


THE APPLICATION OF SOCIAL THEORIES TO WATER CONFLICT: THE CASES
OF GUJARAT AND MC CLOUD

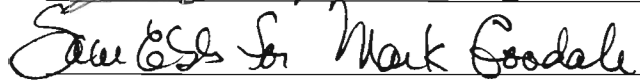
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Alexandra Davidson
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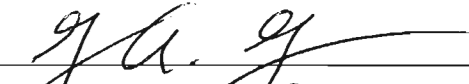
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The Application of Social Theories to Water Conflict: the Cases of Gujarat and McCloud

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at George Mason University

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TABLE OF CONTENTS

	Page
List of Tables.....	vi
Abstract.....	vii
1. Introduction to Conflict over Water.....	1
1.1 The Problem with Conflicts over Water is not Scarcity per se, but Distribution.....	2
1.2 A Question of Data.....	8
1.3 Why the Narmada River Basin.....	10
1.4 Why McCloud, California.....	12
1.5 Value of comparing conflicts over water in California and Northern India.....	14
1.6 Chapter Structure.....	17
2. Three Ways of Managing Water.....	19
2.1 The Market Liberal Approach.....	24
2.2 The Institutional Approach.....	40
2.4 The Social Green Approach to Managing Water.....	53
2.5 Weakness of the Three Approach System and Potential Challenges.....	64
3. Conflict over the Narmada River Basin.....	68
3.1 History of the Region and the Sardar Sarovar Project.....	69
3.2 The State of Gujarat.....	71
3.3 The World Bank.....	73
3.4 Indian Based NGOs, Friends of River Narmada and Narmada Bachao Andolan.....	75
3.5 Arundhati Roy.....	78
3.6 International Non- Governmental Organizations Involvement.....	82
4. Conflict over the Narmada River and the Three Approaches.....	87
4.1 Discernment of Parties into one of Three Approaches.....	87
4.2 Conflict Reflects Interaction between the Three Approaches.....	90
4.3 Role of the Intervener.....	92
5. Conflict over the Nestle Waters Bottling Plan in McCloud, California.....	95
5.1 Role of Natural Resources in McCloud's Economy.....	98
5.2 History and Context of the Conflict over the Proposed Bottled Water Plant.....	101
5.3 Local Opposition to the Proposed Plant.....	115
5.4 Local Non- Governmental Support for the Proposed Bottling Plant.....	121
5.5 Discernment of Parties into one of Three Approaches.....	128
6. Conclusion.....	134
6.1 Parties' Views on Issues Central to Both Conflicts.....	135

6.2 The Research and the Intervener.....	143
Works Cited.....	146

LIST OF TABLES

Table	Page
1. Dynamics of Scale.....	16
2. Commonalities between the Conflicts.....	16
3. Benefits from McCloud’s Natural Resources.....	101
4. Timeline of the Proposed Nestle Waters North America Project.....	101
5. Key Positions of the McCloud Grassroots Committee.....	107
6. Key Findings Regarding Employment Potential from the Proposed Bottling Plant...	107

ABSTRACT

THE APPLICATION OF SOCIAL THEORIES TO WATER CONFLICT: THE CASES OF GUJARAT AND MCCLOUD

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Conflicts over water resources are increasing domestically and internationally, and in a rapidly developing world there is little evidence this trend will reverse itself. The field of conflict resolution over natural resources as more than a subset of conflict over development is also growing. Two conflicts were chosen for study: the community of McCloud, California's indecision over whether to allow a water bottling plant to be sited in their community, and the opposition that developed over the State of Gujarat's plans to build a series of dams and irrigation infrastructure in the Narmada River Valley, India. It was hypothesized that an understanding of both conflicts would be increased by parsing the parties at conflict into one of the three approaches to natural resources promulgated in Jennifer Clapp and Peter Dauvergne's Paths to a Green World. (MIT Press, 2005) It was furthermore hypothesized that were a conflict resolution specialist at work with parties in

conflict over a natural resource able to place the parties into the three categories promulgated, that they would gain insight valuable to their work and be better able to help the parties resolve their conflict. Analyzing literature from books, academic articles, newspapers, other print media, and websites was the main research methodology employed. The research demonstrated that in the two conflicts addressed, the three categories of approach towards environmental change could be applied successfully to the parties in conflict. The research further suggests that the intersections between the three approaches may be where the greatest potential for conflict resolution lies.

Chapter 1 Introduction to Conflict over Water

Conflicts over water are on the rise globally. This is demonstrated in sources as diverse as reports from the United Nations (World Water Assessment Program) to daily papers in Asia. (Fernando) However, for this writing it is proposed that the problems are ones of distribution of water resources, not simple scarcity. Within that distributional conflict or series of conflicts, conflicts over water occur at the intersection of three incompatible theories of appropriate water management; the market liberal approach, the institutionalist approach, and the social green approach.

Conflicts over the Narmada River Basin in north eastern India and over the proposed Nestle Waters bottling plant in northern California are examined through the parties at conflict using each of these approaches, each with its corresponding environmental and social worldview. Conflict occurs when groups with differing approaches over how to manage water vie for control over the resource. Conflict may even intensify when empirical evidence disproves the appropriateness of a particular approach, as when a dam breaks, infrastructure is not maintained, or the promised jobs and economic growth are not achieved.

This research was designed to aid the intervener in a conflict situation understand how the parties in their conflict might view water as a conflict dynamic, whether water is at the center of a conflict or at its margins. If the intervener understands the approach toward environmental change held by the parties regarding the way water is being managed, it is hoped that it will give him or her insight into other viewpoints that the parties will likely hold, since the categories apply broadly to other environmental and economic issues. It is assumed here that the intervener who knows more about the situation he or she is entering will be better able to aid the parties in conflict resolve their difference than one who does not.

The three ways of managing water, from a market liberal, institutionalist, and social green viewpoint are contrasted, rather than arguing for a preferred approach, though it is almost inevitable that one typically becomes the most sensible. These three particular views towards environmental change were chosen because they share these characteristics: the ability to be used at a micro or macro level, their broadness in that they can be applied to parties in conflict across the world, and the way institutions holding each of the viewpoints have affected environmental change in the contemporary world. The practitioner is likely to encounter all three in the world, so the research is not limited to just two of the viewpoints; for this thesis to be useful, it must reflect world in which the practitioner will leave his or her mark.

1.1 The Problem with Conflicts over Water is not Scarcity per se, but Distribution

“The issue of water pricing will also exacerbate the North/South divide. There is a sub-text inherent in much of the hand-wringing over the world's water shortage. Almost every article on the subject starts with the reminder of the population explosion and where it is occurring. The sub-text is that "these people" are responsible for the looming water crisis.

But a mere 12 percent of the world's population uses 85 percent of its water, and these 12 percent do not live in the Third World.” (Barlow, 6)

Conflicts over the distribution of water are, along with conflicts over its use, the largest sources of conflict about water and they occur in both the developed and less developed world. In Central Asia, a region in which the water resources have been sporadically developed depending on the political situation, conflicts regarding the rivers that flow into the Aral Sea have served to heighten tensions between the neighboring states of the former Soviet Union. For example, “Uzbekistan, Tajikistan and Kazakhstan will defend themselves with whatever means necessary” if water supplies from the Syr Darya are cut, one Uzbek official told the ICG.” (ICG Report, 1)

In Central Asia, water also creates an asymmetrical conflict in a region where states tend towards a fairly high level of belligerency per above quote, offset by the reality that no state in the region is powerful enough to threaten another in any particularly productive way. However, 80% of the Aral Sea Basin’s water flows from Tajikistan, though its land mass comprises only 20% of the same area, (ICG, 2) creating the potential for greater conflict in the region. The situation in the Aral Basin mirrors the conflict over the Narmada River Basin because some social groups have more power than their relative numbers would suggest, much like the role of Tajikistan. They differ because that minority group in India effectively controls the Narmada River Basin, unlike the role of Tajikistan in the Aral basin, even though the Indian government was unable to contain public opinion and international funding. As the conflict over the proposed Nestle Waters bottling plant is not yet resolved and the plant remains to be built, after five years

of talks it is difficult to assess whether one party has a disproportionate amount of leverage in the situation.

The International Crisis Group's (ICG) report on Central Asia concludes that the cooperation needed to use the Aral Basin's water resources effectively is unlikely because of what they euphemistically call "the current state of relations" (ICG, 3) between those states. For Central Asia, the ICG would not recommend that negotiations over the division of the Aral Basin be used as a lever to increase levels of peace in the region. However, they do not offer other suggestions on peacemaking activities in the area, potentially because the report concerned itself with recommendations for the Aral Basin's water system, and not with larger issues of peacemaking. Ironically, the paper winds up calling attention to the need for addressing the region's conflicts over water in the context of a larger peace building effort, acknowledging the mutual dependence of peace and responsible water governance, even if unable to actually recommend that action be taken or any specific policy recommendation pursued.

One of the central themes across almost all (the notable exception being the conflicts fought over water between Israel and the Palestinians) conflicts over water found in the research that inspired this work was that the presence of "liberal norms and democratic political institutions" (Williams, 4) determined the way the conflict proceeded. As noted later, the difference in democratic norms between the conflict in India and the once in California can partly explain some of the conflict dynamics in these places. The ICG report makes pains not to note that the central cause of the ineffective use of water resources in the Aral Basin was less about the lack of water in the rivers

leading to the Aral Sea and more about the respective governments' inability to work together and lack of commitment to the region's shared future. Essentially, the conflict over the Aral Basin has not harmed the parties either materially or politically to the point where the parties feel compelled to participate in conflict resolution activities; they have not reached the point of a hurting stalemate. In India, the conflict brought the parties to the table quickly, partly due to international concern; however one of the parties, the dominant one, did not feel pressure to encourage it to participate seriously until the point at which it had already lost international support.

The two conflicts, over the Aral Sea and Narmada River basin share a context, being moderately developed countries that need international aid to complete their water development projects. In both conflicts, the historically variable development levels affect the conflict as increased economic activity can buffer conflicts when simply being in a conflict state is a threat to one or both parties economic well being. Because of the stalemate in Central Asia and the lack of participation in conflict resolution activities until the very end of the conflict in India, neither region has received sufficient aid to both complete the water infrastructure projects and ensure a long lasting resolution to conflicts over their respective river basins.

Of additional relevance to the ICG's non- recommendations and India's failure to receive full international funding for their proposed work on the Narmada comes this comment from Vaidyanathan on the Indian experience with water in the introduction (iii) to his book, Water Resource Management : Institutions and Irrigation Development in India: "Institutional deficiencies are at the root of many of the problems, and that

restructuring the organizational and management structure is an essential precondition to tackling them.” For Vaidyanathan, the Aral Nations’ lack of cooperation is the cause, not a symptom, of the water system’s dysfunction, and he would advocate for fixing the political relations before working on the water systems.

The conflict in McCloud, California, is relatively symmetrical insofar that the institutionalist part, the McCloud Community Services District is governed by a board of directors directly elected by the people whom it serves, and Nestle Waters, the party that hews most closely to the market liberal approach, is vulnerable to threats to its image. However that conflict is relatively young and one party has yet to assert more power than another, though Nestle Waters is likely most directly affected. The symmetry of this conflict is likely one reason it has not escalated nor been resolved wholly; the parties are currently too evenly matched to create a resolution that is better than the current state of conflict for either party.

A concept that transforms a conflict about water from scarcity to distributional is virtual water, or the water contained in water-intensive necessities, like grains, cotton, or steel. (Allan, 3) Virtual water has the advantage of not requiring cooperation or particularly good relations between nations, because it relies on trade which is frequently internationally regulated. Trade is an area in which third party participation is in the form of banks or regional government participation. Virtual water relates to issues of absolute scarcity of water because it allows parties to expand their need for water without a corresponding increase in its availability. One way of understanding the role of virtual water in conflict, is that it allows the parties to “expand the pie,” (Pruitt and Kim, 194)

the pie being the available water, insofar that the useable amount of water is increased through the importation of commodities that would otherwise require water to grow or manufacture.

While Allan wrote in the context of the ongoing conflicts over the aquifers shared by the Palestinians and Israelis, virtual water could have been used in the context of the Narmada River Basin because it addresses the fact that water is not a good unto itself such as grain, but a means for achieving an end, from manufacturing and generating electricity to maintaining food security through aquaculture and local agriculture. India has all these needs, and the dams they built aimed to satisfy all of them. However, ways of meeting those needs were not considered in the context of resolving the conflict over the Narmada. Using the concept of virtual water, wind farms could have been set on hill sides in this mountainous region to generate electricity, aid for different forms of agriculture native to the region and water hardy could have been procured, and an integrative solution agreed upon.

Virtual water is also useful in the context of McCloud because some residents and the Community Services District are expressing the need for economic development that brings jobs and young people back to this former lumber and railroad community, not necessarily a water bottling plant. Virtual water in McCloud could take the form of another industrial facility that community members are more comfortable with or a series of smaller developments that take advantage of McCloud's natural resources without some of problems with the bottling plant currently being proposed.

1.2 A Question of Data

The level of certainty regarding knowledge about water supplies depends on the sources the practitioner consults. The degree to which it matters depends on whether the conflict is understood as distributive or quantitative. If the practitioner frames the conflict as a static resource in which their role simply involves getting the parties to agree to how much of the resource at hand, the conflict is understood as quantitative and the amount of water to be divided up is of great importance. If however, the conflict is framed as one in which the practitioner works with the parties using concepts such as virtual water and creating institutions in which resolution activities will be addressed in an ongoing fashion, the conflict is understood as distributive and the exact amount of water available is less important.

In an article published by the International Water Resources Association in 1999, Biswas calls many assumptions about current and future scarcities of water into question. The main assumptions he challenges include the accuracy of the national estimates of both surface and groundwater availability, upon which the global figures are calculated. When the Third World Centre for Water Management reviewed some national water statistics, they found the estimates generally to be off significantly, “in many cases by several hundred percent, and in other instances, the facts were totally wrong.” (Biswas 1999, 366)

There is also the issue of water use as a net water loss, since water is generally used many times, according to Biswas. (1999, 366) He further argues that the issue of how water is reused and how that factor can better be used in calculations of national

(and therefore global) water estimates needs to be addressed, as well as how the increasing role of private companies managing water systems will affect water availability. (Biswas 1999, 366) Both these latter concerns are of concern to practitioners interested in realistic estimates of India's water since water from the same sources are used almost consecutively for municipal needs, industry, and then agriculture.

However, other scientists write with confidence about water availability, even in the face of global climate change. For example, here Connell and Winslow (68) write about their calculations of water volume in relation to global warming: "These factors are used in water resource models to calculate 'Deployable Output (D.O.) with climate change' – the annual average quantity of water that can be supplied in the most severe drought in the perturbed time series...."

Scientists with the Intergovernmental Panel on Climate change also agree on climate change's impact on water supplies. (Struck, 2007) However, implicit in their analysis is confidence in the current state of knowledge about water supplies, a confidence that Biswas clearly challenges. These examples of differing and expert opinions are presented as examples of the likely state of the data that different parties can and will produce to support their claims that theirs is the only view or solution that is logical from a scientific point of view. With the Narmada River Basin, the Indian Government produced many studies 'proving' the validity of their perspective. The Non-Governmental Organizations (NGOs), domestic and international, also produced similar volumes of science 'proving' their solution to the conflict, yet the NGO's work is based on the assumption shared by Barlow and Vaidyanathan that water conflicts tend to be

distributive and not quantitative in nature, making the studies of less value than their authors and institutions they represent maintain. Similarly in McCloud, Nestle Waters, Siskiyou County, and the McCloud Watershed Council all produced report with various statistics and assertions. Interestingly, the Watershed Council only challenges the County's figures, since Nestle Waters' report was five pages to the Watershed Council's 63 and the Watershed Council's report asked and answered many questions not addressed by either the County or Nestle Waters.

1.3 Why the Narmada River Basin?

“Historically in India the initial attitude towards water was one of reverence (with rivers being named after goddesses.” (Subramaniam, 375) India was chosen for study because of its large size (a subcontinent in terms of geography), its contrasts in culture and geography within the subcontinent, and the diversity of ways that water is managed on the subcontinent, even though “the national and state governments bear a much greater direct responsibility that most other countries in Asia (including China).” (Vaidyanathan, 9) In a study of contrasts, India could be called the largest democracy in the world (Moore, 5), but with 225 languages, only 30% of India's people speak the most popular, Hindi. (Singh, 14) India also has many people, with 16.7% of the world's population with a third of them living in urban areas and more than 35 cities “with a population of 1 million and above.” (Tyagi, 13)

The varying hydrology across the subcontinent also means that the water supply is not commensurate with the population distribution. The Ghanga- Brahmaputra- Maghna

basin contains two- thirds of the country's water, but only contains one- third of physical area of the country and an equal number of people. (Human Development Report, 13) Correspondingly, "west flowing rivers with only 3.5% of area contributes as much as 10% of the water resources." (Tyagi, 26)

Irrigated agriculture has been the focus of India's water policy since independence from Britain with the result being that India is a net food exporter and has more land under irrigation than any other country in the world. (Tyagi, 70) Additionally, India's dams currently supply it with 25% of its electricity and an additional 107,000 MW in potential have been identified, (Tyagi, 56-7) albeit not without costs associated, such as the conflict over the Narmada River Basin.

The state of India's water matters to how the conflict over the Narmada River Basin unfolded because one point of view in the conflict was promulgated by the national government of India, as well as the state government in Gujarat. The state government of Gujarat is a microcosm of the nation as a whole, and is to some degree held accountable to its enormous and diverse populations within the state, each with their own interests. For example, one of the schisms in India that was demonstrated in the evolution of the conflict is between the poorer rural people of the Narmada River Basin in the north of India whose homes and livelihood have been drowned or displaced, and the wealthier users of the electricity and municipal water further south and west in India. One way of understanding some the dynamics in contemporary national Indian politics is that "The level of coherence within the Indian state is functionally minimal and India is involved in an ongoing struggle to establish effective coherence within the institutions of the state."

(Bhambhri, 27) Specific to the conflict between the rural north and more industrial south is the idea that the “Indian economy has yet to establish strong linkages between agriculture and industry, small scale and large scale industry; towns, urban metropolis and village economies and among the regions of India.” (Bhambhri, 28) The ramifications of the historical divides in Indian society are that the state government is empowered as an institutionalist party, while the poorer areas seem to act from a more social green perspective, and the wealthy can be seen using the market liberal approach.

1.4 Why McCloud, California?

California water politics are almost as old as the state itself; Los Angeles and the Central Valley were both founded as deserts and controlling their water was critical in generating economic growth, for Los Angeles as the center of America’s nascent film industry and the Valley that started and maintains America’s proclivity for eating fruits and vegetables. People have also been intervening in California’s water conflicts for many years, from courts and judges to special panels of arbiters, so the case for effective intervention is clear in California’s past and there are plenty of examples for the intervener to follow.

Conflicts over California’s water have also been less about its quantity and more about its distribution and control, a trend shared by other conflicts over water globally. In California, one of the first big conflicts began with damming Yosemite’s Hetch Hetchy River in the early 1900s where noted conservationist John Muir campaigned to stop the

damming of the valley despite the recommendation of founding US Forest Service chief, Gifford Pinchot.

The conflict over whether to have a Nestle Waters North America water bottling plant in the community of McCloud reflects one of the growing divides in the manifestation of democratic norms in developed countries; between rural communities that have ample supplies of potable water easily available, and more urban ones that struggling to purify their water, do so poorly, and therefore generate demand for bottled water and other forms of water privatization. This larger conflict is also demonstrated in the chapter on the Narmada River Basin where the rural community around the dams with the water will bear the ill effects of the development, while the electricity and steady supply of water that the Sardar Sarovar project aims to deliver will largely benefit the people in cities and villages distant from the project.

The conflict over a Nestle Waters bottling plant in the community of McCloud is also emblematic of an issue causing conflict globally: water privatization, detailed in chapter two. It further reflects a difference between McCloud and India in the manifestation of democratic norms. Despite the international concern expressed over the Narmada River Basin's Sardar Sarovar project, the first dam was still built, albeit on a slower time line than anticipated. However in California, a project that has received national acknowledgement as being part of a pattern of water privatization and bottling but no international attention or organizing, the water bottling plant may not be built; as of this writing, Nestle Waters had just reissued its project description and was calling for further public involvement on its environmental documents as prescribed by U.S. law.

The difference between the two situations and their outcomes may also reflect the stronger democratic norms in California versus India. Using the McCloud case study, the intervener can use the three approaches to understand how parties in conflict in the US respond to the data before them and avenues to take in their intervention.

1.5 Value of Comparing Conflicts over Water in California and Northern India

The cases of the Narmada River Valley and the proposed Nestle Waters bottling plant in California were chosen for analysis both for their differences and their commonalities. Both cases are examples of conflicts over development, and both question not the necessity of economic development, but the nature of that proposed. This is different from the conflict over the Aral Basin in which neither party is questioning the nature of maintaining the development, only the proportion of payment to benefit. While conflicts over water such as both case studies can be understood as subsets of conflicts over development, not all these conflicts are binary, as in whether the proposed activity should happen, but regard the nature of the proposed development activity.

In both cases, non- governmental organizations (NGOs) led or are leading the opposition to the proposed development as well as proposing alternative economic development scenarios. For the NGOs active in the conflict over the industrial development of the Narmada River Valley, alternative development includes aid for proven water saving techniques such as check dams, and research on food crops that can adapt to the Narmada region's annual food and drought cycles. For the McCloud Watershed Council and its allies in California and Washington DC, the alternative

economic development schemes include further developing recreational use of McCloud's natural resources and as a place for retirees as well as less massive industry.

The two conflicts are also addressed because they occur in regions with vastly differing levels of development and democratic norms. For the practitioner to use the three approaches, they need to be applicable to many different situations. For example, India has a long history of building dams and displacing people and California has a long history of exploiting its natural resources industrially, from the gold rush of the 1800s to the clear cutting of forests that started in the 1970s. Both also have democratic norms that do not hold the indigenous people of a region with particular regard; the Wintu of the McCloud area south of Mt. Shasta were displaced by the influx of non- native people and the McCloud River Railroad Company by the late 1800s, and the people India's dams have traditionally displaced have been non- Hindu- speaking people indigenous to the regions where the land was flooded.

The central way the conflicts differ is in their country's level of development. For example, in India 56% of the population has access to electricity, while 100% do in the US state of California. (UNDP, Table 22) This is relevant because one the aims of the Sardar Sarovar project in the Narmada River Valley is its promise of increased electrification. Interestingly, despite India's lower level of development compared to the U.S.'s, the main reason the Nestle America bottling plant was supported by McCloud residents and the Community Services District was for the 200- 400 jobs the plant was proposed to add or attract, while increased employment was far down the list of reasons for the project in the Narmada River Valley according to the State of Gujarat. Yet despite

the disparities in democratic norms and levels of development between the affected communities, this report demonstrates how similarly the parties can act based on their adherence to their respective roles in the three approach system.

The final and most useful dynamic between the conflicts is that of scale, illustrated below.

Table 1. Dynamics of Scale

	People affected	Square miles	Highest level of government involvement	Scope of NGO involvement
Narmada River Basin	320,000	452	Nationally, extensively	International, national, local
McCloud, CA	1,343	Approx. 5	County, but nominally	Predominantly local, some national

This figure illustrates the enormity of the conflict over the best management of the Narmada River Basin as well as the fierce, almost provincialism of the conflict over the proposed Nestle Waters bottling plan in McCloud. It also stands in contrast with the figure below in which some of the conflicts' commonalities are demonstrated.

Table 2. Commonalities between the Conflicts

	Primary local NGO	Alternative development proposed	Outside parties involved	Presence of large undeveloped water way
Narmada River Basin	Friends of the River	Multiple smaller water projects	World Bank, state and national governments	Narmada River Basin
McCloud, CA	McCloud Watershed Council	Tourism and retirees	Nestle Waters North America	Lower McCloud River, springs

1.6 Chapter Structure

Chapter one provided some examples of the growing conflicts over water globally, for example in Asia, and continued with the conceptual framework that the conflicts are distributive in nature instead of based on simple scarcity, and a question about data regarding water availability. This writing is based on data others in the field have already generated and therefore in part rests on the integrity of those multiple data sets. The chapter addressed the ramifications of relying on other researchers' conclusions on the data this work generated. The chapter concluded with the reasons to apply the three ways of managing conflicts over water to the Narmada River Basin in India and the community of McCloud, California, instead of choosing other countries or regions globally.

Chapter two introduces the three ways of managing water and the literature that supports that categorization. It then details the ways each approach to managing water has been used historically through several cases in Asia and the Global South, as well as the results of their respective involvement in conflicts over water in India. Particular attention is given to dams, water privatization, and bottled water as these issues are directly relevant to the conflicts provided as examples in the subsequent two chapters.

Chapter three details the conflict over the Narmada River Basin in which the three approaches to managing water have clear roles. The chapter analyses the conflict over how best to manage the Narmada River Basin, and addresses the result of the primacy of one approach to managing water that has gained a great deal of attention or support in

recent years, depending on the party consulted. The chapter concludes by analyzing the approach that was implemented in the Narmada and contrasting it with the views of the other parties and their approaches to managing the Narmada River Basin. Chapter four analyses the Narmada River Basin conflict through the three approaches, examining their degree of utility for this conflict.

Chapter five addresses the conflict over whether Nestle Waters North America should build a water bottling facility in the community of McCloud, California. The chapter examines McCloud's history, the different roles the parties play and their vision of McCloud's economic development. The chapter concludes by discussing how the parties in the conflict fit into one of the three approaches and how the approaches interact in the conflict

Chapter six involves comparison, recommendations, and conclusion; what the practitioner involved in helping people resolve a conflict over water or other natural resources in which the conflict is distributive in nature can take from this study. The chapter aims to help the practitioner take away practical terms and cues that they can look for in the different parties' narratives and help them decode other conflict dynamics that may not be readily apparent. Whether central to the conflict they are called in to address or as one of the ancillary players in the conflict, practitioners across the world can expect to see more conflicts over water in the regions in which they practice and it is hoped that this thesis will allow them to intervene in them more effectively.

Chapter 2 Three Ways of Managing Water

As this writing was inspired by Clapp and Dauvergne's 2005 book, Paths to a Green World: The Political Economy of the Global Environment, it is fitting to start with their work. Clapp and Dauvergne provide four ways that people and institutions manage what they call environmental change: "those of *market liberals*, *institutionalists*, *bioenvironmentalists*, and *social greens*.... They are designed as tools to help simplify a seemingly unmanageable avalanche of conflicting information and analysis." (Clapp and Dauvergne, 3) (Italics theirs) This thesis uses the market liberal, institutionalist, and social green approaches as analytical tools to understand the different parties that comprise the conflict over the Narmada River Basin and proposed Nestle Waters bottling plant in California. Each approach is discussed further and examples of its application demonstrated later in the chapter except for the bioenvironmentalist approach.

The bioenvironmentalist approach was excluded because the other approaches all claim to be using the strictest science, dependence on science being the core of the bioenvironmentalists perspective. It is also excluded because when it comes to water

conflicts in India, all the data, or “the laws of physical science” (Clapp and Dauvergne, 9) upon which the bioenvironmentalist approach is based, is generated by the Government of India, albeit sometimes funded by the World Bank or Asian Development Bank, with additional data coming from the international NGO community or private companies. Similarly in the McCloud Nestle Waters conflict, all available scientific data was generated by one of the parties in conflict. Therefore, the bioenvironmentalist approach is technically part of other approaches represented here. Additionally, in the conflicts studied, a party holding a clear bioenvironmentalist approach over another approach was not demonstrated.

Conca also writes about the three ways of managing water when he writes about the three different types of people from India who attended the Second World Water Forum, held at The Hague in 2000.

“The Indian Government, worried about international criticism of its dam-building enterprises, sent a large official delegation to launch a counter- offensive, framing the problem as one of building water- infrastructure in order to combat poverty. Others from India carried a dramatically different message: anti- dam activists, environmentalists, and grassroots development groups also came to The Hague in force, decrying the human and ecological toll of the government’s understand of the problem. Powerful multinational industrial groups formed a third pole in this complex struggle to define the problem; they were supportive of the Indian government’s capital- intensive, supply- oriented vision, but wary of its statist instincts in the water sector.” (Conca, 4)

Here, the Indian Government represents the institutionalists who wield the power of the state in the form of control of large bureaucracies and their corresponding budgets. The Indian Government is firmly committed to major infrastructure projects as an integral part of its understanding of how best to manage environmental change. The central infrastructures for managing water in India have historically included dams and sprawling irrigation systems. The language of fighting poverty is notable, because as a

Western- style democracy, the Indian government represents the people that elect it, while fighting for them in the large- infrastructure style that typifies institutionalist perspective.

The second group in the Conca quote represents the social green approach with a focus on the smaller- scale human and environmentally sensitive approach to managing environmental change. The social green approach typically differs from the institutionalist insofar that historically social greens have rarely supported large scale infrastructure projects. Here the social green perspective also presumes to speak for the people, but their viewpoint encompasses people who are only fighting the dams and other large infrastructure projects in their own countries, international environmental non-governmental organizations (also known as non- profit organizations in the U.S.), and other parties concerned with development and the way that international economic and development agendas are manifested through the funding of infrastructure projects such as irrigation structures and dams. One of the hallmarks of the social green approach, beyond uniting diverse interests, is its advocacy of the rights of people typically not represented by the government's policies, including indigenous people and minority groups that do not wield power as part of the current government. One organization that is institutionalist in nature, the World Commission on Dams, a project of the United Nations Environmental Program, displayed a strong social green concern when it concluded that

at the end of 2000 that 'the failure to account for the consequences of large dams for downstream livelihoods has led to the impoverishment and suffering of millions'. Likewise, they report that 'large inequities exist in the distribution of the costs and benefits' from dams, which are seen as unacceptable. (Fawcett, 240)

The ‘powerful multinational industrial groups’, the third interest group in the Conca passage, represent the market liberal approach. They are the dam builders; multinational companies like the U.S. based Bechtel which has built dams and other water infrastructure in places as diverse as Arizona, Iraq, and, India. These companies are paid by governments to build projects in their countries, often with loans from the World Bank and Asian Development Bank. Because of the way they support or control national government spending, the market liberals support the institutionalists, but with reservations. States are accountable, albeit on paper, to their people to support the completion of major infrastructure, while companies are accountable only to their shareholders, or in the case of Bechtel, which is privately held, its board of directors. Market liberals’ reservations about doing business with states concerns the difference in accountability structures. The different groups that private companies and national or regional government report to reminds them that infrastructure projects can get political and need to be delayed or modified according to the people the government represents, and delays and changes interfere with businesses’ (market liberals’) ability to complete and receive payment for their projects.

The World Water Forum, the context in which the three parties were differentiated in the Conca passage, was intended to create an agreement (both on paper and in spirit) on how to manage the world’s waters. The Forum’s goal was to create the agreement in such a way that more people would have access to potable (drinkable) water and that there would be adequate supplies for future populations globally. However, the reality at the Forum was that differences in how to frame the issue of what a future that

includes plenty of water actually consists of, largely between the social greens on one side and the institutionalists and the market liberals on the other, prevented the Forum from achieving that goal.

While the Forum released reports and materials, it was unofficially recognized that the fundamental conflicts between the groups using the different approaches to managing water and the lack of a broader unifying vision would prevent meaningful implementation of any policy agreed to at the Forum. These group differences are demonstrated in the way the parties gathered power in the conflict over how best to manage the Narmada River Basin, with social greens opposing the major infrastructure approach to achieving societal goals through the Narmada River Basin and institutionalists and market liberals pressing for funding for the infrastructure projects the social greens oppose.

Lending the three approaches credence is that while they are the subject of Clapp and Dauvergne's book, Conca only mentions them in describing conflict over international regime building institutions like the World Water Forum, and Vaidyanathan only mentions them in passing, in the introduction to his book on Indian water.

“Government engineers stress techno- managerial measures, while some environmentalists see the solution in small scale community managed water conservancy works.” (Vaidyanathan, vii) He goes on onto mention privatization and the use of the market to manage water as examples of the market liberal approach. These brief examples suggest that the three approach framework is being used (sometimes casually) and is therefore at least modestly useful academically.

2.1 The Market Liberal Approach

“The analysis of market liberals is grounded in neoclassical economics and scientific research. Market liberals believe that high per capita incomes are essential for human welfare and the maintenance of sustainable development.... Analysis along these lines is commonly found, for example in publications of the World Bank, the WTO....” (Clapp and Dauvergne, 4)

Neoclassical economics holds that a person’s quality of life is directly tied to his income and that rates of economic growth are the key indicator of a country or region’s economic health. The market liberals differentiate between the formal economy in which people have jobs outside the home that generate money, and the informal economy in which people are either employed in the home and taking care of family members or working for a share of their crop or other barter systems. Growth in the economy is achieved by fostering greater employment outside the home and the barter- crop systems, which in turn results in more people participating in the formal economy and injects both capital and movement therein.

Market liberals tend to be optimists, (Clapp and Dauvergne, 6) trusting that the market will take care of the environmental and social change it creates through technological fixes, and that people will have a higher standard of living if they make more money. An example of environmental destruction is the loss of a wetland, an example of social destruction would be lower literacy rates, both possible results of economic growth as understood by people or institutions using the market liberal approach. They do note that there is a price for economic growth, for example acid rain from the burning of coal for electricity, but as they encourage investment in technology,

they are confident that the affected society will find a solution to acid rain before it harms their ecosystems irrevocably.

Another way of understanding the market is that when people buy and sell on an open market, that market creates a “flexible, self-regulating mechanism, which induces economic actors.... to adapt to changing conditions..... Differences in prices and earnings become the core of the competitive market model.” (Korpi, 97)

Competitiveness is stressed here partly because market competitiveness is the gold standard for market liberals and partly because market liberals see the other approaches as threats to market competitiveness. For Korpi, who was writing about the so-called European Welfare state in which the market was having problems with competitiveness, or achieving desired growth rates, the other approaches to managing a resource like water, fit neatly into his maxim that “ efforts to modify the market-determined distribution are assumed to weaken or to pervert market signaling....” (98) Both institutionalism and social green approaches change the way markets signal, or affect their growth rates, and under the orthodoxy of market competitiveness, those approaches therefore weaken an economy and are a threat to its growth.

An example of a market liberal approach that includes facets of the social green approach is found in one book on water management in India, where the author wrote about elements of the market liberal approach that helped people, the environment, and increased economic growth. He wrote about “making water rights marketable: i.e. by granting a specified entitlement to in water to each user and permitting them to buy and sell these rights.” (Vaidyanathan, 135) Vaidyanathan is important because most

examples of the market liberal approach are expressed on a massive scale, but here the approach helps farmers conserve water and is used at a scale most associated with the social greens, their typical nemesis. Applying Vaidyanathan's note to the conflict over the Narmada River Basin, the social greens did not oppose the market liberal approach philosophically, but practically. The social greens opposed the large infrastructure that was a result of the approach, but smaller examples of using the market to achieve specific goals have not met with the same opposition from the social greens. In McCloud the situation is different; opponents of the water bottling plant do oppose it largely for its size and nature; they are specifically in favor of smaller development and it is both the size and industrial nature of the plant that created their perspective and caused them to coalesce into organizations such as the McCloud Watershed Council.

2.1.1 Institutions that Promulgate the Market Liberal Approach

The World Bank and the Asian Development Bank are the primary agents of the market liberal approach in India. Private companies, based in India and globally, are also a force in India, but they take leadership in terms of policy and advocacy from their funders, the afore-mentioned banks. The banks fund private companies and are directed by various nations, primarily the U.S. and European nations as well as Japan. While the Bank has 185 member Nations, policy is set on the basis of one dollar, one vote, and because the U.S. has the most money invested in the Bank, it typically sets Bank policy and selects its managing director. This also makes the Bank an important means of exporting U.S. economic policy. The World Bank's mission is to alleviate poverty and it

does this by providing loans to countries to build or rehabilitate different parts of their infrastructure to achieve greater economic growth. The Bank funds roads, communications infrastructure such as telephone lines and cell phone towers, energy projects like power plants, water filtering infrastructure and other categories of development projects. The loans do not come without interest or instructions; typical loans specify how the work shall be carried out and by whom, as one of the Bank's main methods for alleviating poverty is by providing technical assistance which comes with its loans.

One of the strengths of the World Bank is that it lets countries that ordinarily could not afford to build a comprehensive road or communications network, do so. The Bank is able to bring in experts like Price Waterhouse Cooper, a global accounting firm, to analyze a country's needs and prepare the appropriate report for the Bank in order for the Bank to make a recommendation to the country regarding the size and scope of the needed work. From that initial report, the Bank makes a loan and helps the country employ private multinational firms like Bechtel to create the necessary infrastructure.

The Asian Development Bank (ADB) works out of Manila and makes similar policy recommendations to the World Bank regarding the role of technical assistance and private companies. The World Bank and the ADB work together on many projects. Like the Bank, the ADB is a multilateral development financial institution owned by its members, roughly two thirds of which are from Asia.

2.1.2 Market Liberal Approach Involved in Water Conflict Globally; Bolivia

An example of the market liberal approach to managing water demonstrated in the conflict over the Narmada River Basin is to have a private or publicly traded company take over the water system, either by building it, managing the existing system, or some combination thereof. This approach is generally called privatization and is detailed in chapter three.

An example of a conflict over water privatization in Bolivia is their Major Cities Water and Sewerage Rehabilitation project which was designed to manage more than half of Bolivia's urban water systems in the cities of Santa Cruz, La Paz, and Cochabamba. (Bank Infrastructure Report, 4) A subsidiary of Bechtel, International Waters Limited, bid on managing the water systems and was hired to manage the entire project. In Santa Cruz, the water continued to be largely managed by a consumer co-operative. However in La Paz, International Water charged a sum worth "six months' wages for poor Bolivians." (World Bank Infrastructure Report, 4) Protests occurred and the Bolivian government canceled the contract with International Water in early 2005. A similar event happened in Cochabamba in which water rates to consumers were raised by 35% without an increase in water quantity or quality; the city government challenged the legality of the transaction by the Bolivian national government which in turn canceled International Water's contract. (World Bank Infrastructure Report, 4)

2.1.3 Market Liberal Approach Involved in Water Conflict Globally and Domestically; Bottled Water

Bottled water is understood as a product whose existence aligns with the market liberal approach, because bottling water takes a natural product and creates monetary wealth from its sale and changes it very little. Bottled water's market advances also affirm the markets' superiority in delivering a product versus bottled water's main competition, tap water from municipal sources paid largely for out of consumers' taxes. Some of the concerns with bottled water include its relative difference to tap water, the strictly environmental impacts, and the scope of the people and places affected.

2.1.3.1 Bottled Water, the Difference between Tap Water

Water coming to people's homes from city or county- owned facilities and dispensed from faucets in homes and yards is typically referred to as tap water, and as such comprises bottled water's main competition in the drinking water arena. One reason that bottled water exists at all is consumers' belief in the product; "A 2001 World Wildlife Fund (WWF) study confirmed the widespread belief that consumers associate bottled water with social status and healthy living." (Howard, 1) In this statement, consumer's belief in bottled water is great enough that people buy a product they have already paid for with their municipal taxes in the form of tap water used for cooking and washing. Food and Water Watch, a U.S. based NGO confirms this, describing bottled water as taking "a free liquid that falls from the sky and selling it for as much as four times what we pay for gas." (Food and Water Watch, 5) The International Bottled Water Association, the bottled water industry's main trade association, confirms consumers'

positive attributes of bottled water, with the vice president saying that its members “are selling the quality, consistency and safety that bottled water promises....” (Bullers, 5)

It is important to note that two of the three adjectives the International Bottled Water Association, uses are wholly subjective, and therefore subject to challenge. In one case, a network television show performed a taste comparison with the city’s tap water versus several national brands of bottled, including Poland Spring and Evian. The tap water was the clear winner of this competition. (Howard, 1) Bottled water also faces other challenges, and one is from the only objective adjective used by the Bottled Water Association; safety. The U.S. Federal Drug Administration (FDA) is responsible for the safety of bottled water sold in the U.S., while the Environmental Protection Agency (EPA) is responsible for the water commonly referred to as tap water. The Natural Resources Defense Council, a environmentally- focused NGO based in the U.S., released a report on bottled water in 1999 based on four years of research. In the report, they note that “FDA provides no specific requirements-such as proximity to industrial facilities, underground storage tanks or dumps-- for bottled water sources.” (Howard, 2) An example of the difference between the EPA and FDA in regulating water is also seen in the number of staff dedicated to ensuring both types of water’s safety: the EPA has several hundred staff members testing and coordinating water safety for water that comes through the tap, while the FDA has less than one half- time staff member to ensure bottled water’s safety. (Howard, 2)

The Bottled Water Association bases its claim of safety on the fact that the FDA “requires water sources to be "inspected, sampled, analyzed and approved." (Howard, 2)

One conclusion is that there are levels of safety in the drinking water business, and that while tap water that is regulated by the EPA is safer, that the FDA's supervision of bottled water is more than adequate. However, the statement from the Natural Resources Defense Council implies a question critical to the marketing of a consumer good; would people buy bottled water if they knew it's proximity to specific indicators of poor environmental quality?

While NGOs are sometimes accused of using inflammatory rhetoric, the concern about the source of bottled water is confirmed in the case where multiple water companies were buying water from a commercial site located near an industrial waste site in Massachusetts. (Food and Water Watch, 7) Additionally, a study that addressed the different factors in campylobacter infection (the federal Center for Disease Control describes the symptoms of campylobacteriosis as diarrhea, cramping, abdominal pain, and fever that typically lasts one week) found that 12% of infections were directly associated with consumption of bottled water. The authors noted that this was a newly identified risk factor and also that it was scientifically more than possible. The same study noted that bottled mineral water has been directly identified as the primary way that at least one cholera epidemic spread and concluded that their "findings suggest that bottled water could, given the right circumstances, provide a vehicle of transmission for campylobacter." (Evans et al, 3)

Other specific concerns from the Natural Resources Defense Council study include their findings that more than one third of the 103 brands of water they tested had chemicals including "arsenic and carcinogenic compounds in at least some samples at

levels exceeding state or industry standards.” (Howard 4) The divergence of opinion regarding the safety and value of bottled water also highlight the usefulness of the three approaches, with the bottled water association viewing water through the market liberal lens, the FDA and EPA taking on the institutionalist perspective, and the NGOs writing from the social green perspective; these delineations are mirrored throughout the conflicts in McCloud and Gujarat.

2.1.3.2 Bottled Water, the Environmental Impacts

Environmental concerns about bottled water are divided into roughly two parts: the impact on the air and concerns about global warming because of the transportation costs and manufacture of plastic bottles, and the impact on the ground and surface water from which all bottled water comes. The Bottled Water Association does not list any concerns on its website about the impact of bottled water as it relates to petroleum use from shipping and containers

However, several other governmental agencies and NGOs do cite concerns about the environmental impact of creating and disposing of plastic bottles, including the World Wildlife Fund, the Natural Resources Defense Council, Food and Water Watch, the Sierra Club, the Climate Action Network, professors at Oregon State University, California Department of Conservation, the City Councils of Santa Barbara, California, and Ann Arbor, Michigan, and the Mayor’s Office of Chicago, Illinois.

In terms of transportation, the World Wildlife Fund points out that tap water uses existing, municipally and federally supported, infrastructure, while bottled water involves

creating new infrastructure and burning fossil fuels in the process, as water comes from “places as far-flung as France, Iceland or Maine-- burn fossil fuels and result in the release of thousands of tons of harmful emissions.” (Howard 7) An example of this phenomenon is that in 2004, a company based in Finland shipped 1.4 million bottles of their own tap water to Saudi Arabia, a distance of 2,700 miles. (Abid, 2) Because of these concerns, the cities of Santa Barbara, California; Ann Arbor, Michigan; and Chicago, Illinois, no longer serve bottled water at their events, but instead rely on tap water, pitchers, and cups. (Keen, 2)

Making the plastic bottles ubiquitous to the bottled water industry also generates concern. For example, 1.5 million barrels of oil are used in making disposable bottles for water annually, just in the U.S. alone, not counting the energy used in their transportation and refrigeration. (Bernstein, 1) Food and Water Watch (11) adds that this is enough oil to fuel about 100,000 cars per year. The Climate Action Network notes of the different options in bottled water, that even though glass bottles are more costly to transport, the energy used in the manufacture of plastic bottles makes the two products even in terms of total energy use. A professor at Oregon State University relays the information this way, in a visual presentation to his students:

- It takes 1,851 gallons of water to refine one barrel of crude oil.
 - Twenty-four gallons of water are needed to make one pound of plastic
 - 1.5 to 2.7 million tons of plastic used per year to make bottles for bottled water.
- (Jarvis, 16)

Jarvis’s statistics are particularly noteworthy because he directs attention to the amount of water needed to create the bottles for the water’s own storage.

Finally, the issue of what happens to the bottle once it has been produced and shipped also generates comment. For the Bottled Water Association, it notes on its website that water bottles are recyclable, but a report by the California Department of Conservation notes that more than one billion water bottles are not recycled and wind up in the states landfills. (Howard, 9) Additionally, the rate of recycling for “all PET type #1 plastic fell from 39.7 percent in 1995 to 23.1 percent in 2005.” (Food and Water Watch, 11) The result of water bottles not being recycled is that when incinerated, the bottles release toxic chemicals including chlorine gas, and what remains (the ash) is composed of heavy metals that have been linked to health problems. Also, these bottles stay in the landfills, taking up to 1,000 years to degrade. (Abid, 2)

One of the solutions to low recycling rates and the toxicity that results when bottles are not recycled is having the various states’ ‘bottle bills’ include plastic bottles; currently none of them do. Bottle bills allow people who bring their glass bottles and aluminum cans to a central collection site to receive between five and ten cents per bottle. Bottle bills are one of the main reasons that glass and aluminum cans appear far less in the landfills than do plastic bottles in the states with these types of legislation; eleven states currently have them. However, the Bottled Water Association and the various bottle, drink, and retail industries oppose bottle bills, citing concerns that “food retailers shouldn’t have to devote any money-making floor space to storing and sorting recyclables, especially as that may lead to unsanitary conditions.” (Howard, 9)

The final environmental impact, that of the ecosystems from where water for bottling is taken, is the only one where there are competing parallel facts cited by the

Association and communities opposed to bottling plants in their municipalities. Of note is the study cited by the Association published by the Drinking Water Research Foundation which lists on its website that “The growth and development of the drinking water industry are important and research will aid in this growth.” The study concludes that “(77%) [of bottled water sources] were ground water and 35 (23%) were municipally sourced.” (Eshelman, introduction) The study did not answer which category municipal water supplies that originate in their communities ground water are categorized under.

Eshelman’s study also recognized groundwater as a renewable resource, while other sources, including a company called Worldwise that produces environmentally responsible products, the National Ground Water Association, and United Water categorize groundwater as a nonrenewable resource. Other organizations, including the World Bank and the U.S. Geological Survey note that whether groundwater is renewable depends on its type, and that it cannot be broadly categorized in either direction.

2.1.3.3 Bottled Water and the Market Liberal Approach in the U.S.

Concerns about the impact of drawing bottled water from groundwater in the U.S. have been voiced by people in Florida, New Hampshire, Pennsylvania, Texas, Michigan and Wisconsin. Many residents of these states depend heavily on groundwater for residential, agricultural and fishery use. (Howard, 9) Nestle, the world’s biggest bottled water supplier, (ECONorthwest, 4) is one of the companies attracting attention for its plans to bottle treated municipal water in both the west coast and the Midwest.

In Mecosta County, Michigan, Nestle Waters has a plant that takes groundwater for its Pure Life and Ice Mountain brands of water. The company paid approximately \$150 total for permits. (Howard, 10) The plant also received \$9.6 million in tax breaks to site the plant in Mecosta County, “yet in Detroit more than 20,000 families have had their water shut off because they could not pay their water bills when the state refused to provide a subsidy.” (Bernstein, 2) Citizens, including three Native American tribes who joined the suit out of concern about lakes Michigan, Huron, and Eerie, sued. “In 2002, a state court judge ruled that the removal of the water had harmed community residents and the environment. Three years later, however, the state appeals court reversed the earlier decision (Food and Water Watch, 10)

A Nestle Waters bottling plan in McCloud, California also raised a protest from local residents who are concerned that the company is paying too little for the community’s water and about the impact of the Nestle Waters plans to bottle 500 million gallons of water each year for 50 years. As with the concern in Michigan, the county judge agreed with the NGOs, including McCloud Watershed Council, Trout Unlimited, and Food and Water Watch, but the appeals court at the state level did not, overturning the county’s decision that cancelled Nestle Water’s contract with the town.

One of the concerns about the Nestle Waters contract is that it allows them to take the equivalent of what 4,490 households would ordinarily use, yet pay far less for the privilege, even though the company and the consumers would be using the same municipally owned infrastructure. (Food and Water Watch, 10) ECONorthwest in its report commissioned by the Watershed Council concludes:

Nestlé's proposed facility would impose costs and obligations on the community that would likely outweigh the benefits, particularly given the duration of the contract, uncertainties about the future, economic trends, and potential risks. Nestlé's proposed facility would consume one of the area's most economically valuable assets in a way that seems unlikely to maximize the economic contribution of that asset to local residents or others downstream that also value the goods and services it provides. In so doing, Nestlé's facility and related activities may also degrade the amenities—natural and otherwise—that are now primarily responsible for attracting economic activity to McCloud.

2.1.3.4 Bottled Water, the Scope of the People and Places Affected

One of the premises of national NGOs such as the Natural Resources Defense Council and Food and Water Watch is that their concerns with bottled water are far ranging in scope, both geographically and in terms of the cross-section of people's lives they impact. Already the impact of bottled water municipalities across the U.S. have been noted, but bottled water has a global and cross cutting effect on society, including rich and poor. One example, less of the negative impact of bottled water but one that describes the impact of society's lessening investment in public infrastructure, is the case of the length of African Americans' lives from the early 1900s to the World War II. Historians have typically underestimated the access to which the African American community had to municipal sources of drinking water and accompanying sewage-related infrastructure as soon as they became available, but these examples of public infrastructure "actually benefited African Americans more than whites." (Crum, 368)

In Oakland, California, San Francisco's poorer and less white sister city across San Francisco Bay, communities continue to press for equitable treatment from the private companies, including ones that bottle the water and sell it. "Much of the public discussion in the East Bay, therefore, focused on the ability of private corporations to provide a sufficient quantity of water at a reasonable price." (Cruikshank, 1801) This

includes the Environmental Justice Coalition for Water, based in Oakland. The coalition connects people with similar concerns about water, from municipal issues to agricultural ones, to politicians and other citizens. One of their issues is before the California State legislature, the Bottled Water and Vended Water Accountability Bill. (Environmental Justice Coalition for Water, website) The legislation would have all parts of the bottled water chain, from bottling plants to stores where water is sold, inspected regularly. The bill would also mandate greater access to information about the quality of the water coming from the bottling plants and being sold in stores and vending machines, including information on scheduled vending machine maintenance.

Chicago is another city with concerns about bottled water. Chicago's response includes a ban on disposable water bottles at city events, public campaigns urging restaurants not to serve individual bottles of water, and a series of advertisements aimed at getting citizens to rely on tap water instead of bottled. The Chicago city council has also been part of the movement against bottled water, with an alderman sponsoring a bill to add a \$.10 tax to each bottle of water sold in the city. Framed as a tax on plastic and not water, the bill also enjoys the support of Mayor Richard Daley. This is in line with the resolution passed by the U.S. Council of Mayors that called for increased attention to the effects of bottled water on municipal waste streams. (Keen, 1)

Internationally, concern about the impact of bottled water is demonstrated in municipalities as diverse as Bangkok, Manitoba, and India. In Bangkok, eight percent of people supplement their water supply with bottled water from vendors, spending as much as ten dollars monthly above their use of tap water. (Daniere and Takahashi, 532-3)

Meanwhile in India in 1994, the findings by the Centre for Science and Environment in New Delhi demonstrated that “bottled drinking water samples contained pesticide traces that were 36.4 times higher than European standards” and prompted the Indian government to generate comprehensive water quality laws that would include bottled water. (Sharma, 402)

Canada has slightly different concerns than Asia, with companies bottling water in one part of the country and selling it in another. Content analysis also varies widely in the different Canadian provinces with different information being provided for different brands. (Pip, 863) Nestle Waters North America is also in Canada, and is interested in continuing its permit for another ten years from the City of Guelph, Ontario. Under the new proposed permit, Nestle Waters would be able to take 950,000 gallons daily for the first five years, as opposed to the 300,000 gallons it currently pumps per day. (Food and Water Watch, 9)

Yet despite these concerns from people globally, for the Bottled Water Association, the profit making outlook continues to be strong with its member companies earning \$10.8 billion in the U.S. and companies earning between \$48 and \$100 billion globally in 2006. (Jarvis, 5) However the FDA continues to conclude that “Whether bottled water is better than tap water, and justifies its expense, remains under debate,” (Bullers, 5) and the Bottled Water Association maintains that “criticism of the industry is unfair” (Keen, 1) since the FDA has the ability to penalize companies and issue recalls if their water fails the FDA’s testing requirements, even though the tests do not include chemicals such as phthalates and bacteria like *Cryptosporidium*. (Potera, 76)

Solutions that the Bottled Water Association, NGOs, and municipalities agree on are scant. Both the World Wildlife Fund and Food and Water Watch advocate for focusing government funding on repairing and investing in aging municipal infrastructure for water and sewage, since U.S. municipalities have collective shortfalls of about \$22 billion in what they need to maintain and safeguard national drinking water supplies. (Howard, 11) Food and Water Watch also advocates for more regulations to protect bottled and municipal water supplies, particularly from large farms, chemical factories, and property development. (Food and Water Watch, 12-13)

2.2 The Institutional Approach

Institutionalists “share many of the broad assumptions and arguments of market liberals.... It is a matter of emphasis. Market liberals stress more the benefits and dynamics solutions of free markets and technology; institutionalists emphasize the need for stronger global institutions and norms as well as sufficient state and local capacity to constrain and direct the global political economy.” (Clapp and Dauvergne, 7)

In the conflict over the Narmada River Basin, the institutionalists are the government channels between the development banks’ money and the private companies’ projects in the countries the government represents, but the institutionalists also have competitive political interests of their own. In the conflict over the proposed Nestle Waters plant in McCloud, the institutionalists are represented by the McCloud Community Services District, which signed the original contract between Nestle Waters and the unincorporated town of McCloud, California.

Governments and the institutions that manage water for them want to maintain power and each form of government has its own way of making its mark on the land and organizing its people to support its projects, for example the difference between the U.S.,

China, and India. India is a socialist country, the U.S. is capitalist, China is communist, but all have complex networks of government agencies fighting to see their vision of the best use of natural resources fulfilled. While the institutionalists include regime setting organizations such as the United Nations and the World Commission on the Environment and Development, in the conflict over the Narmada River Basin the institutionalists are represented by the Indian government, in McCloud the Community Services District; globally the most powerful institutionalists are national governments and the agencies within them.

The Indian Government administers money from the market liberals in the form of loans from the World Bank and the Asian Development Bank as well as encouraging private sector investment (non state- owned companies doing business and spending money) in India by maintaining political stability, keeping the national currency inexpensive for investors from North America, Europe, and Japan, and retaining qualified labor in-country.

All water in India is technically under the central government's authority because under India's constitution India is a Union of States, and "water is managed by the Union, not the States...." (Tyagi, 19), which is in keeping with India's founding socialist philosophy of Mother India. However within the role of India's federal government in overseeing national water management is a series of laws giving control of various aspects of water management within the federal government to the individual states. For example, the preamble of the Northern India Canal and Drainage Act of 1873 gives authority to manage rivers and streams to the "provincial Government" or the state

government. This particular law covers the states of Uttar Pradesh, Punjab, and Delhi. (Tyagi 20) This is just one example in which the Union delegates water management to the states; in practice, most of India's water is managed by the states in some form, whether by individual municipalities or collaboration between several.

In the opposite direction is the National Water Policy, which was adopted in 1987 and revised in 2002, and says that water "needs to be governed by the national perspective." (Tyagi, 21) The Water Policy treats water as a national priority with a focus on using water to raise living standards and alleviate poverty with increased investments in urban infrastructure and rural irrigated agriculture, using language similar to that found in World Bank and ADB documents. The approaches in the National Water Policy are the dominant basis for the Indian government's approach to managing water in the Narmada River Basin.

Loans from the World Bank and ADB, to help India meet the priorities of the National Water Policy, are given to the central government, in the language of India's constitution, the Union then most of the work is carried out by the States where the projects are located. Officials from the Union supervise officials from the state who in turn often supervise private companies who do the work. For the larger irrigation and municipal projects, the companies being supervised have a great deal of authority with the governments supervising the projects, as they do with the banks loaning the government the money to pay them. India has also been sufficiently successful at garnering loans and building irrigation infrastructure to become a net exporter of food, as India has 520,000 square km under irrigated agriculture. (Tyagi 34)

2.2.1 Differences between the Institutional and Market Liberal Approaches

One of the tensions between the market liberal and the institutionalist approaches is that too much government spending “has also been assumed to damage economic growth by 'crowding out' investment and labor supply from the private sector.” (Korpi 98) Following this logic, it assumes that too much of the institutionalist approach will damage the ability of the market to provide goods at a reasonable price, with goods being either parties’ ability to provide India’s people with water. However, India has a governmental mandate to feed her people and provide them with clean water and adequate sanitation, whereas the private sector does not.

A clear difference between the perspectives of the institutionalists and market liberal is made clear here, as the viability of water as a private good in which money can be made in such a way that citizens, whose interests the government is obliged to protect, do not pay twice to have private companies manage their water systems, is not firmly established. For example, “governments must allow MNCs [Multinational Companies] to make and remit a reasonable profit, while MNCs must acknowledge and fulfill the full range of their economic and social development responsibilities to the host countries.” (Karen and Freeman, 383) One of the conclusions that may be drawn with water management is that it may be a difficult business to make a profit in. For the MNCs to make a profit, the government must provide them with everything they were providing the local water utility previously, and those services are paid for from people’s taxes. Then, in order to make a profit, companies charge more for water. This system results in

people paying for the cost of their water plus a profit for the company, hence the expression ‘paying twice.’

The promise of the economic and social development responsibilities that the companies have is that they will manage the water system more efficiently (because current market orthodoxy indicates that private companies are more efficient than state administered ones) which is the economic responsibility side of their obligation. The social responsibility part is the result of raising water rates in order to make a profit when dramatic increases in efficiency are not available in the system, and having consumers unable to afford water, or go without other necessities in order to access water at the new prices. One solution would have private companies only manage water systems, whether they are agricultural or municipal, when it is clear that the company has technological and managerial advantage over the existing managers of the state- owned company. This would ensure that the standards of reasonable profit and social responsibility remain balanced.

One way of balancing the needs of reasonable profit and social responsibility is when governmental agencies solicit public input for their water management plans. Doerksen and Pierce address the role of public input in managing water when they write that “There has been substantial input and support from *segments* of the public.” (5) (italics theirs.) They go on to detail how the activities of the U.S. Army Corps of Engineers and Bureau of Reclamation worked a great deal with what the institutions define as ‘the public,’ but conclude that it is a section of public that supports their work: industrial and agricultural users of water and electricity as well as congressional offices

relying on the water users' patronage. This vignette from U.S. water politics of the 1950s illustrates how the institutionalist approach can fail to bridge the gap between the market liberal and the social green approaches when the public consulted on the direction of the projects is chosen by the agency invested in building the project.

Vaidyanathan brings in the Indian perspective on the same issue when he points out that while "There exists a broad consensus on the desirability of people's involvement in watershed programs.... The government bureaucracy is simply not used to the idea and is frankly quite skeptical whether it will work at all." (156) Doerksen and Pierce's work also explains how the Indian government could represent the Indian people as a whole, while advocating for only one segment of the population and displacing another entirely. However it is important to note that the three perspectives are often quite compatible; institutionalist management of projects inspired by the market liberal approach are common, and NGOs, the proto- typical holders of the social green perspective, continue to propose and built institutions, some quite bureaucratic.

2.2.2 Examples of the Institutional Approach Managing Water in India

Dams and canals are the main focus of India's infrastructure- based water development and irrigation has been vital in making India a net exporter of food. Historically the government has been responsible for "constructing the main reservoir, the main and branch canals, and the distributaries up to outlets covering about .4 sq km." (Vaidyanathan, 9)

For example, the Bhakra- Nangal project in the Punjab state of India combined a dam on the Bhakra River and an irrigation project in the village of Nangal below the dam. The project was noted as being a point of pride for India; then Prime Minister Jawaharlal Nehru noted at its dedication in 1963 that “This dam has been built up with the unrelenting toil of man for the benefit of mankind and therefore is worthy of worship.” (Rangachari, 57) The irrigation project provided 1110km of canals and channels that irrigated more than 10,000km of land. The Bhakra Dam was 213 meters tall and its reservoir covered 168km. (Rangachari, 58) India is also “the third largest dam builder the world” (Arundhati Roy, PBS Interview) with more than 4,300 dams built since 1947 and every big dam built by the Indian government on behalf of her people.

Dams are built to create reservoirs for agriculture and sometimes for hydropower, though agriculture and hydropower are typically at cross purposes in a project as generating electricity for water requires that the reservoirs behind the dam be full, while agricultural use necessitates drawing reservoir levels down. Hydropower is viewed positively because the alternatives, coal, oil, and nuclear, all have pollution consequences in the process of being removed from the ground and converting into energy, and two out of the three have air quality consequences with the third having long term waste storage concerns. To promote hydropower from its dams, the government created companies at both the national and the state level, including the National Hydroelectric Power Corporation. Additionally, “further keeping in view the problems of fund constraints, Power Finance Corporation was also created to finance the power projects.” (Tyagi, 59)

2.2.3 The Institutional Approach: Government Planning Development Projects

The Bhakra- Nangal and Narmada River Basin projects illustrate a niche that the institutionalists maintain that neither the market liberals nor the social greens do, since the institutionalists have both the resources (money) and the mandate in the form of representation of the people as governmental bodies. This structure, even when the representation of the people the project should serve is sometimes nominal, demands that the government create water infrastructure that reflects people's needs. These projects are uniquely reflect the institutionalist approach because they involve projects whose effect will only show up on a profit/ loss statement that reflects human development. Equally the hallmark of institutionalist approach is its ability to perform on a grand scale and below, the experiment in managing water is performed on an entire village, a resource not available to either the social greens or market liberals.

Part of administering infrastructure projects is having the staff to manage the water wisely, and to this end the government runs the Central Soil and Water Conservation Research and Training Institute, which was established in 1974 in Uttar Pradesh. The institute studies and teaches subjects important to creating infrastructure projects as well as those using the resulting water. Subjects include erosion control, developing degraded land, rain water management, watershed management, and soil and water conservation and watershed management. (Institute website) This is a uniquely institutionalist approach because the 'profit' lies in developing people's skills and the results, measured in longer lives and greater social cohesion, are difficult to quantify in monetary terms.

The Indian government also runs a project reminiscent of the social green approach to managing water in which they irrigate .12km via a “small dam installed at the foot of an extensively eroded ravine immediately above the village.” This is called the Sukhimajri Project. (Silliman and Lenton, 167) Each family in the village was given a certificate redeemable for the same amount of water. The project reduces conflict since all families receive an equal share of water, and because all are invested in the project, grazing animals are kept away from the water which reduces disease and contributes to development goals unique to the Indian government.

2.2.4 Institutional Approach and Conflicts over Water in India

Conflicts over dams and privatization are conflicts over the institutionalist management of water as well as the market liberal approach. One of the reasons that conflicts happen at a local level on projects managed by the government are issues of management. Some of the conflicts are between those in charge of the work, and those who will be living with its results, essentially a class conflict. For example, Vaidyanathan notes that the “planning [a water management project] is largely in the hands of engineers, and the government engineering establishment is rather closed to ideas....” (126) coming from the public.

A specific example of this was the All- India Coordinated Program for research on water use (Vaidyanathan, 127) that started in the 1970s. In some ways similar to Central Soil and Water Conservation Research & Training Institute, it was designed to carry out scientific studies on the subjects that would yield concrete results for farmers

and administrators that they would use in the field to improve crop yield and use water more efficiently. The Program did not work partly because it never received adequate funding, but tellingly because, “the concerned agencies did not take these activities seriously. Data collection is lax; and such data as are gathered are not systematically collated and analyzed; nor are the findings fed into the planning process.” (Vaidyanathan, 127) The processes referred to are planned agricultural developments that based on the research, would use water more efficiently. The program’s attempts to develop irrigation projects that reflected the conditions in the fields instead of the laboratory met resistance from the engineers who were geologists and mathematicians because they saw the studies as a threat to both their authority over their work, and as a condemnation of the work they had been charged with historically. Examples such as this lend additional credence to the market liberals’ contention that private companies are nimble and strategic, and that they can accomplish tasks that the government currently does, but more efficiently.

However, some of the tension between the farmers and the engineers, and the fact that the engineers are skeptical of the “relevance of villagers’ knowledge concerning their immediate environment for planning local development works... reflects prejudices rather than established facts.” (Vaidyanathan, 157) It is unclear as to whether a private company’s work or a private company managing a government project would enter the study and propose the resulting projects with different attitudes towards indigenous knowledge of the environment.

The contention that private companies can complete projects more efficiently than public ones typically ignores the knowledge base of the farmers using the water and how

they interact with the agencies managing that water. The engineers might also be more interested in what the crop specialists were researching if the farmers demanded the results of their agronomic research. However since the government has historically built all water related infrastructure free of charge, the farmers and landlords have more to gain by “pressurizing the government to provide cheap water.... If users had a direct financial stake in the system, they would be more interested in ensuring that the projects are designed well, constructed speedily and economically, and provide efficient service.” (Vaidyanathan, 132) Therefore, part of the institutionalist approach involves creating ways to ensure that their clients, the farmers, do not waste the resource the government is charged with managing.

2.2.5 The Intuitionist Way of Managing Water Successfully; New York City

New York City’s water is supplied by the New York City Department of Environmental Protection, which provides drinking water to more than eight million people in five boroughs of the city; the Bronx, Brooklyn, Manhattan, Queens, and Staten Island. The City was founded in 1625 and used wells and ponds of varying quality for its water until 1834 when the City was obligated by the State of New York’s legislature to manage its water collectively. (Gundy, 341) As of 2008, the industrial scale of that effort is 101 years old; in 1907 construction began in what was far away Putnam County on a series of reservoirs and aqueducts designed to supply New Yorkers with quantities of clean water. In the dollars of its time, the project was slated to cost more than the construction of the Panama Canal, an investment in public infrastructure that was

heralded on the front page of newspapers through out the City. (Drinking Water Report, 3) From 1907 to 1967, the construction was completed by “semi-autonomous state structures fiscally and politically insulated from directly elected local government.” (Gundy, 342) Forty years later, this form of water management could be called the golden age of institutionalism.

Currently, the City is building another aqueduct to allow for maintenance on the older infrastructure and two new water filtration plants to allow for the increased demand on the current system, its age, and the changing environmental realities upstream from the City. (Drinking Water Report, 7) Currently the water comes from “19 reservoirs and three controlled lakes in a 1,972 square-mile watershed that extends 125 miles north and west of New York City.” (Drinking Water Report, 4)

2.2.5.1 New York City’s Water as an Example of Institutional Water Management

Both volume and scale make this project an example of institutional water management; it is hard to imagine a private company having the authority to protect water supplies over three watersheds in such a highly populated region. That the Department of Environmental Protection is able to deliver more than one billion gallons of water daily (Drinking Water Report, 4) makes the City’s water supply institutional instead of social green, because the social green would not typically advocate for a single system delivering so much water nor have the resources to deliver water on such a large scale.

The City's efforts to improve the quality of the water it delivers does not reflect its demographics; while the City continues to grow in population, not only are the previously mentioned aqueduct and filtration plants in process, but since the City started buying additional land with the explicit aim of protecting its water source in 1997, the Department has tripled its land holdings. (Drinking Water Report, 5) If the City's water system were under market liberal guidance, the Department's improvements in its infrastructure would have only kept pace with the City's population growth if at all, as private companies' are charged with making a profit firstly with long term strategic growth coming second. Also separating the management of the City's water from the market liberal perspective is its response to whether residents should purchase bottle water: the Department of Environmental Protection points out that "bottled water costs up to 1,000 times more than the City's drinking water." (Drinking Water Report, 17)

The nature of the City's Department of Environmental Protection is also one of forced institutional change, as the political and fiscal dynamics changed in the City starting in the 1970s causing a "sudden crisis" in the department in the 1990s. (Gandy, 339) In the 1970s, the City had lost so many jobs and so much of its tax base that it was no longer able to borrow money on the bond market at any price and was forced to find other means of delivering and purifying water. (Gandy, 345) What emerged was a system in which the City upgraded its technology which allowed it to collect more money from users, and more of its functions were outsourced, which allowed the companies to apply for capital loans and reduced the City's cost of labor, as the companies taking over parts of City services were not obligated to hire union labor. (Gandy, 344) However, the City's

water system remains fundamentally institutionalist in its management of its water, through constant monitoring and episodic intervention by the City Council.

2.3 The Social Green Approach

Social Greens... see social and environmental problems as inseparable. Inequality and domination, exacerbated by economic globalization, are seen as leading to unequal access to resources as well as unequal exposure to environmental harms. Many social greens... focus on the destructive effects of the global spread of large scale industrial life. (Clapp and Dauvergne, 11-12)

The social green approach is academically the newest approach considered, but historically likely the oldest; people have been managing water autonomously in their communities for centuries and considering the social impacts of their proposals long before academia existed. The hallmark of the social green approach is the combining of environmental and social justice considerations and its rubric of local self control. One way to understand the community resource approach is to examine an example of how it arose; the ramifications of people's perception about the quality of choices lead to rise of the social green approach. Doerksen and Pierce argue that "political and cognitive constraints on choice among policy alternatives will have just as important an impact on the success of citizen participation processes as the material, economic, and technical constraints." (17) This phrase refers to public participation in decisions over managing water in the U.S. in the 1970s; however, its warning also applies to other forums in which public input in water projects has been sought formally but the public perception is that the choice has already been made and the public process is not a sincere attempt to garner meaningful public input.

While the institutionalist and market liberal approaches exist in parallel, or symbiotically, depending on the literature consulted, the social green approach was to a degree a response to the ‘cognitive restraints on choice among policy alternatives’ reflected in the people’s experience of being marginalized from public participation processes that are sometimes the results of institutionalist and market liberal approaches to managing their natural resources, for example building a dam and creating a reservoir. These people entered academia and founded NGO, the two primary vehicles for the social green approach. A different way of phrasing ‘cognitive restraints on choice among policy alternatives’ is ‘perception that there is little difference between the options presented’. Doerksen and Pierce argued that since a real decision had to be made about the resource under consideration, therefore there needed to be meaningful differences between the options before people presented in order for them to participate in decision making. It is thus not surprising that when confronted with a lack of meaningful choices in public participation exercises that the people consulted would create new alternatives, leading to the rise of the social green approach.

Transparency or the perception of the lack thereof, is another part of institutionalist decision making that likely lead to the social green approach. Part of transparency is the aforementioned public participation processes in which people can be heard and raise objections, but the significant part according to Vaidyanathan is that “the project planners [need to] be required to meet these objections and clarify doubts before a project proposal is considered for appraisal by the Planning Commission or financial institutions.” (130) The fact that that engineers and administrators are typically not

required to meet the communities' objections before proceeding with projects also contributes to rise of the modern social green approach.

The result of public dissatisfaction with the lack of transparency and accountability is a social green approach to managing money called "participatory public expenditure management." (Action Learning Program, 5) It starts with Budget Formulation in which individual citizens and organizations create alternative government budgets and participate in government budgeting piece by piece. In the Budget Analysis phase, the proposed budgets are examined in regard to the government's "social commitments and other equity concerns." (Action Learning Program, 5) In the Budget Expenditure part of the cycle, groups track how the money is being spent, and the final part is Performance Monitoring, in which the government agency or the entire government is evaluated in terms of money spent versus priorities accomplished. Were the participatory public expenditure management part of the Indian government's plans for the Narmada River Basin, a more conciliatory process may have occurred and concerns represented by the social greens met. However if this process were used in McCloud, the outcome would be less certain as organizations opposed to the proposed water bottling plant oppose the very nature of locating an industrial facility in their community.

Here the social green approach is used on a local level, but it is also a response to global failure of governments and institutions reputations for transparency and accountability. Conca 25) asks about the appropriate response to the inefficacy of global regimes to achieve environmental protection on more than a few issues when he writes

that “One obvious place to turn for alternatives are entities that are not states—the rich array of networks, coalitions, grassroots activism, and transnational campaigns created by a global panoply of citizens’ organizations, activist groups, and social movements.” Conca further suggests that these networks, which are the agents of the social green approach to managing water, could be an alternative to the global regime approach to achieving environmental balance, which includes managing water. Conca also summarily characterizes the variety of social green organizational structures, insofar that it varies from formal with ‘citizen organizations’ to less formal but no less powerful and not be underestimated ‘social movements.’

2.3.1 Institutions Promulgating the Social Green Approach

Non- Governmental Organizations (NGOs), also known as non- profit organizations in the U.S., are the basic units through which the social green approach to managing water is expressed, as governments are to the institutionalist approach, and multilateral development banks and private corporations are to the market liberal approach. NGOs are different from governments because they lack the broad mandates of governments, cannot tax, and while some have their priorities set by the people they represent, most do not, at least not directly. NGOs vary widely, from ones created to protect a local space, such as Washington Parks and People, an NGO based in Washington DC that keeps the focus of Washington’s public spaces on the diverse needs of its communities, to Friends of the Earth, a primarily environmental group based in the Netherlands with offices in Europe, the Americas, Africa, and Asia.

While all NGOs do not subscribe to the social green approach, and some governments and private companies fund the social green approach, most NGOs can be understood as social greens, and all groups that use the social green approach agree that “access to water is a basic human need and a fundamental human right. Yet in our increasingly prosperous world, more than 1 billion people are denied the right to clean water....” (United Nations, forward)

2.3.2 Examples of the Social Green Approach Managing Water Globally; Waterselling in Bangladesh, Integrated Watershed Management in the U.S.

Proshika is an NGO in Bangladesh that was designed to better the lives of “landless workers (men and women), marginal peasants and other poor people....” (Wood, xxi) Proshika facilitates waterselling (their term) to farmers by the landless peasants through setting up groups to buy water pumps for irrigation, renting the necessary drills, creating contracts with farmers and helping its groups deliver water. Proshika’s first season of water selling was in 1980-81 and by 1989 it was employing 450, primarily Bangladeshi, staff and working with approximately 28,000 rural poor people. (Wood, xxi) According to Proshika’s website, as of 2008 the waterselling project was working with more than 180,000 people.

Proshika uses the social green approach because its focus impacts people who are not reached by other ways of managing water (the landless but not strictly urban) and who would otherwise be left out of the market economy. Another hallmark of community resource approach is how the Proshika staff choose the next round of people

they will guide through the process, insofar that the staff chose group based on prior “collective experience of income generation and on some evidence of its solidarity— either under pressure from other classes in the locality or, for example, during flood or drought conditions.” (Wood, 2) That they choose groups of people partly based on their ability to hold *each other* accountable is notable because it speaks to the cooperation required when capital is scarce. This project is also successful because it has demonstrated that Proshika’s constituents, the landless, peasants, and other poor “can be efficient managers of irrigation resources....” (Ahmed, 113)

The authors of one book on Proshika’s work noted that one of the critiques of what they termed ‘employment- and –income generating activities’ is that they are donor funded, and in Proshika’s case the organization, an NGO, was initially started by American, Canadian, and European foundations and governments. In response to this critique, the authors direct their critics to the fact that 80% of Bangladesh’s (as with other less developed nations) development budget is already funded by other governments in the form of foreign aid, but that only 1% of that goes to NGOs like Proshika. The ramifications of this figure is that the farmers who have access to capital through their land and credit through the state bank are already receiving funds from outside governments, only funneled through the Bangladeshi government through foreign aid donations. This is reflected in Proshika’s funding of the well infrastructure itself; its first five years were financed by individual agreements with the regular agricultural bank in Bangladesh, Bangladesh Krishi Bank, and guaranteed by a combination of the Ford Foundation and Proshika and then by Proshika’s own revolving loan fund. (Wood, 5)

Since then Proshika has become a micro-credit agency of its own, with 1.6 million borrowers lent an average of \$34 each.

Proshika's success as an organization is mirrored in the success of the irrigation project detailed in a World Bank symposium in which Ahmed (115) reports that "On average, 70 percent of the groups were successful. Causes for failure varied and could not be applied across the board. Small command areas, sandy soil, early floods, and poor management were some of the reasons for failure." He goes onto further evaluate the project: "Analysis of interview results revealed that agricultural laborers had higher average wages and more employment days in irrigated areas than in non-irrigated areas. And agricultural wages were higher [in Proshika's projects] than in other irrigated areas." (116)

Another example of social green approach to water management is the use of "integrated watershed management" (Johnson et al., 1072) in the U.S., in which farmers planted fields and pastures with livestock on field whose borders included an unused strip of lands between the field and the streams or wetlands adjacent instead of using them as natural barriers and grazing or farming up to their banks and borders. By protecting wetlands and riparian areas' natural ability to soak up excess water and maintain its quality, communities save money in terms of flood damage and water filtration. Turbid water, containing more particulate matter, is more expensive to filter, and water that has been filtered through a wetland or flowed through a healthy stream is less turbid. Similarly, the combined plants and geology in a wetland ecosystem create an enormous sponge, so that in times of flooding, wetlands absorb water and reduce flooding damage,

making a strong case for leaving them intact. While not farming this land costs something, the savings gained by using integrated watershed management can be significant. For example, “several cities in the U.S.... found that every \$1 invested in watershed protection could save from \$7.50 to nearly \$200 for new water treatment facilities.” (Johnson et al., 1072)

An example of integrated watershed management in the U.S. is in New York City’s Conservation Reserve Enhancement Project in which farmers are paid to add non-agricultural buffers to farmland adjacent to streams and wetlands. The City’s Department of Environmental Protection and the U.S. federal government fund this project because it costs less money to protect land than it does to filter water with high turbidity or polluted with agricultural chemicals and manure. (Drinking Water Report, 6)

2.3.3 Social Green Approach Managing Conflict in India

An example of social green approach to conflict resolution, albeit not specifically applied to water, is found at the village level where the “villager’s strategy is to maintain personal power over the outcome of the dispute, and as far as possible, to seek a compromise solution, a solution that recognizes and supports the long term relationship between the disputants.” (Moore, 3)

In one case in Northern Rajasthan, where a woman was accused of stealing garbanzo beans from her neighbor’s field, a panchayat was called and a group of eight men gathered to discuss the incident and resolve the conflict. (Moore, 31) A panchayat is a village assembly and its hallmarks are the preservation of the relations within the

community and the value of its continuity, albeit not at the expense of relations between community members. In this example, it is the relations between people that are the community resource being managed and ultimately preserved, not the garbanzo beans.

2.3.4 Social Green Approach to Managing Water in India; the Pani Panchayat, the Self Employed Women's Organization, and the Tarun Bharat Sangh

The Gram Gourav Pratisthan (GGP) is an Indian NGO that sets up Pani Panchayats (Water Councils) that work simultaneously on water supply and creating equality for the project participants in their communities. The GGP repairs and restores degraded watersheds, thereby increasing water harvests, but by guaranteeing each family within the community an equal share of the water harvested, also creates equality in the community. According to the United Nations Development Fund report (from which it receives some support), the project provided interest free loans to finance "water harvesting and lift irrigation schemes." To support the projects the Pani Panchayats were constructing, the GGP also trains people to repair and maintain the equipment involved in irrigation, and the organization still trains technicians, engineers and its own loan administrators. (United Nations Development Fund)

One of the critical pieces reminiscent of Proshika's work and a distinguishing mark of the social green approach is that the GGP only loans to groups of farmers, and they must have at least 20% of the money in hand. This encourages group formation and cohesion. The 20% rule also facilitates the organization's other stated goal of creating equality, particularly since it applies whether the person owns the land they farm or not,

and the water is allocated according to the number of family members instead of acreage of land, which also aids with employment. (United Nations Development Fund)

The Self Employed Women's Organization (SEWA) was founded in 1972 and has 700,000 members, all of them self-employed women. SEWA's membership includes "hawkers and vendors who sell their products from baskets, carts, and small shops; home-based workers such as weavers, potters, garment workers, and food processors; and manual laborers". (Mehra, 146) SEWA was inspired by Gandhi and combines three social movements: the labor movement, the co-operative movement, and the women's movement. (Verhagen, 3) One of SEWA's campaigns is the water campaign, which comes under the need to increase the range of development opportunities available to women and increase their economic power. SEWA's "members organize, define, and understand their problems, identify solutions, and demand action from the appropriate authorities." (Mehra, 147)

SEWA's water campaign was a result of this process and the fact that scarcity of water in some villages is a significant women's issue; some spend up to six hours daily fetching water and these trips affect the "health, economic productivity, and social well-being of the entire household." (Verhagen, 2) A measure of the campaign's success is evidenced by the more than "200,000 women spread over 500 villages and 14 districts" (Verhagen, 6) who were participating in 2003. Activities under SEWA's water campaign included repairing and improving ponds, and creating *pani samitees* to manage water at a local level. Accordingly to SEWA policy at least 70% of the *pani samitee* members including the president had to be women, and SEWA provided training and policy work

to support the changes. The trainings included skills related to running the pani samitees such as accounting and meeting administration, (Verhagen, 6) as well as technical training so that the women could run and maintain piped irrigation systems including handpumps. (Verhagen, 11-12)

SEWA's policy work focuses on changing the direction of Indian water policy to reflect two main priorities: that water is a basic human right, and that drinking water should be given the highest priority over other uses of water, including agricultural. Additionally since women are the primary users of the water supply, they should also be recognized as its owners and managers, despite being historically ignored as policy and decision makers. (Verhagen, 13)

While SEWA is a national organization, Tarun Bharat Sangh (Indian Youth Movement, TBS) only works in the Indian state of Rajasthan, helping villages use traditional ways of storing water through small ponds and check dams that trap the monsoon rains and recharge the groundwater. Though only active since 1985, TBS has facilitated the building or restoration of "10,000 water harvesting structures" (Bosshard et al, 33) and served about 700,000 people. TBS funds the projects, but the village designs, locates, builds, and maintains the structures. The result is that women do not need to travel as far to get water which relieves pressure on the entire community. Multi-seasonal agriculture is also now possible and three rivers that had been dry are flowing. The impact of work in the community and people returning to it is hard to measure on a profit/ loss statement. As with Proshika, community solidarity is a condition for participation in the program, but since the TBS is working with the village to create new

village infrastructure or property, it requires that the village reach consensus on the desirability of the new dam and or pond, and that every family contribute something toward the project, which can take several years. (Bosshard et al, 33)

2.4 Weakness of the Three Approach System and Potential Challenges

The main weakness of the three system approach is that it obfuscates the reality that while the three approaches are frequently at odds, they also depend on each other. This creates a more cooperative environment in the field, much to the disgust or concern of the participants at odds. For example, while the market liberals decry the bureaucracy of the institutionalists, they also rely on them for places in which to actually do their good works in the case of the multilateral development banks, or to demonstrate the superiority of their way of doing business, in the case of private companies taking over state run institutions. For the institutionalists' part, they decry the changes the banks demand of their economies, (in the form of Structural Adjustment Policies) but the banks, or market liberals also provide a process for enacting unpopular economic policies as well as ample technological assistance to make those changes in their country's economy without the government having to take the blame or be held accountable for the results. If the bank mandates the changes, the people are less likely to blame the government for their results. Similarly, if it is a private company builds the dam or other related infrastructure and it fails, the private companies are held accountable, not the government

It is also important to note that parties do not always strictly hew to the different ways of managing environmental change; for example, the World Bank, the prototypical

market liberalist party in one of the conflicts discussed, spends part of its budget on aid. Under the Bank's Education for All Fast Track Initiative, seven countries (Benin, Cambodia, Mali, Mauritania, Mozambique, Mongolia, Sierra Leone) received a combined \$265 million in grants for education, (World Bank 2007, 18) Education for All is aimed at the 100 million children who do not go to school for economic reasons and its goal is to help low-income countries provide free, basic education to children from all parts of their respective societies by 2015. Education for All is more of an institutionalist project than a market liberal one because the money is given in grants that do not require repayment, or the transformation of the recipient country's economy under the Structural Adjustment Policies that are typical results of World Bank involvement in a country. The investment in people is also reminiscent of institutionalist priorities because the project will bolster the donor's standing or image with the people it aids.

The nature of the project itself, educating children, is not only institutionalist but is recognizably social green in nature, with its focus on empowering essentially the most vulnerable parts of society. The social greens advocate for solutions that are effective at a local level and that last beyond the project's timeline. Since education is primarily delivered at the village or municipal level and people participate more in development activities, the Education for All program would be accepted by the social green parties in any conflict. Programs like Education for All are also not the sole purview of NGOs and banks; they are common government initiatives in much of northern Europe as well. However not all social green views devalue the role of currency in creating change on a systemic level. One organization, the U.S. -based Center for Global Development, whose

mission involves reducing poverty through changing economic policies in the U.S. and other wealthy countries, advocates for setting a price for water and managing water systems. For Nancy Birdsall, the Center's President, "water needs a price. If you don't have a price, the rich will get it free; the poor will pay a lot." (Nestle Waters Report, 28) Here a social green accepts the value of the market liberal predilection for devaluing anything that cannot be placed on a profit loss statement, but she takes it a step further by placing the market value of a natural resource in the context of social justice by positing that the reason resources need to be valued in terms of money is so that the poor do not lose.

These examples notwithstanding, the vast majority of the social greens' rubric treats the banks, the governments, and the companies like a vast right-wing conspiracy while relying on their consistency, transparency, and occasional incompetence for funding. NGOs get funding when they can prove that there is someone or something intentionally acting against the people's best interest, that the social greens have people's best interest as the motivating factor, and that they are the party that will bring the wrongdoing institutions down. While simplistic, if the World Bank did not publish its failures, in the form of percentages of loans not paid back because the countries' economies did not boom per the Bank's prediction, the social greens would not be able to analyze their numbers, write excoriating press releases, be published in the International Herald Tribune and receive grant funding.

Meanwhile, the market liberal and the institutionalists rely on the social greens for their consistency, their attention to their own earned media, and their short attention

spans. They know that the social greens need to show a ‘win’ periodically and that by giving it to them, the social greens can be distracted from the ongoing consequences of loans and projects already in the works. The market liberals and the institutionalists also rely on this process to generate accolades and positive media of their own, albeit in different publications, and the cycle continues.

The cycle is corrosive because in some ways the groups have different goals and their mutual interdependence prevents them from reaching them in any meaningful way. While there is a certain interest in creating a new system in which the parties are defined in less mutually antagonistic language, the lack of shared vision of humanity’s relationship with the natural world would seem to prevent this vision becoming reality.

Chapter 3 Conflict over the Narmada River Basin

This chapter applies the three approaches to environmental change, over the recent history of the Narmada River Basin. The chapter begins with the history of the conflict and then the parties' perspective is presented and each party assigned one of the three approaches it best embodies, with an explanation provided for the reasoning behind its assignment. This particular conflict was chosen for the breadth and diversity of literature available, and the fact that it is entirely over; while the World Bank is not funding the dams on the Narmada River or the irrigation structures in the river basin, the dams and the accompanying irrigation infrastructure are being built by the Indian government regardless.

“A pro-dam alliance that links the World Bank, international firms, bilateral aid agencies, and governments bent on developing their water resources has collided with an increasingly transnational network of dam opponents grounded in movements for human rights, the environment, indigenous peoples, grassroots development, and democratic reform.” (Conca, 28)

While this quote was written about dams in general in a section on the World Water Forum, it could have been written about the Sardar Sarovar Dam on the Narmada River specifically, with its parties and the way they interacted or ‘collided.’ Here, the ‘World Bank, international firms, [and] bilateral aid agencies’ are the market

liberal representatives, the ‘governments bent on developing’ are the institutionalists, and the ‘increasingly transnational network of dam opponents grounded in movements for human rights, the environment, indigenous peoples, grassroots development, and democratic reform’ are representative of the social green approach.

3.1 History of the Region and the Sardar Sarovar Project

Even the barest facts of the history of the project and what it could realistically accomplish are contested, with the World Bank, academics, Indian- based NGOs, and the regional government offering their own version of both the history of the region and the multiple impacts of the Sardar Sarovar project. The competing visions of the project reveal that different facts matter to different people and institutions. Here, the barest of facts are presented, with the emphasis being on the *types of facts* the different parties chose to present, or approach.

James Wood, a professor at the University of British Columbia, wrote about the river itself, noting that the Narmada is “India's largest west-flowing river. Originating in eastern Madhya Pradesh (MP), it flows 670 miles.... skirts MP, Maharashtra, and Gujarat for 46 miles... runs 100 miles through Gujarat....” (968) He goes onto mention that the conflict began in the 1960s when it was concerned with how to divide the benefits and expense of the project between the various Indian states the Narmada River Basin contains. Human rights issues and the environment were not a topic of concern until the late 1970s, which continued until 1992, and the World Bank’s independent review which recommended that the Bank take a new look at the project in light of environmental and

human rights issues. Wood calls attention to the “governmental consternation in New Delhi and the Narmada basin states, divided opinion within the WB itself” (Wood, 969) that the Bank’s review produced.

The Gujarat Infrastructure Development Board focused on the drinking water part of the project, the Sardar Sarovar Canal Based Drinking Water Supply Scheme, and supplied a list of statistics in terms of what the project would create, from “length of bulk water transmission lines” in three ways to the number of villages that are now and will be served.

The Sardar Sarovar Construction Advisory Committee’s website which speaks for the regional government, a party in the conflict, explains that the project is being built by the “Sardar Sarovar Narmada Nigam Ltd., Government of Gujarat.” It discusses statistics related to the reservoir, the dam, the different canals, the scope of the hydropower generation, the number of villages served by the drinking water part of the project, and the cost at 1986 prices.

Friends of the River Narmada, also a party in the conflict, on their website discusses the river’s geography like Wood does, focusing on the existing human history of the area, the meaning of its name, and the stories of people who live in the river basin. Friends of the River introduced the idea that dams on the river had been thought of dating back to the “days of the British Raj. The first Irrigation Commission of India, in its 1901 report, mentions a barrage near Bharuch.” This was also the only history that mentioned that the full project includes “the building of 30 big dams, 135 medium dams and 3000 small dams on the Narmada and its tributaries.”

3.2 The State of Gujarat

For the State of Gujarat, as described on their website, Sardar Sarovar's promise is that of turning the desert in to a "lush green belt." Described as a feat of engineering and achievement, it details the celebration that has accompanied the delivery of water to the Gulf of Kutch. The need for the dams on the Narmada River and surrounding canals is part of the country's right to economic development through its natural resources, and to employ India's young who are an "asset if gainfully used, but an explosive liability if kept idle." Here the state addresses the fact that one of the project's goals is directly political; preventing unrest and helping the state government maintain power

Sardar Sarovar is also viewed by the state as an opportunity for India to become richer and better fed as a nation by redistributing water to where people live and where arable land exists and where they can farm, since most of the region's water currently passes through India's most available farmland during the monsoon rains. Large dams are depicted as the reason that India has been able to feed itself, despite continuing population growth. For Gujarat, "harnessing entire water resources of the country is the only way to sustain our self-sufficiency in basic requirements of food and clothing." Basic water shortages that increase women's workloads, and the impact of unclean water on society as a whole are also mentioned.

The promise of hydropower to improve Indian people's lives through increased electricity consumption was also stressed. With India's coal being high in pollution-

bearing chemicals and low in thermal mass and because it has to import most of its oil, hydropower is described as “environmentally friendly and relatively cheap energy. It does not involve import of petroleum fuel.... It also reduces our dependence and vulnerability to petroleum exporting countries.”

“Every development project has its cost.” The state of Gujarat’s website addresses that when the West was developing, the impact on the environment and human rights was vast, but that now with wealth, “finer sentiments of human rights and environment are now surfacing. And what is good for G-7 has to be good for the rest of the World! So our urbanite elite have also adopted human and environmental issues....” This parody of the social greens is important because it demonstrates how successful the social greens were in the conflict at changing the narrative the state was competing against and forcing the state to address the environmental and social impacts of their development projects, if not actually become accountable for them. This section of the website also draws attention to the cost of not implementing the project because less developed countries like India are dealing with more basic human needs, like potable drinking water and reminds readers of the human destruction that successive years of drought caused. It also rebuts anti-dam activists’ calls for traditional indigenous forms of water management, because of the small scale of the works and aridity of the areas proposed for irrigation. Accusing the activists of spreading “disinformation”, it concludes that “time will vindicate the wisdom of planners and leaders who have helped in pushing ahead with this project with determination and commitment.”

3.3 The World Bank

“The Sardar Sarovar projects on the Narmada River in India were designed to bring irrigation to some two million hectares of arid land, in what was initially intended to be the largest irrigation system in the world. Two projects, one for the dam and another for associated irrigation canals—were approved by the Bank in 1985. Under these projects, 30 million people were to benefit from drinking water and irrigation in an extremely arid part of India, but 140,000 people were to be moved from areas flooded by the Sardar Sarovar dam and irrigation canals.” (Davis, 5)

In various writings authored by World Bank personnel, the Bank provides many perspectives on its own work on the Sardar Sarovar project; regret, dismay that one project would prevent the Bank from funding other important work, and gratitude that it was caused to examine its direction. The Bank initially loaned the Indian government \$450 million. (Roy, 10) One of the reasons the Bank was involved in the project was need. As stated previously, the main parts of the project are water for irrigation and hydropower. A dam can supply water for hydropower or irrigation, it cannot do both simultaneously, and it is relatively clear that India needs the water for irrigation more than for the electricity. (Additionally, the reservoir does not have to be full or the dam complete for it to trap some of the monsoon rains and irrigate desert lands.) Irrigated farms produce more than “40% of [national] cereal output.... water control can be a key to success in growing high value, water-sensitive crops. The consensus view that irrigation has allowed the world to feed itself is thus not surprising.” (Berkoff, 1) For an institution such as the Bank whose mission is to alleviate poverty in combination with a country in which water and a growing population are not equally distributed, irrigating the desert seems imminently sensible.

From the Bank’s Operations Evaluation Department comes a different tone in which the Bank funded a project that if “implemented satisfactorily... will improve the

quality of life for millions of very poor people” (OED, 1) after the competing states had worked out their claims to the water and share of costs. From this Bank perspective, the way the states achieved agreement and the Bank’s opportunity to fund a project of this size was a great opportunity.

The Operations Evaluation Department main findings from the project were two-fold: that the Bank’s projects, particularly the large ones, need to be better reviewed by social scientists as well as by physical ones, (Davis, 5) and the need to make sure that the Bank does not take responsibility for the project it funds. With the Sardar Sarovar project, it was felt within the Bank that the public saw the Bank as the wrong- doer instead of the project manager, (i.e., the Indian government which was actually building the dams and irrigation infrastructure) and that situation could be avoided by taking measures to not over- manage their projects and pay more attention to objections to the project while not actually speaking for the donor country. (OED, 7)

In 2006, the Bank wrote a report about its infrastructure program that referenced the Sardar Sarovar project directly and indirectly several times. It points out that between 1998 and 2002 (the Bank pulled out of Sardar Sarovar in 1996) the Bank almost halved its infrastructure lending, attributing this shift to its listening to “civil society opposition to big infrastructure projects.” However, the report concludes that in that retreat it forgot about the benefits of infrastructure funding, including roads to bring goods to market and electricity for manufacturers. The introduction to the report concludes that the Bank is learning from its own mistakes and renewing its investments in large scale infrastructure. (Infrastructure Report, 1)

In the segment of the report on the Sardar Sarovar project, the report deals with the impact of employing a resettlement specialist after the project was appraised and finding out how little was known by the donor country about the 100,000 people whose lands were to be flooded and 140,000 who would be displaced by the irrigation canals. The report notes that the “Indian state governments resettled some of the displaced, but the process was flawed: land was poor and compensation rates were inadequate. Unsurprisingly, several Indian NGOs led protests.” (Infrastructure Report, 5) The Bank responded to the magnitude of the 1992 report with the independent review, also called the Morse Commission, which concluded that the Bank did not follow its own rules regarding environmental issues, indigenous people, or the rights of resettled peoples. Nowhere else *except in the infrastructure report* was it written that the Morse report concluded that “appropriate resettlement and rehabilitation was not possible under prevailing circumstances.” (Infrastructure Report, 5)

3.4 Indian Based NGOs, Friends of River Narmada and Narmada Bachao Andolan

According to their website, the Friends of River Narmada is an international coalition of individuals and organizations, though largely of Indian descent. It functions as a support and solidarity network for the *Narmada Bachao Andolan* (Save the Narmada movement) that works for the rights of the people of the Narmada River Basin. Swain describes this type of organization when he writes that they are typically “independent nonprofessionals without any political party or institutional affiliation and primarily

motivated by the need to arouse collective consciousness and action against exploitation and oppression at the local level.”(825)

The group runs on volunteers and it is based on an understanding that the Sardar Sarovar project, which is never mentioned by name, was created without the people of the River Basin’s consent or involvement, and that they have a right to resist the project. For them, resistance is an almost holy calling, and they feel that the Sardar Sarovar project will not be the panacea that the government promises. On the issue of sacrifice, the Friends of the River mentions both that those whose livelihoods are to be sacrificed deserve just compensation, and that the burden of progress should not borne by them alone in a tone that indicates a desire for the flooding of some government mansions in the Indian Capitol of Delhi.

The Friends of the River understand that their struggle not to have the Narmada River dammed and the canals built is part of a larger one that connects the Narmada River to other struggles in India, and they mention Union Carbide’s record in Bhopal and the “forgery of Environmental Clearances by Ernst & Young,”. Friends of the River understands the choices that developing countries like India are making about their development, and this connects them to people’s struggles around the world. They make their desire for greater participation in debates about their own development clear. In connecting the fight for the River Narmada with others’ struggles, Friends of the River’s website concludes with an expression of desire that their work might be a “symbol of hope for people's movements all over the world that are fighting for just, equitable, and participatory development.”

“Daughter of the Hindu god Shiva, Narmada is worshiped in numerous temples located along her banks. For generations, devotees have undertaken aparikrama, a foot pilgrimage along both banks of the river that traditionally takes three years, three months, and three days.” (Routledge, 113)

This passage is included because the *Narmada Bachao Andolan* (Save the Narmada Movement) is the indigenous people’s movement part of the work to stop the Sardar Sarovar project, as the Friends of the River is the non- indigenous Indian part of the movement and Routledge’s quote connects the Narmada Bachao Andolan with the Narmada River Basin itself. Narmada Bachao Andolan was formed when the Chhatra Yuva Sangharsh Vahini (Student-Youth Struggle Force) that was formed in Gujarat in the 1980s, and the “Narmada Ghati Navnirman Samiti (Narmada Valley New Awakening Committee) in Madhya Pradesh and the Narmada Ghati Dharangrasta Samiti (Narmada Valley Committee for the Dam-Affected) in Maharashtra” joined forces. (Swain, 827)

The indigenous people of the Narmada basin are called the Adivasi and they are not counted on Indian government censuses. According to someone living with the Narmada Bachao Andolan supporters, the result of the Sardar Sarovar project will be the ‘cultural submergence’ of the Adivasi: their homes, farms, and ancestral sacred places. In response, the Narmada Bachao Andolan created teams that would stay in the villages permanently. “As waters rise with monsoonal rains... activists refuse to move from their homes, even at the cost of their lives. Militant nonviolence is summed up in the slogan, "We will drown, but we will not move." (Routledge, 114)

Narmada Bachao Andolan’s other activities include political empowerment, road blockades, and demonstrations against the government authorities and the World Bank. One rally in 1989 in a village of 20,000 people that was to be flooded attracted 60,000

people. The following year, the Adivasi blocked a bridge over the Narmada in Madhya Pradesh and had a five-day occupation at the home of the Prime Minister in Delhi. (Wood, 1978) The People's Progress Struggle march in late 1990 was also critical in the World Bank's decision to call for its own independent review, as the bridge blockade and office occupation included 5,000 mostly indigenous protestors and initiated a series of sit-ins and fasts in January 1991. These activities included famous anti-leprosy activist Baba Amte and social worker Medha Patkar whose leadership was recognized globally. When talks with the government failed, Narmada Bachao Andolan's leadership called off the fasts and sit-ins, but they began a "noncooperation movement in the valley, including an anti-tax payment campaign and the prevention of all government officials except teachers and doctors from entering villages." (Wood, 1978)

3.5 Arundhati Roy

Roy was born in 1961 and lived in the Indian state of Kerala until she was 16. Her father was a tea planter. She went to Delhi at 16 where she lived at a cricket ground and sold empty bottles before attending the Delhi School of Architecture. Her first and only novel, *The God of Small Things*, won the Booker prize in 1997. In 1998 the essay *The End of Imagination* addressed India's testing of nuclear weapons to which she was opposed and was published in 1999's *The Cost of Living*, which also included an essay on the impact of large Indian dams, particularly the dams on the Narmada and the hydropower projects scheduled for the states of Maharashtra, Madhya Pradesh and Gujarat. In 2002 when she was publishing *Power Politics* she was fined and jailed for a

day for her protests against the Sardar Sarovar project. Wikipedia U.S. notes that Roy has a notable following in the U.S., with readers ably differentiating “between her opposition to US foreign policy and her views on the country itself.”

In an interview with Mishal Husain of the Public Broadcasting Service in 2003, Roy deals with the responsibility that came with her international celebrity status by making the point that the real responsibility for all parties “is to know what you're doing” and that when people or people acting on behalf of institutions make statements, they need to understand what it is they are really discussing. For Roy, the struggle for control over the Narmada River Basin was more than a cause, but a “way of seeing the world.... It informs everything that one does and the way one thinks. And it informs everything about me.” Roy is a classic social green with her understanding of the linkages between environmental and social destruction, but her international status and lack of institutional affiliation created a greater force in the conflict over the Narmada River.

In the essay, *The Greater Common Good*, found on the Friend of the River Narmada’s website and published in [The Algebra of Infinite Justice](#), Roy tells the story of the project through its larger themes. A series of passages with these themes, included below, illustrate why she is a party in the conflict unto herself, not simply another social green. These are the first paragraphs of the essay and they set the tone of amazement and reveal her ability to expose the inconsistencies of the project in a way in which they, almost, seem like a logical response to development concerns.

“I stood on a hill and laughed out loud.

I had crossed the Narmada by boat from Jalsindhi and climbed the headland on the opposite bank from where I could see, ranged across the crowns of low, bald hills, the tribal hamlets of Sikka, Surung, Neemgavan and Domkhedi. I could see their airy, fragile, homes. I could see their fields and the forests behind them. I could see little children with

littler goats scuttling across the landscape like motorized peanuts. I knew I was looking at a civilization older than Hinduism, slated - sanctioned (by the highest court in the land) - to be drowned this monsoon when the waters of the Sardar Sarovar reservoir will rise to submerge it.

Why did I laugh?

Because I suddenly remembered the tender concern with which the Supreme Court judges in Delhi (before vacating the legal stay on further construction of the Sardar Sarovar Dam) had enquired whether tribal children in the resettlement colonies would have children's parks to play in. The lawyers representing the Government had hastened to assure them that indeed they would, and, what's more, that there were seesaws and slides and swings in every park. I looked up at the endless sky and down at the river rushing past and for a brief, brief moment the absurdity of it all reversed my rage and I laughed. I meant no disrespect." (1)

Roy would not have become the phenomenon that she remains if she were not beloved by her own people and it is unlikely her writing would have such power if her writing were not so firmly grounded in a sense of physical place. The passage below, one of the most affectionate, speaks to native Indian themes in a unique historical context as she discusses Indian archetypes and reveals their inadequacies for the current age while demanding new ones. As an Indian, Roy is both the heir and the disinherited granddaughter of the Indian legacy as she reflects on what it means to come from both Nehru and Gandhi.

On the other, [the conflict is told] as a Nehru vs. Gandhi contest. This lifts the whole sorry business out of the bog of deceit, lies, false promises and increasingly successful propaganda (which is what it's really about) and confers on it a false legitimacy...

The Nehru vs. Gandhi argument pushes this very contemporary issue back into an old bottle. Nehru and Gandhi were generous men. Their paradigms for development are based on assumptions of inherent morality. Nehru's on the paternal, protective morality of the Soviet-style Centralized State. Gandhi's on the nurturing, maternal morality of romanticized village Republics. Both would work perfectly, if only we were better human beings.

It's possible that as a nation we've exhausted our quota of heroes for this century, but while we wait for shiny new ones to come along, we have to limit the damage. We have to support our small heroes. (Of these we have many. Many.) (3)

While Roy's novel, The Good of Small Things, dealt with family and history, of the details that built up, here it is Roy's ability to place the numbers, in a sense the

opposite of details, in context that make this passage so powerful and helped her connect with so many people across India and the world.

“Fifty million [people who will be displaced by the dam] is more than the population of Gujarat. Almost three times the population of Australia. More than three times the number of refugees that Partition created in India. Ten times the number of Palestinian refugees. The Western world today is convulsed over the future of one million people who have fled from Kosovo.” (6)

The World Bank’s independent review in the form of the Morse Commission came to the same conclusion that Roy does below, that the state would not be able to resettle the people who would be flooded from their homes, but here she writes from the Adivasi’s perspective and gives voice to the illiterate and ancient people. Roy also mentions a theme shared with the Friends of the River Narmada, about sacrifice, but here she points out who is being sacrificed and for whom.

From being self-sufficient and free, to being impoverished and yoked to the whims of a world you know nothing, nothing about - what d'you suppose it must feel like? Would you like to trade your beach house in Goa for a hovel in Paharganj? No? Not even for the sake of the Nation?

Truly, it is just not possible for a State Administration, *any* State Administration, to carry out the rehabilitation of a people as fragile as this, on such an immense scale. It's like using a pair of hedge-shears to trim an infant's finger nails. You can't do it without shearing its fingers off. (22)

One of Roy’s gifts is clearly leaving the reader unable to decide whether to laugh at her targets’ incompetence or decry their callousness. Her gift for detail is again apparent here where she takes the example of one type of livelihood that will be eliminated by the Sardar Sarovar project and reminds the reader that the Sardar Sarovar project was a political decision and not an act of God, that there are people to blame, that it is an example of something that has happened before and will happen again unless something fundamental changes.

The government simply says that it will alleviate the loss of Hilsa fisheries by stocking the reservoir with hatchery-bred fish. (Who'll control the reservoir? Who'll grant the

commercial fishing to its favorite paying customers?) The only hitch is that so far, scientists have not managed to breed Hilsa artificially. The rearing of Hilsa depends on getting spawn from wild adults, which will, in all likelihood be eliminated by the dam. Dams have either eliminated or endangered one-fifth of the world's freshwater fish. (27)

In the conclusion to the *Greater Common Good* Roy offers a pyrrhic prescription for governing in which government through demonstrating its power and abusing its people replaces their gods. If she had not spent the past 32 pages demonstrating that the Indian government had not used all the tactics described, the passage, part of a longer one, would not seem relevant to the current conflict. It would seem like the ravings of someone deranged, but what makes it so powerful and problematic, is that the passage is a summation of the entire essay, an accounting of how the project came to be built.

To slow a beast, you break its limbs. To slow a nation, you break its people. You demonstrate your absolute command over their destiny.... How you can start a war, or sue for peace. How you can snatch a river away from one and gift it to another.... You use caprice to fracture a people's faith in the ancient things - earth, forest, water, air. Once that's done, what do they have left? Only you. (33)

3.6 International Non- Governmental Organizations Involvement

International organizations that monitor the World Bank's activities were aware of the Sardar Sarovar Project, but as the indigenous movement against the project, the Narmada Bachao Andolan, gained ground, more NGOs became involved. A partial list of International NGOs involved in the issue as of 2003 includes but is not limited to

Friends of the Earth, International Accountability Project, Bank Information Center, International Rivers Network, Environmental Defense, Oxfam America, South Asia Network on Dams, Campagna per la Riforma della Banca Mondiale, Bretton Woods Project, Swedish Society for the Protection of Nature and the Charles Stewart Mott Foundation. (Brosshard et al, introduction)

Most organizations are based in the U.S. or Europe and profiles of several and their role in supporting the Narmada Bachao Andolan are detailed here. This section is intended to demonstrate the diversity of the international NGO involvement so that the

intervener can recognize NGO participation as the social green approach when they encounter it in the field.

The International Accountability Project (IAP) is based in San Francisco and is primarily a legal support organization for people affected by multilateral development banks like the World Bank and the Asian Development Bank as well as international private companies. One of IAP's specialties is legal assistance for people whose could become refugees because of projects like dams and massive irrigation canals. An example of IAP's work was to participate in a fact-finding team to the Narmada River Basin in September 2002, to investigate the resettlement and rehabilitation issues arising from the Sardar Sarovar project and then write and distribute a report that detailed problems with the resettlement plans. IAP's conclusions range from "The residents of Chikhalda, also in Dhar District, affected at the dam height of 95m, have not been resettled at all. The rehabilitation site chosen for Chikhalda was itself subject to being submerged" to tales of Adivasi "who are predominantly tribal, told the fact-finding team that, though they have been cultivating the land for generations, their names do not figure in land records and now their lands are going to be submerged without entitlement to any compensation." (Clark, 2)

The Bretton Woods Project was created by a network of British NGOs, which now "includes over 7000 non-governmental organizations, policy-makers, journalists, researchers and parliamentarians worldwide." The Project focuses on analysis, reporting, and media work on the actions of the World Bank and the International Monetary Fund with particular attention to social and environmental issues. Regarding the projects in the

Narmada River Basin, one report documented how the Bank nearly stopped funding large dams after the poor press the Project caused the Bank to receive on the Sardar Sarovar project, and called attention to the Bank's new Water Sector Strategy that indicates a new direction for the Bank that may again include massive dams like those on the Narmada.

If the International Accountability Project helps communities defend themselves legally and the Bretton Woods Project is their research arm, then the International Rivers Network (IRN) links struggles for free flowing rivers and the rights of people whose lives depend on them, and is involved in their struggles where they occur geographically. IRN is based in San Francisco, California, and has been involved in protecting the Narmada River Basin for 19 years as of 2008. They too oppose the current World Bank development model for "water, energy and protection from damaging floods," but they help call attention less to the machinations of the Indian government and the World Bank and more to Narmada Bachao Andolan; how the international community can participate in solidarity actions with the villagers and the Adivasi; and what lies ahead for them as the Indian government builds more dams for hydropower. The IRN also focuses on indigenous people worldwide as they are most likely to be affected by the creation of large infrastructure, which explains why the lack of attention and compensation that the majority of the Adivasi received from the government was a major focus of IRN's involvement.

La Campagna per la riforma della Banca mondiale (CRBM), a Rome-based coalition of 41 Italian development NGOs, environmental and human rights organizations that work on issues of globalization, human rights, and environmental protection, is

prompted by the actions of both multilateral development banks like the World Bank, but also parallel ones in Europe; they also pressure the Italian government and the Italian parliament on their own credit export programs. While active in NGO coalitions on a broad array of economic action topics, CRBM also offers grants for research on socially and environmentally destructive World Bank funded projects in the Mediterranean region. The purpose of the grants is to “enhance the capacity of local groups to monitor multilaterally financed development projects, and to establish long-term relations between them in the frame of the "Med Bank Watch Initiative"”.

All these NGOs collaborated on a report published in 2003 in which it was reported that the land holdings of the Adivasi communities had not been registered, and that when they had been acknowledged at all the Adivasi were given bare land that did not have “access to water, other common resources and infrastructure.... Increasingly, affected people are forced to accept simple cash compensation as the water level is rising.” The report also details a phenomenon demonstrated in the World Bank’s own writings in which they report that the Bank allowed a Secretary in India’s Ministry of Water Resources (and a former World Bank employee) from the Indian government to celebrate the project that the annual ‘Water Week’ commemorations. (Brossard et al, 33)

As one of the hallmarks of the social green approach is cooperation, it is thus worth mentioning World Water Day, an initiative that grew out of the 1992 United Nations Conference on Environment and Development (UNCED). World Water Day brings together NGOs from diverse political perspectives, governments, and private companies in 35 countries for activities ranging from stream bank litter removal to

academic conferences. All activities are listed on the United Nations' website and many of the activities involve cross sector collaboration. Specifically in the social green and NGO sector, Friends of the Earth and the International Rivers Network did much of their work opposition the projects in the Narmada River Basin with other US and European-based organizations, but also with organizations based in India, including the Narmada Bachao Andolan and Friends of the River.

Chapter 4, Conflict over the Narmada River and the Three Approaches

This chapter attempts to help the intervener understand how the conflict over the Narmada River Basin can be understood through the three party approach; both its strength and its weakness, and how to use the history of the Narmada River Basin to understand other conflicts that are ostensibly over natural resources.

4.1 Discernment of Parties into one of Three Approaches

While Clapp and Dauvergne identify the World Bank as a leader in the institutions promulgating the market liberal approach, if the Bank had been called something else or the conflict intervener were dealing with a semi- autonomous Bank staffer in the field, there are still ways to place its perspective into the market liberal approach. One is their optimism regarding technology, as seen by the fact the Bank knew that there were problems with the project when it funded it initially in terms of its environmental and social consequences. However the Bank believed that the problems could be worked out. It was not until the Bank's own independent commission that flatly stated that the problems could not be worked out, that the Bank withdrew from the project.

Another hallmark of the market liberal persuasion is their belief that a higher standard of living is best achieved through greater integration into the global monetary system in which buying and selling replace growing and trading. This conviction is

demonstrated in the Bank's writings on irrigated agriculture in which they point out that irrigation helps farmers grow high value crops. The phrase 'high value crops' is another way of stating 'exportable goods that are not grown for local consumption.' For example, when a person or organization is encouraging farmers to grow water intensive crops like cotton or sugar in a desert, they likely have a market liberal approach to managing water.

Assuming that people are not readily identifiable when the practitioner encounters them in the field, one way of separating the institutionalists, such as the United Nations, universities, and national or regional/local governments from the market liberals, is to examine their attitude toward relocating the Adivasi, or the indigenous people of the Narmada River Basin. According to the social greens and the Bank's review, the Indian government did not count them, or they decided to relocate them to undeveloped lands, or they demanded that a people who had never used money, take cash settlement. Unlike the Bank, the Indian government never thought that there was a technological fix, the government simply mirrored the perspective of the rest of society and thought it could use the same solution as they had before. The Indian government had built dams and displaced people before with out their actions leading to an international solidarity movement and withdraws of major infrastructure funding.

When the World Bank pulled out of the projects in the Narmada River Basin, the government went ahead and continued building the dam without the Bank's money; they had a regional vision that prevented them from stopping. While the lack of the Bank's money prevented them from building the rest of the dams on the Narmada on schedule,

the tying of the project to the greatness of the people is a common theme among the institutionalists. Universities are strong institutionalists because they are confronted with their responsibilities daily and the need to make their mark on their students. This is mirrored in the way governments like to mold their people and create massive projects, from great walls to ships, all to display the power of and sometimes over their people. This proclivity is demonstrated in nations as different as the U.S. and China.

The social greens, if they do not have labels such as an email address ending in ‘.org’ can be difficult to assess or label because they can be found bearing other labels, for example employed at the World Bank or teaching at a local university or high school. If the intervener met a staff member from the International Rivers Network in the field, they would know that they did not work for the World Bank or the United Nations because the staff member would be working on a project that dealt with the Adivasi and discussing how their struggle connects with others displaced by dams in Africa or South America. The person holding the social green perspective might be working in a more arid region, helping people rebuild traditional water catchments. Connecting the local concerns with global ones and advocating for solutions that keep the resource under local control using traditional solutions to what are otherwise seen as technological problems mark both these examples as social green approaches. Despite the charisma of large dams and manufactured lakes, the social greens, Arundhati Roy in particular, wielded power in this conflict by igniting people’s imagination and in the use of prose to galvanize and educate people globally about the meanest of facts and grandest of visions.

4.2 Conflict Reflects Interaction between the Three Approaches

The market liberals are in some ways indebted to the institutionalists for their mishaps with the resettlement process, because it gave the market liberals someone to blame besides themselves when their own commission demanded the World Bank withdraw funding for the Sardar Sarovar project. However, the Indian government was less a focus of the social green's ire than might be expected, given that the Indian government planned the project, and the Bank was held responsible for the defects of the projects it funds. The Bank also relied on the outcry generated by the social greens because they were able to save face and say that the independent review was demanded by their stakeholders, the social greens, not that the Bank had done a poor job of initial evaluation and now needed to go back and reexamine their work in light of the project's actual progress; this latter may be closer to the truth. The Bank's de facto withdrawal from the project could also be blamed on the social greens' demands and positioned as an example of the Bank's responsiveness to criticism and flexibility instead of an indictment of the Bank's own lack of research and discernment.

The institutionalists too rely on the social greens, but for a different purpose insofar that the social green did part of their job since the Indian government, not the villagers and the Adivasi of the Narmada Bachao Andolan, the NGOs, or Arundhati Roy, were charged with administering to the potentially displaced and making the displaced count. While the diversity of tactics and organizational forms the social greens opposing the Sardar Sarovar project is typically understood as one of its strengths, in this instance their diversity of sentiments and ways of expressing them provided an excuse for the

institutionalists, as it allowed them to blame the entire movement on outsiders and western elite, thus moving attention away from their own failings. Here the institutionalists' failings included convincing the World Bank's review team that they were competently managing the project, but also to garner sympathetic media coverage of the issue. For example, when the Indian government was unable to provide realistic plans to resettle the Adivasi, the social greens gained, as it was revealed that their adversaries were not telling the truth, which they had insisted on from the outset of their opposition to the Sardar Sarovar.

The social greens also relied on the World Bank's own candor and the clear reluctance within the Bank to cancel the Sardar Sarovar projects once they realized there were problems with them, which likely occurred many years before the independent review was forced upon them. Had the Bank quietly pulled out of the project earlier, the only target of the protests would have been the Indian government, which is harder to hold accountable because of its institutionalist or bureaucratic, way of organizing itself. It is also harder for outsiders, such as many of the social greens, to hold national governments accountable and the simple misdeeds of a national government would not have attracted the media attention the World Bank's failings did. Since many NGOs have their funding related to their ability to garner media attention, every public mistake, every wooden spokesperson, every example of skewed numbers used publicly by the Indian government helped the social greens fund their cause and maintain focus on the issue. This is not to say that media does not have its own purposes; organizations like the World Bank are responsive to the pressure that bad press can help generate, and the media does

serve a vital public education tool. However the role it plays in helping one sector of the social green economy stay in business should not be underestimated.

4.3 Role of the Intervener

The Intervener's actions will depend on the type of access he has, both in terms of which party, but what level in that party, and what skills the intervener possesses. Clearly also, whomever is employing the intervener will matter as well because it will dictate the terms as well as the access to the parties under which the intervention is performed. One of the central issues with the Narmada River Basin conflict is that none of the parties thought they had anything to gain from resolving the conflict in any way but by winning completely; their Best Alternative to a Negotiated Agreement (BATNA) were all strong. As of this writing, the main dam on the Narmada River had been built and the water is rising, flooding villagers and Adivasi from their homes and ancestral lands. However the other dams scheduled have not been built, and without funding from the multilateral development banks, their prospects are unclear. One of the main goals the intervener may wish to address is creating a situation in which the parties clearly have something immediate and specific to gain through the resolution process.

Preferably before the intervener enters the contested site, he will want to research the parties and understand their motivations to the greatest extent possible and examine if they fall into one of the three approaches detailed here. The intervener will be able to ask what role economic growth has in the parties' understanding of human development, whether the parties see people and the environment as a connected whole, and what role

government should have in providing its citizens with basic infrastructure. The intervener should be able to understand a great deal about the parties from their approaches to issues of land and economic development. While the reality is that many parties and institutions will have elements of each approach within their perspective, understanding which approach fits them best will help the intervener in the assessment phase of the intervention. If the intervener views part of their job as elevating all the parties to the point where they have something to gain by participating in a conflict resolution process of some form, then understanding the parties from the standpoint of the three approaches will also be useful.

Most interventions are designed for a specific level of conflict; this way of parsing the parties into three approaches will work only at the institutional level. At the personal level the parties approach is interesting, but unless they represent larger groups of people organized into institutions it is irrelevant. This approach does not work at the societal level because the approaches do not represent primarily values. While the approaches use language relating to values, they are primarily about processes by which value is created, not the nature of value itself.

The problem with water is distribution, and the analysis of the conflict over the Narmada River Basin confirms this; no party claimed that there was not enough water in the river or that conditions had changed from historic trends. There was also no claim that there was not enough water for irrigation and hydropower, only that the two uses of the river were incompatible simultaneously. In an analysis of the parties involved, each party met the criteria for one of the approaches that this thesis proposes cause the

conflict, each with its corresponding environmental and social worldview. The relevance of understanding the three approaches to managing water was demonstrated with the Narmada River Basin case study in which each party was viewed as having a valid vision that bore the hallmarks of their approach to managing water.

Chapter 5 Conflict over the Nestle Waters Bottling Plan in McCloud, California and the Three Approaches

McCloud, California, is located in the northern part of California, about 60 miles south of the Oregon border, 280 miles north of San Francisco, and nine miles south of Mt. Shasta. The site of the proposed water bottling plant is on 252 acres of the retired Cal Cedar lumber mill site and its eastern edge is Squaw Valley Creek. (Draft Environmental Impact Statement, 2.2.1) Downtown McCloud has several buildings dating from the late 1800s, including the McCloud Hotel, the Stony Brook Inn and the Century House Inn. (Mann, 2006) The proposed plant would ultimately be up to one million square feet total and would include 24 acres of asphalt and concrete in the form of parking lots and private roads. (Draft Environmental Impact Statement, 2.2.4)

Mt. Shasta itself has erupted roughly every 600 years for the last 4,500, with the previous eruption occurring 200 years ago according to radiocarbon data. (USGS) The forest around Mt. Shasta is federally managed as part of the Shasta- Trinity National Forest, which includes Castle Crags National Wilderness Area. Castle Crags State Park is adjacent to the National Wilderness Area and was created in 1984 by area citizens

wanting to preserve the area; the state park led directly to the designation of the adjacent area in the National Forest to National Wilderness Area with its protection from logging, mining, and motorized recreation.

With a population of less than 1,400, according to the McCloud Chamber of Commerce, the town's main business is tourism related to Mt. Shasta and the National Forest and rivers that surround it. Indigenous people lived in Siskiyou County for more than 7,000 years before white people came to the area in the early 1800s, and the area south of Mt. Shasta was primarily lived in by the Wintu people. (Siskiyou County Sesquicentennial Committee, website) Wintu is also the name of the language they and the other indigenous people of the region used. (Golla, 518))

The Wintu were "sedentary hunter-gatherers" (Ames, 394) who were organized into autonomous smaller tribes comprised of extended family groups, with the basic social, political and economic unit being the village. They had various social networks that bound them as a people and existed between villages. They included one for exchanging basic goods, one for establishing political and military norms, one for sharing information, and another for what was called "prestige-goods." (Ames, 395) They lived in permanent villages near rivers and streams and each village had a territory consisting of particular hunting and gathering areas only available for their use. They subsisted largely on deer and acorns, but salmon, brown bears, and small mammals were also part of their diet and they used technology varying from knowledge of their hunting grounds that allowed them to chase deer over cliffs to weaving technology and spears tipped with obsidian. (Mt. Shasta Companion, Wintu)

Non- indigenous people came to the area in roughly three waves: expeditions funded by the Spanish and Russians that started in 1808, the Hudson Bay Company and early U.S. Government Survey expeditions that started in 1826 and lasted roughly until 1860 (Miesse, Ch. 5-6), and McCloud's presence on the Oregon California Trail and subsequent mountaineering and industrial incursions including activities ranging from gold mining to industrial timber removal. (Miesse, Ch. 10) John Muir, an early conservationist and explorer, also frequented Mt. Shasta in the mid 1870s, remarking "Long may McCloud salmon swim!" (Muir, 1874)

Muir was part of the pattern of white people moving into the region around Mt. Shasta that led to McCloud's founding as company town built by McCloud River Timber Company, in the late 1800s. McCloud River Timber Company was a descendant of the McCloud River Railroad Company, and known in town as 'Mother McCloud,' until 1963 when the company and the town were bought by U.S. Plywood. The company owned everything, from schools to roads. "'You name it, we had it," said Alice DeBon, who runs a bed and breakfast in a home that belonged to the mill owner in McCloud." "We had a roller rink, a theater. They bought a Christmas gift for every kid up through senior year of high school." (Melley, 2004)

A company to run the town was formed by U.S. Plywood and the town became private, which included creating the McCloud Community Services District to manage the town's basic utilities and municipal services. Champion International eventually bought the U.S. Plywood timber mill with the intention of keeping the town's economy in

its historic jobs, but it closed its last timber mill in 1979 and sold the site to P&M Cedar Products. (McCloud Chamber of Commerce)

The McCloud River Railroad Company followed the town in its economic downturn of the late 1970s and 1980s, only becoming economically viable when it re-branded itself as the Sunset Dinner Train in the mid 1990s. The original timber mill in McCloud, owned by P&M Cedar Products from 1980 to 2002, is currently closed.

(McCloud Chamber of Commerce) One the big winter attractions currently part of McCloud's interest to new residents and tourists is the Mt. Shasta Ski Park which was founded in 1985 and has had more than 1.6 million visitors since. (Ski Park website) It continues to add to its place in the economic development of McCloud, with new facilities including trails, ski lifts, and snowmaking equipment since 2000. In the summer, the Ski Park hosts weddings and concerts, as well as hiking and mountain biking, making it a source of revenue for the local region throughout the year.

5.1 Role of Natural Resources in McCloud's Economy

The relationship between natural resources and local economies has changed as the economy has shifted away from resource extraction. Increases in population and in households' incomes, plus changes in tastes and preferences, have dramatically increased demands for outdoor recreation, scenic vistas, clean water, and other resource-related amenities. Such amenities contribute to a region's quality of life and play an important role in attracting both households and firms. (ECONorthwest, 15-6)

5.1.2 Role of Water in McCloud's Economic Development

McCloud's water resources consist of underground springs and above-ground rivers and creeks. Squaw Creek is of interest to the conflict because the springs that the Community Services District currently use and the proposed bottling plant would use,

feed into Squaw Creek. According to Dean's AnglerNet, Squaw Creek is known for its fishing; rainbow trout, bass, and catfish are some of the more charismatic fish species tourists come to McCloud to fish for. Additionally, Squaw Creek is different from the other streams in the area because it flows into the McCloud below the dam that forms Lake Shasta, allowing it to support migratory fish. (The Source Group, 2.4) Among the businesses that rely on Squaw Creek is McCloud Fly Fishing Adventures. According to their website, "Enjoy the beautiful and wild McCloud River, home to a historical strain of rainbows... On the McCloud, you also have the opportunity to hook up with one of its elusive German Browns, some exceeding 24 inches in length." People who come to McCloud to fish with Rick Cox and his company also provide ancillary benefits in the form of rooms at local hotels and business for local outfitters and eateries.

The McCloud River was the site of California's first fish hatchery, where McCloud rainbow trout were propagated and distributed around the world. (ECONorthwest, 18) Among the communities that received McCloud River trout were Neosho, Missouri; the Great Lakes; Springville, Utah; Patagonia, Argentina, and New Zealand. The McCloud River first came to national attention in 1874 when the nascent U.S. Fish and Wildlife Service was told that the "River presents an instance of what is becoming increasingly rare, at least in the more accessible parts of the country, namely a region which is just as it was before the white man found it..." (Schley, paragraph 10) The hatchery was closed when construction on the Mt. Shasta Lake dam was initiated in 1935.

The State of California recognized the unique qualities of the McCloud River when it was designated under the California Wild and Scenic Rivers Act in 1989. (Website, Friends of the River) When a river is designated thusly, “recreational, fishery, or wildlife values” are prioritized above all other uses, and the use of the river for recreation is recognized as “reasonable and beneficial use of water...” under the State Water Laws. (California State Code Sec. 5093.50) Siskiyou County’s Draft Environmental Impact Statement also recognized the benefits the McCloud River makes available, including recreation and fish and wildlife habitat, as well as residential water supply. (Draft Environmental Impact Statement, Introduction) Also recognizing residential use is the Community Service District’s Water Supply Assessment in which a table shows 11 times more water being used for residential than commercial use, the second biggest water user in the Community Service District. (The Source Group, Table 2) The Community Services District receives an additional benefit from the rivers because “the water, supplied by snow and glacial melt, is so pure that it doesn't have to be treated before it flows out of taps.” (Mann, 2006) No filtration is a huge savings for the town’s residents and businesses.

5.1.3 Summary of Benefits McCloud Receives From its Natural Water Resources

Information from report commissioned by the McCloud Watershed Council and written by ECONorthwest, p22.

Table 3. Benefits from McCloud’s Natural Resources

- Production and regulation: Natural and human-built features capture precipitation; filter, retain, and store water; regulate levels and timing of runoff and stream flows; influence drainage...
- Formation & retention of soil: Wetlands and biota accumulate organic matter, and prevent erosion to help maintain productivity of soils.
- Regulation of disturbances: Wetlands and reservoirs reduce economic flood damage by storing flood waters, reducing flood height, and slowing velocity of flood.
- Biological control: Birds, bats, and microorganisms control pests and diseases.
- Production of recreational resources: Streams, reservoirs, riparian vegetation, fish, waterfowl, and other wildlife provide basis for outdoor sports, eco-tourism, etc.

5.2 History and Context of the Conflict over the Proposed Bottled Water Plant

Table 4. Timeline of the Proposed Nestle Waters North America Project

June 22, 1993	New Siskiyou County businesses eligible for tax credits under California’s Enterprise Zone program
2002	Timber mill in McCloud, then owned by P&M Cedar Products, closes. Site is proposed to become the Nestle Waters plant
September 29, 2003	McCloud Community Services District holds public meeting to consider the tentative agreement negotiated with Nestle Waters
October 1, 2003	Contract with Nestle Waters of North America signed by McCloud Community Services District
May 7, 2004	Forest Service receives an application from the McCloud Community Services District (MCSD), to build waterlines for the proposed water bottling facility
March 2005	Superior Court rules that the contract between the McCloud Community Services District and Nestle Waters North America ought not have been signed prior to environmental review.
January 25, 2006	Nestle Waters requests Judge Kosel recuse himself from any further rulings related to the lawsuit brought against Nestle in 2004
2006	Nestle Waters plant proposed to open in the original contract signed by McCloud Community Services District in 2003
2006	Existing mill buildings on the proposed site razed
January 26, 2007	Organizations opposed to the proposed plant subpoenaed by Nestle Waters regarding the organizations’ finances, communications, members
June 2007	Showdown in McCloud aired on CNBC
July 2006	Draft Environmental Impact Statement released
January 3, 2007	Court rules Nestle Waters- Community Services District contract valid
October 2007	McCloud Watershed Council releases report, Potential Economic Effects of the Proposed Water Bottling Facility in McCloud
November 17, 2007	Nestle Waters releases report, Economic Impact of Nestle Waters North America on the Siskiyou County Economy
February 11, 2008	Nestle Waters modifies its operating plans, reopens the Draft Environmental Impact Statement for more comment, cites need for additional study
June 21, 2008	Date by which projects eligible for tax credits under California’s Enterprise Zone program must be underway

5.2.1 The Context of the Conflict

The growth of the global market for bottled water is documented in this work in section 2.2. However, it remains relevant that with “global value market share of 18%,” Nestle Waters North America bottles and sells more water than any other company in the U.S. and Canada. (Nestle Water Management Report, 19) Nestle Waters’ growth as a company has also mirrored larger industry trends, with bottled water sales described in a local paper as “exploded in the United States over the past decade, outpacing beer, coffee, milk and trailing only soft drinks in volume...” (Melley, 2004) Nestle Waters has also been active in promoting the role of hydration in health, noting that “mental functions are sensitive to hydration levels. In situations requiring concentration and focus, people must be particularly alert to the need to remain properly hydrated.” (Nestle Water Management Report, 19) As far as the nature of what Nestle Waters would bring to McCloud, it was also noted in a paper released by one of the parties that the majority of Nestle Waters’ bottling plants are “less than 15 years old, and they use high-speed, vertically integrated manufacturing processes.” (ECONorthwest, 23) This is relevant because typically there is an inverse relationship between advanced technology and high employment figures.

The conflict began when the McCloud Community Service District started looking for a company to bottle its water, as early as 1993, almost ten years before they signed a contract with Nestle Waters. (Mann, 2006) However, from the point of view of this writing, the conflict became active on September 29th, 2003 when the Community Services District held its first public meeting to present the contract with Nestle Waters

that it would sign a few days later on October 1. The meeting lasted for an hour and a half and this was the first time that people who were not employed by the District or Nestle Waters were informed of the District's intention to go into business with Nestle Waters. (Document C050811, 4)

One the issues for both parties is that the springs that the plant would draw from flow into Squaw Valley Creek, and the Draft Environmental Impact Statement noted that the amount of water the plant would take could "also affect groundwater recharge and water levels on adjacent lands along the waterway" and that this would be accentuated during times of drought. The ramifications of this finding is that neighboring areas might need to drill new wells or deepen existing ones in order to respond to the lowered groundwater levels (ECONorthwest, 53)

In terms of the proposed bottling plant's ability to limit public use of a public resource, which would be needed to protect the water intake for the plant, the Draft Environmental Impact Statement notes that while the road to the intake is not closed with a gate, it is seldom used and most of its use is for recreation and on weekends. (DEIS, 3.3.1) The effect of this is that the closure or limits to access of the intake site would affect recreation in the Shasta- Trinity National Forest where the water is drawn from.

5.2.2 Employment at the Proposed Water Bottling Plant

There is disagreement between Nestle Waters and the McCloud Watershed Council regarding the impact of the proposed plant on the region's employment. A report commissioned by the Watershed Council from the Portland, Oregon research firm

ECONorthwest found that not only would there be fewer jobs than anticipated, but that the ones that McCloud residents would be most eligible for would average less than \$10 per hour, with the company advertising and anticipating to hire its more senior positions from around the country and within the company. (ECONorthwest 37-38)

Nestle Waters North America also released an economic development report at about the same time the Watershed Council published theirs. The Nestle Waters report was written by Chico State University and funded by the Siskiyou County Economic Development Commission. This study found that 236 people would be employed at the plant, 169 jobs would be added to the local economy through businesses that would supply the proposed plant, and up to 97 people would be employed in businesses selling goods and services to the people newly employed because of the plant. (Gallo, 2) The Nestle Waters report also notes that while their employment statistics are derived both from Nestle Waters directly and by using data from nearby bottling plants in Weed and Mt. Shasta City, that the proposed McCloud facility would be larger and “may result in economies of scale, allowing the bottling of more water with fewer employees.” (Gallo, 2)

In contrast to the Nestle Waters report, on the subject of what McCloud could expect in terms of net new jobs, the Watershed Council report noted the experiences of two other rural communities when Nestle opened a water bottling plant in their communities. In Red Boiling Springs, Tennessee, Nestle Waters was to employ 85 people at the plant’s opening. When the plant opened however, it was with 76 people and fewer than 15 people from the town were hired. (ECONorthwest, 39- 40) The ramifications of

this finding is that with less than 20 percent of employment at the plant actually coming from the town in which the plant was sited, there would also be 80 percent fewer associates employees; fewer ones in businesses supporting the plant since there is no guarantee that Nestle Waters would buy parts and other maintenance supplies locally, and the jobs servicing the new employees would be reduced by the same magnitude. Another rural town with a relatively new Nestle Waters bottling plant, Hollis, Maine, noted in its Comprehensive Plan that “There has actually not been a great deal of commercial development along Hollis’ major roads.” (ECONorthwest, 42)

The McCloud Grassroots committee takes a different view. While both parties are concerned about the economic situation of McCloud, the Grassroots Committee is the only party to cite the shrinking high school numbers and ambulance and fire services on its website. One of their members described the situation this way: ““I think the people in the county have a real good idea of the plight of McCloud....”” (Ross, 2007)

The introduction to the Draft Environmental Impact Statement, prepared by Siskiyou County, notes that with the demise of the local logging industry, there are fewer jobs than McCloud supported historically. Also, tourism and retirees have not created enough jobs to prevent most residents from traveling for employment which continues to “unravel the fabric of the community, and prevent economic recovery.” The Statement further affirms that the proposed water bottling plant will create as many as 240 managerial and manufacturing jobs, implying that most of the jobs are expected to be filled by McCloud residents. This contrasts with the Nestle Waters report that expects up to “502 full and part- time jobs.” (Gallo, 2)

The applicable Land and Resource Management Plan, for the section of the Shasta-Trinity National Forest adjacent to McCloud, notes that part of its mission involves “assisting rural communities to diversify their economic base and to develop new economic opportunities.” (Draft Environmental Impact Statement, 3.2) With regards to diversifying the employment base, per the mandate expressed above, the Watershed Council’s report cites a study regarding the net impact of new heavy industry on counties. It found that when 100 new workers were added to an industrial facility, the county lost 71 jobs already in the county. This spillover effect was largely due to the negative consequences to the county’s larger economy that were a result of the impact of the plant or factory in making the area less welcoming to residential development, and harmed other businesses with their use of local infrastructure, including the timing and tenor of interactions with local public officials. (ECONorthwest, 46)

The research notes with interest that in none of the three studies performed on the impact of the proposed bottling plant on the community of McCloud and Siskiyou County was the fact that Siskiyou County is one of 42 areas in California formally designated as an Enterprise Zone. (FTB 1047, 8) This relates to the prospects of employment in McCloud because companies operating in Enterprise Zones are eligible for \$31,000 per employee in state tax credits. There is also credit available for taxes paid and expense deduction for companies purchasing “certain property.” (FTB 1047, 2)

Table 5. Key Positions of the McCloud Grassroots Committee

Data taken from Committee's website

- Creation of more than 300 direct and indirect jobs many of which will be “blue collar” skilled worker positions
- Provide good wages to local residents including substantial benefits
- Nestle Waters’ aggressive commitment for employee involvement in the community
- Environmental safeguards to protect the water supply and the environment
- Creation of 2½ indirect jobs for every direct position created at the plant

Table 6. Key Findings Regarding Employment Potential from the Proposed Nestle Waters North America Bottling Plant

Data generated by ECONorthwest, commissioned by the McCloud Watershed Council

- Nestle Waters’ production lines run with just three to four employees per line; while efficiency is positive in terms of less pollution, it means that there are fewer jobs available for people from McCloud.
- Given the actual numbers, the plant would employ less than one percent of Siskiyou County.
- The contract with Nestle Waters does not commit it to a certain number of jobs.
- Nestle Waters stated in 2004 that a firm not from Siskiyou County would be used for engineering and as the construction managers for the project.
- When other bottling plants were built in Siskiyou County, local tradesmen were only hired towards the end of project and were only used as “daily crew rates for a few days or weeks at a time” instead of being awarded construction contracts.
- According to Nestle Waters, at least 30 percent of jobs would start at \$10 per hour.
- The national average for “production workers at bottled-water facilities (workers up through the line-supervisor level)” is \$13 per hour in the U.S. However in the nearby towns of Weed and Mt. Shasta City, jobs were advertised in local newspapers at \$8.50 per hour.
- Higher paying management positions are advertised not in the local newspaper but nationally and internally at Nestle Waters North America.
- Also related to the local bottled water wage trends, the facility in Mt. Shasta City employs roughly 50 percent of its staff on a seasonal basis.
-

Conclusion:

“Given the local experience with other bottling facilities, evidence from experiences in communities with new bottling facilities, and findings from economic studies, it is likely that Nestlé’s facility would not improve unemployment rates or overall employment levels in McCloud or Siskiyou County.” (ECONorthwest, 43)

5.2.3 Impact of the Proposed Plant on McCloud’s Population

The Draft Environmental Impact Statement (3.13.1) contains these figures regarding

McCloud’s population:

- 1960: population 2,140
- 1970: population 1,643.
- 1990, population 1,555
- 2000, population 1,343

- From 1960 to 2000, population reduction of 37 percent

One of the concerns expressed by the local non-governmental support for the proposed plant is the depopulation of McCloud, which started when ‘Mother McCloud’ was disbanded and the McCloud Community Services District was formed. For example, Penny Heil, who runs a store in McCloud, mentioned that while the small town quality of life was an important asset to be protected, "It's going to be a real peaceful town if no one lives in it." (U.S. Water News Online) McCloud Grassroots Committee sees population growth as related to why people stay in McCloud when they write on their website that “jobs and economic growth are necessary to.... maintain our quality of life.” Two of the four Grassroots Committee’s reasons for supporting the proposed plant are also population related: “Increase of young families in the community” and “growth of the area's schools.” (McCloud Grassroots Committee, website) For the Grassroots Committee, the findings in the Draft Environmental Impact Statement that McCloud’s demographics are following other western communities and shifting towards older people (discussed later in this section) are cause for concern, and they see the proposed plant as reversing that trend by providing opportunities for direct employment of young people.

The parties opposed to the proposed plant, however, have different concerns and express them differently, as demonstrated in their different responses to McCloud’s aging population and vacancy rates. The County’s Draft Environmental Impact Statement details that while there were twice as many vacant homes in McCloud in 2000 as in 1990, most of those homes are used seasonally and for people coming to McCloud for recreation. (Draft Environmental Impact Statement, 3.13.1) This analysis of vacancy rates

further supports the Watershed Council's assertion that McCloud's natural resources, the reason the homes are used for recreation, is what draws people to McCloud and that protecting McCloud's water is vital to the town's future economically. (ECONorthwest, 48) It is also relevant to note here that the Watershed Council considers that in the future, communities that control their own water supply will be economically superior to those subject to negotiation to achieve economic growth. (ECONorthwest, 17)

The opposition to the proposed plant, not the McCloud Grassroots Committee, also sees the findings in the Impact Statement that the growth of people between 45-54 years of age, 15.9 percent, as positive and accepts that McCloud is a "community that is in transition from a job-based economy with young families toward a retirement and vacation home economy predominantly comprised of an older population and a larger proportion of retirees." (3.13.1) The opposition to the plant points to the fact that older people bring capital with them that they spend in the towns where they retire. The opposition also posits that retirees create a longer term demand for the same services and infrastructure that attracts tourists and other economic development, but that does not require the same public subsidies and does not draw down the natural capital of the region. (ECONorthwest, 49)

5.2.4 The Impact of the Proposed Plant on McCloud's Infrastructure

Both meta- parties, those that support the proposed water bottling plant and those that oppose the plant, agree that there will be impacts on the community's infrastructure in terms of roads and additional water the current contact with the McCloud Community

Services District stipulates, as well as the use of the Community's wastewater treatment system. However, the report released by Nestle Waters does not mention any impact of the proposed plant on the community's infrastructure, so information on the potential impact on McCloud's infrastructure is limited to the report released by the McCloud Watershed Council, the County's Draft Environmental Impact Statement, and a study regarding the impacts of truck traffic on community infrastructure and health. To explain the omission of data on the impact of the proposed plant on the Community's infrastructure in the report Nestle Waters released, the topic of which was the economic impact of the proposed plant, one resident wrote in his web log: "The report writer admitted the report *didn't even consider* negative economic or environmental impacts (Apparently, Nestle Corporate only sees the *good* in everything...) (Chandler, November 2007)

The proposed plant would create wastewater, both from the industrial processes involved in creating bottles and delivering the water to them, and in terms of the plant's internal water use. If the plant treats the water in-house, there is risk to the nearby creek; if it sends the used water through the Community's sewage system, it will use some of the system's remaining capacity, leaving the community vulnerable during times of flooding with the potential need to enlarge the system sooner than would have been necessary had the proposed plant not contributed to the volume passing through. (ECONorthwest, 51) Sewage control has also been a problem at other local bottled water plants; a state inspection of the bottled water plant in Mt. Shasta City in 2006 noted that

wastewater was “flowing over the leach field and off the site, potentially contaminating surface waters.” (ECONorthwest, 59)

In addition to the water that will be supplied from the spring on National Forest Service Lands, the original contract between the Community Services District and Nestle Waters stipulated that the company was eligible to buy additional water from the District for needs not related to its spring water use. This water could be used for restrooms, maintenance, heating and cooling, and facility maintenance such as cleaning. (ECONorthwest, 28)

Concerns about transportation associated with the proposed plant include the wear on county roads from trucking the bottled water out of McCloud, employee transportation, and the impact of the vehicles’ exhaust on residents. The current contract between the McCloud Community Services District and Nestle Waters stipulates that the company may ship outside spring water to McCloud for bottling, (Draft Environmental Impact Statement, 2.3.9) but the ramifications of those actions are not included in the Draft Impact Statement. This option provides Nestle Water with increased flexibility, but does not aid the community in planning its transportation infrastructure. An example of what McCloud may expect from the proposed plant may be extrapolated from Nestle Waters bottling plant in Hollis, Maine, where trips by trucks hauling water increased from 431 in 2000 to 843 in 2002. (ECONorthwest, 55)

The use of 12.5% as the peak hour truck traffic concentration factor assumes a uniform distribution of trucks across an eight-hour shift; however, there may be fewer trucks on the roads during peak operating times because of interruption to the plant’s

production schedule by employee shift changes. (Draft Environmental Impact Statement, 3.3.5) The figures cited also do not account for seasonality in the water business, which the patterns of employment in other water plants in the region indicate may be a factor.

One study on the impact of truck traffic on communities called “The Trucks are Coming” (Tri- State Transportation Campaign, 2005) is particularly relevant. Its key findings

include:

- Trucks have a 20 percent greater likelihood of being involved in a fatal collision than cars, per mile on the road
- Collisions with trucks represented 10 percent of traffic fatalities in New Jersey in 2002
- Trucks of the type used to haul bottled water use diesel fuel which produces acid rain chemicals including nitrogen oxide (NOx) as well as particulate matter that can exacerbate lung diseases like asthma and promote cardiovascular disease.
- Children and the elderly are most at risk from the impact of diesel exhaust.
- While new federal regulations regarding emissions from trucks using diesel fuel are likely in the near future, their implementation will be slow and not demonstrated on the roads for a full generation.
- A single truck degrades the road surface as much as 2,000 to 3,000 cars. This translates into increased road maintenance costs to the effect of \$1.47 per mile driven by a truck

5.2.5 Whether McCloud Receive Just Compensation from Nestle for its Water

Payments to the McCloud Community Services in the initial contract with Nestle

Waters:

- Spring Water, up to 1600 acre-feet annually: 200 times HE Rate (per year), \$42,240
- Domestic Water (from MCSD) at the rate of one Household Equivalent per month: \$211.20 per year
- One time connection fees: \$288,600.00
- Sewage, annually: \$9,475.20
- Exclusivity payments until the 25th year of the contract: \$5 million total
- Contingency payments after 90 days past the signed contract: \$25,000
- Total contingency payments: \$250,000
- Contribution to Arrowhead Community Enhancement Project: \$100,000 annually (ECONorthwest, 30)

From the initial contract signed by the Community Services District and then declared void because it was signed before the Environmental Impact Statement was

approved, the price the company offered the Community Services District does not match the price it paid in other communities. (ECONorthwest, 31) For example, in Maine where Nestle Waters bottles its Poland Spring brand, Nestle pays the State \$1,629.00 per acre foot of water, and in Concord, California Nestle Waters pays \$2,183 to bottle water for the same brand. Under the initial contract, Nestle Waters would pay the Community Services District \$26.40.00 per acre foot of water. (ECONorthwest, 32)

However, Concord is located 30 miles outside San Francisco which reduces trucking costs, and part of the value of Nestle Waters buying water from the state of Maine involves the marketing impact of its brand; “Poland Spring, coming to you straight from Maine” has historically been featured in a variety of advertising media. Nestle as a company portrays itself as concerned with doing right by the communities in which it operates when it notes that the company “encourages local communities in their efforts and join the debate on the impact of appropriate pricing, for example, on water use.” (Nestle Water Management Report, 6) The Watershed Council’s report also notes that the initial contract between the Community Services District and Nestle Waters voids all contingency payments if “business conditions change.” (ECONorthwest, 27)

As indicated in the section on infrastructure, there will be costs to Siskiyou County and the community of McCloud if the plant is built. Typically, expenses are paid for by tax revenue associated with the facility, and the Watershed Council’s report notes that Nestle expects to pay in the region of “One million dollars per year in property tax revenue for Siskiyou County.” (ECONorthwest, 51) However, they also note that this figured is based on a myriad of factors that will not be set until the proposed plant is

actually built and produces water. Part of the current contract stipulates that the Community Service District must apply for funding for infrastructure improvements outside the McCloud area and that Nestle Waters would reduce the amount it would reimburse to the Service District by the amount of funding received, but the contract does not say whether the Service District would be paid for the administrative costs of applying for the grants, which “raises concerns that MCSD would not be fully compensated for all costs incurred while providing assistance to Nestlé.”

(ECONorthwest, 59)

Under California State’s Enterprise Zone, Nestle Waters is also eligible for two types of tax credit; one for employing certain types of people, applicable categories of which include ‘economically disadvantaged’ people, ‘dislocated’ people, and ones eligible for almost any type of federal assistance. (FTB 1047, 2) Given that most of the jobs expected from the proposed Nestle Waters plant that McCloud residents will be considered for will pay between one and four dollars above the California State minimum wage, those categories of workers are likely to be present in the proposed plant’s hiring pool and the company eligible for those tax credits.

Under the same program, there is also “credit for sales or use tax paid or incurred on certain property.” (FTB 1047, 2) Given that the premise of the proposed plant is the construction of a high-tech facility, access to this additional tax credit seems likely. As proof of Nestle Waters’ ability to access this credit is the company’s statement that they will be investing “approximately \$60 million for the land, factory, and equipment.”

(Arrowhead McCloud website) The two types of tax credit available raise the two

questions, answers to neither of which were available in consulted literature; with both types of tax credit available, how much will the proposed Nestle Waters plant pay in state and county taxes, and if the plant pays less tax to Siskiyou County because of the Enterprise Zone, will the County be reimbursed for the lost revenue by the State? While neither the Resource Council's report nor the County's Draft Environmental Impact Statement address these questions, the Watershed Council's report concludes that:

At a minimum, these data indicate that water has no universal price. Instead, its value is dependent upon the circumstances of time and place. Without contract provisions to respond to changes in the uses and values of water in McCloud and the greater Sacramento Basin that will likely arise during the 100-year duration of the contract, there is great risk that the McCloud Community Services District will be giving away too much for too little in return. (ECONorthwest, 33)

5.3 Local Opposition to the Proposed Plant

Many of the nonprofit organizations are organized under the Siskiyou Water Network, a coalition that includes CalTrout, Concerned McCloud Citizens, McCloud Watershed Council, Mount Shasta Bioregional Ecology Center, Shasta Group of the Sierra Club, and the Siskiyou Land Trust. Also allied with these organizations is the fly fishing web log, Trout Underground, written from Shasta City.

CalTrout was the nation's first statewide conservation group supported by trout fishermen with an altruistic goal: to protect and restore trout and the beautiful places where they live. (CalTrout website) CalTrout's concern with the proposed Nestle Waters plant was that the lack of data supplied by the parties prevented them from predicting the proposed plant's impact on the springs or fishery. "For example, there is no adequate record of flow and temperature conditions in Squaw Valley Creek, a valuable tributary that could be harmed by the project. (Chandler, 2007) Of additional concern to CalTrout

is that the Environmental Impact Statement did not address the impact of temperature changes in Squaw Creek because the colder water would be taken from the spring. "If we change the temperature significantly, it changes the actual chemistry of the water," she [Donna Boyd, staff scientist at Cal Trout] said. "Here, we've never had this kind of development even attempted, so there's nothing to show what the effect would be." (Ross, 2007)

McCloud Watershed Council may be best known for commissioning a comprehensive report on the economic impacts of the proposed water bottling plant from ECONorthwest, a major regional economics consulting firm; however, they are a nonprofit organization that exists to support "a sustainable community and protect natural resources by providing advocacy and stewardship for the greater McCloud River watershed." In the research section of their website, they note that "the source of the numbers used came from Nestle rather than from an independent source," referring the study commissioned by the Siskiyou County Economic Development Council. The Watershed Council's chair Debra Anderson's ancestors farmed in McCloud in the 1800s. For her, "whoever owns the water, owns the land," and she is concerned that if the McCloud Community Services District is unable to ratify a contract with Nestle Waters, that Nestle will simply use local well water. (Mann, 2006)

Founded in 1988, the Mount Shasta Bioregional Ecology Center is a nonprofit organization focused on conservation and restoration of both the natural and cultural aspects of the Mt. Shasta bioregion. (Ecology Center website) Their projects include cultural restoration work with local indigenous people, commenting on timber sales in the

Shasta-Trinity National Forest, and organizing opposition to development activities in the region including geothermal development.

The Shasta Group of the Sierra Club is the local organization of the national environmental organization, the Sierra Club. The Shasta Group is an active member of the Club's Water Privatization Task Force that is involved in education and advocacy work against "corporate control of water and municipal water/sewer services and to minimize use of bottled water in order to protect ecosystems and community health and to promote democratic decision-making and environmental justice." (Task Force Website) Sierra Club members from McCloud were part of a delegation that protested Nestle Waters at their North American headquarters in Greenwich, Connecticut on April 11th 2007 as Nestle held its annual meeting in Switzerland.

Trout Underground, a web log written by Shasta City copywriter Tom Chandler's tags are "Words, images, opinions, weirdness" and serves as a repository for articles and press releases about water related conservation activities in the McCloud area, particularly regarding the proposed Nestle Waters plant. "Woe to the innocent who mentions the name of Nestle Corporation in my presence - who isn't prepared for a lecture about big corporations preying on small, naive towns." (Chandler, 2006) With a bend towards irony and unabashed love of fly fishing, an edited sample posting is below:

In Maine — after being told *repeatedly* by the people of Fryeburg that Nestle's proposed 50-trucks a day loading station wasn't welcome — they filed suit, lost, appealed to the Maine Supreme Court, and lost again Nestle even argued before the Maine Supreme Court that their right to grow their market share *superseded the town's right of self-determination*. (Chandler, January 2008)

Several of the organizations documented here were subpoenaed by Nestle Waters in January 2006. The subpoenas demanded documents and testimony from members and

staff about a “wide range of details about the organizations' finances, communications and individual members...” (Clayton, 2006) Nestle Waters issued the subpoenas to receive information on the links between the organizations, particularly financial, and said that they were issued to obtain information on “any possible future financial gain.” (Clayton, 2006)

5.3.1 Unaffiliated Opposition to the Proposed Nestle Waters Plant

Other voices concerned about the proposed bottling plant include four business owners and a part-time resident. For Darlene Mathis, who owns the McCloud Mercantile building, the project could be a boon "but I wonder about the impact it will have on the overall quality of life here in town." (Keenan, February 14, 2008)

Dennis Dalton is a butcher at the local supermarket and a member of the board of directors of the McCloud Community Services District. He was concerned that the town was selling its water for too little money, given the 100 year length of the initial contract. Dalton also thinks that much of the support for the proposed water bottling plant comes from people reminiscing about the good old days. "They like to talk about Mother McCloud, but if you got hurt or you retired, you couldn't continue to live here." (Mann, 2006)

For Diane Lowe, who lives in San Francisco for most of the year, it was some of the infrastructure related costs of the project that concerned her; the prospect of trucks coming through town and why Nestle Waters was allowed to drill wells as well as access springs and water rights to the McCloud River. (U.S. Water News Online)

Richard McFarland, owner of a company in McCloud that reclaims old wood and a member of the McCloud Watershed Council can imagine a role for a water bottling plant in McCloud. He would want the plant to be smaller and for a more lucrative sum. He is also concerned that during drought years, Nestle Waters would still be eligible for their acre feet from the springs and worries about the impact of that draw down on residents' wells further downstream. "Everybody else is subject to water rationing in other parts of the world, but Nestle takes their 1,600 acre-feet regardless," he said. (Mann, 2006)

5.3.2 Non- Local Opposition to the Proposed Plant

Non- local opposition to the proposed plant in McCloud consists of national environmental and social justice groups. They oppose the proposed plant in McCloud out of concern about bottled water either because it is inefficient use of resources, such as water, oil, and electricity, or because bottled water is a form of privatization of public resources. Many groups do not distinguish between the two reasons; for them, privatization of public waters inevitably leads to wasted natural resources since private companies are working for solely for profit within acceptable institutional norms. These organizations feel that if a company can gain profit while wasting resources, they are obligated to do so to maintain market share, particularly if the company is publicly traded.

Food and Water Watch is a non-profit organization based in Washington, DC. Relevant campaigns include one encouraging the public to drink tap water and reject bottled water, and one to gain public support for funding of public water related

infrastructure. Food and Water Watch wrote about the proposed Nestle Waters bottling plant in McCloud in their June 2007 report, Take Back the Tap.

The Sierra Club's stance on bottled water as a subsection of water privatization is detailed in the prior section. Its Water Privatization Task Force includes Sierra Club members from Arizona, California, Nova Scotia, Texas, Vermont, and Washington DC. Their work ranges from supporting and educating Sierra Club chapters to lobbying against international trade agreements that encode the rights of water companies into national law across the world.

Think Outside the Bottle, a project of the non-profit organization Corporate Accountability International, is the national coalition in the U.S. that organizes opposition to bottled water. Think Outside the Bottle views bottled water as the most visible manifestation of what they call 'corporate control' over water. For them the fact that the Nestle, Coke, and Pepsi companies sell more than half of all bottled water sold in the U.S. is a significant threat to responsible water management globally. Think Outside the Bottle's membership reflects the breadth of their understanding of bottled water's role in the movements for environmental sanity and social justice. Organizations that campaign for a variety of environmental and social justice issues are represented and listed below.

The Alliance for Democracy
The Campaign to Stop Killer Coke
Center for Science in the Public Interest
Committee in Solidarity with the People of El Salvador
Corporate Accountability International
Corporate Ethics International
Council of Canadians
Dogwood Alliance
Earth Policy Institute
Environmental Defense
Food and Water Watch
Global Exchange
Green Corps
The Institute for Agriculture and Trade Policy
International Labor Rights Fund
KAIROS
Concerned Citizens of Newport
The Land Stewardship Project
Michigan Citizens for Water Conservation
New American Dream

The Pacific Institute
Polaris Institute
Rainforest Action Network
Rivers Without Borders
Ruckus Society
Save our Groundwater
Sierra Club
Union of Concerned Scientists
Vermont Natural Resources
Women's International League for Peace and Freedom
Holy Spirit Missionary Sisters, Techny, IL
Loretto Community
Methodist Federation for Social Action
Our Lady of Victory Missionary Sisters, Huntington, IN
Presbyterian Hunger
Sisters of Notre Dame, Chardon, OH
Sisters of St. Francis, Rochester MN
Sisters of St. Joseph of Carondelet and Consociates, St. Paul, MN

5.4 Local Non- Governmental Support for the Proposed Bottling Plant

Local support for the proposed water bottling plant that is not from Nestle Waters or public officials comes from the McCloud Grassroots Committee as well as individuals who think the proposed Nestle Waters plant is in McCloud's best interest.

McCloud Grassroots Committee was formed in July 2005 to provide an outlet and a clearinghouse for McCloud citizens to support the proposed plant. On their website, the Committee details the role of the proposed plant in McCloud and Siskiyou County. For the Committee, the plant would bring enough new jobs to the region that families would return to the town, and the town could have more than a volunteer fire department. Their website talks about McCloud's history as a logging town and they "support bringing in new sustainable business as the means for building a brighter future." The committee cites 300 jobs directly and in ancillary jobs from the plant and says that they will provide

good wages with benefits and that the plant will be the biggest tax payer in Siskiyou County. (website)

One member of the committee and a forestry consultant, Ron Berryman, cited the fact that more than one thousand people signed a petition in support of the proposed bottling plant as evidence that there is support for Nestle Waters in town. (Ross, 2007) Bob Wieder, a long time McCloud resident, supports the proposed bottling plant because he feels that if McCloud does not sell the water, someone else downstream will. (Melley, 2004)

Tony Kydd said that "We need industry, period. This one seems remarkably clean." When he compared it to the mill where he worked for 25 years, he thought that the plant would pollute less and only use the same amount of water the mill did, but leave that water in better condition. Kydd pointed out that neither of his children could stay in McCloud because of the lack of jobs and that while he attended a community meeting hosted by the McCloud Watershed Council, it did not change his mind. For him, while there will be a lot of new truck traffic in town, he can't imagine that it will be worse than the logging trucks and that the traffic will feel like less than it was with the mill because even though the proposed plant would triple the number of trucks coming through McCloud, the Nestle Waters trucks would be spread over 24 hours. (Mann, 2006)

5.4.1 McCloud Community Services District

The Service District was formed when the original timber mill that created the company town was sold and the new owners needed a way to privatize the services the

company had traditionally provided for the town. The Service District is responsible for not only water and sewage, but also for refuse collection, emergency services, Hoo Hoo Park, Scout Hall, and the McCloud Public Library. The Service District is controlled by a five person board of directors who are elected by Siskiyou County voters within the limits of Service District's service. The Service District is the party with which Nestle Waters North America signed a contract in 2003.

The Service District first tried to sell its water in 1991, and then in 1997 and 1998. The District looked into forming its own water company, but a study revealed that with competition from national brands of water, there would be less risk with a contract with a company already in the bottled water business. (Document C050811, 3-4) In light of this history between the Service District and bottled water, it is not hugely surprising that having signed off on Nestle Waters contract, Pete Kampa, the district's general manager, considers the deal better than what neighboring towns Weed and Shasta City signed when Crystal Geysers and Dannon bought water from their municipalities. (Melly, 2004)

One of the complaints against the Service District is that they moved too quickly, without consulting community members not on the board or staff of the Service District; they held one public meeting to brief the town on the tentative agreement they had signed, and then signed the contract with Nestle Waters the day after that first public meeting. (Document C050811, 4) However, the Service District disputes this claim, noting that there were notices posted in town about Service District meetings in which the Nestle Waters contract was to be discussed, that they did take public comment, and the

local newspaper reported on the public meetings and Service District meetings in detail. (U.S. Water News Online)

Of the then-nascent conflict, the head of the Service District's board of directors, Catherine Young, remarked in 2004 that she feels snubbed by community members who oppose the proposed water bottling plant. As a part time logging truck driver and lifelong resident of McCloud, she wonders about how the divide in opinion about the proposed plant will affect the town in the bigger picture; "One side of the street doesn't care for what the other side of the street is doing, so they're battling each other." (Melley, 2004)

However Mike Satcher, another community member and part time waiter on the Sunset Dinner Train, who became the general manager of the Service District after the initial contract was signed, does not think the proposed water bottling plant will change McCloud significantly. Satcher thinks the project is a "very clean" one (Mann, 2006) and that people have to remember that part of the contract involved the sale of private property and none if it involved additional taxes on the town which would have required the approval of voters within the Service District, so that having at least part of the negotiation private was the right course of action. Satcher feels that the Service District took enough time negotiating with Nestle Waters and subjected the contract they eventually signed with appropriate scrutiny. Satcher added that while the \$300,000 the Service District would receive on a budget of \$1 million annually was important, that it would not be a reason to sign a bad contract.

5.4.2 The County and the Federal Government

McCloud is not an incorporated town and while McCloud Community Services District has the authority to regulate its utilities, zoning decisions are in Siskiyou County's jurisdiction. Shasta-Trinity National Forest is located just north of McCloud and the springs that both the town uses and the proposed bottled water plant would access are on Forest Service Land. Each section of the National Forest is governed by a Land and Resource Management Plan, (LRMP) typically on the Ranger District level. The Management Plan for the area including the McCloud Ranger District includes "assisting rural communities to diversify their economic base and to develop new economic opportunities." (Draft Environmental Impact Statement, 3.2)

The tax breaks for companies buying land and employing workers, mentioned in a prior section, are also administered for the state under Siskiyou County's Economic Development Board and the County was involved in supporting the other water bottling plants in Weed and Shasta City. Additionally, the County is involved in bringing tourists to McCloud to fish, ski, and hike nearby, through its tourism promotion duties. In this case, anything that brings people to McCloud is also a boon to the larger community since the recreation that brings people to McCloud is not located the Service District but frequently on federal land, as with Mt. Shasta itself and Castle Crags in the National Forest, and Lake Shasta and its environs administered by the state.

5.4.3 Nestle Waters of North America in McCloud, California

"We feel what's good for Nestle, will be good for McCloud," Palais said. "We are looking for additional public input from the community regarding our proposed project."

(Keenan, February 14, 2008) David Palais is the Natural Resource Manager for Nestle Waters North America. As the second largest water company globally, the tying of positive outcomes for both the company and the community reflects market liberal views. Particularly, Nestle Waters is optimistic that their technology will solve any environmental problems that occur. Furthermore, Nestle Waters is advocating for a very specific form of economic development for McCloud, similar to that of the Indian State of Gujarat; industrial development of natural resources.

While Palais' statement tying the prosperity of Nestle Waters to that of McCloud, California, occurred in February 2008 when the company changed some of its project description (operating plans) and requested that the Draft Environmental Impact Statement be reopened, it is reminiscent of Nestle Waters response to McCloud since it first started talks with the Community Service District in 2002. Palais thinks most fears and concerns raised by residents have been addressed in the environmental report. "It's a serious environmental application," he said. "It's not a half-hearted document."" (Mann, 2006)

Nestle Waters' decision to open the Environmental Impact Statement to more public input more than 18 months after the original statement was released is consistent with its vision of itself the larger world; "We want to obtain stakeholder input and explore what future directions we intend to pursue in order to contribute to improvements in the world's access to clean water... by working with others, we believe we can have a positive impact." (Nestle Water Management Report, 2)

As a company, Nestle Waters is able to point to its accomplishments, both in the water realm and community services. For example, a container of water bottled in 2006, uses 30% less water than one bottled in 2002. This figure measures the amount of water used in bottling beyond that which is found in the bottle, or in the industrial process involved in creating containers and packaging. (Nestle Water Management Report, 3)

The company also uses 26% less packaging in its bottled water business than it employed in 2002. (Nestle Water Management Report, 3)

In the community services realm, Nestle Waters is also known for the environmental qualities of its water bottling facilities in the U.S. The proposed facility in McCloud will aim to achieve recognition from the Green Building Council in their Leadership in Energy and Environmental Design (LEED) program. The five areas where Nestle Waters' McCloud project will look to excel are sustainability, water efficiency, energy and atmospheric materials, resource protection, and indoor environmental quality. (Draft Environmental Impact Statement, 2.3.3)

An example of Nestle Waters' plans for its new plant is how the existing timber mill will be rehabilitated to ready it for construction, with maximum attention to salvaging materials like timber, fixtures, windows, and doors, with priority buyers being local ones. Additionally, metals like roofing supports and beams will be recycled at the nearest available facility. (Impact Statement, 2.5.2)

As proof of the company's sincerity about engaging the LEED process, Nestle Waters points to their water bottling plants in California, Florida, Texas, Tennessee, and Wisconsin, all of which have achieved at least the Silver level LEED Certification.

(Nestle Case History, 14) In addition to making its facility environmentally friendly, the facility will also include architectural detailing as part of the building so that it will fit in with other buildings in the area. (Draft Environmental Impact Statement, 2.3)

As a community member, Nestle Waters points to the \$5,000 it has already donated to help build a storage facility for a new ambulance for the town, (Arrowhead McCloud website) despite not having a valid signed contract with the Service District. The company also matched the amount that it and the McCloud Grassroots Committee raised selling bottled water at the Siskiyou Golden Fair, and donated \$1,500 to the Siskiyou County 4-H club. (Herald, August 2007) For Nestle Waters, the money toward scholarships for current high school students represents its sense of the future of McCloud.

5.5 Discernment of Parties into one of Three Approaches

As with the conflict over the Narmada River Basin, the intervenor can understand the parties better by associating them with Dauvergne and Clapp's model of how people understand environmental change. The conflict over the proposed Nestle Water's bottling plant is in some ways a smaller conflict; the World Bank is not involved, nor is there a host of international NGOs or an award winning author involved. However, ideologically, the parties can be understood in parallel, with the McCloud Watershed Council as the Social Green party, the McCloud Community Services District as the Institutionalists, and Nestle Waters North America as the Market Liberals.

The McCloud Watershed Council reflects social green values in the findings in its report on economic impact of the proposed Nestle Waters plant on the community of McCloud. Typical of social green insight, the report looks at the issue from a smaller scale when it details the impact of heavy industry on a small community's roads, the way the local Narmada Bachao Andolan NGO in India speaks for the Adivasi, the affected indigenous people of the region. Typical social green responses to social problems are to design multiple smaller and more individualized responses. In India this means training people to built smaller check dams and how to use hand pumps to drill for water. In Northern California, the multiple smaller ways to grow a community include embracing older people, from ones looking for a place to retire in the near future or further along in the community's development. Another Northern California response to lack of economic development is to develop better recreation facilities, including services that cater to diverse groups of tourists, both domestically and internationally.

The Watershed Council's report also takes a larger view of the impact on McCloud when it details how the introduction of heavy industry in a small town will prevent McCloud from growing from its natural resources in a less damaging way by discouraging more tourist related development that focuses on the nearby Wilderness Area, rivers for fishing, and the ski area. The focus on big infrastructure or industry displacing the potential for less damaging ways of achieving economic growth parallels the role of international NGOs such as Friends of the Earth and the International Accountability Project and their focus on the Narmada River Basin. Those groups called attention to the impact of concentrating Gujarat's water- based infrastructure on large

dams and canals at the expense of smaller dams, as well as more efficient use of native agronomists' research into drought- and- flood resistant food sources. For both these sets of social green organizations, the big industrial ways of managing water actively discourage the more human scaled alternatives.

The McCloud Community Services District is less typical of parties embodying the institutionalist outlook than the relevant regional and national governments in India, which had a history of erecting colossal dams and acting in the water companies' best interest as much as the people's interest they represented. The Services District differs from the Indian governments also in scale and place in the community it serves: the Services District is governed by a five person board of directors directly elected by the Siskiyou County voters within the boundaries of the community it actually serves, and its daily activities are directed by professional staff. The Services District has not historically been the subject of allegations as to whether it served the water companies or the people it represents, unlike the Indian government. (Leiken, 61)

However, the Services District is recognizably institutionalist in two aspects: its interest in industrial solutions to economic development problems, and its representation of the voters in the McCloud community within Siskiyou County. As Dauvergne and Clapp note, institutionalists "share many of the broad assumptions and arguments of market liberals..." (7) This is demonstrated by the fact that the contract with Nestle Waters was only the Community Services District's latest attempt to find a private company to which they could sell the town's waters; they had been looking for almost ten years when they signed the first contract with Nestle Waters in 2003. With regards to the

contract the Services District signed, the General Manager Pete Kampa went on record in one of the local papers to the effect that McCloud's contract with Nestle Waters was much better for the town than the contracts signed with water companies in the neighboring towns of Weed and Shasta City. (Melly, 2004) The context of the remark, that selling McCloud's water in some form is the obvious course of action, makes the project a market liberal approach to a shared natural resource. The fact that the remark came from a staff member of a quasi- governmental agency, makes the frame of reference institutionalist in nature.

The fact that the difference between the market liberal and institutionalist can be very small is important, because Nestle Waters North America is also a party in this conflict partly because it sees the bottling and transportation nationally of McCloud's water as the obvious course of action. This is clear in how it promotes bottled water, as a clean industry hewing to the highest environmental standards, and private industry's involvement in water management globally as a given. In terms of Nestle Waters actions, the market liberal point of view is represented in the company's publications, on their numerous websites, and in their response to the concern expressed by people associated with the McCloud Watershed Council, starting in 2003. Nestle Waters has stayed in McCloud for four years as of this writing despite several lawsuits and the fact that the bottling plant, according to the first contract it signed with the Service District, was slated to be operational by 2006, but has not started construction on its bottling facility two years after that projected date.

5.5.1 The Three Points of View Interact in the Conflict

In the conflict over the Narmada River Basin, the parties did not agree on the scope or nature of the problem. The World Bank and the regional and national Indian Governments, representing the market liberal and institutionalist view points respectively, saw a problem with flooding and cyclical drought and proposed a series of large dams and a far reaching irrigation network to respond to this problem. The Narmada Bachao Andolan and the International Rivers Network, both representative of the social green viewpoint, acknowledged that there were annual floods and periodic droughts, but there is no indication that the groups understand the water cycles as problems to be solved.

The conflict over whether to participate in a contract with Nestle Waters differs from the Narmada River Basin insofar that parties opposed to and interested in the bottling plant both agree that McCloud needs a strategy for environmentally sustainable economic growth. In fact, the Service District and Nestle Waters, the institutionalists and the market liberals, are as serious about the need for economic development to be environmentally conservative as the Watershed Council, or the social greens. This is evident in the quotes from the staff and supporters of the Service District, in which they say that water bottling is a clean and relatively non- polluting industry. The need to respect McCloud's natural environment is also demonstrated by Nestle Waters in their interest in building a facility so environmentally friendly that it earns certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design program.

The social greens (McCloud Watershed Council) also express the need for an environmentally sustainable economic base for McCloud; however, they are concerned that by choosing to have an industrial facility in town, that there will be fewer options for more environmentally friendly development later. Note that while the council is concerned about the impacts of the proposed plant on McCloud in terms of its roads, pollution from the site and its transportation infrastructure, and the depletion of the springs that feed some of McCloud's most valued fishing streams, the greater concern is for the development that they think the site would discourage. For example, the Watershed Council is concerned that with an industrial facility, McCloud would be less attractive to people looking to retire there. They equate retirees and their peers with greater town services, like restaurants and stores, and with increased human capital in terms of volunteer time and people who will invest in the town. In summary, while the parties disagree about the specifics of what an environmentally sustainable strategy for McCloud's economic development actually looks like, they are all very committed to achieving it.

Chapter 6 Conclusion; Do the Case Studies Reflect Three Viewpoints and are they Relevant to Interveners in Conflict Situations?

The decision to study a conflict over water in India with its diverse geography and ancient civilization was also borne out in the specific conflicts chosen for study. With its sizable indigenous population and the attention it received globally, the conflict over the Narmada River Basin reflected India's history of building large dams and displacing certain people in order to aid others, its current struggles over the contested nature of development, and the role that its geography played in a conflict that was at least nominally based on water. Equally, but manifested in different elements, addressing the conflict over the proposed Nestle Waters North America bottling plant with the three views of managing environmental change proved that these view points are relevant in contemporary conflict situations ostensibly over natural resources, and that a better understanding of the conflict can aid the intervener in the work towards its resolution. Nestle Waters, from the market liberal viewpoint, consistently advocated for an industrial, market based solution to McCloud's economic development concerns, while an NGO was created in the social green tradition to give voice to members of the community with concerns about Nestle Waters' plans.

6.1 Parties' Views on Issues Central to Both Conflicts

In both conflicts, the parties demonstrated their views on three central issues: economic development and job creation, social justice in terms of a preference for a certain people to benefit and a comfort level regarding those who would not, and regard for the resource being developed, or environmentalism.

6.1.1 The Market Liberal Perspective on Economic Development, Social Justice, and Environmental Protection

As a representative of the market liberal viewpoint, the World Bank and Nestle Waters both demonstrated these understandings. For the World Bank, preference for economic growth in terms of increased gross domestic product (GDP) is indicated by their support of the Sardar Sarovar project in the Narmada River Valley with its colossal dams and vast network of irrigation canals and hydropower infrastructure. The project represents economic growth, both in terms of resources used to generate profit drawn to the project or directly assigned, and the jobs, albeit temporary, ranging from laying concrete to project management that would result. Nestle Waters demonstrates its preference for market liberal solutions in its project in McCloud in which it would hire between 200 and 400 people and directly sell one of McCloud's natural resources, thus making profit from a resource essentially available for free. Nestle Waters also indicated that it considers it and McCloud's interested as intertwined, with that which benefits Nestle Waters also improves the town. Viewing profit making activities as essential to a

community's economic growth and resulting well-being is a hallmark of the market liberal viewpoint.

Social justice is another area in which Nestle Waters and the World Bank consistently reflect the market liberal viewpoint, with Nestle Waters maintaining that it would cover the cost of its impact on McCloud's infrastructure and not acknowledging that by having an industrial facility in the community; it could repel further economic activity. For Nestle Waters, the cost of future jobs is not a relevant question and they hold their immediate relationship with the McCloud Community Services District as the most important. The World Bank demonstrated similar views on social justice when it initially decided to fund the projects in the Narmada River Valley. Well before the independent review that caused the Bank to withdraw from the projects, the Bank knew that part of building the dam, any dam, was displacing communities upstream. While the Bank was unaware of the Indian Government's lack of plans to humanely resettle the Adivasi, they were aware of the numbers of people that would be displaced and the Indian Government's past record of creating refugees from its infrastructure projects.

The question of the impact of development on natural resources is one where the World Bank and Nestle Waters hew closely to the market liberal vision of trusting in technology to mitigate the environmental ramifications of their economic development plans. For example, the Sardar Sarovar project on the Narmada River will flood approximately 453 square miles of land, flooding forests, villages, and farms. Additionally, the lake behind the dam will eliminate the Hilsa fishery. The ramifications of this last act are dramatic biologically and socially. To delete an entire section of the

local food chain, and fish appropriate to fisheries are typically at the top of food chains, is to unravel it fundamentally. This declaration is also dramatic from a social point of view insofar that the state is declaring which life forms are valuable and which are not, to the extent that those which are not valuable no longer need to exist. That the voluntary extinction of a species of fish will occur in India and not California also reflects the difference in democratic norms between the two conflicts.

Nestle Waters proposal for its plant in McCloud is not as dramatic in terms of its environmental impact; however, it does treat the environmental impact as an externality, not as part of its core business. This attitude is reflected in the original contract Nestle Waters signed with McCloud Community Services District in which the town would have to provide Nestle Waters with a specified amount of water even during times of drought and offers no exceptions. Wikipedia notes that an externality occurs “when a decision causes costs or benefits to third party stakeholders, often, although not necessarily, from the use of a public good.” An example of a possible externality that Nestle Waters has not accounted for in McCloud is the impact of truck travel instead of passenger car and light trucks on the community’s roads, both in town and between town and the nearest highway, Interstate 5, a distance of about ten miles. While the County’s Environmental Impact Statement has been reopened at the request of Nestle Waters, and therefore the impact on the roads may yet be fully addressed, currently there is a significant difference between the report Nestle Waters published and the Draft Environmental Impact Statement of July 2006, and the McCloud Watershed Council’s report on the potential economic impacts of the water bottling plant.

6.1.2 The Institutional Perspective on Economic Development, Social Justice, and Environmental Protection

The Institutionalists are represented in these conflicts by the national government in India as well as the Indian state of Gujarat while the McCloud Community Services District reflects institutionalist views in the conflict over the proposed Nestle Waters bottling plant. Both parties reflect the institutionalist view of economic development insofar that they advocate for large scale economic development in conjunction with the market liberals, public banks and private companies. In this case, however, they are distinct from the market liberals because they look to adapt the projects to the land and the people they serve, while continuing the large scale development plans. In India, the government is the link between the funding by international development banks and the private and state run companies carrying out the work. In McCloud, the Services District signed the contract with Nestle Waters; the Services District is held accountable to the town through its governing board of directors, elected by the people within the area to which it provides municipal services like refuse collection and road maintenance. Both the Service District and the Gujarat government are proponent of industrial style development in their communities and both have a record of working directly with private companies to fulfill their vision of economic development.

On the issue of social justice in terms of who benefits and who loses from industrial development projects, both parties maintain that the projects are a net benefit. The Services District sees benefits to the entire community around McCloud, both through the jobs directly provided by the proposed plant, and jobs in the service industry

that will serve those new workers. Therefore they are comfortable with the idea that the proposed plant may make McCloud less welcoming to retirees and people who could stay in McCloud while they use the rivers and nearby national forest and ski area for recreation. For the Indian state, the project will benefit three classes of people; farmers through irrigation, villages through the drinking water project, and urban consumers through electricity generated by the dams. They see the displacement of 320,000 people, including an entire group of indigenous people, the Adivasi, as the price to pay for improved living conditions for the aforementioned farmers, municipalities, and electricity users.

The institutionalist parties' view of the impact of their preferred model of economic development on the environment reflects a combination of their view towards social justice and the market liberal concept of externalities. The government of Gujarat focuses on Sardar Sarovar's benefits to people and does not address any negative consequences to the environment itself on its webpage. Reflecting this is the first part of the slogan on the landing page of the project's website: "harnessing the untapped waters of the Narmada...." From this statement and the general lack of attention to the loss of a free flowing river, one can find elements of viewing this loss and what happens to the land under the flooded river as an externality. The river and lands to be flooded represent an externality both in that the un-dammed river and land to be flooded are both public goods, and the cost of the loss of those public resources is not reflected in the project's planning.

The McCloud Community Service District only sees the impact of proposed Nestle Waters plant as externality in that they acknowledge the impact of the plant on the environment at all. From the viewpoint represented on their website and Siskiyou County's Environmental Impact Statement, the plant's impact on the roads will be nominal and the Service District is more than capable of meeting the plant's demands on the water system (both above and below ground) without additional resources. The Service District represents a more benign view of the natural environment than the state of Gujarat partly by virtue of the difference in scale of the two developments. While the proposed Nestle Waters plant may risk a diversity of future development options, no one is being displaced from their ancestral homelands in McCloud and there are no commercial fisheries at risk.

6.1.3 Social Green Perspective on Economic Development, Social Justice, and Environmental Protection

The social green perspective is in some ways the most obvious; it is represented largely by NGOs and uniformly looks to achieve economic growth in ways that respect human rights and resource protection over economic growth measured in GDP. However it also the viewpoint that is most dynamic; social green philosophy is demonstrated strongly in both traditional NGOs that seek to draw attention to problems with industrial economic development, and ones like Ashoka that foster social entrepreneurship, a form of capitalism that focuses on commercial solutions better adapted to the needs of people and the environment. The organizations holding the social green view of how best to manage environmental change reflect the difference in scale between the two conflicts;

the Narmada River Valley has drawn a huge, diverse community to oppose the dams and irrigation canal. Support has come from within India; local celebrities, indigenous people, non- local Indians, and youth movements, and from the international community ranging from environmentally focused organizations like Friends of the Earth to ones focused on the social aspects of economic development, such as the International Rivers Network and the Bretton Woods Project. In McCloud, the organizations drawing attention to the negative ramifications of the proposed bottling plant are largely local and regional, with the McCloud Watershed Council and the local chapters of national organizations, as well as support from national organizations including the Washington DC- based Food and Water Watch.

All parties opposed to their respective industrial development projects agree that the nature of the projects, Sardar Sarovar in Gujarat and the Nestle Waters bottling plant in McCloud, are too big. A stance against industrial development is common to all social green parties because it hinders democratic reform; historically, the political elite have made the decisions about the nature of the development and which people and environments this development should favor, so social greens view of economic development and social justice are deeply intertwined. For example, one of the reasons social greens embrace smaller dams, hand pumps, and pond- based aquaculture is because at the same time these projects help communities ameliorate their economic situation, they also promote equality across social classes and uniformly have a lesser environmental impact than do larger dams and sprawling networks of irrigation canals.

Regarding social justice, social greens tend to favor those types of economic development in which the people impacted by a proposed project are also making the decisions regarding its nature. This phenomenon is most clearly demonstrated in the Narmada River Valley where the Adivasi, who will be displaced as a people by the rise of the waters behind the dams on Narmada, learned of the Sardar Sarovar project either after the project received initial funding from the World Bank or the government made plans to clear their land before it was flooded. In McCloud, the role of social justice and economic development is less clear than in the Narmada River Valley; however, one of the McCloud Watershed Council's main concerns about the proposed water bottling plant is that the Community Services District signed the first contract with Nestle Waters shortly after holding their first public meeting about the project, the first time many McCloud residents were made aware of its existence. This reflects the need for broader community control of economic development projects common to the social green perspective globally.

Also uniform across social greens globally is their regard for the role of the natural environment in decision making over options for economic development. In McCloud, one of the concerns voiced by the Watershed Council in their report on the economic impact of the proposed water bottling plant is that the plant could prevent the community from taking advantage of other development opportunities that both offer greater benefits and have a lesser impact on the environment. As noted previously, other parties in the conflict deny this possibility; however another one of the Watershed Council's concerns is simply that their community is being taken advantage of in terms of

a low price and infrastructure. In this way their response is representative of all social greens when they tie social justice and the health of the natural environment together. The Watershed Council is also concerned that the impacts of the project on the roads to Interstate 5 and on springs during drought years represent Nestle Water seeing the community of McCloud itself as the externality. Whether it is road maintenance or providing Nestle Waters with water directly from the Services District during times of drought, the negative impacts on the community and its natural resources would not be paid for by Nestle Waters, but by the community itself.

In Gujarat, the NGOs that form the social green response to the Sardar Sarovar project while focusing on many different impacts of the project, all decry its impact on the environment. Again combining social justice and environmental impacts, the NGOs make the link between flooded forests and displaced people, between construction of hydropower infrastructure and electric supplies that will only serve urban centers not local to the project. This dual response reflects the need for development projects to benefit the people who also suffer from their consequences, recalling Arundhati Roy's theoretical question about whether bureaucrats would trade their seaside villas for one of the camps for displaced people proposed by the Gujarat government.

6.2 The Research and the Intervener

The research was designed to help the intervener in a conflict situation understand how the parties in conflict might interact over a subject like water, with their different emphasis on economic growth, the role of the state, and the connection between human

rights, democratic norms and management of natural resources. One view of the research is that it suggests that it is the distribution of natural resources, not simply water that this writing addresses most thoroughly. Through the use of the case studies and the recommendations, the utility of the three approaches was demonstrated. The interplay between the three approaches was also considered, as conflicts on the ground rarely reflect the rigid approaches necessary for academic research. Examples of where institutionalists advocated for social green solutions and social greens provided proof of the validity of market liberal approaches are important: integral to the conflict resolution process is helping the parties understand what they have in common and to act upon that understanding.

Two of the conclusions of the study regarding the interplay between the views of how to manage environmental change are tension between rural and urban water users and over the different manifestations of democratic norms at play in a situation. In both McCloud and the Narmada River basin, rural communities that have ample supplies of potable water easily available are placed against more urban ones struggling to purify their water, even though urban populations are not a party to either conflict. When the urban centers are unable to filter their water effectively, they generate demand for bottled water and other forms of privatization of public resources. This phenomenon is demonstrated in McCloud, where the community's water is proposed to be shipped throughout the U.S. and in the chapter on the Narmada River Basin. With the Narmada River Basin, the rural community around the dams with the water will bear the ill effects of the projected economic development activity, while the electricity and steady supply

of water that the Sardar Sarovar project aims to deliver will largely benefit the people in the distant cities.

The conflict over whether to have a Nestle Waters North America water bottling plant in the community of McCloud is also emblematic of an issue causing conflict globally: water privatization. It also reflects a difference between McCloud and India in the manifestation of democratic norms, in that with the international concern expressed over the Narmada River Basin's Sardar Sarovar project, the first dam was still built, albeit on a slower time line than anticipated. However, in California, a project that has received national acknowledgement as being part of a pattern of water privatization and bottling but no international attention or organizing, may not occur simply because significant parts of the local community are opposed. In turn, one of the questions the intervener can use to guide her research in addition to asking which viewpoint the parties hold in addressing environmental change, is the role of democratic norms, both in the geographic region that spans the conflict and within the norms that the conflict has created for itself through the style of engagement between the two parties.

While the three approaches in other conflicts over a resource, whether it is physical or political, may not always be as apparent as it is the conflict over the Narmada River or the community of McCloud in which the parties are readily apparent, the approaches are clearly a useful tool in better understanding the parties in conflict and designing more effective interventions.

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