, the State Engineers’ office estimated that approximately 1,200 of the 9,000 high capacity wells have been shut down due to insufficient water. In the western United States, the agricultural sector has historically had more control over water, setting up early divisions between the available water and how it was politically shared.

\textit{Focal Roundtable #2: Denver Metropolitan Roundtable}

The second roundtable site in this study is the Denver Metro roundtable. As a roundtable without a natural river basin but with a growing need for water, the Denver Metro roundtable is a contrast to the more agrarian South Platte Basin. Denver lies within the South Platte River Basin and most of their needs are municipal and industrial. Denver relies on several basins for their water supply. To some degree Denver’s geographic location within the South Platte Basin creates ties, and yet the basins have very different foci. Complex and intricate ties to multiple

\footnote{The previous data detailing the geographic features of the basins was collected from the IBCC at \url{www.ibcc.state.co.us}.}
basins in the state, combined with the growing population pressures, put the Denver Metro 
Roundtable in a difficult position with respect to other basins. In Figure 2.2, arrows indicate 
where Denver gets its water. The green boxes are reservoir sites. Following the Two Forks 
controversy mentioned earlier in the chapter, Denver Water decided not to provide water to the 
suburban areas.

As Figure 2.2 illustrates, the Front Range of Colorado is sharply divided by the mountain 
range on the left (west) side of the map. Most of the urban growth in Colorado occurs along the 
Front Range; however it is the West Slope, a more rural region, which has a more plentiful water 
supply due to its geography. “From the very beginning of settlement in Colorado there has been 
a geographical and political division of the state into what is now described as the Eastern 
Slope—Western Slope controversy” (Corbridge & Rice, 1999, p. 17). Trans-boundary 
diversions, moving water from the plentiful West Slope to the East Slope, cause the most 
conflict. The former General Counsel of the Colorado River Water Conservation District David 
Hallford stated “If the West Slope makes an agreement with the East Slope, we [the West Slope] 
are setting ourselves up to be stabbed in the back” (Nichols, Murphy & Kenney, 2001, p.41). In 
water circles, agriculture, traditionally a Western Slope enterprise, is held up as an ideal that the 
East Slope is eroding.
Figure 2.2.

Sources of water drawn to Colorado municipalities.

The Metro region utilizes water imported from basins throughout Colorado although it geographically lies within the South Platte River Basin. In 2000 the Denver metro region alone had over 2.1 million residents, almost half of the state’s population. By 2030 the population is expected to rise to 3.3 million people. The Metro roundtable meets every other month and there are about 27 voting members.

Chapter 7 provides more detail about both of these basin roundtables as sites of communicative endeavors as participants seek to manage the troubles of dwindling water resources and growing demands. This chapter described the context of water in Colorado and
introduced the two primary roundtables that are the focus of this study. As centrally communicative sites of talk and decision-making about resources, science, and public values, roundtables deserve a closer look. The next chapter reviews the literature I drew upon for this study of roundtables. The following photograph is a copy of the Colorado River Compact, the significance of which cannot be understated. The Colorado River Compact is considered the defining document in Colorado River management. This document, signed in 1922, sealed the apportionment of the Colorado River water among seven states and is the keystone to the “Law of the River” which still holds legal force today.
Figure 2.3

“True copy” of the Colorado River Compact.
CHAPTER 3

COMMUNICATIVE PRACTICES IN ENVIRONMENTAL GOVERNANCE

Chapters 2 established water in the west, and water roundtables in particular, as an important site for exploring the relationship between discourse and water. In this chapter, I bring together research from the fields of communication and environmental governance in order to develop a discourse-centered theoretical perspective for investigating water roundtables as a deliberative practice. I structure this chapter by identifying key perspectives, definitions, and claims vis-à-vis environmental governance, collaboration, and deliberation. Within the deliberation tradition I show how public meetings and expertise have been discussed in the literature. I track the ways that scholars have theorized the communication within each of these literatures and I show how the ideas from these fields are useful and how they are problematic.

Environmental Governance

In this section, I focus on how scholars have conceptualized environmental governance, especially as a communicative practice. I pay particular attention to the ways that discourse has been utilized as an analytic tool in environmental communication. Environmental governance literature is a diverse and multi-disciplinary enterprise that spans political science (Ansell & Gash, 2007; Crow, 2009, 2010a, 2010b; Lubell, 2004), environmental management (Genshow,
2009; Guppioni, Jakeman, Karssenberg & Hare, 2006; Ostrom, 2008; Postel, 1992; Postel & Thompson, 2005; Pierce & Doerksen 1976), law (Kenney, 1999a; 1999b; 2001; Lach, Ingram, & Rayner, 2005; Nichols, Murphy, & Kenney, 2001), and other domains. In fact, scholars of environmental governance publish in multiple domains. As a communication scholar, I bound the environmental governance literature in this review by drawing on voices that attend to the inherently communicative nature of resource allocation while considering the unique characteristics of water as a resource.

Considered by many to be the start of environmental communication as a distinct field, Christine Oravec’s (1981) rhetorical analysis of the “sublime” in John Muir’s appeal to preserve Yosemite Valley anchors the strong rhetorical tradition within environmental communication. Environmental communication as a field has continued to grow with well-developed rhetorical streams (cf. Cox, 2010; Moore, 2005; Prelli, 2007). Studies of environmental governance that draw on the discourse analysis tradition are conspicuously absent. Rhetorical analysis often draws on the diverse and contentious voices of the public sphere—citizens speaking at public hearings, speeches, advocacy campaigns, technical expertise, and news media. Understanding environmental communication encompasses these, what I think of as tributaries of communication, I suggest that conceptualizing water management as a practical discursive problem allows for both a macro and micro-analysis of water roundtables.

In an early study of environmental issues, Nelkin (1979) and others presented case studies highlighting the growing importance of environmental governance issues. A key point the authors noted was the “declining capacity of citizens to shape policies that affect their interests,” pointing to the controversies caused by “traditional values and cherished beliefs” (p. 11). This

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early noticing of the vexing social dilemmas foregrounded, albeit not explicitly, the central role of ideological dilemmas in environmental governance. Although not named as ideological dilemmas, the case studies illustrated the breadth of political, economic, and ethical issues that are crowding the public debate arena. Ideological dilemmas involve holding equally desirable opposing values. Billig (with Condor, Edwards, Gane, Middleton & Radley, 1998) developed the definitive explanatory framework for making visible how, in everyday talk, people routinely hold and express contradictory beliefs. In discussions of environmental governance, ideological dilemmas are especially salient as competing values underlie many of the conflicts in managing resources. Billig and his colleagues argue that ideological dilemmas are part of everyday life and there is great explanatory value in understanding how people manage them. In this chapter I lay the groundwork for a discussion of ideological dilemmas in water roundtable talk, as I discuss collaboration, deliberation, public participation, public meetings, and expertise. In the next section I highlight ways that collaboration has been conceptualized within the fields of communication and environmental governance.

Collaboration

The language used in HB05-1177, creating water roundtables, positions roundtables as a way of “encouraging locally driven collaborative solutions.” Collaboration has become something of a buzzword, a popular term in environmental governance arenas. Numerous scholars (Ansell & Gash, 2007; Belsten, 1996; Bentrup, 2001; Deitz & Stern, 2008; Genskow, 2009; Leach, Pelkey, & Sabatier 2002; Lubell 2004; Sabatier, et.al. 2005) have noted the
increase in collaborative forms of environmental governance, such as watershed partnerships, as an emerging resource for addressing water issues in the United States.\textsuperscript{12}

In a landmark review of collaboration in the discipline of communication, Lewis (2006) reviewed eighty sources of “collaborative interaction” across multiple contexts. The aim of her review was to map collaboration literature in order to create a synthesis of collaboration research that intersects the field of communication. The criteria for inclusion in the review were that the scholarly works marked a connection to communicative interaction, and participants embraced a joint purpose. One important criterion of inclusion for Lewis was that all collaborative interactants needed to have a special form of interdependence. Lewis drew on Thompson’s (1967) “reciprocal interdependence,” where participants needed to manage three processes: negotiation of identities, mutual exchange, and executing collaborative skills. Lewis’s description of participants managing these three processes reflected the nuanced complexities present in water roundtable talk. This dissertation responds to Lewis’s call for observation of “collaborative behaviors as they naturally occur” (p. 297).

In another influential review of collaboration within communication, Heath and Frey (2004) offer a conceptual framework for understanding community collaboration as “autonomous stakeholders with varying capabilities … directed toward mutually accountable, typically innovative ends, producing long term social change at a local level, in a cooperative, relatively non-hierarchical relationship that is negotiated in an ongoing communicative and principled process” (p. 194). This definition captures some of the ideals expressed by those familiar with

\textsuperscript{12}As I mentioned in Chapter 2, watershed groups have a deep tradition of citizenship involvement and generally focus on remediating a specific set of environmental problems within a watershed (Sibley, 2010, p. 6). There are multiple forms of partnerships that include non-profit, citizen-led groups, and government agencies working together to manage the complexities of a shared watershed. Fountain Creek Watershed in Colorado exemplifies one of the state’s most ambitious efforts at blending traditional grassroots efforts with government agencies.
Colorado’s water roundtables, although important differences surface in the analysis in Chapter 7. One of the slippery terms is “community.” Although water roundtables see themselves as a community, how ideological dilemmas are named (as well as their very existence) surfaces as a power issue as water roundtables label their troubles. As I will show later, the dilemmas in water resources are enduring; how they are named and talked about however, is consequential.

In addition, other communication scholars investigating dimensions of collaboration offer an analysis that focuses on organizational representatives, not organizations, as a unit of analysis (Keyton, Ford, & Smith, 2008). The authors provide a macro and micro analysis of communication in collaboration. Their perspective explores the talk of organizational representatives, as individuals who represent larger agendas. This captures another important feature of water roundtable discourse, the macro and micro levels of representation that are negotiated in the talk. Additionally, the authors argue this perspective accounts for a spectrum of participants, those with no history, those with an investment in the past (a hallmark of Colorado water talk), and those with future expectations. Keyton, Ford, and Smith also forward a critique of collaboration literature that holds across the multidisciplinary dimensions of collaboration. There is, the authors argue, “an overarching metamoralistic assumption concerning collaboration that permeates the literature; that is, a collaborative process that is more inclusive creates better decisions” (p. 379). The discursive burden of “collaboration is good” is evident in water roundtable talk, as I will show in Chapter 6.

There is a growing literature on collaborative river basin partnership efforts. Although watershed meetings are a broad label for a process that I argue does not encompass water
roundtables, findings from the literature on watershed partnerships offer assessments that are worth noting in a study of roundtables. In a broad review of watershed meetings, Leach, Pelkey, and Pelkey (2001), found the local context to be paramount. Accounting for context matters in significant ways for both water talk and more broadly, discourse studies, as I will show in the next chapter. Attending to situated context is essential in communicative practices, as I will discuss in more detail in methodology.

Wisconsin adopted natural-resource-based boundaries for managing multiple agency programs. Genskow (2009) identified that the basin partnerships that survived and thrived were ones with a specific purpose and mission. This underscores another important principle of environmental communication highlighted by Deitz and Stern (2008): the value of clarity of goals. Clarity is commendable, however, participants in water governance have clear goals, many of which compete with one another.

Ansell and Gash (2007) make several important points in an empirically inductive analysis of 137 cases of collaboration in environmental governance. The authors begin by defining collaborative governance as “A type of governance in which public and private actors work collectively in distinct ways, using particular processes, to establish laws and rules for the provision of public goods” (p. 545). This definition stipulates the inclusion of public agencies and emphasizes the institutionalization of collective decision-making, both important features of water roundtables. Another notable finding was that collaborative governance is endogenous, that is, shaped in either positive or negative directions by the process itself.

13 Leach, Pelkey, and Sabatier (2001) would put water roundtables under the rubric of watershed partnerships, in part, because the focus of their work is more on outcomes of collaboration rather than the processes of collaboration.
The purpose of the Ansell and Gash (2007) study was to identify *contingency conditions for collaboration*, so that researchers and practitioners are able to ask “What are the contextual conditions likely to facilitate or discourage the desired outcomes of collaborative governance?” (p. 562). The authors emphasize that there are three core contingencies: time, trust, and interdependence. They acknowledge that these contingencies are slippery and “not easy to parse as distinct variables,” (p. 562) yet how participants understand and work with these three variables are key indicators of collaboration. This dissertation heeds Ansell and Gash’s call for “intensive ethnographic research [that] might be the most successful strategy for developing greater insight into the nonlinear aspects of the collaborative process” (p. 562).

Collaboration is an alluring concept with the appeal of enticing rewards, especially when paired with environmental issues that tug on emotional ties, as studies of rhetorical environmental communication shows (Oravec, 1981, 1996; Petersen, 1990; Petersen & Horton, 1995). Water, however, presents unique obstacles for collaboration and engaging citizens. In the next section I discuss deliberation.

**Deliberation**

Tracy (2010) defines ordinary democracy as “what occurs in local-level representative governance groups” (p. 4). This idea of ordinary democracy puts emphasis on local community gatherings, typically school boards or city councils, and the observable activities that groups engage in. Ordinary democracy “begins with existing institutions and describes what is occurring in them” (p. 4). As I describe water roundtables in Chapter 7, I analyze the talk as the enactment of ordinary democracy. The gaps and tensions between democratic ideals and how they are accomplished (or not), and negotiated, is part of the communicative practice. In ordinary democracy, *talk* is the focal practice. Participants in grassroots governance sometimes
dismiss “talk” as an inconsequential and frivolous endeavor, but this overlooks the fundamental
day, as Tracy notes, that that talk is action. As Tracy noted, what talk accomplishes in public
participation is not well understood. As I review deliberation I lay the groundwork for analyzing
talk within one such domain.

Deliberation is often conceptually paired with “public” or “democratic,” in discussions of
participation in environmental meetings. There is no clear conceptual definition of “deliberation”
although numerous scholarly conversations about public deliberation chronicle its struggles,
shifting contexts, and possible future directions (Dahl, 2000; Eliasoph, 1998; Gastil & Levine,
2005; Putnam, 2000; Ryfe, 2005). In an effort to integrate the wide range of work on public
deliberation, Burkhalter, Gastil, and Kelshaw (2002) define deliberation in a model that positions
public deliberation as “a combination of careful problem analysis and an egalitarian process in
which participants have adequate speaking opportunities and engage in attentive listening or
dialogue that bridges divergent ways of speaking and knowing” (p. 399). Deliberation offers
potential for interaction that shapes the talk; this deserves close examination, as it is in the
emergent phase that choices are made about what gets cultivated and moves forward in
interactions. Although Burkhalter and colleagues’ definition captures ideals of equality and
respect, the emergent and empirical aspects of deliberation are what I elaborate in the analysis
Chapter 7.

Burkhalter, Gastil and Kelshaw (2002) offer “careful weighing” as central to their definition
of deliberation. They point out that the level of abstraction used by theorists in the discussion of
deliberation only adds to the confusion about what constitutes deliberation. “Careful weighing”
is what is expected to occur in the emergent phase. Using empirical evidence (talk and texts) of

14 For more elaboration see Austin (1962), Searle (1979).
deliberative processes for a practical analysis will tie discourse to more abstract norms. In a similar understanding of emergence, Yankelovich (1991) defines public deliberation as a discourse among people that centers on a public good with attempts to be reflective and egalitarian in a specified social context.

Fairness in public participation involves balancing difference and discourse. Mansbridge (1983) identifies difference as fundamental to public deliberation but acknowledges that it is often overlooked in deliberative democratic theory. Difference is also acknowledged in core values 11 and 13 of the National Environmental Justice Advisory Council (NEJAC) policy, as I will show later in the chapter. The concept of difference is central to water roundtables as members are brought together because of their differences as I will show in later chapters. The democratic practice of deliberation, as Burkhalter, Gastil and Kelshaw (2002) note, is fragile. Identifying the discursive practices that support emerging deliberative moments will sustain the momentum towards addressing problems in water governance.

Another influential scholar at the confluence of deliberation, participation, and environmental issues, Stern (2005), modeled deliberation about environmental problems on scientific problem-solving norms. Stern defined deliberation as “any process for communication and for raising and collectively considering issues…. In deliberation, people discuss, ponder, exchange observations and view, reflect upon information and judgments concerning matters of mutual interest, and attempt to persuade each other” (p. 215). In a call for analytic deliberation in environment decision making Stern suggests five principles for organizing deliberation.

1) Deliberations should be broad-based.

2) Scientific quality should not be compromised.

3) Value issues need explicit attention.
4) Deliberative processes should be transparent.

5) There should be acceptable rules for closure and for reconsideration. (Decisions require a temporary halt to deliberation and the possibility for restarts.)

These principles for deliberative norms and institutions emphasize the centrality of scientific information, while acknowledging that there are other sources of input for deliberation. Stern (2005) points out that the norms and routines of democratic debate overlook the need for participants to gain scientific background to deliberate effectively. In privileging the scientific method, Stern is similar to Lubell and Leach’s (2005) stance as they express “any social accomplishments are largely symbolic and transitory if they do not translate into resolving the underlying environmental problems and/or conflicts” (p. 3). How to cultivate the scientific background for deliberation is unclear and Stern advocates for experimenting with deliberative forms while hewing to scientific norms.

An interesting counterpoint to Lubell and Leach’s (2005) focus on solutions is the notion that as members of the public become engaged in environmental issues they become empowered by understanding the problem and processes used to deal with them (Mitchell, 2005a). Arguing that the value of participatory partnerships in environmental processes need to be examined in more detail because the assumed benefits do not always emerge, Mitchell raises the point that, in fact, humans are more often than not, competitive and motivated by self interest. As I have indicated throughout, research on watershed meetings largely ignores the communicative aspects of environmental meetings. In a review of “innovative participatory processes,” Konisky and Bierele (2001) take care to point out that a key strength of roundtables and watershed partnerships is the deliberative nature of collaborative groups. How that deliberation occurs
remains unknown. Ryfe (2007) articulates the dilemma of deliberation as “Advocates of deliberation often wage political battles of the most basic kind without a shared understanding of what they are doing and why they are doing it” (p. 3). One important and well-studied component of deliberation on environmental issues is public participation, which I discuss next.

**Public Participation**

Public participation in environmentally focused meetings is increasingly a subject of scholarly scrutiny. Norms of democracy and public participation are nuanced ideals; the question these norms raise are how do these ideals fare in different situated contexts? As water roundtables subscribe to ideals of democracy and public participation, I expect tensions to be found.

The extensive literature on the problems of public participation in environmental issues (Buck & Stone, 1981; Checkoway, 1981; Fiornio, 1989) outlines the perils and problems of cursory efforts on the part of agencies, a decide-announce-defend approach (Senecah, 2004), inadequate public understanding of the issues (McComas, 2001), and how agencies have damaged their credibility. Questions about how to engage “ordinary” citizens in public debates on policy issues are gaining attention in studies of democratic theory and practice (Guttman, 2007).

In a democracy, the processes of making decisions that impact public policy and the environment are expected to involve the public. Most political theorists see democracy as an ideal (Dahl, 2000; Gastil, 2000, Mansbridge, 1983). Environmental issues in particular highlight the tensions between ideals and reality as controversies erupt over environmental decisions that straddle the domains of science and politics (Nelkin, 1979). Environmental controversies are
complex and volatile (Fischer, 2000; Jasanoff, 2005). In a democracy, one vital component of environmental deliberation is public participation.

Scholars maintain that public involvement is central to water resource policy-making, while at the same time acknowledging that participation in water policy is a daunting task with technical issues at the heart of evaluating policy alternatives (cf. Pierce & Doerksen, 1976). Adding to the complexity, the authors note, is that opportunities are irregularly available and participation is not taught as part of one’s civic responsibilities.

There are, however, many technical experts who believe that involving the public in complex environmental decisions will delay and further complicate the issue because the public cannot understand the complexities of the issues (Simmons, 2007). Other criticisms of public participation include concerns that it frequently occurs too late in the decision-making process, that it is often adversarial, that there are inadequate mechanisms for informed dialogue among stakeholders, and that there are few ways to ensure that the public impact decision outcomes (Depoe, Delicath & Elsenbeer, 2004).

A landmark National Research Council review of public participation in environmental decision-making assessed the current state of affairs of public participation and identified principles and “best processes”15 of participation (Deitz & Stern, 2008). The premise of this study was that “on average, public participation is associated with better results, in terms of criteria of quality, legitimacy, and capacity” (p. 76). In this report, public participation is delineated as “any variety of mechanisms and processes used to involve and draw on members of the public or their representatives in the activities of public or private-sector organizations that are engaged in informing or making environmental assessments or decisions” (p. 12). This

15 Italics in original text.
definition highlights the mechanisms and processes rather than outcomes, as many other studies do (e.g., Beierle, 1999; Konisky & Beierle, 2001; Leach & Pelkey, 2001; Lubell, 2004; Mitchell, 2005a).

In Deitz and Stern’s (2008) discussion of public participation, they make distinctions among different publics and emphasize the value of context as a way to balance composition of the different groups. The authors follow Renn and Walker (2008) in making these distinctions among public(s).

- **Stakeholders** – organized groups that are or will be affected by or that have a strong interest in the outcome of a decision.
- **Directly affected public** —individuals and nonorganized groups that will experience positive or negative effects from the outcome;
- **Observing public** —the media, cultural elite, and opinion leaders who may comment on the issue or influence public opinion; and
- **General public** —all individuals who are not directly affected by the issue but may be part of public opinion on it.

The focus on institutionalized decision-making is tied to a fluid definition of “public.” The public may be people that represent organized interests (stakeholders), people selected to represent particular positions, or self-selected citizens. Conceptualizing publics in multiple categories recognizes and incorporates what Ashcraft (2006) named “shifting affiliations” in her call for an organizational theory that “more fully accounts for the persistent feuds and ironic, shifting affiliations between them” (p. 81). Roundtables are often designed to bring together those with conflicting or dissimilar interests (Imperial, 2005; Kenney, 2001; Lesh & Lowrie, 1995; Lubbell, 2004), and affiliations necessarily are fluid.
Deitz and Stern (2008) acknowledge (and insist) that identifying who needs to be involved requires context-specific development of the four categories listed above. The categories are designed to provide guidance. It is context that should primarily inform participatory choices. Organizing participation means understanding and providing clarity about the goals of the process, and there is a wide range of goals for public participation processes. Goals include not only the quality of environmental decisions, but also attending to the relational aspects of the participants. The authors return again and again to the idea that it is processes and how they are organized and carried out that will create effective participatory mechanisms. The report calls for research into practices of participation in environmental assessments and decision-making. Scholars interested in public participation in environmentally-focused decisions have largely glossed over how the discursive practices of participatory processes occurs.

Government agencies, those charged with including the public in their decision-making processes have developed guides to assist agencies. In 1969, The National Environmental Policy Act (NEPA) institutionalized public participation in environmental planning. NEPA did not specify that participation be collaborative, dialogic, or deliberative, only that there be some form of involvement. Typically, government agencies charged with public participation rely principally on hearings and letter-writing comment periods. Deliberation is not included. Below I list key features of the public involvement section of NEPA (Eccleston, 1990).

Specific Instructions in NEPA for Involving the Public

Inviting Comments (Section 1503.1)

(a) Request comments from the public, affirmatively soliciting comments from those persons or organizations who may be interested or affected.

(b) An agency may request comments on a final environmental impact statement before the decision is finally made…
Public Involvement (Section 1506.6)

Agencies shall:

(a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures…

(b) Provide public notice of NEPA related hearings, public meetings, and availability of environmental documents….

(c) Hold or sponsor public hearing or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency.

Another perspective on public participation is the National Environmental Justice Advisory Council’s (NEJAC) “Model Plan for Public Participation” (EPA, 2000), mentioned earlier in this chapter. NEJAC adopted the first seven statements of their core values and guiding principles from the International Association for Public Participation (IAP2). The remaining seven statements amplify the involvement processes. These guidelines are what many environmentally-focused public meetings work to adhere to.

Core Values and Guiding Principles for the Practice of Public Involvement

1. People should have a say in decisions about actions, which affect their lives.

2. Public participation includes the promise that the public’s contribution will influence the decision.

3. The public participation process communicates the interests and meets the process needs of all participants.

4. The public participation process seeks out and facilitates the involvement of those potentially affected.
5. The public participation process involves participants in defining how they participate.

6. The public participation process communicates to participants how their input was, or was not, utilized.

7. The public participation process provides participants with the information they need to participate in a meaningful way.

8. Involve the public in decisions about actions which affect their lives.

9. Maintain honesty and integrity throughout the process.

10. Encourage early and active community participation.

11. Recognize community knowledge.

12. Use cross-cultural methods of communication.

13. Institutionalize meaningful public participation by acknowledging and formalizing the process.

Create mechanisms and measurements to ensure the effectiveness of public participation.

The guidelines emphasize an open process that includes a shared commitment and perspective on finding solutions to issues. Government agencies are required to address these norms, but how they are adhered to varies across contexts. New, experimental forms of public participation are not explicitly bound by these norms, although an argument can be made that the norms are a tacit, taken-for-granted starting point.

Lubell and Leach (2005) in a paper commissioned for the National Research Council Panel on Public Participation in Environmental Assessment and Decision Making described current
water problems as “wicked” (p. 4). The authors detailed the “wicked problems” of water as a result of “cumulative actions of multiple parties and government agencies at the local, state, federal, and tribal level” (p. 4). Within the discipline of communication, Pacanowsky (1995) identified the notion of “wicked” problems as challenging the traditional reflective problem-solving processes organizations usually rely upon. Pacanowsky outlines the distinction between “tame” and “wicked” problems codified by Rittel and Weber (1973) as confounding the “team’s limited vision of problem-solving processes and the nature of the problem the team is being called upon to handle” (Pacanowsky, p. 37). Through a communicative lens, Pacanowsky articulates wicked problems as resistant to the “Dewey Reflective Problem-Solving Process or some more modern variant” (p. 37). In the next section I consider how public meetings, as the primary vehicle of public participation, establish a communicative milieu for environmental decision-making.

**The Character of Public Meetings**

The ideal public meeting offers opportunities for members of the public and officials to interact and influence each other on equal footing, displaying the ideal features of a deliberative democracy (Goodnight, 1992). Critics contend that public meetings fail to meet ideals in multiple ways (Heberlein, 1976), including information deficiencies, lack of resources, lack of opportunities to participate because of a single party’s control of the proceedings, and officials’ failure to take citizens’ comments seriously (Checkoway, 1981; Diduck & Sinclair, 2002). Other scholars point out how public meetings can have long-term negative consequences by damaging

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¹⁶ “Wicked” problems are a result of cumulative actions of multiple parties at the local, state, federal, and tribal level (Lubell & Leach, 2005, p. 4).
relations between officials and the public (Kasperson, 1986), or increasing skepticism toward agency officials (McComas, 2001).

A landmark essay reviewing the empirical literature on what makes watershed partnerships work defined water meetings, as “assemblies of stakeholders who periodically convene to discuss or negotiate the management of streams, rivers, or watersheds” (Leach & Pelkey, 2001, p. 378). The central question of Leach and Pelkey’s review was “What makes watershed partnerships work?” (p. 378). Four factors were identified, two aligning with institutional theory\(^\text{17}\) and two that are salient for this study: (1) “the maintenance of a balance between the partnership’s resources and its scope of activities, and (2) pursuit of a flexible and informal process” (p. 383). How water roundtables balance resources and activities, what processes are used, and how they are discursively managed will be a central focus of my analysis.

Public meetings are distinct from organizational workplace meetings in three primary ways (Tracy & Dimock, 2004). First, anyone is allowed to attend. Tracy and Dimock suggest the second feature distinguishing public meetings from workplace meetings is that they tend to be larger. Although many public environmental meetings are well-attended, especially controversial meetings, or meetings featured in the media as high profile, this is not always the case. Environmental issues that are “under the public radar,” such as the water issues in the west, do not necessarily garner large number of attendees. The third distinction Tracy and Dimock point to that differentiates public meetings from work meeting is that public meetings often adopt more formal participation norms such as parliamentary procedures, even if inexpertly used. Water roundtables exhibit features of both workplace meetings and public meetings, in part due to the highly technical talk that occurs at the roundtables.

\(^{17}\) The two theoretical frameworks are Institutional Analysis and Development (IAD) (Ostrom, 1999), and Alternative Dispute Resolution (ADR) (Carpenter & Kennedy, 1988).
Studies of environmental meetings have largely ignored what goes on before meetings. As Mirivel and Tracy (2005) argue, how meeting participants build, maintain, and develop sophisticated understandings of their work community is accomplished before formal meetings in unscripted moments of interaction. What functions occur in the pre-meeting talk is not a focus of this analysis, however, it was an important part of water meetings, especially because many of the water meetings required participants to travel several hours. Pre-meeting talk is an often-overlooked practice of meetings. Organizationally consequential, as Mirivel and Tracy (2005) contend, “It is a place for building work and friendly relationships and lies at the nexus of cultural and institutional forces” (p. 3). Pre-meeting talk is a recognized and valued feature of environmentally-focused public meetings, often built into the schedules of water roundtables. In many multi-stakeholder collaborative meetings, participants have to travel outside of their locale to attend these meetings. These meetings are opportunities to renew face-to-face, geographically distant social connections.¹⁸

Public meetings are, as I have mentioned, the primary locus of public participation but also make visible performances of expertise. One problem of public participation and deliberation in environmental issues is the slippery issue of what counts as knowledge. In the next section I discuss the tensions of expertise.

**Expertise**

When one thinks of an expert we often gloss over the tensions, puzzles, and ambiguities that permeate the concept. “Expertise,” is a loaded term. What counts as expertise? In what

¹⁸ Bryan (2004) mentions that the rectangular, grid marked division of the western landscape, instead of following landmass markers, as is more often done in the eastern United States, inhibits democratic practices. John Wesley Powell, one of the first explorers to map the western United States, advocated for geographical divisions that followed watersheds (Tyler, 2003).
context? What are the assumptions about values that the notion of expertise is based on? Distinctions between lay and expert forms of knowledge can quickly become murky.

Public engagement in environmental decision-making raises issues of how to balance democratic principles with technical expertise. Democracy and expertise are often depicted as “in tension” although they coexist as a basis for authoritative decision-making in environmental issues (Mohr, 1994). The tension can be captured in this way: If expertise is the criterion, then the experts will dictate and non-experts voices are silenced; if democracy is the criterion, than all persons have a legitimate right to influence the decision and the expert should be no more authoritative than the non-expert. The tension, however, is more nuanced. Lach, Ingram, and Rayner (2005) identify institutional imperatives that maintain a conservative stranglehold on water agencies. The authors note that reliance upon expertise in a domain where there is no substitute for the resource, and it is a requirement for life, has advantages.19

Schudson (1997) argues convincingly that in fact experts are critical to a democratic government. He challenges the view that “the relation between democracy and expert knowledge is troubled” (March & Olsen, 1995, p.178). Schudson takes the position that decisions about issues in the world require experts who have allegiance to their professions, and democracies require experts with specialized knowledge. Everyday experience is not an adequate substitute for specialized knowledge. Within the water community, the high regard for experts with specialized knowledge is commonplace. In many cases deep expertise is crucial, although critics contend that this can exclude other considerations. The high regard for expertise

19 On this point I take issue with Lach, Ingram, and Ray (2005) that water agencies are merely spreading the risk across a wider range of organizations and stakeholders. A report from the Pacific Institute (forthcoming) collected data from water agencies that deliver Colorado River Basin water and shows a marked decline in per capita water demand from 1990 to 2008, generally greater than one percent per year.
is especially apparent in water management practices historically carried out in the United States (Mulroy, 2009).

In a classic study of lay/expert tensions, Wynne’s (1996) investigation of sheep farmers and nuclear engineers in north Cumbria showed that there were two sets of specialists when radioactive fallout from Chernobyl impacted farming in the region. Farmers had extensive local knowledge about sheep farming, agrarian cycles of animal husbandry and marketing, and other specialized knowledge, informed by generations of farming in this region. The nuclear engineers, however, were positioned as the experts. Because the sheep farmers did not have standing as experts, their knowledge was not part of the process of mitigating the damage from the nuclear fallout. Devaluing of the farmer’s knowledge negated their expertise; as a result, the farmers incurred serious economic losses. The nuclear scientists ignored the farmer’s knowledge of the sheep’s grazing and slaughtering cycles and consequently the farmers were not able to sell their sheep.

Wynne (1996) argues for multiple roles for lay publics. Not only should the public be involved in evaluation of proposals and issues, but they should also participate in defining what counts as expertise. However, Wynne’s position does not fully recognize that those with local knowledge are likely to have a disproportionate understanding of the disadvantages of a project. People with local, situated expertise will have extensive knowledge about the harm resulting from a project, but relatively little understanding of the benefits (Collins & Evans, 2002). Arguing that referring technical decisions to the public has a high risk of opposition, Collins and Evans argue, “the best technical advice invites popular opposition” (p. 236).

Wynne’s (1996) argues that there is something like a “cultural dupe” going on about the relationships between expert and lay knowledge, where when public opposition to expertise is
not obvious and overt, public trust is assumed. Noting the tenaciously ambivalent and fluid nature of expert and lay relationships Wynne points to how “informally and incessantly” people problematize their relationships to expertise. An especially poignant example was Erickson’s (1976) study of a dam disaster in an Appalachian mining community, where dependency was the primary, yet unarticulated, issue. In this case, the citizens were aware of their dependence on “experts” who had contempt for them.

Wynne’s approach is an attempt to level the playing field by understanding how communities problematize their relationship to expertise (Erickson, 1976; Wynne, 1996). Going beyond advocating for the inclusion of local knowledge, Wynne argues that it is not trust and credibility, “but the social relationships, network and identities from which these are derived” (p. 282). It is social identity, embedded and derived from social networks and relationships that has standing as expertise. Wynne acknowledges that the term “social identity” is somewhat problematic, primarily because it is not pure, coherent, and unambiguous. His contribution is in opening up the reflexivity of the relationship between science and public legitimacy.

Collins and Evans (2007) differ subtly from Wynne as they state, “we treat the location of the expertise as the social group” (p. 78). The authors identify language as the basis for developing expertise, as well as the common platform for what the social group shares. Collins and Evans differentiate between knowledge derived from linguistic socialization and knowledge as a result of experience, and in this way highlight the narrow gap between what is tacit and what is discursive. The authors propose a layering of expertise, with interactional and contributory expertise as ways of understanding expertise.

Interactional expertise is expertise in the language of a domain, without expertise in the practice of specialization. Contributory expertise allows for those not trained in a disciplinary
specialty to be able to be contributors, despite the lack of formal training. The distinction between interactional and contributory expertise is not an easy-to-make differentiation especially when the expertise is related to communication and participation.

An unforeseen outcome of layering of expertise leads to the slippery slope of deferential relations being accorded to experts despite a context that seeks to value a wide range of expertise. In an ethnographic study of health care policy in the United Kingdom, Kerr, Cunningham-Burley and Tutton (2007) found that claims to expertise and the importance of lay involvement were dependent on the context and a dynamic (emergent) process. They discovered that expert speakers colonized lay positions. In the hybrid positioning of lay and expert knowledge, a deferential relationship ensued in which citizens deferred to the experts. This supports Wynne’s (1992) argument for reflexivity, although Kerr and colleagues are skeptical about Wynne and Jasanoff’s (2005) optimism regarding the public’s ability to impact technical decisions in the public sphere.

In their discussion of expertise and experience Collins and Evans (2002) propose four kinds of science in order to weight the roles of experience and expertise. Water resources fall into the reflexive historical sciences, where the potential for uncertainty is high because long-term outcomes are greatly affected by humans. Collins and Evans advocate, “futures must be based not just on permanent social institutions for the regulation of science, but on the development and maintenance of new social institutions for the regulation of social life” (p. 269).

This dissertation proposes to move beyond these studies to examine how participants in water decision-making negotiate roles, decisions, expertise and experience, and democracy. Decision-making about water, similar to other kinds of environmental issues, brings together people with varieties of expertise that can inform the situation. Environmental decisions present
choices that are interest and value-based, decisions have cultural and economic impacts as well as scientific and technical (Deitz & Stern, 2008). Ansell and Gash (2007) argue “intensive ethnographic research is the best way to do this for developing greater insight” (p. 562). In the next chapter I propose a communicatively focused ethnographic research methodology premised on the notion that communication is a practical activity that constructs our institutions.
CHAPTER 4

GROUNDED PRACTICAL THEORY

In Chapter 1, I proposed the questions that guide my inquiry into roundtables as an emerging environmental governance form. In Chapter 2, I described the water context in Colorado as a prelude to studying the communicative aspects of water. In this chapter, I turn to the theoretical framework and methodology I use to study roundtables. Because roundtables have not previously been studied with a communicative focus, I develop the notion of roundtables as a practice. I begin broadly with the commitments of a qualitative study and introduce practice as a central organizing theme. In particular, I follow Craig (2006) in conceptualizing communication as a practice, foregrounding the routines of roundtable meetings as a “coherent set of activities” that constitute a practice. Craig’s (2006) notion of understanding communication as a practice means that roundtables as a “coherent set of activities” are shaped as instances of democratic deliberation and environmentally-focused public meetings.

This chapter begins by explaining the commitments of qualitative research. I then show how practice theory as a communicative lens instantiates these commitments. Then, I explain the central intellectual framework of Grounded Practical Theory (GPT) as a meta-theory and a methodology. I provide four exemplars of GPT research and discuss how each study used GPT. I conclude with a discussion of the ethnographic methods I employed using Grounded Practical Theory (GPT): participant observation and field notes, a study of organizational documents, and action-implicative-discourse analysis, a philosophy supporting the selection, transcription and analysis of discourse within the GPT tradition.
Commitments of Qualitative Research

Denzin and Lincoln (2005, p. 3) state that qualitative researchers “study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.” There are multiple ways to go about a qualitative study and each approach foregrounds different perspectives and features. In an effort to align the questions that I pursue with a methodology that fits, this dissertation uses qualitative methods. Anderson (1987, p. 17) notes, “the right choice is made by matching the method with the questions to be answered with the resources at hand.” For this reason I take an interpretive case study approach to the communicative practices of roundtables. My choice of method reflects my commitment to understanding communication as a practical art (Craig, 2006). In this dissertation I work to clarify the practice of roundtables that make it a promising governance form.

A qualitative approach reflects my commitment to a social constructionist ontology and epistemology. Ontology refers to one’s understanding of the nature of reality. Positivist ontology, for example, holds that objective facts can be determined independent of a person’s observation of those facts. Reality is singular, a priori, and objective. Post-positivism maintains assumptions of an “objective” reality, but also holds that human perception necessarily colors, distorts, or approximates that reality. While constructionism generally dismisses the idea of an “objective” reality, it also has characteristics of post-positivist ontology. For example, constructionism foregrounds the possibility of meaning as it is produced in unique historical and cultural contexts. However, constructionists also try to identify where and how certain meanings “win out” over others (Phillips & Hardy, 2002). These are important distinctions within the water community as they struggle with positivist impulses that reflect the data-driven world of
science in a realm where many of the issues have roots in water law, economics, and marketability (Lettenmaier, 2008).

Following constructionist ontology, I take the position that language has constitutive effects. Language produces concepts, objects, and subject positions that constitute a shared social “reality.” This is especially salient in the arena of decision-making about water, where hydrological science positions itself as a positivist enterprise (although subject to intense debate). Water issues may be materially grounded but they are also socially constructed.

A social constructionist perspective offers possibilities for normative reflection on this practice. Specifically, I follow Craig (2006) in taking a pragmatic approach as Jamal, Stein, and Harper (2006) in studies of similar multistakeholder groups in environmental meetings, advocate a neo-pragmatic approach that foregrounds the importance of the “stories and voices of non-dominant groups” (Jamal and co-authors contend that neo-pragmatism “avoids the tendency of Deweyian pragmatists to rely uncritically on science as the primary authority” (p. 165)). I argue that pragmatism as conceptualized by Craig (2007) encompasses multi-voiced positions in environmentally focused roundtable talk. This distinction is important in studies of environmental governance and democratic deliberation about contested (and shared) resources where debate about expertise and locality exists. As I will show next, there is a movement towards including social science insights into the world of hydrology, albeit, in small, yet increasingly significant ways. Language is constitutive of communication and communication itself is a socially constructed practice. As Jaworski and Coupland (2006, p. 3) note “discourse is an inescapably important concept. It is the key ingredient in the very constitution of knowledge.”
One example of the shift from the dominance of science-driven paradigm to a qualitative research paradigm is in the conservation domain. Scientists engaged in policymaking attempted to reshape basic human experiences of the environment using language. “Conservation biologists have generated and disseminated the term specifically to change the terrain of your mental map, reasoning that if you were to conceive of nature differently, you would view and value it differently” (Tackacs, 1996, p.1).

From a slightly different perspective, one that looks at how people make the conceptual shift in understanding “weather” and “climate” to reshaping understanding of both concepts to include (or, in some cases, not) a new conceptual model of a “global climate system” and its entailments, Miller and Edwards (2001) argue that this “construction” of the process is as important as the science itself. They look at the processes by which members of a group attribute meaning to events and note, “The meanings attached to climate and weather are often highly ‘black-boxed’ (i.e., they are complex, socially mediated concepts that are generally taken for granted)” (p. 7). Decision-making and discussions about water are similarly opaque to the public. Water roundtables involve complex hydrological issues along with a wide range of participants with competing interests. Rude (2004, p. 4), commenting on water issues, remarked, “policy is made with discourse.” A study of the discourse practices of water roundtables is an opportunity to make visible “the little stuff that achieves big effects” (Tracy, 2002, p. 191).

Entailments of a Qualitative Focus

As a qualitative researcher an emic perspective guides me. This approach starts from the “inside” of a culture. The goal of an emic perspective is to better understand how members of a particular culture, such as members of water roundtables, make sense of their world (Lindlof &
Taylor, 2002). An emic perspective works to unpack tacit knowledge. It also points to the reflexive turn in the public discourse of science (Wynne, 1992), a particularly significant move when analyzing environmental discourses that purport to value local beliefs. Adopting an emic stance in the analysis of roundtable talk allows for interpretations of communicative practices to emerge that are responsive to the regional conditions. The goal of an emic perspective is to enable the researcher to understand the scene through the meanings the participants attribute to their communicative practices.

Framing this project as a case study approach to water roundtables, I observed and/or taped a discrete set of water meetings. Flyvbjerg (2006, p. 222) points out that context-dependent knowledge, what one discovers in case studies, is “at the very heart of expert activity. It is only because of experience with cases that one can at all move from being a beginner to being an expert.” An analysis that uses a case study approach provides a way to understand how the practices of water roundtables are accomplished. I am able to explore phenomena firsthand, and from this firsthand experience, develop a detailed map of the communicative norms of water roundtables. In order to formulate rules or guidelines about practices it is crucial to understand first how the practices work.

Reflecting the practical tendency of communication as a field (Craig, 1995), much communication research has sought to understand communication in terms of situated problems. Doing so is a way of contributing to the norms of roundtables, as theorizing a practice informs both the practice and the theory. Practice can be conceptualized at different levels of abstraction, and in this dissertation, practice is understood as the situated activities of roundtables. Practice theory also instantiates the commitments of qualitative research. In the next section I show how practice theory has been used in communication studies.
Grounded Practical Theory

In this section I begin by describing how practice theory in communication has been conceptualized and then describe the particulars of Grounded Practical Theory. In communication studies, Barge (2001) described three different ways the idea of practice is used. They are (1) practical theory as mapping, (2) practical theory as transformative, and (3) practical theory as engaged reflection. The first approach, the mapping approach, offers rich, descriptive ways of seeing what exists. In studies of public participation McComas (2001) employed this approach as she explored how public agency officials understand what “good” public participation is. A mapping lens, however, does not explicitly address the reflexivity between theory and practice. The second stream of practical theorizing that Barge identified is the transformative approach. Understanding practical theory as transformation draws on the tradition of action-based theory and research. The focus is on the lived experiences of the participants involved at that particular moment. A transformative approach to practice works toward making changes in situated human action. Foot (2001) used practical theory as transformation in a study of ethnic relations in the Soviet Union. As a participant observer of an online network, Foot identified that contradictions are not “points of failure or deficits” (p. 63); rather, she envisioned them as “illuminative hinges,” or, an opportunity for reflection. Contradiction as an illuminative hinge reflects the immediacy of the moment in interaction. Reflexivity is a part of transformative practical theory. The researcher plays a participant-observer role in their study, and, thus, must consider his/her own role as an actor. However, the transformative approach makes central the ideal of being in the present moment. A
transformative approach has an activist orientation that presumes a relatively clear sense of powerful and powerless parties.

The third approach, grounded practical theory as a reflexive enterprise, foregrounds the way in which discourses associated with both theory and practice inform each other in useful ways (Craig & Tracy, 1995). There is a “tacking back and forth between abstract concepts and the particular situation” (Barge, 2001, p. 4). This is the approach that I take in this dissertation as I seek to inform the theory and practices of water roundtables. In the case of water roundtables, the “tacking back and forth” approach develops the ties of the micro and macro elements of roundtables for a multi-dimensional analysis.

Roundtables hold promise for environmental governance practices. Analyses of sites of professional practices offer an opportunity to investigate how a community constructs knowledge in discursive ways (Goodwin, 1994). As Craig (2006, p. 43) pointed out, “A theory of a practice provides a particular way of interpreting practical knowledge, a way of focusing attention on important details, weaving them into a web of concepts that can give the experience a new layer of meaning.” Providing communicatively focused “layers of meaning” will contribute not only to communication but also to the interdisciplinary fields concerned with environmental governance. Looking at roundtables as a practice unpacks the layers of meaning and creates a space for a normative discourse about this important practice to emerge.

There are three primary reasons for using a reflective practice approach to the study of water roundtables. First, a practice-oriented approach to communication in water roundtables recognizes the highly contextual and pragmatic nature of this talk. As I will show later on in
Chapter VI, a “thick”\textsuperscript{20} understanding of context is critical where lay/expertise tensions exist. Second, a practice approach draws explicit attention to the assumptions and choices made by participants in water roundtables, making clear the ideals fueling the practice. Third, a practice orientation draws on both the broader theoretical sense of practice (as in a set of activities that have a normative component; in water talks, democracy is a theoretical practice guiding the event), and the empirical part of practice, naming the specific discursive moves people make.

*Water roundtables* as a practice do not yet have a normative discourse of their own, although they are informed by norms of other practices (democratic deliberation, public participation). Moving between the abstract and the empirically grounded discourse opens up rich, descriptive ways of analyzing water roundtables as a communicative practice.

A different conceptualization of practice that has informed communication sees interactants as learners, members of communities of practice (Lave & Wegner, 1998). Communities of practice have three required components: the domain, joint activities, and a repertoire of shared resources that members engage in, such as experiences, stories, and ways of addressing shared problems. In water roundtables, the domain is known; meetings are joint activities, and it is a recent development that problems are seen as shared. Lave and Wenger’s idea of community is one where members of a specific domain interact and engage in shared activities, help each other and share information with each other. But as Mitchell (2005a) points out, in the water domain, as in many commons issues, the self-interests of participants dominate. A community of practice approach, as an analytic lens, is not a good fit for water roundtables. The tension of water as a private right and a public good puts water roundtables outside of a community of practice focus.

\textsuperscript{20} Thick description, developed by Geertz (1973) explains context in detail, so that those outside of the situation gain a rich understanding of the context.
As Craig (2006) and Tracy (2004, 2005) point out, communication practices are persistently shaped by a normative discourse. Water roundtable talks are no exception; although as an emerging form, they are shaped by multiple normative discourses. As I noted at the outset, “water roundtables” can be conceptualized as communicative events, in their own right, as well as moment of democratic deliberation, and as environmentally-focused public meetings.

Scholars have largely overlooked the communicative practice of water roundtables, although there are studies on watershed meetings (Genskow, 2009; Kenney, 1999a, 1999b), multistakeholder collaborative meetings (Jamal, Stein, & Harper, 2002), and other forms of environmental meetings (Adams, Perrow & Carpenter, 2004; Konisky & Beierle, 2001; Leach & Pelkey, 2001; Lubell & Leach, 2005; Mitchell, 2005a, 2005b). To be sure, roundtables look to the norms of other meetings; including watershed meetings, environmentally-focused public meetings, and multi-stakeholder collaborative meetings as potential models for informing the practice of water roundtables.

**Water Roundtables As a Practice**

I will use practice similarly to Craig and Tracy (1995) as a coherent set of activities where, practices foreground what is important. Practice in communication can be understood in two ways. The first is a set of activities that is in a domain, such as school board meetings (Tracy, 2003) or law enforcement negotiations (Agne, 2001). The second way in which practice is used refers to an activity that cuts across domains as “criticism,” or “humor” do. This second meaning of practice highlights how communicative acts are employed in a variety of circumstances. Water roundtables are the former, as they are a particular kind of speech event that has not received scholarly scrutiny as a site of communicative practices.
Water roundtables are simultaneously the practice and valuing of (1) democratic deliberation, (2) public participation, (3) a meeting of experts about critical resources, and (4) a water-focused discursive event. A practice inquiry enables one to identify what it is that the participants value as they engage in this communicative event. “Practice” is a term that, as Tracy (2005) says, is “usefully elastic.” Communication scholars have shown that all human groups have particular, culturally meaningful ways of communicating that are practices (Craig, 1995, 1999; Hymes, 1974; Philipsen, 1992).

Practice, both in naming and in doing, makes visible what we value. By naming a practice we foreground particular values and background others. Naming is instrumental in that it offers the possibility of a critical analysis as that named practice, and constitutive as a symbolic construct created and organized through the talk. The name “water roundtables” is the label the state, the participants, observers, detractors, and advocates have all given to the water meetings occurring in basins across the state. I articulate water roundtables as a practice, a practical activity that has “standards of excellence which are appropriate to, and partially definitive of, that form of activity” (MacIntyre, 1981, p. 175). In the next section I explain grounded practical theory as a meta-theoretical frame for practice and as a method for analysis.

In the last decade Craig and Tracy (1995), as part of theorizing communication as a disciplinary field, reinvigorated discussion in the field of communication by positioning theory, discipline, and enactment as “practice.” From this turn to theorizing communication as a practice, grounded practical theory (GPT) emerged as a framework for analyzing situated communication. GPT is an inductive model that provides an analysis of situated talk by studying member practices at three interrelated levels of analysis.
Reconstructing the practice at three levels—the problem level, the technical level, and the philosophical level—is a way to integrate and describe the communication in roundtables in a way that makes sense of the roundtables as a communicative practice. On the problem level the researcher identifies the dilemmas, barriers to goals, or issues of power that the speakers, in their many roles, face. This level is consequential as how a problem is named foregrounds particular issues or minimizes others, as I mentioned earlier. On the technical level the researcher identifies what the strategies or techniques are that speakers use to accomplish their interactional goal. The final level, the philosophical level identifies the principles or ideals that speakers appeal to, what the speakers use as good ways to act. These ideals are reconstructed by the analyst; they are situated in the scene, but usually only partially espoused.

The abstract reconstruction on the three interrelated levels creates a robust understanding of a communicative practice on a more conceptual level. On the problem level, an analyst is concerned with noting the multiple positions, and inquiring into the problems the interactants face, individually and collectively. It is at this first level that a practice or problem is named. In this study, water roundtables are named as the focal practice and I seek to explicate the features of water roundtables that position them as a promising governance process for environmental issues. As roundtable members face problems, I name these, identifying the strategies used to manage the problems in order to point to features of these communicative events that make them roundtables.

By observing and reflecting on a practice, “tacking back and forth,” a goal of GPT is to develop ideas that can assist in the design and conduct of that practice. Reconstruction of a practice in less context-specific terms, by tying together the problems of the practice, the specific discourse moves, and the situated ideals, allows the ideals of the practice to emerge, that can then
be applied more broadly. One result of reconstructing a practice is that tacit principles of a practice become articulated and standards of what is reasonable become clearer.

Data Sources and Contextual Background in GPT

The specific methodologies used in GPT are open and can include (but are not limited to) studying specific cases, personal experiences, stories, interviews, artifacts, performances, and texts of various types. In this dissertation my main data sources are taped and transcribed meetings, organizational documents, archived interviews provided by a water agency, and field notes. I attended public water meetings, recorded and transcribed the meetings and took detailed field notes over a two-year period.

In GPT, an understanding of the larger context is important. On the empirical level the data sources and the data collection provide the contextual background. To that end, the data can be taped talk, organizational documents, and other examples of situated discourse such as field notes from participant observations that illustrate the key problems and practices.

The focal practice in this dissertation is water roundtables, but I also reference the larger contexts of environmental governance, public meetings, and democratic deliberation. In the next chapter I describe the meetings in which I immersed myself to develop my understanding of water issues.

Fundamentally, GPT seeks to unite the technical and productive sides of a communicative practice with moral and political aspects. This is usually achieved in the reconstruction of the practice at the three integrated levels, problem, technical, and philosophical. In the reconstruction phase, the practice is described in less context specific terms. These reflections are based on a reasoned practical argument.
GPT as a central framework to analyze the situated practice of water roundtables attends to the empirical description of talk and text, as well as its critique. In addition, GPT as a meta-theoretical approach opens up new possibilities, foregrounding the connections between micro and macro practices (Schatzki, Knorr-Cetina, & von Savigny, 2001). A meta-theoretical approach is vital in studying water roundtables as meta-theory, should be used to generate more parsimonious theories, useful in explaining how the world works (Turner, 1990). As I seek to articulate the elements of roundtables as an emerging governance form, it is part of the enterprise of explaining how the world works.

As a theoretical framework an often-overlooked benefit of GPT is its capacity for surprise while being both robust and nimble. These criteria Carbaugh (1992) considers essential in the study of naturally occurring social interaction. Analysis of communicative practices requires a theoretical framework that can be adaptable to context-specific sites of discourse. Moreover, the focus on situated communicative practices in GPT reflects Philipsen’s (1989) axiom of particularity, a commitment to the distinctive nature and particular quality of communication. Carbaugh (1995, p. 281) notes,

The here is important because there is a commitment in ethnography in general, and in particular, to discovering the distinctive communicative means that particular people use, on particular occasions, and thus to exploring those distinctive means in their natural environments, in those particular places.

GPT, in its attention to situated practices, is a framework that is attentive to Carbaugh (1995) and Philipsen’s (1989) commitment to uncover practices of communication through their situated nature, functions, forms, and meanings. GPT opens up the possibility for a theory of communicative practices as it ties together the practical and theoretical strands of communication.
Studies that use GPT, by looking at the practices within a situated communicative context, are able to identify problems and dilemmas encountered by the participants. Consider four examples of how a GPT frame was used to investigate different communicative practices: (1) in a safe house for battered women (Ashcraft, 2006), (2) a non-profit environmental advocacy group (Dempsey, 2007), (3) a public deliberation group in Israel (Guttmann, 2007), and (4) an analysis of school board deliberations (Tracy & Durfy, 2006).

Ashcraft’s (2006) work, investigating the communication that the staff of a safe house for battered women faced, is an example of how GPT reveals problems and dilemmas in managing organizational values. In her study Ashcraft linked broader, abstract norms to key attributes of a practice. The feminist commitments of the staff of the safe house came into conflict with the realities of the organization’s day-to-day practices. Ashcraft examined the tension in three primary forms of the organization’s abstract norms. The first tension was displayed in diversity, the struggle to be inclusive and also to hew to shared core beliefs while allowing other perspectives. The second tension tugged at whether moral aims were critical to accomplishing tasks or the question of whether one needs a certain belief system to work here. The third revolved around organizational control, or the struggle to balance explicit, overt control, with more unobtrusive, egalitarian control. These three tensions often conflicted in the day-to-day experiences. The tensions of these broader, abstract norms are also found in groups that address watershed issues (cf. Kenny, 1999; Lubell, 2004; Mitchell, 2005a,b).

Ashcraft (2001) notes that one of her goals is to develop GPT as a viable approach for analyzing new forms of organizations that have oppositional forms in order to better understand
how these new forms work in practice. She argues that oppositional forms are more the rule than the exception in organizations. Water roundtables as an experimental organizational form experience tension, but how this is discursively negotiated and managed is currently unexplained (Mitchell, 2005a). As Ashcraft explains the workings of what she calls a “paradoxical hybrid,” she advocates for accounting for the “shifting affiliations” that are endemic to organizations with oppositional forms. Roundtables are designed to bring together those with conflicting or dissimilar interests (Lesh & Lowrie, 1995), and affiliations necessarily are fluid.

In another study of communicative troubles in an organization, Dempsey (2007) analyses an international organization that advocates for social change and environmental justice. Using GPT, Dempsey explores the dilemmas of “voice” and “accountability” in a grassroots organization with multiple and conflicting stakeholder demands. A rational reconstruction of the practices and ideals of the members of the grassroots organization revealed that strategically limiting stakeholder voice achieved a valued organizational goal. GPT provided a way of understanding how the organization balanced the tension between the ideals of accountability and empowerment. “Bounded voice” was participants’ way of managing a dilemma that Dempsey names the “tyranny of accountability,” a dilemma endemic to grassroots organizations. In this case, GPT exposed how the use of bounded voice assisted empowerment efforts by shielding members of the organization.

Dempsey’s (2007) and Ashcraft’s (2001, 2006) work demonstrates the use of GPT as a framework for understanding how participants discursively manage competing demands and norms in groups. The multiple perspectives that members of organizations negotiate, and the communicative strategies they employ to achieve their goals, are often opaque to participants themselves. As I will show in Chapter 7, this is the case in water roundtables also.
In a study focused on public participation, Guttman (2007) adapted GPT to explore how “ordinary” citizens engaged in deliberation of health care policies. In analyzing the participation initiatives designed to engage citizens in deliberation, Guttman used GPT to discover that the practices employed to engender public participation were based on assumptions of normative goals, resulting in dilemmas and contradictions in the participation process. Similar to Ashcraft’s (2006) discussion of “new” forms of organizations, Guttman identified that one challenge inherent in practicing theories (such as public deliberation) is building models that both “capture the dynamic, discursive textures of form and trim it to an intelligible framework” (p. 79).

Guttman (2007, p. 431) adapted GPT with an eye toward “trimming” theoretical issues in public deliberation and points to how “a more detailed normative theory of public deliberation may be riddled with contradictions.” The situated context of Guttman’s investigation is one where the procedures of participation are designed to fit normative as well as instrumental goals. The groups Guttman studied needed to adhere to norms of democracy and come up with health care policy recommendations. What Ashcraft would call a “new” form, one serving both normative and instrumental goals, public deliberation may be a “paradoxical hybrid.”

Some GPT studies draw primarily on ethnographic methods, others on discourse analysis. In the final example, a study of public meetings and democratic governance, Tracy (2004) employs action-implicative-discourse-analysis (AIDA), a form of discourse analysis, in an analysis of a school board’s construction of a crisis. Analyzing exactly what was said, and using theoretically informed induction, Tracy points out features of talk making visible the strategic discourse in a public meeting that create a crisis. Speeches of apologia, public calls for resignations, and more meetings than usual are all ways in which communication enacts crisis.
The deeper difficulties of citizen participation in public meetings, evident in Tracy’s (2004) study, are also a central concern of water roundtables. Both school boards and water roundtables have similarly embedded dilemmas, such as building a participation format that makes citizens feel involved, that yet run the risk of distancing those citizens who would be willing to serve as full representatives, elected or appointed committee members.

The dilemmas in the communicative practices studied by Tracy (2004) were an outcome of a commitment to democratic and participative norms. Norms of democracy and public participation are nuanced ideals; the question this raises is how do these ideals fare in different situated contexts? These four studies, as well as others (e.g., Tracy, 2007; Tracy & Durfy, 2007; Tracy & Muller, 2001), position GPT as a reflexive enterprise, bringing together communication theory and practice. As water roundtables subscribe to ideals of democracy and public participation, I expect some similar tensions to be found, and because they are a unique form, there should also be distinctive tensions.

*Ethnographic Methods*

As I mentioned earlier, Denzin and Lincoln (2005, p. 4) noted that the study of a practice “makes the world visible in a different way.” Acknowledging the differences, Denzin and Lincoln observe that qualitative researchers often use more than one method within a given study. Consistent with the goal in GPT of having the empirical data provide a contextual backdrop I use participant observation and field notes, a study of organizational documents, and action-implicative discourse analysis (AIDA), one kind of discourse analysis.

Participant observation was an anchoring methodology, as I attended water meetings in the state of Colorado over a two-year period. Most often taking place in a community setting, participant observation serves the purpose of immersing the researcher into the tacit norms of the
community being studied (Atkinson & Hammersley, 1995). Participant observation provides a nuanced understanding of the social and cultural milieu under study. Observing practices in action is integral to understanding the breadth and complexities of human interaction. During a research project, participant observation is used to facilitate and develop relationships among key informants, stakeholders, and participants.

Participant observation data primarily consist of detailed field notes (an example is in Appendix C). In creating field notes I accounted for the number of people present, what was said in conversation, and where people were positioned in the room. In some cases, I took field notes after the meetings, if I sensed that note taking would draw attention to my presence, in order to be more discreet.

Organizational documents are another source of data in this study. In many organizational settings the use and production of documents are an integral part of the organization (Prior, 2003). Roundtables are no exception; they rely on documentation in order to share data and make decisions. Latour and Woolgar (1979), in their classic study of a science laboratory, note the centrality of written material. In this study, and in others (Latour, 1987; Mulkay, 1990; Ochs, 1995, Woolgar, 1997), documents are utilized as products of an organization or group providing insights into how knowledge and processes are constructed with the milieu being studied. To this end I collected meeting notes, agendas, presentations, maps, archived audiotapes, and other publicly available written material.

As I will discuss in more detail in the next chapter, I began my immersion in the water community in 2006 during my employment at NCAR and at NOAA. I officially began collecting data in May of 2008. Over a two-year period, from May of 2008 to May of 2010 I attended and taped public water meetings around the state of Colorado. My goal in attending all
of the meetings was to understand the complexity of water in Colorado in order to position roundtables as the central focus of my study. I attended many other water meetings in addition to roundtables. Many of the other water meetings I attended I also taped, as they were public meetings. At most of the meetings I attended, I received permission from the chairperson of the meeting to tape. There were some meetings, such as the Public Education and Public Outreach (PEPO) meetings—that were so small; (less than ten people around a table) that I did not ask to tape the meetings. I felt it was more important to establish trust with the participants than tape. I did, however, always take detailed field notes.

In addition to observing meetings, I also collected a variety of documents. These secondary materials include public documents such as *Mapping the Colorado Basin Roundtable’s Water Policy Networks* (2008), a study funded by the Public Education, Participation, and Outreach Work Group of the Interbasin Compact Committee. In the summer of 2005, the Colorado Institute of Public Policy (CIPP) surveyed roundtable members in the Colorado River Basin Roundtable. The survey was designed to understand how the people involved in and on the periphery of the roundtable process are connected to one another with the goal of building stronger connections. The survey results are publicly available.

The Colorado Institute of Public Policy also conducted two surveys given to 84 water stakeholders in Colorado. A Q-sort methodology was used as the survey instrument, requiring participants to prioritize their beliefs in relation to others (Brown, 1993). In an effort to set the stage for rethinking water issues, the report *Water in 2025: Beliefs and Values As a Means for Cooperation* (2006) sought to frame water issues in terms of beliefs and values, rather than the historical solutions that have been structured by law.
These additional documents and meetings provide the background knowledge that gave me a deep immersion in the water community and that shapes my interpretation of the focal roundtables.

*Field Notes*

At each meeting I attended, I took field notes. I began with scratch notes (Lindlof & Taylor, 2002) and developed these scratch notes into field notes. From the field notes, I developed analytic memos, beginning to identify issues for analysis (Emerson, Fretz & Shaw, 1995). Following Lindlof and Taylor I began to develop a working grasp of the key elements of how different water meetings and the roundtables intersected, the identities of key actors, the significance of their roles, and cultural assumptions that operated within their groups.

I followed general qualitative data collection procedures, adopting the role of a known investigator (Emerson, Fretz, & Shaw, 1995; Lofland & Lofland, 1995). Participant observation of water roundtable monthly meetings provided first hand insight into a range of roundtable activities, including sense making, decision-making and problem solving. Atkinson and Hammersly (1995), in a discussion of participant observation, note that although the four-fold typology (Gold, 1958) of complete observer, observer as participant, participant as observer, and complete participant is a nuanced description of participant observation, the categories obscure other, salient distinctions. Issues of whether the researcher is known to be a researcher by those being studied, how much, and what is known about the research is glossed by the four categories. Even though the roundtables are public meetings, a new person showing up is noticeable. The meetings that I attended were open and publicly accessible meetings, but virtually no one without a stake in water attends. I attended as a complete observer, fitting this particular role well, as “complete observers operate best in free-access settings” (Lindlof & Taylor, 2002, p.
At the meetings several participants inquired about my reasons for attending. I disclosed my research orientation, not unusual in this setting, as the data will reflect later in this study. In my notes I kept track of how many people who were not roundtable members attended, and what was their affiliation, if any. I noted if meetings followed the agenda and what questions were being asked. I learned the names and affiliations of members as they spoke, the kinds of other meetings participants attended, and the geographic region people associated with.

The place of interviews in qualitative research ranges from spontaneous, off the record conversations, to more formally arranged meetings (Hammersley & Atkinson, 1995). In this dissertation I was the recipient of archival interviews from the Colorado Foundation for Water Education (CFWE) that I will discuss in more detail in the materials section of this chapter (see Appendix D for transcript of interviews).

**Discourse Analysis**

“Discourse” as a term has more than one meaning. The first sense of discourse refers to a stretch of talk or text, often used for analysis. The second sense of discourse is as a larger set of beliefs, habits, and norms that inform social practices (Foucault, 1972). The two senses of discourse are captured by the terms little $d$ and big $D$ discourse (Gee, 1999). Two recent studies of transboundary water conflicts take the discursive approach that draws on Foucault (Doughman, 2001; Sullivan, 2001). These studies, including Dryzek (1999), Cantrill and Oravec, (1996), are examples where discourse serves as an organizing theoretical construct in the big $D$ sense in discussions about environmental issues. Little-$d$ discourse analysis seeks to understand interactional problems in a particular context in order to examine communicative strategies. Both the little $d$ and the big $D$ senses of discourse, despite different emphasis, are valuable ways of understanding society and human interaction. Similarities and differences in
discourse analytic approaches differ across traditions and entail diverse commitments. I explain these differences and then turn to action-implicative-discourse-analysis (AIDA) developed by Tracy (2005), an approach I include.

At the broadest level, discourse analysis within the field of communication is the study of talk or text in context, where the researcher analyzes segments of discourse in order to make a scholarly argument (Tracy, 2005). The heart of discourse-analytic research is a concern for studying and analyzing language use in particular situations. What data are collected (i.e., audio, video or texts), where (informal or institutional-type encounters), what the analysis goals should be, how “context” is used in analysis (Duranti & Goodwin, 1992; Tracy, 1998), and the detail of transcription (Ochs, 1979), are choices that discourse analysts of different orientations make differently (Tracy, 2005).

For Tracy (2005), discourse analysis usually involves “close looking,” i.e., audio-taping or videotaping interaction, transcribing the tape, repeatedly listening or viewing the tape, developing claims about the conversational moves and strategies of the interaction, and then, building an argument through the analysis of transcript excerpts. In the next section I describe discourse analysis and variations within discourse analytic approaches, including a description of AIDA, a “methodological expression of GPT” (Tracy & Durfy, 2004, p. 424).

Developed by Tracy (2005), AIDA, as a methodological approach, is committed to studying communicative practices that occur in institutional settings. By choosing sites such as academic colloquia (Tracy, 1997a), citizen calls to emergency centers, (Tracy & Andersen, 1999; Tracy & Tracy, 1998), or school board meetings (Tracy & Ashcraft, 2001; Tracy & Durfy, 2004; Tracy & Standerfer, 2003), researchers using AIDA typically select sites where participants are likely to experience communication challenges and dilemmas. AIDA is committed to “fostering
reflection about practical action through critical study” and to developing normative theories (Craig & Tracy, 1995, p. 241).

AIDA adopts an interpretive stance, allowing researchers to argue “the possible” (Tracy, 2005, p. 303). Influenced by speech act theory (Searle, 1979), politeness theory (Brown & Levinson, 1978), and theories of identity management (Goffman, 1959), AIDA scholars take seriously the tie between theory and practice; it is grounded in practice but theoretically informed. As Tracy (2005, p. 303) makes clear, “AIDA studies frequently argue that a specific discourse move is a routine practice for attending to a more general interactional goal.” AIDA, similar to all kinds of discourse analysis, begins by recording interaction and making transcripts of selected moments.

Transcription in AIDA, in contrast to more detailed conversation-analytic approaches, is comparatively simple, but it is more elaborate than ethnographic interview transcribing (Tracy, 2005). Words, restarts, pauses, and overlaps are captured, but the focus is centrally on language and argument strategies, working to show how speakers strategically use talk. The second step in AIDA is to immerse oneself in the data so that an informed inductive analysis is “anchored in what exactly was said” (Tracy, 2005, p. 424). AIDA is well suited to monologic speech, such as what occurs in roundtable meetings. Reconstructing communicative practices, in this study, involves describing the practice’s focal features and problems; participants’ (roundtable members and others attending the roundtables) conversational strategies to manage and control its problems; and the participants’ situated ideals about the practice. AIDA is the discourse analytic approach within GPT. My analysis has the same objective of AIDA’s normative stance; the larger goal of which is concerned with addressing to what ought to be.
This section explained GPT as a way of developing an understanding of a particular communicative practice and how AIDA as a discourse analytic approach is appropriate for water roundtables. In the next section, I turn to the materials and research sites that are the sources of data for this study.
CHAPTER 5

CASE STUDY AND MATERIALS

This chapter details how I came to study water roundtables and sets out the materials that are the basis for this Grounded Practical Theory analysis. The first section of this chapter details my stages of involvement in the western water domain and I end this section with a table of what I call supplemental meetings. The next section of this chapter is a description of the primary materials used for this case study, with an accompanying table of the primary meetings. I conclude this chapter with a description of archived interviews of prominent members of the water community. All of the interviewees are roundtable members.

Stages of Involvement (2008-2011)

Stage 1 (2008) Background Materials

The genesis of this study began when I was invited to apply for, and consequently complete, a Weather and Society *Integrated Studies (WAS *IS) summer program at National Center for Atmospheric Research (NCAR). This program is designed to empower practitioners, researchers, and stakeholders around the world in the weather and water domain, to build relationships and use new tools and concepts for integrating social science into the weather and water domains. Most of the attendees were scientists’—meteorologists were heavily represented. Many of the attendees traced their interest in incorporating social science into meteorology and other (primarily atmospheric) sciences to one particular example. Hurricane

21 http://www.sip.ucar.edu/wasis/
Katrina was the exemplar of how accurate scientific information about an impending natural event failed to mitigate the costly societal impacts of the storm. The forecasters of Hurricane Katrina knew where it was going to hit, what levees were likely to be the first breached, yet they were unable to mobilize leaders in the community. It was clear to many people in the weather community that including social sciences into weather and atmospheric sciences could have saved money and lives. After Katrina, decision-makers in the weather enterprise took seriously that accurate science wasn’t enough; there was tremendous value to be gained from including social science into their work.

As a Weather and Society Fellow, I began to understand that although the idea of communication as a social science that could be invaluable to the weather and water communities was embraced, there was little understanding of communication as a discipline. I began to look for how the field of communication could connect with the weather and water domains.


In this section I describe several of the water meetings I attended and how I ended up studying the deliberative practices of water roundtables. As I describe these meetings I note two features in particular; who attended, and the frequency of the meeting. These two features I informed my criteria for later meetings. These early meetings became what I am calling “supplemental meetings” and have a focused, work group orientation. These meetings provided a good place to gain an in-depth understanding of the issues that underlie the call for “increased collaboration,” and to develop a sense of what communicative practices are part of the code of the water community (Philipsen, 1975).
In the spring of 2008 I began working for Western Water Assessment (WWA), an interdisciplinary group of scientists at National Oceanic Atmospheric Administration (NOAA). WWA is a multi-disciplinary group that seeks to provide information about climate variability and human-induced climate change.\(^{22}\) The WWA had no social scientists and were interested in bringing a social science approach to their research. As a graduate researcher team member I began attending meetings that were WWA staples—the Water Availability Task Force (WATF) was once such meeting that I describe below. Other meetings included a series of Friday afternoon outlooks, where meteorologists in the lab I was located in gathered around 3 o’clock on Friday afternoons for a group forecast outlook. I begin with the WATF meeting, as I attended, taped, and took field notes for 6 months. These meetings provided fundamental insight and grounding in weather and water, and a sense of potential features of meetings that would inform my later study of water roundtables.

The Water Availability Task Force

The Water Availability Task Force (WATF) group comprised the first set of meetings I observed in the early stages of my research. These were meetings of experts from different agencies, government, science, and natural resources primarily. The experts included meteorologists, climatologists, hydrologists and other federal agency representatives whose role is to predict what can be expected in the next month for temperature and precipitation. These voluntary collective meetings also included representatives from the emergency management and forest services. All of the attendees focused on exchanging information. For example, the Natural Resources Council representative shared snowpack data at different snowtel stations. The state climatologist talked about the forecast and previous weather data.

\(^{22}\) [http://wwa.colorado.edu](http://wwa.colorado.edu)
As these experts from around the state came together to share their knowledge about forecasts, snow pack, forest conditions, reservoir levels, they collectively compiled an understanding of the water situation in Colorado at that moment in time. The participants all had a common purpose, stewardship of an unpredictable and vital resource.

There usually was a reporter and a television crew outside at the end of the meeting. As the state climatologist and others exited the meeting, the journalists would ask questions, such as “What is the outlook for the next few months?” “Is the snowpack melting more quickly than it did in previous years?” The drought of 2002 in Colorado was the impetus for members of the water, weather, and natural resource community to establish regular meetings and provide each other up-to-date information on water availability during the high water use months of the year. WATF meetings usually began in April and held monthly with the exception of a brief hiatus for November, December, January, and February. As in many of the other meetings I attended during my fieldwork, the attendees arrange themselves around a square table. An agenda was emailed out to participants in advance of the meeting, no decisions were made at this meeting; it was for sharing information. Participants often brought power point presentations to show graphs on snowpack levels and reservoir levels. There was no discernable public involvement in these meetings, although often there was an article in the local newspapers quoting some of the participant’s predictions or comments.

The Northern Colorado Water Conservancy District Fall Users’ Meeting

After asking the Director of the Western Water Assessment, Brad Udall, where I might find public meetings about water, he suggested that I look to large water providers such as Denver Water and Northern Water (supplying Northern Colorado, Fort Collins, Greeley). Municipal
water providers have routine meetings that are open to the public. I immediately found the Northern Colorado Water Conservancy District Fall Users’ Meeting.

The Northern Colorado Water Conservancy District (NCWCD) is a public agency established in 1937 to provide water to agricultural, municipal, domestic, and industrial users in many of the counties that are part of the South Platte River Basin. Northern’s geographic area encompasses 1.6 million acres. The Fall User’s meeting was held in a large building in the Weld County Fairgrounds.

NCWCD has two meetings yearly, (Spring and Fall) where they hold a public forum for those who are interested in Northern’s activities. At this chilly meeting in the county fairgrounds, the general manager welcomed the attendees (about 60 people) and provided an overview of Northern’s state of affairs. The director of the Colorado Water Conservation Board (CWCB) gave the luncheon talk, and other state agency and municipality representatives, conservation districts, forest service personnel, and ranchers and farmers in the county attended. Talk is generally about proposed water projects and other issues in the state, such as the progression of invasive species in the waterways.

There may have been public attendees at this meeting, but there was little talk about the public. It was an organization holding a public meeting for those who were already connected to their organization. The next meeting I attended was another “must-attend” suggestion from WWA.

**Governor’s Conference on Managing Drought and Climate Risk**

This meeting was a two-and-a-half day conference in Denver, Colorado hosted by the state agency that is primarily responsible for water, the Colorado Water Conservation Board (CWCB). This meeting provided the background data for a broad understanding of water in the west at this
particular point in time. This conference was designed to help water providers, planners, managers, and agency officials assess drought risk, impacts, and preparedness in Colorado. A central theme for this conference was the urgency for sharing information and experience in drought preparedness and planning. Another goal was to identify pathways for adaptation to the impacts of climate change and demands for water resources in Colorado. Again, motivating this conference were continuing drought conditions in the Colorado River Basin. The Governor’s conference was billed as a public meeting although it was primarily experts sharing information and gathering “to collectively look at the challenges and begin to collaboratively identify solutions.” One clear, recurrent pattern that I mentioned earlier, but was striking, throughout my entire fieldwork, as agencies such as the CWCB planned events—the three-day Governor’s Conference on Drought, the Joint Meeting of the Denver Metro, Arkansas, and South Platte Roundtables—representatives of agricultural agencies such as the Colorado were treated with enormous respect. State agency officials actively recruited the agricultural community to attend and participate in meetings, and they made an effort to seek opinions of agricultural leaders.

Café Scientifique

The last supplemental meeting was an unusual one-time public meeting. In my search for public meetings about water, I was fortunate in that during my two years of fieldwork, there was one Café Scientifique on water in the west in Fort Collins, Colorado, in December of 2008.

Café Scientifiques are worldwide phenomena that seek to promote public engagement with science. The café’s are designed to engage both the expertise present in the community and concerns of the public. Those who participate in the cafés chose the monthly topics based on both of these criteria. The invited expert for the “Water Security on the Front Range” café was
Dr. Neil Grigg, a noted water expert, a faculty member at Colorado State University, and a member of the Colorado Water Institute.

I attended this meeting as a participant observer. I include the field notes from this meeting as an example in Appendix C. As Café Scientifiques are expressly designed to engage the general public, meetings are held in local pubs. The public is encouraged to come early and have drinks, socialize, and then listen and interact with the local science expert. The Café Scientifique’s mission states, “We are committed to promoting public engagement with science and to making science accountable”.

One of the motivating philosophies is to move science out of an academic venue, an effort to move away from the public lecture format and make scientific topics more accessible by encouraging socializing and discussion. The target audience is people who are interested in science but often don’t have the opportunity to discuss their views with, or ask questions of someone “in the know.” The cafes usually begin with a short talk from the invited speaker who introduces the topic. Then there is a short break to have drinks refreshed and allow conversations to start. This Café Scientifique I attended was titled, “Water Security on the Front Range,” and was held in Fort Collins, Colorado, a region that is part of Northern Water Conservancy District. I began to understand the highly influential, yet not often noticed, role of Northern Water Conservancy.

Stage 3 (2009-2011): Arriving at the Water Roundtables

For approximately a year I had attended every water meeting that I could find within a hundred mile radius. During this time, I hadn’t heard of water roundtables, probably because I

http://www.cafescientifique.org
was immersed in expert domains. I stumbled across water roundtables on an on-line calendar of water meetings in the state. I inquired at WWA, but no one really knew much about the roundtables, besides having vaguely heard of them. I began attending roundtable meetings.

Water roundtables are routinely held, similar to school boards or city councils, and there is an explicit effort to include the public that I will explain in more detail in the next chapters. The routine meeting schedule along with the effort to include the public, positioned water roundtables as a deliberative practice where communication about water issues is the central focus. Below are two tables charting first, what I call Supplemental Meetings, all of which I described earlier.

<table>
<thead>
<tr>
<th>Meeting Name</th>
<th>Date</th>
<th>Meeting Type</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Availability Taskforce</td>
<td>19-Jun-08</td>
<td>Public, Tapes</td>
<td>2 hours</td>
</tr>
<tr>
<td></td>
<td>6-May-08</td>
<td>Public, Tapes</td>
<td>2 hours</td>
</tr>
<tr>
<td>Governor's Conference on Drought</td>
<td>8-10 Oct-08</td>
<td>Public, Tapes</td>
<td>3 days</td>
</tr>
<tr>
<td>Northern Water Conservancy District Fall Users Meeting</td>
<td>25-Oct-08</td>
<td>Public, Tapes</td>
<td>4 hours</td>
</tr>
<tr>
<td>CafŽ Scientifique</td>
<td>10-Dec-08</td>
<td>Public, Tapes</td>
<td>2 hours</td>
</tr>
</tbody>
</table>

Table 5.1 Supplemental Meetings

Primary Materials

My primary data came from three roundtable sites: the South Platte and the Denver Metro roundtables, and one Joint Meeting that brought together members of Arkansas, Denver Metro, and South Platte for a super roundtable. The Joint Meeting was an unusual meeting, the
second joint meeting of these three roundtables in a 4-year period. In addition to these roundtables, other primary meeting data includes two Public Education, Participation and Outreach (PEPO) meetings and two Interbasin Compact Committee (IBCC) meetings.

The idea behind water roundtables was to have decisions about water in Colorado be made by those living in the river basins. Water roundtables were designed to be deliberative, routinely held meetings, that foreground the particular context, location, and concerns of a river basin. Having narrowed down the focal sites to the South Platte Basin Roundtable and the Denver Metro Roundtable, the data from these two water roundtables consists of transcripts from meetings I attended and taped, as well as meeting minutes, and presentations materials, audio and visual, from guest roundtable presenters.

Appendix A is a copy of HB05-1177 that decreed water roundtables a mandatory practice. Appendix B is a sample transcript of the one-time “super” roundtable, the Joint Meeting of the South Platte, Denver Metro, and Arkansas roundtable in March 2009. Appendix C contains sample field notes from the Café Scientifique meeting and Appendix D provides transcribed interviews that are described in the next section. Below is a table charting the primary meetings I attended and are the basis for the analysis in Chapter 7.
The final set of primary data comes from a series of interviews done by the Colorado Foundation for Water Education.\textsuperscript{24} At the March 2009 IBCC meeting, prominent participants in the water community were asked three questions by the Colorado Foundation for Water Education who asked, and received permission from the interviewees, to share the unedited tapes with me.

\begin{table}
\centering
\begin{tabular}{|l|c|l|c|}
\hline
\textbf{Meeting Name} & \textbf{Date} & \textbf{Materials Collected} & \textbf{Duration} \\
\hline
South Platte Roundtables & 13-Jan-09 & Minutes, Field Notes, Tapes & 4 hours \\
& 10-Feb-09 & Agenda, Minutes, Field Notes & 4 hours \\
& 1-Jul-09 & Minutes, Field Notes & 4 hours \\
& 8-Dec-09 & Minutes, Field Notes, Tapes & 2 hours \\
\hline
Denver Metro Roundtable & 17-Dec-09 & Minutes, Field Notes & 3 hours \\
\hline
Arkansas, So. Platte & 13-May-09 & Minutes, Agenda, Presentations, Tapes & 4 hours \\
& Metro Joint Roundtable & & \\
\hline
Interbasin Compact Committee (IBCC) & 12-Dec-08 & Minutes, Agenda, Presentations, Tapes & 7 hours \\
& 16-Mar-09 & Minutes, Agenda, Presentations, Tapes & 7 hours \\
\hline
Public Education Participation & 11-Dec-08 & Minutes, Agenda, Field Notes & 3 hours \\
& Outreach (PEPO) & & \\
& 15-Mar-09 & Minutes, Agenda, Field Notes & 3 hours \\
\hline
\end{tabular}
\caption{Primary Meetings}
\end{table}

\textit{Interviews}

The final set of primary data comes from a series of interviews done by the Colorado Foundation for Water Education.\textsuperscript{24} At the March 2009 IBCC meeting, prominent participants in the water community were asked three questions by the Colorado Foundation for Water Education who asked, and received permission from the interviewees, to share the unedited tapes with me.

\textsuperscript{24} My thanks to the Colorado Foundation for Water Education who asked, and received permission from the interviewees, to share the unedited tapes with me.
Education (CFWE) in preparation for a feature article in Headwaters, the quarterly publication of this organization.

CFWE asked all of the interviewees if they would give permission to share the unedited tapes of the interviews for research purposes. Four of the interviewees responded positively and the CFWE then shared the mp3 files from their archives. The four people interviewed are influential members of the water community. The CFWE staff member asked two, and if there was time, three questions of each person.

The CFWE interview questions revolved around what was called the “visioning” exercise and the tradeoffs in water management that the IBCC was struggling with. The first question began with the statement; “It seems like folks aren’t satisfied with the status quo, but they don’t know how to replace it.” Followed by: “How do you think that IBCC can affect changes and policy and current trends?” The second question asked “What do you think is the most viable mix of strategies and how can we approach these solutions?” If there was still time, the interviewer asked a third question, “Do you have any thoughts about what the certain risks are involved with developing the Colorado River?”

The first interviewee was Governor’s appointee to the IBCC, Wayne Van der Scheure. The next was Peter Nichols, a highly respected water lawyer and one of the architects of the Arkansas Valley Super Ditch, a water consortium that I will discuss in Chapter 6. Melinda Kassen, the environmental representative on the IBCC, and Eric Wilkinson, the general manager of the Northern and the South Platte roundtable representative to the IBCC were the final two interviewees that gave permission to share their responses. I transcribed these tapes using the AIDA conventions, inserting simple punctuation for readability and using hyphens where a speaker begins to say one thing and then changed it.
This chapter provided the context for how water roundtables, as a site of communicative inquiry about water were selected. My motivation was fueled by a desire to look at talk practices about water or weather that involved the public. In the next chapter I develop an ethnographic portrait of water roundtables, a composite of the many roundtables I attended.
CHAPTER 6

AN ETHNOGRAPHIC PORTRAIT OF A WATER ROUNDTABLE MEETING

In this chapter I give a composite portrait of water roundtables, providing a basic descriptive profile by asking seven questions. My rationale for these questions was informed by Grounded Practical Theory, in that during the time I spent in the field, attending meetings, participating in conference calls, walking in river basins and irrigation ditches of Colorado, I kept asking myself, what are the communicative problems of water? There were so many options to choose, but the locus of talk about water and decision-making in Colorado was being created in water roundtables. A portrait of water roundtables emerges when you ask what are the features?

**What Kind of Meeting is it? Public, Organizational, or Hybrid?**

As I describe the roundtables, it is helpful to notice how the roundtable meetings have features of both organizational and public meetings. This hybridization of public and organizational meeting forms a distinctive meeting genre. It also points to a shift as the water community deliberately attempts to move away from a litigious dialogue. In a recent newspaper article, the Director of the Natural Resources for the State of Colorado “defended the IBCC’s progress in at least getting diverse water interests to talk to each other.”

The roundtables work to create a form of governance represented by a distinct dialogic space.

In a review of meetings research, Tracy and Dimock (2004) distinguish between public meetings and organizational meetings. Roundtables are a synthesis of public and organizational

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25 August 13, 2009 Pueblo Chieftan
meetings and this hybridity is reflected in four norms. The first norm of roundtables meetings is that they are public meetings that anyone may attend. In fact, on every agenda of every roundtable there is a statement at the bottom of the page stating, “All roundtable meetings are open and the public is encouraged to attend.” Not only are attendance rights not restricted, as is often the case in organizational meetings, but roundtable members routinely talk about how to attract more attendees to their monthly meetings.

A second feature of roundtables, similar to organizational meetings, is that they are relatively small in size. Ryfe (2005) categorized public meetings as small, medium, or large. For Ryfe, a small meeting had less than 50 members, a medium meeting has 50 to a few hundred, and large meetings could be entire communities. Roundtable meetings, which are public, resemble organizational meetings in size, typically 20 to 25 people present, including roundtable members, visitors from other agencies, and perhaps a member of the public. The largest roundtable I attended had 50 people present. This size would be large for organizational meetings, but most of the roundtable meetings were much smaller. Although public meetings can be small, they tend to be much larger than organizational meetings. Roundtables generally do not have more than 50 people attending. In this way they are similar to organizational meetings. Occasionally there are joint meeting of the three roundtables, and these are medium-sized. Each of the nine basin roundtables in Colorado has a different number of members, reflecting the demographics of the region as I showed in the previous chapter. For example, the Arkansas is spatially the largest basin encompassing 28,628 square miles and has 53 voting members. The

\[26\] In fact, the roundtables are conscientious about public inclusion. My experience was that I was very welcome at the meetings, and on several occasions, members of the roundtable and others connected with water issues in the state told me of meetings that I “really shouldn’t miss.” When I went to one of these “don’t miss” meetings, a member of the Colorado Basin Roundtable sat next to me (for the 4 hour morning portion of the meeting) and provided background while the larger IBCC meeting unfolded. Similarly inclusive experiences occurred at other roundtable meetings as well.
North Platte roundtable covers 2,050 square miles and has 16 voting members. The Denver Metro roundtable, although not a geographic river basin, has a dense population and has 27 voting members. Not all of the roundtable members always attend each meeting. Similar to work meetings, people take vacations, or, given the agenda for a particular meeting there isn’t a need for their presence, and a variety of other reasons.

The third feature of roundtables, incorporating both organizational and public attributes and highlighting the hybridization, is the mix of participatory processes. Public meetings generally use relatively formal participatory practices (Ryfe, 2005), and roundtables follow this norm to varying degrees. Organizational meetings have less formal participatory processes. Both organizational and public meetings use agendas to structure interactions. Roundtables meetings use more formal participatory practices (i.e., some parliamentary procedures), as well as moderately structured interactions (agendas, reports, presentations). At the same time, there is a great deal of flexibility in the participatory processes of roundtables. Ordinary conversational exchanges, as well as acerbic exchanges are common. The interaction at water roundtables is more like organizational meetings in that the participants know each other well, often having a history of working with each other across other organizations and tasks. The public is included in conversational exchanges, although they do not vote.

A fourth feature that is similar to organizational meetings is the complexity with which roundtables are tethered to other meetings. To some extent this resembles Likert’s (1967) model of the human “linking pin” in organizations. In this model, leaders of one unit are members of another organizational group. In this schema, the leaders of the unit have the dual responsibility of maintaining cohesion within their group and representing this group in the larger group. These individuals are called the “linking pins.” In the roundtables, it is not so neatly ordered,
but members of roundtables are participants, and sometimes leaders, in other organizations whose focus related to water.

A fifth feature of roundtables that marks this kind of meeting as a hybrid is that although it is a public meeting, people come and stay. If someone leaves, they generally account for their leaving in some way. In many public meetings there is a lot of coming and going. This was not the case in the water roundtables. In that sense they function more like an organizational work group than a public meeting. In summary, roundtable meetings are public, small, with very flexible governance norms, and have strong ties to a larger pool of organizational and social groups through a web of other meetings.

**How do the Meetings Operate?**

Unlike most other environmental meetings, roundtables are regularly recurring meetings and members develop relationships with each other, the sort of relationships that grow in routine, monthly meetings where tough decisions are made. These relationships are formed and punctuated by consequential decisions about a wide array of resource-allocation and other, more abstract issues. Leading scholars have noted that those involved in collaborative efforts tied to decision-making are able to influence public policy (McKinney & Harmon, 2004; Susskind & Cruickshank, 1987).

Roundtables as a governance practice for watersheds in the west were chosen as a preferred method of natural resource governance, in part, informed by early figures in western resource management. Water has been a source of contention since the earliest exploration of the western United States. Early explorers and settlers such as John Wesley Powell in the 1800s, and later Delph Carpenter, advocated drawing the boundaries of the west by the natural resources, such as rivers, that form natural geographic markers. This advice was never heeded. Delph Carpenter
was instrumental in brokering the Compact of 1922, allocating the water of the Colorado River between 7 states and Mexico (Tyler, 2003). As I mentioned at the conclusion of Chapter 2, the Colorado Compact of 1922 still carries the force of law today. Carpenter was a strong voice for open communication, equitable distribution, and cooperation. The roundtables of today, often credited to Russell George, a former director of the Department of Natural Resources, are based on this model. George explicitly invokes Carpenter as a model and a standard bearer for how water negotiations should be conducted. The language in the bylaws of the roundtables today include phrases such as, “improve communication among members,” “facilitate cooperation,” “framework for coordination.” This choice of words point to the centrality of communication for roundtables. The shape and features of roundtables that address the intractable problems of water in the west are being forged in these meetings.

In the early 1980s there was shift to a consensus approach, new for members of the water community as they faced an expanding demand and, concurrently, large trans-mountain diversion projects. Out of a bitter and controversial ruling that quashed a large dam and reservoir project, mentioned in Chapter 2, Two Forks, a Denver roundtable formed and concurrently turned to consensus-based approaches to water management (Kennedy & Carpenter, 1988). The aftermath of Two Forks signified the turning point, “at least in principle” from an era of large water project constructions to one that incorporated a more environmentally-focused, collaborative approach (Nichols, Murphy, & Kenney, 2000). These early efforts at a Denver roundtable in 1981 developed the groundwork for procedural agreements on conducting the roundtable meetings. Kennedy and Carpenter note, “The most controversial issues concerned whether Roundtable meetings should be open or closed to the public” (p. 26). Approximately one-third of the members in this early roundtable were elected officials, who held the norm of
open, public meetings. However, instead of open meetings, participants agreed to hold separate public meetings; routine roundtable meetings were not open to the public, as they would “involve more frank and productive exchanges of information if they were not public” (p. 27).

Other ground rules in these early meetings set the tone for how to conduct today’s roundtables. A collaborative approach to decision-making about water was the ideal. For example, “the personal integrity and value of participants was to be respected” (p. 26). Delaying tactics were expressly banned, an important point, as delaying meant that cases were being prepared for Water Court, the “go-to” practice for water disputes the roundtables were trying to change.

Today, each basin roundtable creates (and sometimes revisits) their bylaws. At the inception of the roundtables in 2005, each basin was given a packet by the Department of Natural Resources with a sample set of bylaws suggesting the “rules of play,” what some goals and objectives might be, a decision-making process, and meeting and governance procedures. Most of the roundtables today have a bylaw committee. Recently, the Arkansas Roundtable updated it bylaws. In both previous bylaws and in this updated version, the Open Meetings laws are invoked as a common standard. Examples of some bylaws adopted are:

1) Members must be present to vote, but they can participate in committee meetings by telephone.

2) There must be 2/3 of the members present to have a quorum.

3) All members have only one vote and must be present to vote.

Roundtables meetings usually start in the afternoon, and depending on the size of the roundtable, last anywhere from 2 to 4 hours. They are held in a public building or at least a publicly accessible building, such as a county administrative building or the Forest Service office. There is an agenda, usually with standard reports from committees. The meetings begin
with announcements, such as giving information that someone is visiting, describing a course offering for water managers, or drawing attention to a magazine article featuring a particular river basin. Next in the meeting is the approval of the previous meetings minutes. Members attend to the minutes, often correcting a misspelling, or the meeting’s projected sequence of events. The following excerpt is a typical meeting beginning.

*Excerpt 6.1, South Platte Basin Roundtable Meeting, January 2009*

Um, I’m going to call to order the South Platte Basin Roundtable. It is Tuesday, January 13, 2009. We’re going to go out of order today, uh, as I think all of you know, I am uh, currently chairing uh, but only for a few minutes of this meeting. I’m not serving as the Weld County Commissioner anymore. My seat is as a result of being the Weld County’s designee on this uh board. And so uh, what we need to do is probably go and jump ahead and for your convenience is an agenda on the table, here. We’re going to jump ahead to the selection of the basin roundtable chairman and simply get right to this before we do the normal standard reports. So, what I’d like to do is go ahead and open up the uh, floor for nominations for chairman for this uh, basin roundtable. Is there anyone who’d like to run for chairman? Are there any nominations? Don’t be shy.

This excerpt illustrates both the attention to public meeting norms, e.g. providing an agenda, calling for nominations of a new chairman, and allowing for flexibility within the norms by changing the order of the proceedings by calling for nominations before the standard reports as the agenda listed.

Following are the updates, or standard reports. Standard reports could include a legislative report, a report from the Non-Consumptive Needs committee, and a report from the Phreatophyte committee. There are other reports as well and between the reports there is joking and commentary. A common activity of roundtables is to write letters of support or commendation.
An example is one that occurred in January 22, 2007. The Colorado Basin roundtable voted unanimously to send a letter to Governor Bill Ritter commending Russell George’s leadership in the roundtable process. Again in January 2009 when I attended the South Platte Basin Roundtable there was a spontaneous suggestion, and consequent decision to send a letter to the IBCC recommending that the South Platte Basin Roundtable representative to the IBCC maintain his seat on that board. The roundtable members used glowing words to describe this member as they unanimously voted to write a letter of recommendation and praise to the IBCC.

As I have indicated, roundtables do deviate from their agenda, allowing for a flow in the proceedings. As each standard report is given, sometimes decisions are made about how to allocate or request money. At one roundtable meeting $23,860 from the Water Supply Reserve Account, an account administered by the Colorado Water Conservation Board (CWCB), was approved for an analysis regarding Agriculture to Urban Water transfers. The result, a white paper titled, *Considerations for Agriculture to Urban Water Transfers* is now available on the main CWCB website. At later roundtable meetings, members are encouraged to read the paper.

At another roundtable meeting, the educational liaison brings up the issue of funding a proposed study by a consulting firm that would examine the consumptive water patterns in the river basin. The liaison mentioned that two other roundtables would come up with a third of the total cost $60,000 if all three basins agreed to put in $20,000. There was discussion of the proposal and the outcome was that the proposing basin would wait to see if the third basin was going to support the project.

Time for socializing is also built into the agenda. There are breaks with refreshments; at one roundtable, the members have a catered dinner. After the break there is usually a presentation on a topic of interest to roundtable members; such as a presentation of the work of one of the
committees. The final moments of a roundtable are used to go over tasks that need to be done, such as contacting an administrative assistant to set up processes for moving forward on tasks. The roundtables end with a bit of social banter. Attendees remind each other that they will see them next week at another meeting.

Who Attends Water Roundtable Meetings?

As I mentioned in Chapter 2, a certain number of seats are allocated to various interest groups: environmental representatives, agricultural representatives, and agency officials, each with their distinct norms of talking, expressing values, and identities. In Chapter 3 I mentioned reciprocal interdependence (Thompson, 1967), a special form of interdependence where participants need to manage three processes: negotiation of identities, mutual exchange, and executing collaborative skills. Assigning designated members attends to this notion of the necessity of complex skills Thompson noted. In Chapter 2 I noted that HB05-1177 mandated that each roundtable have designated members. In this section I detail the specifics of the designated members, as particular attributes are assigned to these roundtable members. Specifically, at-large members that are appointed by the designated members who consult with the Director of Compact Negotiations; a Colorado Water Conservation Board member from that basin; non-voting members; and agency liaisons. In this section I will not cover the agency liaisons as agency representation is covered in Chapter 2.

**Designated Members:**

- One member appointed by each county falling within the boundaries of the roundtable’s basin.

- One member appointed jointly by all the municipalities within any county in the roundtable’s boundaries.
• One member appointed by each water conservancy and water conservation district within the roundtable’s boundaries.

• One member appointed jointly by the chairpersons of the Colorado House and Senate Agriculture Committees.

• Ten At-Large Members (appointed by the designated members in consultation with the Director of Compact Negotiations):
  • One representing agricultural interests
  • One representing recreational interests
  • One representing local, domestic water providers
  • One representing industrial interests
  • One representing environmental interests – Selected from eligible candidates representing established Colorado environmental organizations.
  • At least 5 of the 10 at-large roundtable members must own water rights or have a contract for federal water.  

Colorado Water Conservation Board:

• The CWCB member from the basin serves as the liaison between the roundtable and the CWCB.

Non-Voting Members (appointed by the full roundtable membership):

• Non-voting members who must own water rights or have a contract for federal water to represent out-of-basin water interests within the roundtable’s boundaries, or representatives that have interests in and are knowledgeable about water matters.

This list of participants is extensive as it specifies the maximum variety of roundtables composition. Most roundtables do not have every representative listed above, only representatives that are connected to the issues in that particular basin. These agencies are very interdependent, and reciprocally so. Whether they engage in the processes of reciprocal

27 Emphasis in the original text. http://www.ibcc.state.co.us/overview
interdependence Thompson (1967) noted, cannot be mandated. Tying designated members to other interests attempts to encompass a wide range of possibilities (McKinney & Harmon, 2004), enabling inclusiveness of roundtable’s stakeholders while still recognizing that the basins have different needs and priorities.

In an early study of the roundtables designed to give the participants information on their composition and to help identify potential participants, the Colorado Institute of Public Policy (CIPP, 2005) identified seven major groups of attendees. The CIPP enlisted over 100 people, starting with members of the roundtable and had them refer others with interests in water issues for the survey. Each respondent that answered the survey was allowed to identify to up to three affiliations. The largest group, at 36% was affiliated with a government position that was non-elected. This category included non-elected government staff at the municipal, county, state, and federal level. The next highest representation, at 29.9 %, was quasi-governmental water districts. Female respondents in the survey were much less likely to be members of any roundtable. Three quarters of the survey respondents did not own water rights individually. However, 60% percent of the respondents represented organizations that own water rights. Other categories of respondents included environmentalists, recreationalists, and agricultural interests.

Another way of characterizing who attends the roundtables is by their occupational and political categories. Membership categories are how participants are chosen as members for stakeholder meetings. To be sure, members of the roundtables belong to multiple categories. The activities and characteristics associated with different categories are tied to particular ideals and motivations for each category. For example, recreationalists and environmentalists, as members of these categories prioritize high in-stream flows, and as I will show in the next chapter, use common terminology in strategic ways.
The categories of people that attend water roundtables include attorneys, city council members, water managers, recreationalists, environmentalists, farmers and ranchers, and consultants. Each of these groups and interests bring particular entailments with them; the environmentalists are interested in water as it relates to ecological habitats and species health. Municipal water providers are interested in how they can supply cheap, clean, plentiful water to the public. Attorneys’ entailments are tied to who is paying them. Agency representatives, for example, the United States Geological Survey (USGS) are there to represent the interests of the public as their water science agency. Often, a member has multiple categories, as in a farmer or rancher is also a city council person, or the environmental representative is also an attorney. In one basin roundtable, the recording secretary is an attorney, an officer in her local conservancy district, and holds a Ph.D. in literature. Participants have multiple categories and this is seen to serve the roundtables, and the public, well.

Other attendees at the roundtable meetings include invited presenters. At one water roundtable meeting for instance, a biologist from the Department of Natural Resources gave a talk about the looming threat of invasive species in river basins. Invasive species such as zebra mussel and quagga mussels are beginning to appear in Colorado’s water systems, a huge cause of concern. A particular concern for Colorado is that the larvae survive in very cold temperature water. Other states have spent staggering amounts of money (upwards of $10 million) to eradicate these particular invasive species as they clog waterways and systems for water delivery. Often, presenters make the rounds of all the state’s water roundtables, providing a common platform for discussion of issues in statewide meetings where roundtable members convene.
Each water roundtable meeting has an agenda, often with visiting specialists. Regional scientists and climatologists give presentations on the state of climate change in the intermountain west and how this will potentially affect water supply. Equally vital, the roundtables members, as representatives of different sectors, bring their expertise from their particular basin. Shared in the unremarkable interactional moments that are the glue of the relationships, a rancher might, in conversation with others, express the ranching community’s increasing concern about the lack of groundwater returns limiting feed for foraging cattle. In one roundtable meeting, although the legislative representative wasn’t there, the standard report from the legislative representative was called. Despite the fact that the legislative representative wasn’t present, roundtable members had a twenty-minute conversation on the potential impacts of pending rainwater harvesting legislation. There were five or six participants in the discussion, and the exchange was cordial, spontaneous, yet still attended to the agenda of the roundtable. So, equally important to who is present is the issue of who is expected to be present. An absent member can affect what is talked about in a meeting.

Motivating the design of roundtables was the idea of including people who are not ordinarily represented at water meetings. One of the main proponents and architects of HB 1177, Russell George, argued that “This process must include the general public as the roundtables and the IBCC disseminate information about what they are doing and what they seek to accomplish for the citizens of their basin and the state” (George, 2004, p. 3). Much of the work of the PEPO committee, as I noted in Chapter 2, is focused on disseminating information. Often the PEPO works with the Colorado Foundation for Water Education and state agencies such as the Colorado Water Conservation Board (CWCB). Members of the CWCB regularly attend roundtable meetings, supplying technical information about the Surface Water Supply Index
(SWSI), and indicator of abundance or shortage; these are data that the roundtables use to begin their needs assessments for the basin. The general public rarely attends the roundtable meetings. The mix of attendees and roundtable members cover a spectrum from rivals, to colleagues, to interested public servants. Forethought is given to how to make water issues accessible and inclusive in Colorado.

**What are the Routine Activities of Water Roundtables?**

Roundtable meetings begin with socializing. Time is built into the meeting schedule for socially reconnecting. Participants attend other water meetings or local political meetings and often exchange news about what happened at other meetings or on a neighboring ranch. Each roundtable meeting has an agenda, and a meeting usually includes some kind of presentation. Often presentations are from engineering firms proposing studies. One such study was for the basin’s groundwater supplies. Often, subcommittees such as the environmental committee, charged with mapping species of concern for the basin, report on their progress. During the course of the meetings, problems surface in the talk about how to fill representative seats or how to respond to another basin’s request to join them in funding a particular study.

There are two main purposes of the roundtables: (1) to develop a needs assessment for how much water each basin will need projecting out to 2050, sometimes called the gap analysis, referring to how much water each basin has and how much they will need, and (2) to facilitate collaborative solutions for the problems each basin faces that are particular to that locale. In order to develop a needs assessment, the state agency responsible for water, the CWCB provides statewide and basin specific data for each roundtable. Not only does the CWCB provide data, but at every meeting during the two year period that I attended roundtables there was at least one CWCB representative present.
Routine activities at roundtable meetings include discussions of studies of water availability, and voting on whether to fund additional studies of such as underground aquifers. The roundtables are all eligible to use funds from the Water Supply Reserve Account (WSRA) established through the state of Colorado’s Severance Tax Trust Fund. The significance of this funding source is that the Severance Tax Trust Fund is not subject to the same budget cuts that other state agencies face, providing some assurance of continuity of funding for the roundtable process. I will discuss the funding in more detail in Chapter 7.

The roundtables use the WSRA monies for a variety of different purposes. One common activity of roundtables is to identify projects and processes that will help them find water for their basin. This process has an acronym in the roundtable talk and in the larger water community, IPP’s; identified projects and processes. An example of an IPP is a study to assess the viability of underground water storage. The studies are contracted out to hydrological engineering firms. In another use of the WSRA, the South Platte roundtable created a subcommittee to identify species of concern in their basin, so that they could “make better decisions” about the attributes of each stream reach. This particular mapping subcommittee went through iterations with the members of the roundtable in creating a map so that the roundtable could collectively discuss what attributes they considered valuable.

The Arkansas Valley roundtable mapped attributes (species and ecosystems such as wetlands) in order to evaluate an aquifer supply project. All of these projects require decision-making about values: What species is more valuable than another? What tradeoffs are required in choosing to pursue a large-scale water project? Discussions about IPP’s are a mapping of values. Roundtable members display their values as they make choices about which IPP to support. Each basin roundtable collectively decides on a scope for a study that is important for their basin
and organizes a subcommittee to research the scope of study and report back to the entire roundtable.

Most of the roundtables have a bylaw committee. As I mentioned in Chapter 2, at the inception of the roundtables in 2005, each basin was given a packet by the Department of Natural Resources with a sample set of bylaws suggesting the “rules of play.” Today, each basin roundtable creates (and sometimes revisits) their bylaws. Recently, the Arkansas roundtable updated their bylaws. In both previous bylaws and in the updated version, the Open Meetings laws are invoked as a common standard.

**How are Water Roundtable Meetings Linked to Other Water Meetings?**

In the web of water meetings in Colorado, roundtables are a focal meeting, in part because of their frequency. Most of them meet once a month. Other water meetings provide a wider web. Schwartzman (1989) points out that meetings are places where people live out who they are, work on relationships, and balance the immediacies of the present with an eye towards the future. As mentioned earlier, the basin roundtables are tied to other water meetings in the intermountain west through roundtable members’ representations in meetings such as the Colorado Water Conservation Board (CWCB), the state conservation agency, the Interbasin Compact Committee (IBCC), and other watershed groups. Roundtable members are also members of their home agencies, water conservancy districts, city councils, and other organizations. Each city “shall be entitled to at least one member on the basin roundtable as selected by that county or city” was specified when water roundtables bill established HB05-1177. Every roundtable has subcommittees such as the Non-consumptive Needs Committee, the Phreatophyte Committee, and the Alternative Ag Transfer Committee that meet outside of the monthly roundtable meetings.
The two key water meetings that are most clearly connected to the roundtables are the IBCC and the CWCB. Representatives from these agencies and the roundtables have cross-posted memberships. The CWCB is the state water agency, responsible for “managing Colorado’s water for present and future generations.”28 As I described in Chapter 2, the IBCC is mandated to address issues between the basin roundtables. The legislation that instituted the roundtables, HB05-1177, also established the IBCC (sec. 37-75-105), both were created to work with each other. IBCC meetings are programmed for two days, held quarterly, and their location moves around the state to visit each region. Participants convene from around the state and the first day of the meeting is generally subcommittee meetings.

Meetings are designed with cross-posted members and the web of relationships among members is visible, contributing to the sense of organizational interaction among members. Roundtable members often speak of adhering to the mandates of HB 1177. In a recent interview by the Colorado Foundation for Water Education (CFWE), a leading water attorney pointed out, “the existing system was not working to resolve the issues…... there needed to be a different way to get along. We sort of devolved into perennial litigation and fighting over who was gonna get how much water, and everybody trying to protect how much water they had.”29 As members craft a structure for how they do roundtables, they are grounded in the assumption that their actions are responsive and connected to people, not abstract actions.

What are the Important Conflicts to which Roundtables Orient?

The history of western water is rife with conflict. There is a backlog of animosities, historical grievances, alliances among subgroups, and structural power imbalances. There are

28 http://www.cwcb.state.co.us
29 From the interviews provided by Colorado Foundation for Water Education, the transcripts are attached in Appendix C. This is Peter Nichols speaking.
also treatises on how the west is addressing and resolving these difficulties. Wilkinson (McKinney & Harmon, 2004, p. xiii) notes the less visible tradition articulated by Wallace Stegner’s view of the west: Unless the west “fully learns that cooperation, not rugged individualism, is the pattern that most characterizes and preserves it, then it will have achieved itself and outlived its origins. Then it has a chance to create a society to match its scenery.” Most notably, McKinney and Harmon point out that “Many western resource disputes are also intensified because of complicated relationships among the multiple parties” (emphasis in original, p. 21). There are four main conflicts that are characteristic of water roundtables in the western United States.

*Buy and Dry*

One focal topic of discussion (and a source of deep differences) for the roundtables is “Buy and Dry” or the more formal moniker of “Ag to Urban Transfer.” As metropolitan areas continue to grow, the projected growth trajectory of these urban regions is a consuming source of concern for municipal water suppliers. Cities can pay top dollar for water. For irrigated farms, the value of the water is far greater than the land itself. The water is tied to a property right. If a generation of farmers doesn’t want to continue farming, they face a decision about whether to cash out and sell the farm.

One option recently devised by the agricultural sector is the formation of a consortium of water rights holders (usually farmers and ranchers) called a water bank. In Colorado, in the Arkansas River basin, a water cartel nicknamed “the Super Ditch” was formed in 2008 (although initial planning started years earlier) as a way for farmers to pool resources to market water. The Super Ditch is a controversial idea among the roundtables. It is touted as a way to keep cities from picking off farms one-by-one to harvest their water. Municipalities, such as Aurora, lease
water through leases negotiated by the Super Ditch Company. In this way cities can get the water they need to serve their residents, while ownership of the water remains in the hands of local valley irrigators. Participating irrigators will forgo irrigation of some of their lands to allow the water to be used by the cities. This option allows farmers to retain their water rights and still supply water to thirsty municipalities while avoiding the “buy and dry” scenario. Farmers argue that without programs like the Super Ditch, there will be more buy-and-dry transfers than there have been in the past. Strategies like Super Ditch provide a profitable option for farmers to retain their water rights.

Previously it was not unusual for municipal water agencies to approach farmers individually and purchase water rights at bargain prices. This is of great concern to farmers. Now, farmers are more aware of the implications of this approach by cities. One background meeting I attended that had many farmers and ranchers in the audience was hosted by the Natural Resources Center at the University of Colorado called Alternatives for Ag to Urban Transfers (May 2009). Many farmers believe that if they don’t work together, municipalities will continue to pick them off one by one until the eastern plains of Colorado look like a wasteland.

An iconic example of the rift between cities and farmers over water is the “water wars in Owens Valley.” In 1905 the water manager and other officials affiliated with of the city of Los Angeles municipal water supply surreptitiously bought up farms in Owens Valley, drying up the region in order to supply water to the Los Angeles. Gunshots were fired over the canal that Los Angeles built to pipe the water to the burgeoning municipality. A similar (but considered less ruthless) scenario occurred more recently in Colorado. The water rights to the Colorado Canal were purchased and transferred to Colorado Springs, Aurora, and Pueblo. Although secrecy was
not a factor in this purchase, the ensuing wasteland around the purchased Canal evoked memories of the degradation of Owens Lake.

Recently, local newspapers detail how “buy-and-dry” has taken nearly 80,000 acres, approximately 15 percent, of historically irrigated land out of production in southeastern Colorado. Some argue that a significant consequence of this falling was that formerly irrigated ground became infested with weeds, providing most of the fuel for the fast-moving wildfire that nearly engulfed the town of Ordway in 2008.

One of the concerns that makes the idea of a “super ditch” controversial is that municipalities want more surety than a short term leasing agreement. What if the farmers decide after the term of the lease ends that they don’t want to lease anymore? Municipalities become dependent and are then stuck with a population that is habituated to plentiful water at low rates. How will the cities cover the gap if farmers decide to raise the rates or no longer lease to them? And at the heart of the controversy for some farmers is that they just want to farm. Farmers also are likely to be wary and distrustful of attorneys managing the leasing terms of their water rights. At an Ag-to-Urban Transfer meeting one local water manager said, “A long time ago, the attorneys and the farmers had a fight, and the attorneys won.” Another attorney mentioned, “Selling the idea is 95% of the work.”

Adding fuel to the ag-to-urban transfer debate is an East Slope versus West Slope division. Most of the urban growth in Colorado occurs along the Front Range; however it is the West Slope, a more rural region that has a more plentiful water supply due to its geography. “From the very beginning of settlement in Colorado there has been a geographical and political division of the state into what is now described as the Eastern Slope—Western Slope controversy”

30 There is an effort to examine farming practices so that crop production is designed efficiently to maximize the value of the water.
Trans-boundary diversions, moving water from the plentiful West Slope to the East Slope, cause the most conflict. In roundtable talk, agriculture, traditionally a Western Slope enterprise, is held up as an ideal that the East Slope is eroding.

*Environmental Legislation*

A second recurring theme in roundtable talk is how to negotiate the complexity of environmental legislation. There is increasing attention (and pressure) from multiple groups—environmentalists, as well as recreational interests, to preserve species and the ecological habitat. Apprehension about river flows and species health has been increasing since the early 1960s and legislation has grown to the point that it circumscribes how water is managed (Nichols, Murphy, & Kenney, 2000). Water redistribution and development (building new reservoirs) and demolition of dams are the result of legislation. In fact, it was the Environmental Protection Agency that struck down the Two Forks project. Adding to the complexity, it is sometimes the case that preservation of a species requires maintaining non-natural habitats (Leighinger, 2006). The excerpt below from the South Platte roundtable chairman evidences this situation.

**Excerpt 6.2, Joint Meeting of the South Platte, Arkansas, Denver Metro Roundtables, March 8, 2009.**

Agriculture over the years has created habitat, both, uh, and a use. And, and other nonconsumptive uses, recreation, hunting, that if agriculture’s dried up, won’t exist anymore. So we already have demands downstream from us in Nebraska for endangered species. We have species of concern, right at the lower end of the river. Anytime you dry up agriculture it’s gonna affect these. So, as you dry

31 Water development is diversion of water from a stream for agricultural, industrial, and municipal use (Silk, McDonald, & Wiginton, 2000).
up agriculture it changes the whole makeup of our downstream.

In the West a common method of addressing riparian environmental concerns is through maintenance of what are called instream flows. The Endangered Species Act requires water managers to monitor water flows in streams to maintain the flow of water and habitat needs of listed species. Instream flow water rights require that a minimum specified level of flow to be left in a stream and the remaining flows are available for water development. Leading water conservation scholars have suggested that instream flow rights (usually purchased and held by a state agency for conservation purposes), be “turned upside down” (Silk, McDonald, & Wigington, 2000). The authors argue that freshwater systems are a “disproportionately rich” source of biological assets and thus need to be prioritized over municipal, industrial, or agriculture use. Traditional instream flow rights have a specified level of flow left in the stream, and the remaining flow is available for water development. Upside-down instream flow water rights specify the level of water development and the remaining flows are protected for instream. These two perspectives approach uses of instream water from opposite ends of the spectrum.

As Bennett W. Raley, the former General Counsel, of Northern Colorado Water Conservancy District pointed out “The Endangered Species Act is a lot like a very bad marriage in a state with no divorce” (Nichols, Murphy & Kenney, 2000, p. 54). After an InterBasin Compact Committee (IBCC) meeting I was invited to join a few members of the committee for drinks. Over drinks in the hotel lounge, a highly respected irrigation district manager from the West Slope (who also is the Chairperson of the PEPO committee) was congratulated for acquiring more storage for the reservoir. The manager leaned over and whispered to me “I don’t give a damn about those fish downstream. I’m using all the water I got.” Notably, this comment
was not directed at the whole group, as the speaker understood very well that species and ecological habitat health are widely held environmental values.

*Water Quality*

Previously water issues in the west focused primarily on quantity. Today, water quality has equal footing in importance. As water conservation encourages the use of less water, more pollutants are concentrated in return flows. Multiple use and reuse of water negatively affects water quality and, in some cases, result in increased costs for water treatment. Land-use changes (such as increased development) are associated with growth change patterns of sediment and flood plains, altering the water quality. Laws and regulations governing water quality come from both a state level and a federal level, and reconciling these can be difficult. Opponents of growth often use deteriorating water quality as a reason to limit domestic water use. In his opening speech at the joint meeting of the Arkansas, Denver Metro, and South Platte roundtables, the South Platte chairman claimed that water from the South Platte was used efficiently. “We use and re-use water up to seven times before it reaches the city of Aurora.” In this statement the chairman underscores his roundtable’s careful stewardship of water, arguing “you just can’t get more water from us.” Re-using water even more requires increasing the capacity of water treatment plants which is a costly undertaking. At the same meeting, a municipal water manager used the specter of costly water treatment plants, along with the cost of disposing of byproducts, as an unfair burden on taxpayers to argue that the agriculture community should make more water available to municipalities.

*Excerpt 6.3 Joint Meeting of the Denver Metro, South Platte, Arkansas Basin Roundtables March 18, 2009*
RK: Let, let’s face it, one of the issues here when you’re dealing with ag water is water quality and we’re looking closely at what treatments are out there and then what to do with the uh, with the, uh byproducts of that treatment.

Some environmentalists, in a call to restore the teeth in the Clean Water Act, remind us of the basic public health concerns related to water quality. “Rivers and streams across the country were foaming, foul-smelling dumps for industrial waste” (Kassen, 2009). Water supply and water quality are intertwined, and state law governs water supply. Federal law primarily dominates water quality rulings. A benefit of the roundtable process is that there is an attempt to reconcile issues crossing jurisdictional lines and to incrementally align interests.

Compact Call

Water decisions in Colorado are influenced by previous agreements with other states through “compacts.” A “call” on the Colorado River is essentially a need to curtail the use of the water in order to meet the Colorado Compact delivery obligations. This has never happened, but the possibility exists that in the case of a dry year, junior water rights holders would be obligated to forego their water in order to meet delivery requirements downstream.

There are two primary ways that water management is influenced by compact calls. The first is that if Colorado uses the maximum allowable water, this prevents water from being claimed by other states. In effect, protecting and consuming the water in state rewards inefficiency. The second way compacts calls are used is as a rallying call for supporting new water development. In this case, the rationale is that we need to store more water so that water is

32 http://www.denverpost.com/guestcommentary/ci_12736157
not “squandered” by letting it flow downstream to other states that can then claim more water than allocated under compacts. If the water isn’t used, then someone else gets it; therefore Colorado needs to strategize ways to store this water so that downstream users don’t get it. The excerpt below is the Chairman of the South Platte Basin Roundtable expressing this sentiment.

Excerpt 6.4, Joint Meeting of the Denver Metro, South Platte, Arkansas Basin Roundtables March 18, 2009

JY: So, every time you conserve, every time you reuse, that’s something that agriculture has depended on and they’re well within their rights to do that. But you have to keep in mind, that every time you do that you change something else within the system. And so that may mean that a senior agriculture right maybe calling more often and keeping the city from getting the water that they had depended on, on a junior water right. So, ever time you do something like this, whether it’s conservation or it’s reuse, it has an effect on the whole basin. And ya, ya gotta keep that in mind.

In this excerpt the speaker suggests the threat of a “Call on the River,” where junior rights holders have their water allocation suspended until the senior appropriators have filled their allocation. Tarlock (2001) suggests that it is the threat of a call on the river that is the most effective piece of a call on the river as it provides impetus for water appropriators to share.

These four topics, “buy-and-dry”, environmental legislation, water quality, and a compact call are topics that are discussed and contested in roundtable talk.

How do Members Credential their Positions?

One of the issues that repeatedly surfaces in environmental governance discussions is how expertise is managed. Credentials recognize expertise and underscore that some people have
more of a right than others. In water resource issues, rights carry a special meaning, as indicated in the fact that seats on the roundtable are designated for water rights holders, or those representing water rights. Rights and expertise are intertwined in ways that situate relationships as a central focus in roundtable talk. These interweaving concepts will be analyzed in a more detailed way in the next chapter. Here I briefly preview credentialing in roundtable talk.

Another way positions are credentialled is by “credentialing the other.” This evokes the value of being humble, not forwarding one’s own expertise. At the Joint meeting of the South Platte, Metro, and the Arkansas, as one conservancy director was explaining a point to me, she mentioned “Mike, over here, is one of the premier water attorneys in the state, but you would never know this from him. He, in fact, was influential in the ruling that made this particular case a precedent.” Mike overheard this as he was sitting at the table, but never said a word or even attempted to contribute to the conversation.

Face, a concept developed by Goffman (1964), and later expanded by Brown and Levinson (1987) in politeness theory, is a way participants create and maintain positive self-image in social interactions. Goffman posited that face is a social construct in interaction, people involved in interaction create and maintain (or damage) images of self and other. Face is neither inherent in, nor a permanent aspect of a person in interaction. Face-work in the water community has properties that implicate how expertise is weighed, and this in turn, impacts the dialogic space that roundtables are working to construct.

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33 Water is different from other competitive resources in that water is both a public good and a private right. The Doctrine of Prior Appropriation, which governs water allocation in the western United States, recognizes that those users who first put water to beneficial use have senior rights to those with later more junior rights.
In an influential article on the ways professionals socially organize, construct, and credential what is salient to their professional identity, Goodwin (1992) points out that their “vision” relies on a framework within a community of practitioners. In the water community, values form a large part of the framework that constructs professional identity. The implicit or explicit invoking of values listed above, longevity, democracy, American farming, and standing by your word are the predominant way positions are credentials in the water community.

What are some of the Important Values Oriented to in the Meeting?

Valuing member’s service is one noticeable activity that occurs in many meetings. Often a roundtable will collectively decide to write a letter of support for an individual or particular initiative. At one roundtable meeting a member brought up that the roundtable should send a letter of recommendation accompanied by a letter of resolution for the reappointment of the IBCC representative. As I mentioned in the discussion of how meetings operate, there was a unanimous vote to write a letter of support with a resolution for the IBCC representative. Other members remarked on what a terrific job the representative that is up for reappointment does. This focus on strong relational ties is evident in many of the actions of the roundtables.

In an effort to examine the role of values in environmental governance, the Colorado Institute of Public Policy conducted a study that sought to identify the beliefs and values of roundtable members using a Q-sort methodology. In this study the primary outcome was identifying beliefs, or, what statements roundtable members agreed on and what statements they disagreed on. The study identified five major beliefs held by participants:

1) Money has become the means for allocating water.

2) The market is not always the appropriate method for allocating water.
3) *Protecting existing individual water rights is important*, and this is the case whether one believes the system is broken or not.

4) *Water court decisions have been favorable to agricultural interests*, a belief held by those inside and outside the agricultural community.

5) *Current water law is quite functional* – it is neither outdated nor unable to handle new demands.\(^{34}\)

The rationale for this study, articulated by the CIPP was that understanding the relationship between values and beliefs offers an opportunity for fostering cooperative decision making (CIPP, 2005). This study provided useful validation for the idea that values and beliefs are important components of the roundtable process. However, the participants were identified as stakeholders and recruited through snowball sampling. There may have been some roundtable members that participated in the survey, but it is not directly applicable to the roundtables, per se, but more of a reflection of water stakeholders in Colorado. The values that I observed in roundtable meetings were qualitatively different from these beliefs. The four primary values that were visible are described below.

*Democracy is Important to What We Do*

At almost every meeting I attended, consideration was given to following operating processes and the by-laws that each roundtable developed and agreed upon. This supports Sunwolf and Seibold’s (1999) claim that the first group task is structuring group processes. The roundtables go beyond attending to structure and protocol and work visibly to collectively create a democratic standard. The roundtables are instituting practices that make these meetings meet

\(^{34}\) Colorado Institute of Public Policy, Water in 2025: Beliefs and Values as a Means for Cooperation.
commonly accepted standards of democracy, including being accessible to the public. In the excerpts from meeting minutes and transcripts the roundtable members’ efforts to be fair and inclusive reflect not only attention to practicing democratic discourse fairly and justly, but also to the building and maintenance of political legitimacy.

In terms of meeting ideals, the roundtable meetings are based on representative democracy, as evidenced by the designated representation from diverse stakeholder groups. At one meeting of the South Platte roundtable, the recording secretary voiced the opinion that she could not in good conscience go back to her conservancy district if she voted “aye” on whether to support a proposed study. By voicing her position prior to a vote, she alerted other members that complete consensus would not be possible. Not all members of the roundtable have voting privileges, although I have never seen any overt distinction about voting privileges made in roundtables. Democracy is a widely held value. Although, to be accurate, there is a subtle shift where action is more responsive to self and others than it is to abstract notions of democracy, equality, and justice.

**Longevity Matters**

There is a valuing of longevity in the roundtables. This is seen in a term used by the water community, “water buffalos,” that signifies a person who has participated in the water community for a very long time. A newspaper article described water buffaloes in this way: “"Water buffalo" is an affectionate nickname for my friends at the Colorado Water Congress and the thousands of other hard-working men and women who try to conserve and protect the liquid
gold that is this state's most important resource.”35 There is an element of longevity to this term that is implicit in this term. I overheard roundtable members use “water buffalo” with affection and respect. One had to have been around a long time to be called a water buffalo. Other ways that longevity mattered was in the length of generations that people had been on the land. In roundtable meetings as members were referring to other members, phrases such as “His family has been here for generations” would come up. Excerpt 6.5 evidences the value of longevity as well as farming.

Farming is Essential to American Life

Another dominant value orientation in water roundtables is the iconic image of the family farmer that feeds the nation. Farmers are portrayed as “salt of the earth,” people who value hard work, eschew material wealth, and have a connection to the land that most others don’t have. There is talk in roundtables of generational ties to the land. In a discussion about replacing a roundtable seat, the roundtable member who was being nominated for a seat invoked his generational ties to the land twice.

Excerpt 6.5 South Platte Roundtable Meeting, February 13, 2008

MV: Can you tell us something about yourself?

DR: Sure. Um. Like I said I’ve farmed out here for about

MV: Can you start with your name?

DR: Yeah, Doug Rademacher we’ve farmed here for four generations. We farmed out fifteen hundred acres, some dryland, mostly irrigated crop.

35 This quotation is from a Denver Post 10/18/2008 article by Bob Ewegen, Save the Water Buffalo!
Farming as a value cuts both ways. On one side, there is the highly iconic image of the rugged individual that settled this country, the Jeffersonian yeoman farmer (Petersen, 1990). On the other side of the coin, agriculture is an enterprise that yields considerable legislative power and is highly subsidized by American taxpayers, strongly distorting the economics of farming (Gunther, 1940; Stiglitz, 2006). Additionally, as Peterson points out, agrarianism paints farmers as highly independent members of society, yet it also emphasizes their dependence on capitalistic property rights. Recently, members of the InterBasin Compact Committee (IBCC) publicly voiced that the head of the Department of Natural Resources favors West Slope interests. The West Slope is where most of the water originates and is a rural region with strong ties to agriculture. It is the Front Range, an urban area, which wants the West Slope water. At an IBCC meeting in 2008 a member of the roundtable noted not only that the IBCC is weighted toward Western Slope interests and expressed frustration that the roundtables, formed in 2005, have been slow to look at cooperative water projects between basins. The issue was brought up again at the July 2008 meeting in Crested Butte. The member who expressed this concern received immediate rebuke from several Western Slope members of the IBCC.

Additionally, politicians call on the farming value in creating credibility. In multiple water meetings across the state, Governor Ritter invoked his background growing up on a “dryland wheat farm, and believe me if you think dryland farmers make money, you don’t know many dryland wheat farmers” (Field notes, October 8, 2008). In this way, the governor performed “bits of interactional business by selecting particular categories, by describing [himself] in one way rather than another” (Stokoe, 2006, pp. 482-483).
It is Crucial to Stand by Your Word

The importance of “standing by your word,” or integrity, was visible in a variety of ways. The history of this phrase in water circles reaches back a long way to “the gentleman’s agreement” on which many water trades have been based (Kenney, Klein, & Goemans, 2009). Many (some would even say most) water agreements and diversions that never were made official, were done on a handshake (Reisner, 1989; Fradkin, 1986). Another way that “standing by your word” manifested included adhering to the democratic intentions of HB 1177.

In a telling excerpt from a roundtable meeting, the General Manager of a large water district offered the perspective in the excerpt below.

*Excerpt 6.5 South Platte Basin Roundtable, February 13, 2009*

A background from Northern’s point of view. We’re on either our 3rd or 4th version. We had to negotiate pretty hard and his staff threw on this paragraph G that that would outweigh or override the park managers’ authority. What we got in exchange was a colloquy. We at Northern agreed with the colloquy and the language. And we at Northern will honor that commitment. Our preference is the 2007 language without the reservation of authority. But we at Northern believe in honoring our commitments and we committed to that language.

In this excerpt as the speaker offered his perspective, he highlighted his affiliation with Northern Water Conservancy District and formulated a description of solidarity and men of honor as; “we at Northern believe in honoring our commitments.” When difficult circumstances arise, the public affirmation of “honoring commitments” will be linked with this person’s talk and identity.
CHAPTER 7

AN ANALYTIC RECONSTRUCTION OF COMPETING DISCOURSES:

PUBLIC GOOD AND PRIVATE RIGHT

The Grounded Practical Theory (Craig & Tracy, 1995) model, as I explained in Chapter 4, begins with reconstructing the practice in order to understand the problems typically encountered, how the problems are managed discursively, and the ideals of the practice.

First I describe how water roundtables are sites of difficult decision-making. Next I show how the private right system of water in Colorado is discursively displayed in water roundtables. I then show the centrality of treating water decisions as a public good and how this value is managed in dilemmatic opposition with private rights. In the fourth section I illustrate the two discourse strategies that manage the public good and private rights dilemma. I conclude by showing how the competing philosophical underpinnings of water roundtable talk evince a distinctive middle ground.

Roundtables were designed to make public decisions about a public good while maintaining the norms of private rights. In this chapter I reconstruct the communicative practice of water roundtables on three levels: the problem level, the technical level, and the philosophical level. The central dilemma that water roundtables confront is to manage the competing discourses of public good and private rights. In this chapter I tether the notion of competing discourses to the meeting talk and organizational documents to show how this dilemma is addressed.
Water Roundtables are Sites of Difficult Decisions

Decision-making about water in Colorado has a colorful legal history. Numerous scholars and historians have documented the tough battles over water in the western United States (e.g. Fradkin, 1986; Hundley, 2009; Kenney, 1999; Tyler, 2003; Reisner). Today, water roundtables make decisions that are highly consequential, both economically and environmentally. The Colorado Water for the 21st Century Act, HB05-1177, defines the purpose of water roundtables in the excerpt below.

Excerpt 7.1, HB05-1177

To facilitate discussions within and between basins on water management issues and to encourage locally driven collaborative solutions to water supply challenges.

(See Appendix A for full text of Bill)

Although the word “decision” is absent, the phrase “locally driven collaborative solutions” carries with it decision-making implications. In order to arrive at solutions, people need to make decisions. Water roundtables see their purpose as a decision-making forum. Denver Metro roundtable emphasizes “informed decisions” as their understanding of what they are assigned to do as a roundtable (underlining in original).
Excerpt 7.2, Denver Metro Roundtable, February 2009, Powerpoint Presentation

to make informed decisions about future water supply management. For example:

- What are the most important streams and rivers for our environment and recreation?
- How much water would we need to sustain those values?
- What tools and strategies can we use?
- How can we develop new water supplies that avoid impacts or provide multi-purpose benefits to priority streams and wetlands?

(Metro Basin Roundtable Nonconsumptive Needs Assessment)

The South Platte Roundtable also sees their role as one of decision-making. In the following excerpt from the roundtable meeting minutes, a roundtable member states that it is decision-making they are together for. It is decisions that bind them together.

Excerpt 7.3, South Platte Meeting Minutes, April 2009

[The] idea is to make decisions that are common to our future, not to branch off until future scenario changes.

As I mentioned previously, water roundtables are formally charged with estimating how much water each basin will need in 2030 and 2050. Potential projects or processes (called IPP-Identified Projects and Processes) are discussed by the roundtables for meeting their projected water needs. Also recall that in Colorado the western side of the state has most of the water, but the eastern half of the state, with large urban areas and agriculture, has the highest consumption demands, complicating decision-making.
In the excerpt below, a roundtable member explains how the roundtables make decisions about managing water. The speaker is referring to the State-wide Water Supply Initiative (SWSI); a series of technical reports developed by the state of Colorado and other agencies that use historic water use data as a template for decision-making. SWSI provides a common reference point for water decision-makers. One set of numbers is available to everyone in the state and across state lines.

**Excerpt 7.4, Bob Streeter, Montrose Journal, March 15, 2010**

It provides an objective, scientific set of tools that can be used for the roundtables and stakeholders to identify and quantify the flow that is required.

The “tools” are described as “objective, scientific.” SWSI numbers are used to create a series of water use and demand projections with different scenarios. Some scenarios have a high degree of conservation; some have a high level of drought. The numbers in the SWSI are based on historical data. Saying that these numbers are “objective, scientific” criteria glosses the choices and assumptions that went into choosing the numerical values. Roundtable members routinely debate conservation numbers and data are contested. Consider the excerpt below that illustrates one form of contestation.

**Excerpt 7.5 Joint Roundtable Meeting, March 2009**

To my mind the water availability is certainly an important part of the equation for an engineering determination. But water availability studies should not be determinate, or determining whether or not a project goes forward.
Dewey’s (1927) work on reflective thinking, in particular his decision-making process, is a model many democratically-inflected groups adopt as an archetype for decision-making. As I noted in Chapter 3, Pacanowsky (1995), in his discussion of wicked problems, points out that the Dewey model (or some variant of it) is appropriate for tame problems. But wicked problems, which water management is, defy linear problem-solving methods and require a nimble and iterative framing and re-framing. Pavitt and Curtis (1990) note, “The [reflective] model uses Dewey’s ideas to suggest how groups should make decisions” (p. 355). The should (emphasis in original), signals that Dewey’s model is an idealization of group decision-making. Many groups adopt this linear approach to decision-making, especially groups dominated by an engineering ethos. However, hydrologic data, even with its veneer of empiricism, is still contested, as values are the driver of how the data are arrived at and utilized. Roundtable members are acutely aware of this. As I will show later in this chapter, roundtable members argue over values and how they relate to data.

That water roundtables make significant and far-reaching decisions is evident in their funding. Water projects involve sizeable amounts of money. Two Forks, a proposed reservoir project that I described in Chapter 2, is an iconic example of one significant decision. Today, potential water projects are evaluated by the roundtables, discussed, and then voted on. Projects are funded in many ways, but two common sources are the Water Supply Reserve Account (WSRA) and the water roundtables budgets. In both funding scenarios the roundtables must approve of the project first. Depending on the size of the roundtable, the budget varies, with the largest being $400,000 and the smallest being $150,000. As of 2008, the WSRA account had $48 million available for studies and projects in the basins that the roundtables also draw on. It is a point of honor that roundtables decide how to spend not just their own budget, but how the
larger WSRA budget should be disbursed. At the Joint roundtable meeting I attended, the Director of the CWCB concluded her talk by saying:

Excerpt 7.6, Joint Roundtable Meeting, March 2009

Well, thank you all for coming, and by the way, I don’t have any money, you all have it, Water Supply Reserve [laughter].

The laughter after this comment was genuine and genial. The speaker offered an invitation to laughter as she ended her talk and it was taken up by the large audience. Glenn (1989) notes that in multi-party interactions, often someone other than the speaker providing the first laugh. The barometer of a successful laughable moment in multi-party situations is its ability to draw laughter. The audience’s laughter indicated that they understood the speaker was acknowledging roundtable power in holding the purse strings. The audience members recognized the simultaneous empowerment of the roundtables and uneasiness in the speaker’s explicit statement about it. It is the roundtables that decide what projects to fund. This Joint Meeting had over 100 attendees; the majority of them were roundtable members. The CWCB disperses the funds after a basin roundtable approves of a project.

In 2009 the South Platte Roundtable provided $825,552 for the purpose of restoring wetlands using conservation easements in the Lower South Platte Water Protection and Restoration area. In another example the South Platte Roundtable contributed $176,000 to the Ovid Reservoir Comprehensive Feasibility Study to examine the feasibility of constructing and operating a reservoir. Ducks Unlimited developed the wetlands restoration proposal and came to the roundtable for the rest of the money. The South Platte Roundtable partners with entities such
as Ducks Unlimited and others. Partners provide some funds, but generally the projects require a larger cash infusion, which the roundtables provide. Roundtables decide how to spend significant amounts of money. *Decisions about projects are a matter of public record and determine the future of water; including water quality, what water is used for, and what the trade-offs are.* Consider this excerpt from meeting minutes showing the significant sums of money involved in water projects.

**Excerpt 7.7, South Platte Roundtable Meeting Minutes, December 9, 2008**

--$60 million+ to Arkansas Water Conservancy District

--Removable fund for Wild and Scenic: on going program that could be renewed up to that amount each year ($400,000) each year;

--Board recommended inclusion in project of $1.5 million for alternatives to ag transfers;

--$1 million for CO River water availability study; this study is moving forward; to be completed in about one year;

--$500,000 recommendation for water adaptation partnerships:

Some projects are contested. One example is the Blue Mesa Pumpback, potential reservoir storage on the western slope of Colorado. The Western Slope roundtables opposed development of this storage, seeing it as the Front Range making a “grab” for their water. The Colorado Water Conservation Board (CWCB) took the Blue Mesa project off the table. Several roundtables voiced their dismay at the removal of Blue Mesa from the options and delivered letters to the CWCB arguing that there was no reason to remove Blue Mesa from consideration. The project is now on the table again as an option. Meeting minutes from the South Platte
roundtable reflect this roundtable’s unhappiness with the decision to remove Blue Mesa as an option for reservoir storage.\(^{36}\)

**Excerpt 7.8, South Platte Roundtable Meeting Minutes, June 9, 2008**

My understanding that these are being discussed by IBCC; felt a glaring omission of Blue Mesa; when asked why Blue Mesa not considered; Jennifer Gimbel stated that the State was holding it back for compact compliance; this is a disservice to CO based on political needs; not fair to our roundtables (South Platte, AK and Metro); if we are unable to put the project forward, we will suffer tremendously; thus want to put Blue Mesa back on table.

Blue Mesa Pumpback is located on the Western Slope of Colorado and the western slope roundtables are reluctant to send their water to the Front Range of Colorado. Water roundtables are designed to bring together members with conflicting values to the table. A quote from a respected Colorado-focused water publication, Headwaters, reflects this sentiment.

**Excerpt 7.9, South Platte Roundtable Chairman**

I’ve just had the opportunity to really understand what other people think about water and also had the opportunity to let people know my opinion on water, how we use it and why we use it the way we do. (Fall, 2009, p. 12)

This statement underscores the differences held by members of the roundtables. The speaker marks his understanding of water as different from others by saying “I’ve just had the

\(^{36}\) Other roundtables also wrote letters to the CWCB and the IBCC expressing their dismay at the removal of the Blue Mesa Pumpback from the options for more water storage.
opportunity to really understand what other people think about water.” There is an acknowledgement that others don’t know “how we use it [water] and why we use it the way we do.” The water roundtables are seen as an opportunity to exchange views with others who hold different views of water. In Chapter 6 I described values held by roundtable members and sharing those values is an important part of roundtables. Participating in the roundtable is seen by this speaker as a way to broaden attendees’ understanding of the values that drive water decision-making.

Water roundtable decisions are distinct from other public resource decisions. There is no substitute for water and it is a requirement for life. Decisions about water are tightly tied to the context, whether it is land development, population, endangered species, property rights, or public lands. All of these domains are irreversibly impacted by water decision-making. Decisions about water require value judgments about goods that almost everyone can agree are desirable. Water as an economic driver to sustain a healthy economy, preserving an agricultural lifestyle, and improving the ecosystem for endangered species are all seen as valuable by different members of the roundtables. Roundtable members see their role, and consequently, water, through different lenses. In the excerpt below a roundtable member expresses a sentiment that is held by many of the roundtable members.

**Excerpt 7.10, Joint Roundtable Meeting March, 2009**

It's kind of a joke. If you go talk to one of the water managers in the El Paso County Water Authority, they'll tell ya, "Don't have a problem, ya should go talk to my neighbor, he's got a serious problem, and this problem is all I think about every day.
The audience did not take up this “joke.” Sacks (1974) noted that jokes can function as “understanding tests” for the recipient(s). This “kind of a joke,” playing off of the understanding test idea, pointed to the notion that it doesn’t matter which neighbor you are, the serious problem of limited water is “all I think about all day.” More significantly though, the “kind of a joke” pointed, in a non-threatening way, to recipient’s abilities to see both sides of the conflict. Members of the audience could see themselves on either side of the situation, and it was uncomfortable being on the wrong side. Everyone in the room understands the problem of limited water. Whoever holds the water rights is the person who doesn’t have a problem. My neighbor might have a problem, but it’s not mine.

Decision-making about water has far-reaching, irreversible, public consequences. These consequences encompass a wide spectrum, from running dry, to pollution (pharmaceuticals have been detected in our drinking water at alarming levels), to sabotage of water reservoirs, floods, and the myriad legal issues that govern water distribution. Complicating the situation is the historical inflexibility of many of the key agencies that govern water management (CQ Weekly, 2008). Talk is where the work of decision-making is accomplished.

This section detailed how water roundtables make consequential decisions in a public forum that entails significant amounts of money with far-reaching consequences. In the next section I discuss how the private right framework bounds decision-making.

**Water as a Private Right**

In HB05-1177 the absence of the word decision is notable as the opening statement of the bill that created roundtables affirms the priority of water rights, as shown in the excerpt below.
Excerpt 7.11, 37-75-102. Water rights – protections

It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution’s recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law.

This excerpt makes clear that HB05 1177 does not in any way diminish Colorado’s water rights system. Yet the water roundtables are set up to make decisions in a manner more consistent with a public good. Just as city councils discuss open space acquisitions or school boards debate education policies, water roundtables have adopted many of the same trappings of public meetings.

In this next excerpt, a speaker begins by acknowledging that water availability is important to know before beginning a project (engineering determination), but that water availability should not determine if a project goes forward. The speaker proposes that who holds the rights is the most important factor determining the viability of a project.

Excerpt 7.12, Joint Roundtable Meeting, March 2009

We still live in an appropriation state and if you want to appropriate the water, you can take it when you’re in priority. If you’re not in priority, the water’s not there, you can’t take it. So, that’s what I would say in regards to water supply availability.
In this excerpt the speaker downgrades the importance of water availability by saying that it is not what should determine whether a project goes forward. What really matters is who holds the rights, or “if you’re in priority.” Whether there is water or not is not the first question that needs to be answered, it is “who holds the rights?” If you have senior rights, you get water. If you have junior rights and water isn’t there, you don’t get water.

A rights-based frame bounds the decisions. The speaker responds to questions of water availability within a deterministic frame: if you have priority, you can have water, if you don’t have priority (a senior right), you don’t get water. A rights-based frame requires precise language leaving little room for contingencies, but managing wicked problems require the flexibility for naming, reframing, reflection, and adjustments—in other words contingencies. The heart of how water is considered both a private right and a public resource is contained in the excerpt below from *Yunker v. Nichols* the first major water law decision in Colorado.

Excerpt 7.13, *Yunker v. Nichols*, 1 Colo. 551

All surface water and groundwater in Colorado, along with the water-bearing capacity of streams and aquifers, is a public resource dedicated to the establishment and exercise of water use rights.

This precedent completely broke riparian and common law doctrines. Ordinarily, in the United States, we think of water as readily available, a public good. *Yunker v. Nichols*, however, declared this public resource was to be dedicated to water use rights. In the very quotidian management of water in Colorado, the tension of water as a public resource and water as a private right is almost invisible, yet this tension frames how decisions are made. Water as a physical resource is non-substitutable, unpredictable, and geographically based.
Colorado is the only state that is completely governed by the Prior Appropriation Doctrine, hence the doctrine’s alternative name, The Colorado Doctrine. The private right aspect of water means that water is treated as another commodity. Environmental groups purchase water rights, insuring adequate stream flows in creeks and rivers for ecosystem health. Recreational interests have fought, and won, for towns in Colorado to purchase water rights for recreational purposes (Crow, 2010). Financial entities such as investment firms invest in water rights. In Colorado, farmers recognize that their water rights are often worth more than the land they work, resulting in the “Buy and Dry” problem I described in Chapter 6. A scarce good such as water, available as a private right, introduces economics as a driver in water decision-making. The public good-private right tension is evident as large municipalities with growing populations and industrial needs compete for water rights to ensure water delivery to their populations. In the excerpt below the speaker underscores the importance of water as a private right by pointing to the strong feelings of roundtable members in his basin.

Excerpt 7.14, Joint Meeting of the South Platte, Arkansas, and Denver Metro Roundtables, March 9, 2009

We got a strong property rights advocacy on our roundtable. It’s a very emotional issue. So you get into this cause and effect dilemma. Is the loss of ag causing water to be moved to the cities, or is water moving to the cities causing the loss of ag?

To have a strong property rights advocacy means that voting roundtable members will make decisions that protect water as a private right rather than a public good. Private rights have a

37 In other western states, such as California, Arizona, New Mexico, and Utah, water is also a private right.
38 The water rights for recreational flows are significant. Golden, Colorado owns a recreational inchannel diversion (RICD) for 1,000 cubic feet per second and Chaffee County holds a RICD for 1,800 cubic feet per second. Comparing this to a large municipality, Denver Water Board owns a water right for 1,020 cubic feet per second, but Denver does not divert more than 750 cubic feet per second as a maximum (Crow, 2010).
stronger economic value than a public good. Additionally, private rights are governed by legal definitions that protect the owner of the rights and often specify use terms. For example, as previously discussed in Chapter 2, water rights in Colorado must be put to “beneficial use.”

In Colorado, typically, agriculture users hold water rights, and increasingly, not only cities, but also environmental, and recreational interests are competing to purchase water rights to ensure a healthy ecosystem and adequate stream flows for habitat and recreation. Although water is a private right and subject to market forces, no matter who owns water rights, the American public expects water to be available in homes and workplaces, with little concern paid to how water arrives. Sharing resources requires a collective mentality, yet Americans value individualism. Most Americans desire to live in a home—a single house on a separate plot of land. At the same time, Americans are recognizing the need to conserve natural resources. Increased density of living space is ecologically preferable, but counter to the American dream of (single) home ownership.

Home ownership is an instantiation of private rights that most people are familiar with. A crucial piece of home ownership in the United States is the delivery of water as a public good. An American Bar Association (ABA, 1993) publication on the legal management of home ownership provides some data about how the dream of home ownership is still a driving force in America. According to a 1993 survey by the Federal National Mortgage Association, owning a home is a goal so important to most Americans that they're willing to make major tradeoffs to achieve it. Of the 1,521 people surveyed, four out of five reported that they would rather own their own home than take a better job in a city where they could only afford to rent. Two out of three said they would be willing to work a second job if that was the only way they could afford
to own their own home. Four out of five said they would rather own a home and have a long commute from work than rent a place nearby.

The unexamined reality is that there are significant environmental impacts to owning single-family homes. Managing limited water supply is grounded in communitarian ideals. Rarely do single-family homes prioritize conservation of natural resources through communitarian values. Rights-based decisions are not only a norm of American society, they represent deeply held values in the western United States about water issues. In the next excerpt, another rights-based frame is forwarded.

Excerpt 7.15, *South Platte Roundtable, December 2008*

Go down in the old graveyard in LoDo and look at those thousands of high-rise, mid-rise condos and apartments that’ve been built over the last ten-fifteen years. Zero outside water reuse, but yet you look at a normal community of Greeley or Longmont or Fort Collins, where we’re still having residential growth. And you can have… ya know our demands are totally different than what they are. So, are the, is the state saying we want everybody to live in LoDo? I mean, that’s the, how far do ya go in dictating how people live?

The rhetorical question “How far do ya go in dictating how people live?” presumes some ability to dictate how people live. Water as a private right, in theory, provides that ability. In the excerpt above the speaker voices the commonplace in “a normal community of Greeley or Longmont or Fort Collins, where we’re still having residential growth.” The American dream of single-home ownership is what is considered a “normal community.” Single-family homes are a highly consumptive model. The ideal for water conservation is the high-rise or mid-rise models that have a much smaller water-use footprint. Yet a public good model assumes that people can
use water in ways they deem appropriate. The state doesn’t get to tell people to xeriscape, instead of planting Kentucky Bluegrass lawns, a highly water consumptive variety of grass. Although public agencies encourage consumers to conserve water, often offering free, low-flow toilets and other water-saving appliances as incentives to conserve, they cannot tell citizens what to do. The excerpt below from the South Platte meeting minutes reflects the omnipresent concern of protecting rights.

**Excerpt** 7.16, South Platte Roundtable Meeting Minutes, November 9, 2008

TD: Please explain how on some of these properties there is protection for water rights?

GK: Difficult question about how we will protect the state’s water rights. Normally through a conservation easement. Normally ask that the landowner transfer their shares to us so they cannot be transferred. On Heyborne, decided best for Lower South Platte to hold the water right and access rights.

Roundtables frame their decisions so that private rights are prioritized. Yet, water roundtables are public meetings, incorporating practices that are part of the model of democracy in the United States; a model that also sees water as a public good. Equally true is that the legal framework for making decisions about water has not changed. In the next section I explain how roundtables address the public good feature of water.

39 Aurora, Colorado is an example of a highly successful effort by a municipal water provider to convince consumers to reduce water consumption through metered incentives (Kenney, Klein & Lowery, 2008).
**Water as a Public Good**

This section will show how structural features of water roundtables support a commitment to the public good. As I described in the previous chapter, water roundtables are crafted as public meetings.

Water is a public good in the United States. As recently as June 2010, the United Nations declared water to be a human right. Public goods are understood as fundamental for survival, requiring government responsibility and action, and expected to be available to all (Gravelle & Rees, 2004). Subsidized prices make water available to all social classes. The public-private tension is not entirely unnoticed; mainstream films such as Thirst (2004) and Blue Gold (2009) chronicle some of tensions of water as a public good and a private right. Cities such as Atlanta, Georgia and Stockton, California that have turned their water management over to private companies are encountering public backlash from these decisions.

In Chapter 6 I mentioned three structural features of water roundtables that reflect the public good, although I did not identify them as features of public good per se. The first is that water roundtables use decision rules based on simple majority. The second is that meeting minutes and all other organizational documents, including budgets, are available on-line to the public. A third important structural feature is the Public Education Public Outreach (PEPO) sub-committee that I introduced in Chapter 2. The PEPO is the only sub-committee mandated by HB05-1177.

Public engagement is considered the *sine qua non* of democracy in issues of natural resource management. To this end HB05-1177 created the PEPO. The mission of this subcommittee is to reach out to the citizens of Colorado in order to educate and involve them in state water issues. Within the structure of water meetings in Colorado, PEPO is scheduled so that it occurs within the same 3-day period as the quarterly meeting of the IBCC. This scheduling allows members to
attend multiple statewide meetings at the same location within a single time frame, accommodating those traveling from more distant areas of the state. These quarterly meetings of the IBCC and PEPO move to different locations within the state, spreading the meeting sites to all areas of the state.

The last, but the most significant and overlooked indicator of the state’s thin commitment to the public good, is the absence of a state water plan. Colorado is the only western state in the United States with no state water plan. During an IBCC statewide conference call in April 2011 that I attended, the discussion included the lack of a statewide water plan. The host of the call, the deputy director of the CWCB, remarked, “As Justice Hobbs said, our state water plan is the Prior Appropriation system” (Fieldnotes, 2011). Private rights are the driver of water use in the state of Colorado. Water as a public good is the elephant in the room and public meetings about water is side-steps the issue of the fact that decisions are still made prioritizing private rights.

In sum, this section showed how public good is attended to in water roundtables. In the next section I show the strategies roundtable members use to navigate the competing discourses of public good and private rights. Roundtable members are vigilant about vocabulary as they carefully navigate, on one hand, the metaphysical absolutism of hydrology, and on the other, the awareness that decisions about water tell us about what we value as a society.

Managing the Dilemma

In this section I describe the two central strategies water roundtable members use to manage the public good/private right dilemma. They are language vigilance and strategically ambiguous

40 Justice Hobbs is a renowned water court judge who has adjudicated Colorado water cases in Water Court for over 35 years.
central terms. I begin with language vigilance, as it is the antecedent to strategically ambiguous words.

Language Vigilance

In water roundtable meetings, words are recognized as consequential. Roundtable members use language in sophisticated and nuanced ways to resist or forward agendas. Craig (1999, 2005) describes meta-discourse as the social processes we engage in to negotiate and re-negotiate norms and meanings. Roundtable members routinely negotiate and contest norms and meanings of words. Through metadiscursive talk, talk about talk, roundtable members seek to change the paradigm of water management in Colorado. A first practice that evidences vigilance is the group’s attention to “wordsmithing.” It is not unusual for roundtable members to spend time wordsmithing or calling for wordsmithing. In excerpt 7.17, from roundtable meeting minutes, wordsmithing is offered as a way of negotiating. The speaker explains of his use of the word “concept” by telling the other members that “concept” was the word used at another, joint meeting.

Excerpt 7.17, Meeting Minutes, South Platte Roundtable, June 9, 2008

HE: I am open to wordsmithing; I used the word concept because of the presentation at the joint meeting.

As I mentioned, wordsmithing is a routine activity of roundtables. Tracy (2010) explains wordsmithing as “a belief that a word or a phrase can be found that will capture degrees and shades of agreement on an issue over which people have differences” (p. 150). Consider the next
four excerpts from meeting minutes that illustrate how wordsmithing and attention to language are commonplace in water roundtables.

**Excerpt 7.18, South Platte Roundtable Meeting Minutes, November 11, 2008**

Suggestion: Task Order: wordsmithing needs to be Step One; this can be used as a launching point that expresses our priorities.

**Excerpt 7.19, South Platte Roundtable Meeting Minutes, November 11, 2008**

If anyone has any suggestions for language, please email Mike Shimmin.

**Excerpt 7.20, South Platte Roundtable Meeting Minutes, November 11, 2008**

Consensus was reached in terms of adopting the vision statement without the word “sustainable.”

**Excerpt 7.21, CWCB Meeting, March 2009**

EK: And if you’re ever interested in language, I’ve proposed language. I’ll drop it at that.

Roundtable members use language carefully to craft policies. Differences are part of the fabric of water roundtables, and the attention to language use marks how members negotiate of differences. In the excerpt below a roundtable member is being reprimanded for an overly restrictive use of language.

I wanted to clarify a couple of things you said Eric. Um, your concern about not putting language in there is that we may be sued by environmentalists because we didn’t protect the instream flow right. Is that what I heard ya say? So I want to make sure I heard that. Okay. I ah, ah, I’m wondering if we’re not creating, ya know, the monster under the bed? And, and, and, whether it’s worth, um, this continued conversation.

Eric advocated inserting language that would protect an instream flow right on the grounds that not inserting the language leaves the state unprotected. In the excerpt above, Jennifer Gimbel, the Director of the CWCB begins by saying that she “wanted to clarify a couple of things that Eric said,” in an effort to make sure that she accurately understood what he meant. Once Director Gimbel establishes that she understood Eric’s meaning, she characterizes his concern as “creating a monster under the bed.” This strongly suggests that Eric’s concerns are imaginary. Equating Eric’s concerns to “monsters under the bed” effectively dismisses his worry as beyond cautionary; it is in the realm of the unbelievable. It is commonly understood that monsters under the bed are fears (most often) of children, not real. The Director then pushes harder as she questions the value of “this continued conversation.” After restating what she heard, Director Gimbel again asks, “Is that what I heard ya say?” Further confirmation follows, “So, I want to make sure I heard that.” The multiple confirmations indicate Director Gimbel’s awareness that her remarks might be understood as face-threatening, but her intent is to express disagreement with his position that the language needs to be modified to protect against possible lawsuits from environmentalists.
In the next excerpt another member of the CWCB expresses her unease about inserting language. This member voices her concern that language can shut down conversations.

**Excerpt 7.23, CWCB Meeting, March 2009**

So, I worry about putting any language into an instream flow appropriation decree that would foreclose that conversation and that would just allow a water user to change his or her headgate.

For roundtable members and others associated with water meetings, words are consequential and are contested at multiple levels, from the local roundtable meetings, to the larger InterBasin Compact Committee (IBCC), to the state agency that carries out most of the roundtable and IBCC decisions, the CWCB. The absence of words is equally important, as these excerpts show.

In the next excerpt the speaker responds to the initial suggestion by Eric that additional language needs to be considered. The speaker expresses concern about what circumstances language is not attending to.

**Excerpt 7.24, CWCB Meeting, March 2009**

My second concern is that whenever you try to address potential future situations, what ifs, there’s always the problem of what you’re not addressing. Of how, ya know, what does the language really mean? Since it’s not directed at a specific situation and there can be unintended consequences with that type of language.

As Tracy (2010) noted, when governance groups craft policies, it is common for disputes over words to erupt. The water roundtables spend a considerable amount of time on wording and language, as evidenced in the talk and meeting minutes. Tracy notes two distinctions in local governance groups; the first, whether groups have a strong common interest, and the second is
when interests conflict. Water roundtables encompass both distinctions, and they are premised on the notion that the impending crisis of diminishing water supplies will motivate the roundtables to set aside their differences and develop a unitary focus. The vigilant approach to language is noteworthy as words are the raw material of decisions.

In the following discussion, I provide an example of the roundtable members’ explicit effort to alter the meaning of cooperation. As Lawrence, Hardy, and Grant (2005, p. 60) note, “A discursive approach highlights the ways in which language constructs organizational reality, rather than simply reflecting it.” In the excerpt below I show how roundtable members deliberately use language to shape reality. The following exchange is not atypical in roundtable meetings. The conversation begins with one member asking the other roundtable members if anyone has an example of cooperation between water supply planners and land use planners.

Excerpt 7.25, South Platte Basin Roundtable Meeting, December 9, 2008

Um, I actually, personally don't know of a situation in the South Platte Basin about cooperation between water supply planners and land use planners. So I was gonna ask this group if you have any examples I can pass on so I can carry out my homework assignment to bring some examples like that.

In the above excerpt the speaker prefaces his request for an example of cooperation by sharing that he doesn't know of an example before asking other roundtable members if they have an example. He tells the group that he is assigned “homework,” invoking the notions of learning and the accountability of homework. The next excerpt shows the speaker continuing to justify his request.
Excerpt 7.26, South Platte Basin Roundtable Meeting, December 9, 2008

TD: And just for background that's one of the things we've been discussing at the IBCC a sort of future thing that maybe needs to be a little different than the past, than it was in the past, and that is more communication and coordination between water supply planners and land use planners. I think they’re trying to foster this discussion. I just don't personally know of any so….

UK: What’d ya mean by cooperation? [lots of laughter]

TD: Uh, I suppose that’s open to interpretation.

As the speaker provides some background for his request, he tells the group that this is “a sort of future thing and maybe needs to be a little different from the past, than it was in the past.” This is an overt example of how water roundtable members use language to (re)construct reality, as Lawrence, Hardy, and Grant (2005) noted. The roundtable members are using language to create a different future by recreating the past. The speaker is assigned to bring an example of cooperation from the roundtables, to the IBCC, that “needs to be a little different from the past.”

The first response to his request is another person asking, “What do you mean by cooperation?” On one hand this could be seen as an invitation to laughter or a friendly form of ribbing. But the speaker doesn’t take up either; he actively declines the relevance of the laughter with the serious reply of “I suppose that’s open to interpretation.” Talking rather than laughing is a way that speakers turn down laughter openings and resist participating when a topic is positioned as laughable (Glenn, 2003).
The roundtable spends the next twenty minutes discussing various scenarios of what is cooperation and what it is not. In the next excerpt the chairman of the roundtable offers another version of cooperation, one that is *fait accompli*.

**Excerpt 7.27, South Platte Roundtable Meeting, December 9, 2008**

So is it cooperation if they do approve it? If there’s water? I guess I would suggest that everything we’ve ever done since the late 70s would have cooperation involved. Because you provided water, they’ll eventually use it. So I guess I would look at it in reverse.

The chairman offers the idea that cooperation has been occurring for more than thirty years. Cooperation is as basic as someone getting water and using it. Cooperation is depicted as a straightforward matter. The chairman resists alternate versions of cooperation in his statement, “Because you’ve provided water and they’ll eventually use it.” There was an air of finality about that statement when he spoke. In the next excerpt the chairman continues to suggest that cooperation is a settled matter.

**Excerpt 7.28, South Platte Roundtable Meeting, December 9, 2008**

There was a bill passed a year or two ago that should’ve taken care of that.

By saying that there was a bill passed that “should’ve taken care of that” the speaker marks this topic as a non-issue. Looking for an example of cooperation between land developers and water suppliers is settled; there was a bill passed and that took care of it. The roundtable chairman is not going to continue to search for an example or a story of this sort of cooperation. However, the conversation does continue. These sorts of discussions about what a word means,
such as cooperation, are routine in roundtables. Roundtable members have a heightened awareness of the significance of language that is not a commonly noted practice of public meetings. In the next section I show three central terms that are strategically ambiguous. By this I mean that first, the meaning of the term is not apparent to the recipient. Second, how the term is used can be either in support of, or in opposition to, either public good or private right.

**Strategically Ambiguous Central Terms**

Naming is an important activity that sets the stage for how issues get addressed. Water roundtables are important sites of naming. As I have shown, participants are sophisticated language users. Three strategically ambiguous terms are used in water roundtables: non-consumptive, conservation, and wet water. *These strategically ambiguous terms gloss the differences of public and private.*

**Non-consumptive**

The first term, “non-consumptive” is the name every roundtable has for the subcommittee that determines how much water each basin will need in the future. The excerpt below, from a Non-Consumptive subcommittee chairman, evidences the power of naming and how it can obscure or privilege one set of activities over another. In this excerpt, a roundtable member explains to a newspaper reporter what “non-consumptive” means.

*Excerpt 7.29, Journal Advocate, Sterling, CO, March 2008*

Boating and fishing are the most common non-consumptive use. But out here so is water-fowl hunting, bird watching, hiking, biking and
picnicking along our Colorado waterways are all non-consumptive needs. The non–consumptive needs assessment was developed because the statue points out that those needs are important to Colorado also as water law and preferences of citizens have changed and evolved over the last 50 years.

The non-consumptive subcommittee is where decisions are made about how much water is needed for things like recreation and environmental purposes. “Non-consumptive” is a tricky name, in the way that “pro-life” as a name, denotes a stand against abortion and choice. Non-consumptive is not framed as “staying in the stream,” it is “not consumed” and there lies the confusion. Who does not consume the water? The name “non-consumptive” obscures that water stays in the stream and subtly privileges consumption. Non-consumptive is a marked form (Tracy, 2002) of the word, where consumptive marks the more dominant understanding and use of water.

In the excerpt below the speaker acknowledges that roundtables have never looked at “non-consumptive uses of water.” Initially, this seems extreme, how is it possible that water decision-makers have not considered keeping water in the stream? But in a state where water is a private right, if the water is in the stream, then it is not being put to beneficial use, the basis for water use as I mentioned in Chapter 2.

**Excerpt 7.30, South Platte Roundtable Meeting Minutes, June 9, 2008**

To make all of the decisions that need to be made, we have to get past understanding only municipal demands, but agricultural demands as well. We have never looked at non-consumptive uses of water and our citizenry is saying that these values are important to us.
The speaker argues that decision-makers must move beyond consumptive uses of water such as agriculture or municipal uses and look at other uses of water. The speaker points to citizens as the ones saying that they value non-consumptive uses of water. But, if you asked someone if they valued non-consumptive uses of water, they would not be sure at all how to answer. It would cause confusion. The phrase, non-consumptive uses of water, is a construct developed from years of privileging consumptive uses of water.

The positive language of consumption is marked in other naming practices as well. Recall the explanation of “Buy and Dry” in Chapter 6; “Buy and Dry” is another name that privileges consumption. The pejorative impression of the phrase “Buy and Dry” comes from, in part, the positioning of the words and the context of water. To buy, one must come from a position of privilege: one must have wealth to buy. Dry is a more neutral term, but in combination with buy as the first term, there is the sense that wealth, the ability to buy creates a deprivation or a drying up. In the context of water, drying carries a negative connotation. Drought, along with famine and pestilence, is a primal threat against which we all recoil.

Non-consumptive is ambiguous because there are other uses for water. For example, some domestic use also falls under this label, as outdoor domestic use provides groundwater recharge, an important part of the hydrologic cycle. Roundtable members use the term non-consumptive in ways that blur the divide between public good and private rights. Consumptive water in Colorado is usually water that someone has a right to. Non-consumptive water is water that most often prioritizes the public good aspect.41 It would be hard to find a member of the public that knew what non-consumptive water meant.

41 Instream flow rights for environmental and recreational use I set aside for the moment.
Conservation

The word conservation taps into socially shared images of taking care of our natural resources. The symbolic appeal of conservation elides the lack of coherence in its meaning in water roundtables. Other scholars (e.g. Martin, Ingram, Laney, Griffin, 1984) have noted what they call “preachments in the name of conservation” (p. 28) where symbolic appeals such as conservation, are often more influential in water policy discussions than other appeals. Water roundtable members routinely debate what conservation is accomplishing as a term. Consider this statement from the Denver Metro Roundtable Chairman at a Joint Meeting of three roundtables.

Excerpt 7.31, Joint Roundtable Meeting, March 2009

I think we’re at the point now where there may be, some, um, some problems because conservation is being sold into the market to sustain development.

The speaker positions conservation as a problem by saying that the saved water is being used to “sustain development.” This simultaneously appeals to those who hear “conservation” and unilaterally applaud conservation, and those who prefer development to conservation. The speaker doesn’t articulate the “problems,” but by linking “problems,” “conservation,” and “sustain development,” the speaker appeases almost everyone, developers, conservationists, and water managers. The speaker doesn’t elaborate any further. Conservation is ambiguous. But, by identifying conservation as a problem, and a way of continuing development, either of two ideas is possible. The first is that the speaker wants to minimize development, and the second is that more water projects will be necessary.
The speaker is the chairman of the Metro Roundtable, and in this position he supports more development. Additional water projects are the speaker’s intended objective. The speaker is positioning conservation as unfairly asking present users to bear the burden of using less water for the benefit of future users.

Another use of the term conservation is calling for farmers to be more efficient. According to the Colorado River Water Users Association, the vast majority of the water in Colorado goes to agriculture—nearly 90 percent is consumed by irrigated agriculture (http://www.crwua.org/ColoradoRiver/RiverUses/Agriculture.aspx). Asking farmers to conserve water seems reasonable. Yet farmers resist this call in multiple ways.

Excerpt 7.32, South Platte Roundtable Meeting, March 2008

If, if my system uh becomes more and more sprinkler irrigated, the system downstream of me has less return flows, so their, their senior calling right is gonna call further up the river. So every time I'm more conservative, more efficient with my water it affects everyone downstream and it's the same in agriculture, the same with municipalities. So conservation alone will create some water, but it's not the answer.

In this excerpt, the speaker, the chairman of the South Platte Roundtable, is arguing that as farmers conserve water, less water returns to the ground (runoff), and thus when a call on the river occurs, the person downstream of him will place the call higher up the river, causing more people to forego water. This argument positions conservation as the culprit in the potential situation when senior rights, place a call on the river, and in this way will prevent junior rights from getting their water.
The threat of a call on the river is a rhetorical device often used to encourage water users to cooperate (Tarlock, 2001). Another ambiguous use of conservation is highlighted below in what sometimes called the paradox of efficiency.

**Excerpt 7.33, South Platte Roundtable Meeting, March 2008**

Um, municipal conservation since the 2000 drought has been prominent and more conservation plans are expected to be implemented. We also have reuse by municipalities and this is significant and it's gonna continue. The conservation and reuse will contribute to filling the municipal gap. However, we must keep in mind that historically agriculture has depended on a lot of this water. So, every time you conserve, every time you reuse that's something that agriculture has depended on and they're well within their rights to do that. But you have to keep in mind, that every time you do that you change something else within the system. And so that may mean that a senior agriculture right may be calling more often and keeping the city from getting the water that they had depended on, on a junior water right. So, every time you do something like this, whether it's conservation or its reuse, it has an effect on the whole basin. And ya ya gotta keep that in mind. And as I say that, you know we use this water six to seven times already. We are a very efficient river basin. Um, even as agriculture conserves water, there's less return flows.

In this excerpt, embedded in a larger discussion of conserving water through agriculture dry-up, the speaker invokes “species of concern.” Environmental advocates sometimes find themselves in the paradoxical position of arguing against efficiency because of the negative impact on restoration efforts. Conservation and water efficiency are terms that are strategically ambiguous. As some theorists argue, the real test of policy is whether you like the new problems more than you like the old problems (Wildavsky, 1979).
Wet Water

The third and final strategically ambiguous central term is wet water. Marking water as wet confounds our common understanding of water as already having the property of being wet. But calling for wet water is unassailable, who can argue against wet water? Consider the excerpt below.

Excerpt 7.34, South Platte Roundtable Meeting Minutes, November 11, 2008

HE: Bill: believe that you understand the sentiment of this group that we really want to get on and get some wet water.

BG: Should I express a little bit of impatience that we are ready to advance the call of wet water?

This excerpt from meeting minutes with two speakers discussing wet water, marks wet water as different. “Wet water” is one way of saying, “we want a project, such as a reservoir, or additional storage.” Water projects are notoriously time-consuming, expensive, irreversible, and subject to numerous reviews. Just the words “water project” can inflame opposition. The term “wet water” is a way of circumventing challenges. It is hard to argue against “wet water.” Wet water is not “conserved water,” or “identified water,” or “appropriated water,” or “clean water,” it’s just wet, marking it as water that is tough to oppose.

This section described, in Craig’s (2006) words, “practical metadiscourse—how communication is reflexively accomplished in practice” (p. 129). Redefining cooperation, vigilant attention to the use of words, and strategic ambiguity are hallmarks of metadiscourse, attending to commonplace beliefs about meaning and reference. Water roundtables perform, to use Craig’s words again, “a way of talking about talk” (p. 129) that engages the practical
problem of how to run public meetings about a public good that is a private right. In the next section I turn to the philosophical reconstruction of water roundtable talk by asking, what are the situated ideals that emerge from this practice?

**Where Does this Leave the Public Good in Roundtables?**

In this chapter I have demonstrated that the communicative practice of roundtables is one where meanings and norms are repeatedly contested, resisted, negotiated, and renegotiated. Water roundtable members are caught in the dueling tensions of public good and private rights, in a public forum. These tensions evoke Billig and co-author’s (1988) ideological dilemmas, where people make sense of contradictory strands of everyday life in creative ways. In the contradictory and competing decision logics of public good and private rights, under the glare of public meetings, roundtable members’ situated ideals craft a veneer of public good.

Veneers could be thought of negatively, as “mere” concealments. But veneers are a valuable way of preserving functionality and increasing durability. For dentists, veneers are custom-made composites, maintaining functionality, providing durability, improving fit and appearance. Although this is an odd analogy, water roundtables are in an odd position. They are required to respect the primacy of private rights, while conducting public meetings about a taken-for-granted public good.

In this context, there are three important reasons for valuing the veneer of public good. First, with the pressures of a predicted water shortage, increasing demographic pressure, and changing values, a veneer of public good is one way to build the necessary connections and relational infrastructure for making difficult decisions in the future. Water roundtables have a head start on the intensely time-consuming relational work. Secondly, a veneer of public good works to shift the decision criteria away from the legal framework, an adversarial sphere, to
public deliberation. When a water crisis happens, roundtable members will have had experience, and perhaps some durability, developed in and from water roundtables, where practices of deliberation have started. Third, to make difficult decisions with competing principles requires complex, metadiscursive skillfulness and water roundtables are a good incubator for that tacit expertise. The alternatives of not creating a veneer of public good are destructive of the existing structure which the veneer supports.

Although relational infrastructure is not an ideal of decision-making, it is how difficult decisions can be made in a timely way. The way we treat something tells us something about what we value as a society. If one thinks of roundtables as a process by which we are shaping institutions that reflect our values, roundtables are orienting to meet the needs of our society. Water roundtables as a means of connecting and orienting may not create an immediately visible change, but is an essential first step in building institutions that will require strong trust and relational components.

In conclusion, I have shown how roundtable members create a veneer of public good through careful attention to language, negotiating of norms and meanings. Public deliberation about managing an increasingly scarce, non-substitutable public good within a private rights framework has challenges. Understanding discursive strategies of water roundtables is valuable, providing opportunities to reflect on the practice. But practice is a process, a doing, moving towards an ideal, there is not necessarily an endpoint, in particular, when democracy is the ideal.
CHAPTER 8

CONCLUSIONS

[P] ractice has a logic which is not that of logic.
–Bourdieu (1977, p.31)

In this dissertation I have taken a close look at the discursive practices of a democratically-inflected kind of environmental meeting. The problem this communicative practice faces, I have argued, is the competing criteria that are expected to guide communicative conduct in water roundtables. On one hand, water roundtables are public meetings. As such, they are designed to engage citizens about local issues, with a representation schema reflecting traditional town hall formats, in which they make decisions about public resources. On the other hand, water is a private right, and the decisions are ultimately subject to the legal framework of the water law system that is in place. This dilemma of competing expectations—upholding a public deliberative framework while maintaining the private property rights aspect of a public good—gets played out over and over in water roundtable meetings across the state of Colorado. In water roundtable meetings the competing demands were most evident as members made planning decisions about where and how to secure water for the future.

In the beginning of this dissertation, I argued for the value of looking closely at the communicative practices of water roundtables, an argument grounded in a visible lack of scholarly work exploring environmentally-focused public deliberation from a communicative perspective. In concluding this dissertation, I draw attention to what this dissertation has accomplished by looking closely at water roundtables. I then describe the limitations of the study and offer some directions for future research. I conclude by considering the implication of
this initial foray into the communicative practices of environmentally-focused public meetings, water roundtables.

Summary

This dissertation explored the communicative practices of water roundtables in Colorado, analyzing transcripts of taped meetings, organizational documents, and archived interviews. Using Grounded Practical Theory as a methodology, I reconstructed roundtables as a practice, foregrounding the routine activities of water roundtables as a way of conducting public deliberation about this critical resource. In detailing the importance of a communicative study of water roundtables I brought attention to how meanings are constructed and influence decisions. This study has begun an examination of what appears to be a developing practice in natural resource management in the United States. While, as Chapter 2 explained, water management in Colorado is unique, public deliberation about water management is timely. The use of roundtables as a governance form for natural resources will continue. At this point it is difficult to assess the impacts of this practice. This study offers insights into the problems and benefits of roundtables as a governance form. The goal of this research was to explore how the intersection of water, deliberation, and decision-making unfolds in the public sphere. While there is no definitive answer about how to “solve the water crisis,” this study provides insight into the way new forms of governance can address societal concerns. It is a cautionary tale of how ideological dilemmas are played out in the public sphere.

Study Limitations and Directions for Future Research

There are notable limitations to this study, providing future directions for research. First, this is a case-study. This research has the limitations of every case-study. Although this study is
not generalizable to other public deliberative settings or natural resource management arenas, in both of these domains elements of this research is pertinent. The emphasis in this dissertation on the communicative practice of roundtables and how this emerging governance form is constructed through talk is an important contribution to further explorations in public deliberation and natural resource management. Further research would do well to examine the discursive practices of public deliberation on natural resources.

A second limitation is the degree of expertise needed to access the meanings, and alternate construction of meanings, in this highly technical domain. The barriers to understanding the science of hydrology clouded the communicative insights that could have been more easily accessed, were the domain not so specialized. This point supports the argument for further research by social scientists in wicked problems and other highly complex domains. The intersection of science and society is communicatively constructed.

**Implications**

A first methodological implication is related to the value of using an ethnographically informed, discourse-analytic approach to study environmental public meetings. Numerous scholars (Depoe, Delicath, & Aepli-Elsenbeer, 2004; Diduck & Sinclair, 2002; Dietz & Stern, 2008) have argued that research in environmental and natural resources ought to look beyond their disciplinary domains to consider the communicative dimensions of environmental public meetings. Hajer & Versteeg (2005), for instance, argue, “Because the concept ‘nature’ leaps to the eye, language plays an even bigger role in ‘the’ environmental debate than it does for other topics of societal concern” (p. 178). The continued study of how public deliberation and meaning-making occurs will inform those who construct the meanings and policies that reflect the construction.
The use of Grounded Practical Theory as a model for discerning the communicative problems of a situated practice, combined with the reflective sensitivities of AIDA offers a comprehensive and flexible lens for studying environmentally situated practices. The combination of GPT and AIDA offer the strengths of close attention to interactions and conceptualizing communicative interactions as practices, effectively offering a more holistic approach to environmental policy studies.

For language and social interaction scholars, who are likely to engage with GPT and AIDA, the dissertation has shown how GPT and AIDA approaches offer the benefit of a richer descriptive account of a communicative practice. Activities such as environmentally-focused public meetings are institutionalized practices that will continue to shape policies. Having a deeper understanding of how public meetings are conducted will inform the practice. The methodological approach in this dissertation opens up the environmental policy-making processes to a close look at what actually occurs in environmentally-focused public meetings.

In terms of theoretical implications, this dissertation builds on the concept of “strategic ambiguity,” making visible ways of talking that, as Tracy (2010) tells us, “strengthen the practice of democracy—or destabilize and weaken it” (p. 6). “Strategic ambiguity” is the label I used to make apparent that roundtable members, in their talk, delicately balance the norms of public good and private rights to discursively formulate ideals about how to make decisions with competing logics. Ways of talking about a diminishing public good in a public forum balance the tensions of multiple, often competing ideals. Knowing these strategies may foster additional ways of considering how ideologically dilemmas are managed. This study also extends the theoretical conceptualization of “public meetings” by considering hybrid forms of meetings that incorporate work group elements of relational connections and on-going work activities that are
technical in nature, and affect the public profoundly. As Eisenberg (1984) noted, strategic ambiguity facilitates change and the operations of social order. This dissertation sought to develop a line of inquiry about how an emerging governance form is conducted. The discursive focus considers concrete ways in which the intersection of the public and the technical world of water interact.

From a practical perspective the question is: what is the value of this study for communication scholars, the water community, environmental practitioners and others engaged in public deliberation? For those involved in practices similar to roundtables, the study offers suggestions about the conduct of the practice of roundtables. As AIDA seeks to make visible discourse strategies around problems in institutional practices in order to reflect upon those practices, this dissertation aids in understanding how participants can make their practice achieve their goals. To that end in the next section I offer some suggestions for future roundtables.

**Water Roundtables and Communication Praxis: Suggestions**

As this study of water roundtables revealed, the normative ideals guiding participants in decisions about natural resources are often eclipsed by more immediate concerns. I conclude with four suggestions for the practices in water roundtables. These suggestions apply to both communication scholars and water practitioners and in each of the four I detail the emphasis for the different communities. I do not distinguish between water problems and communicative problems; as I have argued, the two are inextricably entwined.

*Public Involvement in Water Roundtables*

Water roundtables are a hybrid of organizational and public meetings. While interested members of the public should continue to be encouraged to attend—as my experience suggests,
everyone is keenly welcomed — a high level of participation from spectator citizens should not be taken as an indicator of how well roundtables are functioning. Making available the organizational documents that reflect the transparent nature of the water roundtable’s processes and decisions is a valuable service to public and should continue. Online documents and tapes provide transparency and accountability, yet another, perhaps unintended effect is the valuing of the public’s time. As McComas and co-authors (2006) have pointed out, it is not just outcomes, but procedures and processes that the public attends to. Water roundtable members attend conscientiously to processes and this will continue to serve them well. Counting the number of public attendees at water roundtable meetings, or hits on the website, is not indicative of public attention. Communication scholars should continue to explore how the public engages in environmental and other highly complex topics in the public sphere. A discourse analysis and Grounded Practical Theory approach that asks what communicative problems are being oriented to will likely lead to a greater understanding the dimensions of public participation.

*Valuing Relational Ties*

As I noted in several chapters, members of the water roundtables attend to relationship building among members of the water community. This attention is invaluable and should continue to be cultivated. A key example of the benefits valuing relational ties are reflected by the inclusion and strengthening the fabric of the discourse as members of the agricultural and recreational communities continue to participate and express their perspectives. Increasing the scope and breadth of relational ties will serve the water roundtables and the public well. Research on decision-making that investigates how relational ties impact decisions is another area where communication scholars would find much to mine. Using talk as data to understand
how relational ties, decisions, and trust intersect in the public sphere is an area where further research would benefit all parties.

**Naming of Activities and Conflicts**

As I and other scholars have noted, naming is a consequential activity. Discourse orients the direction of meaning and its’ consequences. Water roundtables and public officials should give careful consideration to the naming of activities and conflicts they engage in. Although roundtable members attend closely to language use, as I described in Chapter 7, often, to those embedded in a community, the meanings are tacit and taken-for-granted. Stepping outside of one’s speech community, as Philipsen (1979) argued, is not an activity often undertaken, but can provide insights that are unavailable when one is immersed. Close examination of how names construct or pave the way for preferred solutions in complex domains is useful for researchers and public officials. Meanings and naming influence the way the public understands and acts with respect to issues. Continuing to push, and value, the public good aspects of water and other natural resources will allow for creative tilting that seeks to deal with inequities in management. The ways in which water roundtables construct meanings is a bellwether of how the public will take up the issues.

**Exposure of Conflicting Decision Logics**

Water roundtable members and scholars (cf. Billig et. al, 1988) recognize the competing ideals of public good and private rights. The water roundtable members should enlighten the highest levels of state officials to the contradictory directives about decision-making that the roundtables are tasked with. Exposing the elephant in the room often leads to creative approaches. The tacit dilemma of decision-making in the roundtables should be made explicit.
The contradictions in the directives for managing water and the public’s perception of water management are a fruitful area for communication research as well.

In summary, this research is the beginning of exploring how communicative practices inform and impede water management in the western United States. Further communication research will extend this work to enhance our ability to provide the basic necessity of water by understanding the communicative practices that are fundamental to providing water to the public.
REFERENCES


APPENDIX A: Colorado House Bill 05-1177

NOTE: This bill has been prepared for the signature of the appropriate legislative officers and the Governor. To determine whether the Governor has signed the bill or taken other action on it, please consult the legislative status sheet, the legislative history, or the Session Laws.

An Act

HOUSE BILL 05-1177

BY REPRESENTATIVE(S) Penry, Buescher, Decker, Liston, Massey, White, Berens, Clapp, Crane, Gallegos, Hall, Hoppe, Jahn, Kerr, Knoedler, Paciome, Rose, Stafford, Stengel, Sullivan, Romanoff, Boyd, Brophy, Coleman, Frangas, Harvey, King, Madden, May M., McCluskey, Merrifield, and Todd;
also SENATOR(S) Isgar, Tapia, Taylor, Entz, Grossman, Kester, Fitz-Gerald, Groff, Teck, and Tupa.

CONCERNING THE NEGOTIATION OF INTERBASIN COMPACTS REGARDING THE EQUITABLE DIVISION OF THE STATE’S WATERS, AND MAKING AN APPROPRIATION IN CONNECTION THERewith.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Title 37, Colorado Revised Statutes, is amended BY THE ADDITION OF A NEW ARTICLE to read:

ARTICLE 75
Interbasin Compacts

37-75-101. Short title. This article shall be known and may be cited as the “COLORADO WATER FOR THE 21ST CENTURY ACT”.

Capital letters indicate new material added to existing statutes, dashes through words indicate deletions from existing statutes and such material not part of act.
37-75-102. Water rights - protections. (1) It is the policy of the general assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The general assembly affirms the state constitution’s recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law.

(2) The general assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The general assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

37-75-103. Director of compact negotiations. (1) Within thirty days after the effective date of this article, the governor shall appoint a director of compact negotiations, who shall act as the overseer and caretaker of the compact negotiations process established in this article.

(2) The director of compact negotiations shall have the following responsibilities:

(a) Provide support and assistance to applicable local stakeholders in the formation of permanent basin roundtables established pursuant to section 37-75-104;
(b) **Oversee and direct the expenditure of moneys appropriated pursuant to this article; and**

(c) **Serve as the Chairperson of the Interbasin Compact Committee and oversee implementation of the Interbasin Compact Committee’s responsibilities consistent with section 37-75-105, including the timely completion and referral of the Interbasin Compact Charter.**

37-75-104. Basin roundtables. (1) (a) **To facilitate continued discussions within and between basins on water management issues, and to encourage locally driven collaborative solutions to water supply challenges, permanent basin roundtables are hereby created in Colorado’s eight water basins and in a demographically unique subregion within Water Division 1 as specified in subsection (3) of this section.**

(b) **The Executive Director of the Department of Natural Resources shall take such actions as may be necessary to ensure proper integration and nonduplication of activities occurring pursuant to the statewide water supply initiative and this article.**

(2) **Each basin roundtable shall have the following powers and responsibilities:**

(a) (I) **As soon as practicable following the effective date of this article, each basin roundtable shall establish bylaws, operating procedures, goals, and objectives to govern the actions and decisions of the applicable roundtable. Basin roundtables and their representatives on the Interbasin Compact Committee may opt out of the procedures established in this article at any time.**

(II) **As deemed appropriate by the Executive Director, the roundtables established pursuant to this section may take on the duties and functions of the roundtables created pursuant to the statewide water supply initiative.**

(b) **Select two basin representatives to represent the views and interests of the basin on the Interbasin Compact Committee established pursuant to section 37-75-105. Basin representatives**
NEED NOT BE MEMBERS OF THE BASIN ROUNDTABLE.

(c) Using data and information from the statewide water supply initiative and other appropriate sources and in cooperation with the on-going statewide water supply initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment. Conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the interbasin compact committee and other basin roundtables for analysis and consideration after the general assembly has approved the interbasin compact charter.

(d) Serve as a forum for education and debate regarding methods for meeting water supply needs; and

(e) As needed, establish roundtable subcommittees or other mechanisms to facilitate dialogue and resolution of issues and conflicts within the basin.

(3) (a) As used in this subsection (3), unless the context otherwise requires:

(i) "Water division" has the same meaning as set forth in section 37-92-201.

(ii) "Water management district" means those districts established by the division of water resources and depicted on maps published by the division.

(b) The following basin roundtables are hereby created:

(i) The South Platte basin roundtable, consisting of water division 1 excepting those portions of water division 1 listed in subparagraphs (VIII) and (IX) of this paragraph (b);
(II) The Arkansas Basin Roundtable, consisting of Water Division 2;

(III) The Rio Grande Basin Roundtable, consisting of Water Division 3;

(IV) The Gunnison Basin Roundtable, consisting of Water Division 4;

(V) The Colorado Basin Roundtable, consisting of Water Division 5;

(VI) The Yampa-White Roundtable, consisting of Water Division 6 excepting Water Management District 47;

(VII) The Dolores, San Miguel, and San Juan Basins Roundtable, consisting of Water Division 7;

(VIII) The Metro Roundtable, consisting of the following areas in Water Division 1: Those portions of Water Management Districts 7 to 9 that lie east of the boundary between ranges 71 and 72 West and that portion of Water Management District 2 that lies south of the boundary between Township 1 North and Township 1 South; and

(IX) The North Platte Roundtable, consisting of Water Management Districts 47, 48, and 76.

(4) (a) Each Basin Roundtable shall consist of the following members, each of whom shall reside within the borders of the Roundtable, except as otherwise provided in this paragraph (a):

(I) One member appointed by the governing body of each county or city and county within the borders of the basin roundtable. A county or city and county shall be entitled to a member on each basin roundtable that overlaps its boundaries.

(II) One municipal member for each county located in whole or in part within the basin roundtable, who shall be appointed jointly by the governing bodies of all municipalities within that portion of the county that is located within the roundtable;
(III) One member appointed by the board of directors of each water conservancy and water conservation district within the borders of the roundtable. A water conservancy or water conservation district shall be entitled to one member on each basin roundtable that overlaps its jurisdiction.

(IV) One member appointed by mutual agreement of the chairperson of the house agriculture, livestock, and natural resources committee and the chairperson of the senate agriculture, natural resources, and energy committee;

(V) Ten at large members appointed by the roundtable members appointed pursuant to subparagraphs (I) to (IV) of this paragraph (a) in consultation with the director of compact negotiations, one of whom shall represent environmental interests and who shall be selected from nominees submitted by one or more regionally, state-wide, or nationally recognized environmental conservation organizations that have operated in Colorado for at least five years, one of whom shall represent agricultural interests, one of whom shall represent recreation interests, one of whom shall represent local domestic water provider interests, one of whom shall represent industrial interests, and at least five of whom shall own adjudicated water rights, including owners of shares in a ditch or reservoir company or their agents, or shall have a contract for water with the federal bureau of reclamation or their agents. Any such agent shall be appointed by the member the agent represents and shall reside within the borders of the member’s roundtable.

(VI) (A) Three nonvoting members shall be selected by the roundtable members appointed pursuant to subparagraphs (I) to (V) of this paragraph (a), who shall represent entities outside of the basin that own water rights within the basin. Members appointed pursuant to this subparagraph (VI) shall not be required to reside within the borders of the roundtable.

(B) If no one qualifies for selection pursuant to sub-subparagraph (A) of this subparagraph (VI), three nonvoting members shall be selected from outside the basin who have interests in and are knowledgeable about water matters.
(b) Members shall serve for a term of five years; except that initial terms shall be staggered pursuant to each roundtable’s bylaws. Vacancies shall be filled pursuant to the same criteria as the original appointment.

(c) The member of the Colorado Water Conservation Board who resides within the borders of the basin roundtable shall act as the board’s liaison to the basin roundtable and to the interbasin compact committee for the purpose of ensuring the proper coordination of Colorado Water Conservation Board information, policies, and resources. Such coordination shall be subject to available staff resources as determined by the director of the board and the executive director of the department of natural resources.

(5) A basin roundtable shall be deemed to be a local public body for purposes of the open meetings law, part 4 of article 6 of title 24, C.R.S.

37-75-105. Interbasin compact committee - report - repeal.
(1) (a) To facilitate the process of interbasin compact negotiations, a twenty-seven-member interbasin compact committee is hereby created. The interbasin compact committee shall include two representatives from each basin roundtable, at least one of whom shall reside within the borders of the roundtable and at least one of whom shall own adjudicated water rights, including owners of shares in a ditch or reservoir company or their agents, six at-large members appointed by the governor, one member appointed by the chairperson of the house agriculture, livestock, and natural resources committee, one member appointed by the chairperson of the senate agriculture, natural resources, and energy committee, and the director of compact negotiations. The governor’s appointments shall come from geographically diverse parts of the state and shall include individuals with expertise in environmental, recreational, local governmental, industrial, and agricultural matters. No more than three of the governor’s appointees shall be affiliated with the same political party. Any such agent shall be appointed by the member the agent represents and shall reside within the borders of the member’s roundtable.
(b) As soon as practicable following the effective date of this article, the Committee shall establish bylaws to govern its actions, including a procedure whereby basin roundtables that opt out of the procedures established in this article are no longer represented on the committee but may opt back in.

(2) Not later than July 1, 2006, the Interbasin Compact Committee shall establish and refer to the General Assembly an Interbasin Compact Charter that shall govern and guide all negotiations between basin roundtables under this article. If the Committee does not so refer the charter by July 1, 2006, this article is repealed, effective July 1, 2006. Upon receipt, consideration, and approval of the charter by the General Assembly acting by bill, negotiations between basin roundtables may commence. Any compact or other agreement established using the procedures established in this article shall fully comply with the terms, requirements, and procedures established in the Interbasin Compact Charter as approved pursuant to this subsection (2).

(3) At a minimum, the Interbasin Compact Charter shall include the following:

(a) A negotiating framework and foundational principles to guide voluntary negotiations between basin roundtables, including present and future consumptive and nonconsumptive water uses and such policies as may be necessary to ensure that compacts or other agreements between roundtables do not conflict or otherwise not conform with one another;

(b) Subject to the principles established in section 37-75-102, procedures for ratifying compacts or other agreements between basin roundtables, including the requirement that every basin roundtable whose waters are affected by a proposed compact or other agreement shall provide its affirmative support for such proposed compact or other agreement before such compact or agreement is final or binding;

(c) As deemed appropriate by the Interbasin Compact Committee but subject to the principles established in section 37-75-102, authorities and procedures for making compacts or
OTHER AGREEMENTS BETWEEN ROUNDTABLES LEGALLY BINDING AND ENFORCEABLE; AND

(d) AS DEEMED APPROPRIATE BY THE INTERBASIN COMPACT COMMITTEE, PROCEDURES FOR INTEGRATING THE PROCESSES ESTABLISHED IN THIS ARTICLE WITH EXISTING PLANNING, PERMITTING, AND PUBLIC PARTICIPATION PROCESSES RELATED TO THE CONSERVATION AND DEVELOPMENT OF WATER WITHIN COLORADO; EXCEPT THAT NO PROVISION OF THE CHARTER SHALL SUPERCEDE, IMPAIR, OR OTHERWISE MODIFY THE AUTHORITY, JURISDICTION, OR PERMITTING POWERS OF COUNTIES OR OTHER LOCAL GOVERNMENT ENTITIES.

(4) COMMENCING IN 2006, THE COMMITTEE SHALL SUBMIT AN ANNUAL REPORT TO THE HOUSE OF REPRESENTATIVES COMMITTEE ON AGRICULTURE, LIVESTOCK, AND NATURAL RESOURCES AND THE SENATE COMMITTEE ON AGRICULTURE, NATURAL RESOURCES, AND ENERGY BY OCTOBER 31 CONCERNING THE STATUS OF COMPACT NEGOTIATIONS.

(5) THE COMMITTEE SHALL BE DEEMED TO BE A STATE PUBLIC BODY FOR PURPOSES OF THE OPEN MEETINGS LAW, PART 4 OF ARTICLE 6 OF TITLE 24, C.R.S.

37-75-106. Public education - outreach. (1) THE INTERBASIN COMPACT COMMITTEE SHALL DEVELOP A PUBLIC EDUCATION, PARTICIPATION, AND OUTREACH WORKING GROUP.

(2) THE PUBLIC EDUCATION, PARTICIPATION, AND OUTREACH WORKING GROUP SHALL:

(a) CREATE A PROCESS TO INFORM, INVOLVE, AND EDUCATE THE PUBLIC ON THE INTERBASIN COMPACT COMMITTEE’S ACTIVITIES AND PROGRESS OF THE INTERBASIN COMPACT NEGOTIATIONS; AND

(b) CREATE A MECHANISM BY WHICH PUBLIC INPUT AND FEEDBACK CAN BE RELAYED TO THE INTERBASIN COMPACT COMMITTEE AND COMPACT NEGOTIATORS.

SECTION 2. Appropriation. In addition to any other appropriation, there is hereby appropriated, out of any moneys in the operational account of the severance tax trust fund established pursuant to section 39-29-109 (1) (a) (II), Colorado Revised Statutes, not otherwise
appropriated, to the department of natural resources, Colorado water conservation board, for the fiscal year beginning July 1, 2005, the sum of two hundred forty-seven thousand forty-four dollars ($247,044) and 0.5 FTE, or so much thereof as may be necessary, for the implementation of this act.

SECTION 3. Safety clause. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

Andrew Romanoff
SPEAKER OF THE HOUSE
OF REPRESENTATIVES

Joan Fitz-Gerald
PRESIDENT OF
THE SENATE

Marilyn Eddins
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES

Karen Goldman
SECRETARY OF
THE SENATE

APPROVED______________________________

Bill Owens
GOVERNOR OF THE STATE OF COLORADO

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APPENDIX B: Transcript Sample

Joint Meeting of the Denver Metro, Arkansas, and
South Platte Roundtable, Denver CO, March, 2009

(First 15 minutes)

J.G.: It's just that we have more variables to consider, and it's important that we consider all those variables. What, what's left of our compact entitlement? I don't know. I'm not sure. Study will tell us exactly, but it will tell us what risks we need to assess. Just want you to be aware that by not developing our full compact entitlement we also take risks there, because Mexico is developing theirs, Utah is well on its way to develop theirs, Wyoming? Eh they still got water. But it's part of that analysis that we have to come up with. So, my staff is here. CWCB staff Eric, Sue, CDM, the whole group looking to give *you* enough facts so that you can have a policy debate and let us know what other facts are needed and and how to proceed from here. We're all headed to July IBCC. We’re looking to present there. That meeting will be held in conjunction with the CWCB Board meeting and also *with* the Legislative Interim Committee for water resources committee. I can never remember the full name of that. [A voice from the audience: Yeah you can say that.] What an opportunity we have. I hope nobody decides to plant a bomb in the room at the time or we'll lose all of our water expertise. But what an opportunity we have. And let's make the most of it. So thank you so much for being
here. Thanks for letting me get on my soapbox. Oh, and by the way, I don't have any
money this year, but you do. [laughter] Water Supply Reserve. So, let's make this a very
productive afternoon, and I look forward to further conversations with you. And I'll turn
it over to the Chairs. Rod, Gary, who’s gonna go up first?

R.K.: Well, I'm chairman of the Metro Roundtable ... Just briefly some of the issues
that Metro Roundtable is involved in, and I think some of the the South Platte Roundtable
has interest in also. We um, we went through the non-consumptive use presentations and
um ultimately it came down to uh, agreeing with the South Platte Roundtable that we
needed to look at stream segments rather than these large, uh subbasins. It, we felt that it
[is] probably more accurate that it, that those were portrayed in that way since the the
other way appeared to be more of a land-use approach rather than a a water approach.

We have several grant proposals that are out there getting underway. We have the
upper mountain counties uh, study, that um A.S. is heading up. That is a study to identify
uh, the sustainable development for these bedrock aquifers in mountain counties up
above Denver. We also have a study to identify storage capacities in the Lost Creek Area.
That's an area that's gotten some attention um recently because it's a designated basin, it's
treated as non-tributary water; water in that basin can be used and reused to to extinction
basically. uh That's getting underway and that was uh by the uh uh Lost Creek designated
or uh Lost Creek designated basin management association, I think. [aside] I get that right
Rob? um And then we have uh two ASR studies. One is a a study that is to identify
regionally where to begin concentrating for the Denver basin. The other is uh, a study
that will or a grant proposal that'll be coming to the the Water Conservation Board in
September to actually do some demonstration work in the area that the initial studies
identified. And then we have, a study, a study going on. Let, let's face it, one of the issues here when you're dealing with ag water is water quality, and we're looking closely at what treatments [are] out there and then what to do with the uh, with the uh by-products of that treatment. That's the RO, and brine disposal issues that we're addressing.

um, a, a, A couple of comments I think. One is I'm really disappointed to see a large project cart blanche dismissed. uh I do think there are people, not only here in the audience, but around the state that think that a large project could be very beneficial to the state and uh uh I think it needs to remain on the table regardless of who the sponsorships are, um, as well as other of the large pumpback projects, because there was significant work done in the 80s on the Blue Mesa Pumpback, there was significant work done um, in 2000 on the uh, Colorado River Compact. So, uh uh I think those need to have, to have some viability in the mix. Conservation we've always known as important and I think that as um Jennifer noted we're probably there with 20%, some communities are probably there, they're at 30%. um We have stress conservation throughout the entire metro area, and I think we're at the point now where there may be some um some problems because conservation is being sold into the market to sustain development. What happens when the sources are impacted through drought or other, other, other forces and you have so much uh reliance on conserved water to provide for existing customers that you may not have the ability to provide for everybody. um And then there's the ag transfer issue. You know, every, you've heard if it's not new water, it's ag water and I think without new water you're finding water providers moving to ag water um. That's a process that's going to continue, I think, until we have alternatives developed that will provide uh, water supplies to the Front Range. um I recognize that in today's
environment nothing’s gonna happen without adequate mitigation and uh, pro protection of the environment. But I think you will find out that if, in an ag scenario for agricultural water, if the cost of water for rotation fallowing is so expensive, or the terms are so draconian, that uh, municipal water providers are simply gonna turn to buy and dry.

I would speak to a couple of things in particular. One is uh, a lot of the uh, ag fallowing proposals are dealing with uh, lease arrangements. It becomes very dangerous for municipalities to sell into a permanent population base, leased water and then at the term of the lease be subject to renegotiating when you really have no other option available to you. um The South Platte I know is working on a proposed lease arrangement. um The Arkansas has got the Super Ditch, and I would urge that if that is something that becomes viable to everybody that it be a partnership, not a leasehold arrangement. Because you'll find that I think the, the communities that have to have security in their water supplies are gonna be driven into the buy-and-dry situation. There's also an issue of capital cost, major capital costs, that is, how do you develop capital uh, infrastructure on leasehold arrangement um and um sell that into the bottom market? So I guess that's kinda my two cents there.

There's also the Colorado River study. And uh, ya know, I would refer to one particular Supreme Court case. To my mind the water availability is certainly an important part of the equation for an engineering determination, but water availability studies should not be determinate, or determining whether or not a project goes forward by a another, a, a third party proponent. um In the 60s there was a case. I think it was the Metropolitan Suburban Water Users Association, a river district, in which the Court said it matters not if the water's there or not. The River district was arguing that there was no
water available. Here we are some 40 years later and similar arguments are still being put forward, um, and the court said it doesn't matter if the water's there or not. The proponents, if they're risking their money, and there is no water, they lose their money. The proponents however, if the water's there, begin to develop water that they benefit of the entire state of Colorado. That was the Homestake project case, and it's been quoted several times. But I think the, the real import of that case is to say to people that we still live in an appropriation state and if you want to appropriate the water, you can take it when you're in priority. If you're not in priority, the water's not there, you can't take it. So, that's what I would say in regards to water supply availability, but I do think that we will find, when this study is done, that there is significant water still available in the Colorado, particularly um, since, the, some of the other upper basin states will be using their max or even more, than their, the maximum allowed after the hydrologic determination by the Bureau. And I'd refer to New Mexico for overusing what their allocation would be based upon the allocation. So with that I'm gonna turn it over to the next person on the agenda, G.B.

G.B.: Well, it's nice to come to the down range end of the shooting gallery here. [laughter] Thanks for warming 'em up for me, R.K. I'm G.B., I work for the El Paso County Water Authority. I'm the current Chairman of the uh Arkansas Basin Roundtable, our prior chairman A.H. is here. I think it's always important to acknowledge that the work and the time we spend getting to know each other as roundtable. uh Some of you have seen [technological issues w/ his ppt]. Alright well, I'm technologically challenged. I'll step through this quickly um. We got an executive committee, not a roundtable. This is the plan to withdraw from Iraq. uh This is our water supply reserve account process.
We're a real big roundtable and that's been a challenge for us. This is where we are with the water supply reserve account right now. We've got a few pending, we're basically trying to finish our non-consumptive needs form, so we can move to the next part. We did work through Fountain Creek delivery Task Force, for those of you who are CWCB directors you can go to the bathroom next week when our water [inaudible]. We did get an IGA done and that was part of our roundtable process, created a watershed district to try to bring some closure on the litigation on Fountain Creek. And I think it's been an important element of the Southern Delivery Project moving forward. uh Got a transfers guidelines committee uh, that you heard mention a little bit, facilitated by Mary Lou Smith. Folks from a lotta different parts of the watershed involved. It a generated a report, if you wanna read it; it talks not only about transfers out of the basin, but also local transfers, things like the Yampity Canal going through the tri states for a power plant. Our non-consumptive needs group has been working diligently. um Our consumptive use needs group, we did an update, we uh upped our uh gap to about 30,000 acre feet. Mostly that's in my neighborhood, El Paso County and most of its replacement of groundwater. We only have initially identified three IPPs as they call them. Southern Delivery, First Storage Option plan and the Arkansas Valley Plan. So, here's our findings. Applegate Group working through CDM put this together for us.

The Lake County number there I think is significant because when we did this work they were gonna reopen the Climax mine and with metal prices going up and down but uh Lake County, Leadville, was looking at a pretty large influx of people. uh What are our challenges? We've got Interstate Compact of 1948, we've got this groundwater issue, water quality going downstream from Pueblo Dam, and we're an importing and exporting
basin, meaning we depend on the Colorado River for a large amount of our water, and
some of our water, ag water, is moving to the Denver Metro area. um I threw this in
because we don't [have] a decision support system yet. We're the white place on the map.
And I just say, I've only been to one Arkansas Compact Committee meeting and it
remind[ed] me a lot of Mt. Rushmore. Got these four stone faces. It's not, in my personal
opinion, a great decision-making process but uh, there it is and we're gonna have to let it
be. We've groundwater dependence, these are the designated basins. uh In the Arkansas,
several, particularly Black Squirrel, [are] pretty important as a municipal water supply.
We're also dependent on the Denver Basin; uh, this is from a 2000 water, USGS study.
This is the depleted area in the basin. It's kind of a joke. If you go talk to one of the water
managers in the El Paso County Water Authority, they'll tell ya, "Don't have a problem,
 ya should go talk to my neighbor, he's got a serious problem, and this problem is all I
think about everyday." So, we're trying to work through that. Here's a graphic that I took
from the [inaudible] presentation on the Super Ditch. I'll show you what happens to water
quality as you go downstream. um It's a challenge, certainly in some of those
communities in the lower valley. We're gonna try to participate in the uh, zero liquid
discharge study with the La Junta's being the test case where they do RO and a a put the
brine back in the river. We've got a Bureau of Reclamation, ???? Fryingpan/Arkansas
Project. uh I think we're stakeholders in the Colorado River. uh We had a presentation in
February; folks came over from the River District, R.S. was there. Talked about the
Colorado River, um, got a lot of people's attention when they mentioned that conditional
water rights held by the energy companies date to the fifties and are senior to many of the
Arkansas diversions. So, just when I thought a couple of guys [were] going to sleep,
*everybody* came forward in their chairs, like “What? What did you say?” So, uh is there another transbasin diversion? This says "Backoff suckers, water diversion, the last straw" [a cartoon on the screen]. My point here is you got Texas, Utah, California, New Mexico, Colorado sign up there. So, maybe there's a play with the Great Lakes. Actually, I think they've formed their own compact.

We did have a fellow come and talk to us about a Mississippi inflow project, which he's advocating. Ah, here the gauge is plus or minus a million acre feet, so we think they won't miss it. Where are we now? What are our challenges in the Arkansas. um This caption says, "So does anyone else feel their needs aren't being met?" [laughter] So this is our methodology: we're gonna just throw people off a cliff until we get down to being able to take care of it. uh But we're trying to work through that proposed projects and methods to address our needs. This is a map we did early on of where everybody thought the common areas were and what the needs were, so it kinda breaks down into an upper region, a Fountain region, a lower region, and a a Huerfano Purgatory region. uh We're talking about things like sustainability both in economic terms, social and environmental terms, and we're also talking about, particularly in the lower valley, how the energy component plays in this and how it plays. So, where're we headed – uh, the attempt to preserve agriculture. We got a strong property-rights advocacy on our roundtable. It's a very emotional issue, so you get into this cause-and-effect dilemma. Is the loss of ag causing water to be moved to the cities, or is water moving to the cities causing the loss of ag? We're talking about underground storage of water, we're talking about trying to turn in our homework in terms of our needs. These are the top ten ag communities in the state. uh We have one of 'em here, Prowers County; we also have several in the top half
of this state from the ag perspective. You heard a little bit about the Super Ditch. This graphic actually came from the original SWSI work, so we've been talking about it since 2003 and I think making good progress. This is the Upper Black Squirrel groundwater basin; we did a study that showed uh there's 200,000 acre feet of storage there. The little pamphlet I handed out, I've been out trying to get folks to support kinda the next step of moving that forward, um, and that's what, would be what the aquifer looked like -- build it back up to a depth of 50 feet below the surface. So there's the graphic from the report. Two hundred and eighteen thousand acre feet. We had a groundwater conference, reviewed, peer reviewed by DNR, trying to organize a working group and within the DNR and also the water quality folks to talk about a path forward. We had some conflicting conclusions in the report. I called the tastes great, less filling argument. Remember those beer commercials? um We have all the institutions we need, but going one at a time is a an expensive process. One of the questions in the session this morning is “Recharge for augmentation, recharge for storage?” Is that long-term storage? um And then these were the comments that came out of that peer review. To what degree can we implement this? Do we need a roadmap? Do we need legislation? [inaudible] work together? And uh, is there a potential for pilot projects? That's what that water supply reserve application is about.

It has become an national issue. This is a 2007 managed underground storage study by the National Academies of Science, and our session this morning was about that. What I got from that was.
APPENDIX C: Sample Field Notes

Date and Time: December 10, 2005, 6:00 p.m.

Venue: Presentation to Café Scientifique forumin Fort Collins 6:00 p.m.

Place: Elks Club in Fort Collins, Colorado

Title of Talk: “Water Security on the Front Range” by: Dr. Neil Grigg

The doors opened at 5:30 p.m. for drinks. We arrive around 5:45 p.m. Four people stand ready to greet people who enter. There are about 29 people at this time, increasing to 32 people as the talk starts. About 15 members of the audience are men. The speaker is introduced; he is a very well-known local water expert who teaches at Colorado State University. In the introduction, the organizer lists many of Dr. Grigg’s qualifications and mentions his numerous publications. The setting is a club, and the speaker talks from a small stage where a band would normally play; people are gathered around this stage at tables. Pizza and soda are on the bar for the public. Dr. Grigg begins by apologizing for having a PowerPoint presentation. He says that there is “mind-numbing detail” in it, but “feel free to interrupt, as I see some controversial characters in the audience.” He says that he will “focus on vulnerabilities and where we need to pay attention.” His first slide is the epigram shown in Chapter 2, “When you touch water, you touch everything,” a quote from Wayne Aspinall. Aspinall was a state senator from Colorado,
and the Bureau of Reclamation (primary water management agency in the western United States) named the Western Colorado Regional Unit the Aspinall Unit to honor him.

Dr. Grigg goes through the history of Colorado water, mentioning that the politics of Western water are different in Kansas, or Wyoming, and other western states. There are different water issues in each state. Dr. Griggs reiterated a theme that is heard across the water community, “The issue at the heart of any discussion of water is growth.” His slide stated that population is the driving force for water needs. At 6:15 p.m., an audience member raises their hand and states, “I can’t read the numbers.” The audience is very attentive as the speaker Dr. Grigg goes through Colorado water history. Around 6:35 p.m. or so, Dr. Griggs asks a rhetorical question: “Who is managing water better and what could we learn?” He responds to his own question with “Israel, Their water management started 2 or 3 decades ago. It uses smart technologies, drip irrigation, and developed national water carriers.” Dr. Griggs tells the audience that “if you ‘rotate the map of Israel and put it on the South Platte, it looks the same.” “Israel had an advantage, it was settled by socialists. What we have in Colorado has nothing to do with cooperation; it’s all about a shoot-out and who’s left standing. It’s very difficult to get solutions. The actions of the water court are driven by Fort Collins in the South Platte River basin. I don’t believe that it’s good.” An audience member asks, “Do you have an opinion about what the problem is?” Dr. Grigg continues with his slides. The next slide is introduced as the 7 bullets of things that could happen to the security of our water.

Running dry
Climate change
Get polluted – pharmaceuticals, nutrients
Sabotage – Dillon Dam tunnels don’t have much infrastructure

Earthquakes

Someone gets our water—like California gets the Colorado River Compact rewritten

Floods – wipe out key facilities

Dr. Grigg leaves the list up on the screen as he tells us that either natural or man-made things can threaten our water supply. The biggest threat (he puts a lot of emphasis on this) is

Our political and legal systems fall short in preparing us for the future.

Dr. Grigg goes on to say that we’re having a shootout over the Glade Reservoir and gives us current examples of things that we’re not solving:

The need for water storage.

The need for balance, protection of environmental water. It gets the last, just whatever happens the environment gets.

The question part of the evening begins. The first question is from a man in the audience; he doesn’t identify himself.

Q: is it illegal to harvest the water of rain water from a rooftop?

A: Strictly speaking, yes. Everything that falls is already spoken for.
Q: How viable do you think our water sharing system between residential water users and ag water users is?

A: Good question. It’s already going on. Farmers lease water and could make more money. But there is not enough of this going on. Cities are risk averse. Farmers are not as risk averse. City councils will get fired if something goes wrong.

Q: Is there water available that is not legally required to send to California or Kansas?

A: There is some, it’s in the language

Any water that goes to Nebraska is wasted.

There is 40,000 cubic feet available for capture.

But there’s a lot more that seems to be on the Colorado River that everybody salivates over. Build a reservoir right on the state line. If all the water is divided up, they must come up with that number.

Q: Is there a limit?

A: No, it’s all politics and water law. There is no way to have it come out equitable.

Q: Can you comment on Mr. Aaron Millions project?

A: I didn’t hear that question.

Aaron Millions is an economist, farmer. His idea is to capture part of the Colorado River entitlement and piping it through Wyoming and selling it on the Front Range. Kinda grandiose. T. Boon Pickens had
a similar proposal. Developed a shenanigan. Must set up a special district.

Q: Is there anything that makes you think Thornton will start moving its….. they own the right to divert water. Question is, are they gonna do it?

Someone in the audience says: Economic conditions are not too robust.

Q: Is it true that ag use is 85% and the other use is 15%?

A: Ag has always been a majority. Anyway you do the numbers isn’t fair to say We…. There are lots of complicated questions. One of the things, lot of people think is that ag water is wasted. But really it’s pretty efficient. It’s used over and. it’s a cooperative thing.

Q: What do you think we ought to do over the next 50 years? And less snow storage

A: In my opinion we need to adjust the legal system for adaptive management.

    Our snowpack storage is miraculous

Q: update on what’s going on with Glade? (a proposed reservoir)

A: COE has withdrawn back into their inner sanctum. Generally, Democrats
are more favorable to environmental issues. So we don’t know.

Q: Just a point of interest. The research showed that Two Forks was that it was going to inundated by an exclusive fishing club.

A: good theory

Q: When I see my water bill especially in the summer, we could save about 10,000 gallons. Is that a drop in the bucket?

A: Loveland saved 120 gallons per household. Definitely a good thing. But that’s only 15% But what portion of ag uses the most efficient?

Biggest use is livestock. The dollar return is biggest there. Less than 40% of ag uses the drip method.

Q: I got the impression that in-stream flows are not fair.

A: I’m thinking that way, yeah.

I have a real strong feeling. How could anyone do that? That’s universal; they can dry up the rivers. It’s a long story, any stream recreational or environmental significance needs to have a flow regime. Colorado has tried to respond with in-stream flows.

(reply to a comment from the audience)
My opinion of Glade is that we need to regulate that and people need to cooperate.

Q: What is the earthquake danger?
A: My knowledge of that is too minimal to reply.

Q: Colorado has shifted because of climate change?
A: The water main and shifting of climate, I don’t really have anything to say, but we’re a mid continent state with tremendous variation from year to year. I don’t think we’ve really detected it from year to year.

The person who introduced the speaker comes back on stage and says “Thanks so much for coming. Here are the upcoming events.” People mill around for a few minutes, and leave right around 7:10 or so.

Agenda

Date Wednesday, December 10, 2008
Time 5:30 – Arrive and order your food/drink
6:00 – Lecture/Discussion begins promptly
7:00 – Discussion concludes

Location The Elks Club Burgundy Room at 140 E Oak St at Remington Street

Led by Dr. Neil Grigg,

Professor, Civil & Environmental Engineering, Colorado State University

Topic: Water Security on the Front Range

Do you take your fresh water supply for granted? How safe or abundant is the Front Range water supply? What are the issues or concerns that water professionals or security specialists consider on your behalf? What are the most serious threats to our water supply? What preparations should we make in case of disaster or drought? How much authority and responsibility do Coloradoans have on the regulation of the watersheds that begin in our mountains and flow to other states? Are Colorado’s water laws in good shape? How dangerous are the various mining interests to our water table? If you’ve ever wondered about these and other questions of water quality, join Dr. Neil Grigg, a foremost water specialist, teacher and journalist, in a lively discussion about this precious resource.

Meet Dr. Neil Grigg

Neil S. Grigg is a professor of civil and environmental engineering at Colorado State University where he focuses on water resources and infrastructure management. He also serves the Supreme Court as River Master of the Pecos River. At Colorado State he has also been
Director of the Colorado Water Resources Research Institute and Water Center. He is a graduate of the US Military Academy, Auburn University, and Colorado State University. He has worked as a consulting engineer and state environmental official, and on a number of international projects, as well as government policy and advisory panels. His most recent books are: Total Water Management: Leadership Practices for a Sustainable Future (AWWA, summer, 2008) _Colorado’s Water: Science & Management, History & Politics and The Water Manager’s Handbook: A Guide to the Water Industry (both by Aquamedia Publications).
APPENDIX D: ARCHIVED INTERVIEWS

From the Colorado Foundation for Water Education

Kristen Maharg (K.M.) with the Colorado Foundation for Water Education conducted short interviews with several members of the Interbasin Compact Committee (IBCC) at their March 2009 meeting in Longmont, Colorado. Her questions covered topics of the IBCC visioning process, water supply strategies, and developing the Colorado River Compact. This appendix is a transcription of four of those interviews. The interview included: 1) Eric Wilkinson, 2) Peter Nichols, 3) Melinda Kassen, and 4) Wayne Van der Scheure.
E.W.: What are you gonna ask me?

K.M.: Feel free to answer any of them or all of them.

The IBCC has been discussing a couple of important topics in the past couple of meetings. That is the visioning exercise and the tradeoffs um with the visioning exercise it seems like folks aren't satisfied with the status quo but they don't know how to replace it.

How do you think that IBCC can affect changes and policy and current trends?

E.W.: Well, I think it's important for the IBCC to look at the alternatives out there and see what's available to meet the state's future water needs. And by taking into account some strategies that are out there maybe we can pick and choose the best parts of each strategy and find out how we can meet the future water needs of Colorado and lessen or reduce the maximum extent possible the effects of implementing these strategies.

K.M.: So when you say strategies, that kind of implies tradeoffs [E.W.: yes] and meeting certain needs. What do you think is most viable mix of strategies and how can we approach those solutions?
E.W.: Well, obviously conservation has to be the first strategy to be pursued and it needs to be pursued to the maximum extent possible. Secondly, I think we have to look at maximizing the use of already developed or existing supplies through cooperative or collaborative efforts, and thirdly I think we need to look at the development of new water supplies to meet our needs, both consumptive and non-consumptive needs.

K.M.: Okay. Great. And then, real quick, do you have any thoughts about what the certain risks are involved with developing the Colorado River?

E.W.: Obviously, the biggest risk is overdevelopment of the Compact and I think the State of Colorado needs to look at uh, three things. First, an estimate of water availability. Secondly, look at the way, if a compact call was uh initiated, how Colorado would administer that compact call, and then thirdly, ways to mitigate risk of the compact call. One thing we don't wanna have is um a development of water to the extent that we, we incur a compact call, but I think Colorado's smart enough. It's one of the best examples of water management in the western United States and with Colorado knowledge of management of water resources we oughta be able to plan for its future and try to avoid a compact call. That's it?

K.M.: Yup. You're very well spoken. Thank you.
K.M.: And tradeoffs. We're speaking with Peter Nichols, and um in terms of the visioning exercise, it seems like most people are not satisfied with the status quo, but they don't know how to replace it necessarily. And I’m just wondering what your opinion is in terms of how the IBCC can affect changes to water policy in order to deal with this dissatisfaction?

P.N.: I think the fundamental premise of the whole 1177 process is the existing system was not working to resolve the issues, to meet the demands and growing population of the Front Range of growing Colorado and, therefore, it was appropriate to look at a different way of trying to meet those needs as opposed to the past approach, which really relied heavily on the development of new water projects and transbasin diversions. Last one of those to happen was 1976 with Windy Gap. So those weren't happening. The biggest evidence of that was the EPA's veto of Two Forks in 1991, and there needed to be a different way to get along. We sort of devolved into perennial litigation and fighting over who was gonna get how much water and everybody trying to protect how much water they had. um There's [heavy evidence] of the Arapahoe, one and two cases in which Front Range interests tried to acquire and move water out of the upper Gunnison basin and the Taylor Park area in particular. So the notion behind 1177 is to get people to sit down and talk to each other and see if there isn't a better way to do this, work together, and meet the needs of the state while protecting the existing traditional values of the state.
K.M.: Good. Well, then in terms of tradeoffs um we've entered this era of tradeoffs and in terms of our non-consumptive and consumptive water supply needs, what do you see as the most viable mix of strategies to approach solutions to our water needs?

P.N.: Well, clearly the state is over appropriated at this point. There's not much excess water left anywhere, at least not in an accessible place that can easily get it to the Front Range at a reasonable cost. So the tradeoffs, I think, require a reallocation of existing resources. That is, the reallocation of existing resources has to include not just traditional growing demands; increase the M & I sector to meet Front Range growth and other growth in the state of Colorado but also to meet the emerging public demands for recreational and environmental flows in the rivers and streams in the state of Colorado, and the lakes of Colorado as well. And so we, we've got to do [pause]. The challenge is to try to figure out how to balance all those kinds of things and how to stretch what we've got actually not only to meet new growth but to meet new uses as well.

K.M.: Great. And I then [have] one more question and that has to do with the Colorado River Compact, and what you see as the risks involved with developing the Colorado River Compact. Do you think that there is indeed water left to be appropriated?

P.N.: That's a hard question. I think the Colorado River Compact, to the extent that there is water left to be developed, we should develop it. I think that protects Colorado's interests in that Compact to develop that water. I think, to some extent, undeveloped water in the Colorado Compact um protects junior appropriators, particularly, Front Range municipalities and others that have transbasin diversions along the continental divide into eastern Colorado from a call on
the river through the Compact that would adversely affect their supplies. But I think it's a harder question, and I think Eric Kuhn has a better answer than I gave.


Melinda Kassen (M.K.)

K.M.: Wisconsin. I've been asking some IBCC members the same questions and it has to do with what you all have been discussing in the past year. Couple of important topics. First, this visioning exercise and also this era of tradeoffs that we've entered. So in terms of [the June exercise] the visioning exercise.

So with the visioning exercise it seems like folks are not satisfied with the status quo but there's not agreement on how to replace it. How do you see the IBCC approaching changes in our water policy for Colorado's future?

M.K.: Well, I think [six-second pause] the first, the first part of that answer is your embedding an assumption in there that the IBCC really has any power to do anything, and I'm not sure I agree with that assumption. My biggest fear, I suppose, about this process is that you've got some very smart, very capable uh water leaders in the state who are sitting around this table and who do not have the authority to, or the [unfinished sentence]. We might have the authority to establish a vision but we don't have the power to implement that vision and so we
could spend a lot of time worrying about the vision and wordsmithing a vision when, in fact, it
doesn't happen. It won't happen because we say this is the vision. We don't have the ability
individually or collectively to achieve the vision. And so from my standpoint the visioning
exercise is about trying to encourage the state to take some leadership and the large water
suppliers to take some leadership and maybe think a little bit differently and think differently
about the future and think about how we might get there in a slightly different way than what
we've done for a hundred and fifty years of what is effectively in the prior appropriation system:
every, every individual for him or herself, every entity for itself.

K.M.: And then how do you think we might get there? What is the most mix of viable
strategies for meeting our future needs in your opinion?

M.K.: Well, obviously conservation needs to be a big part of that. Urban conserv, and urban
conservation will get us part of the way down the road. Then I think we need a mix of strategies
from my standpoint and, as the environmental and recreational representative on the IBCC, I
obviously feel like it's important however we get there to make sure we still have water in the
streams because from an environmental standpoint obviously that's important, but it's not just
important to the fish it's important for water-quality purposes. It's important from um ah healthy
rivers, healthy watersheds help do flood control. They help do, they help, they help moderate
temperatures, they help keep sediment out of the system in bad ways and keep it in the system in
good ways so that there's a whole number of reasons why we want as people we want healthy
rivers and that means having some natural flows in the system. From a recreational standpoint
particularly on the west slope it's obviously important to have water in the streams so that they
can have recreational boating, the rafting on the Arkansas and the Colorado, the kayaking that goes on all over the state, fishing is a billion dollar industry in the state, so all of those things are important to think about as we move water around. Because of our Compact deliveries we have to deliver water out of the state, pretty much on every major system in the state of Colorado, what we need to do is manage when, the timing of when we're taking water out of the system in a way that allows us (a) to meet our Compact deliveries and (b) to keep the rivers functioning.

K.M.: That was great. Thank you.

M.K.: Sure.

Wayne Van der Scheure (W.V.)

K.M.: Okay, we're speaking with Wayne Vanderschuere from Colorado Springs. I don't think I introduced myself. I'm Kristen Marharg with the Foundation for Water Education. um So the IBCC has been talking about ...

W.V.: Now wait a minute, not from Colorado Springs. I am the Governor’s appointee to the Interbasin Compact Committee.

K.M.: Okay. So that's your official affiliation today?
W.V.: That's my official affiliation today.

K.M.: Okay. Good. Thanks for clarifying that. um The IBCC has been talking about a couple of important issues in the past year, and that's this visioning exercise as well as the era of tradeoffs that we've entered. In terms of visioning, it seems like folks are not satisfied with the status quo but there isn't firm agreement on how to to replace it. Now how do you think the IBCC can approach changes or influence our water policy to ensure a healthy future water supply?

W.V.: The IBCC in combined with the roundtables provides an opportunity for more people to be involved and more people to understand the various issues of water, the demands, the conflicts, the history, all the elements that have made water so controversial in Colorado over the years and give it a platform to help work through those issues and come up with solutions that will be in the best interest of everyone in the state.

K.M.: Good. um In terms of strategies in order to meet those needs, what do you see as the most viable mix of strategies? We've discussed a few of those today, but if you can give your opinion as to what you think would be the best mix to meet our future water supply needs.

W.V.: Well, I think it's too early to come up with the best mix of strategies but you can certainly. It will be a portfolio of strategy which will include optimizing and maximizing existing assets. It will include conservation water reuse, a lot of the projects that are currently in the
pipeline by various entities. And also it's gonna be a mix of agricultural-to-urban transfers and a mix of Colorado River development.