POLITICS OF CLIMATE ACTION PLANS:

A CRITICAL DISCOURSE ANALYSIS

by

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THESIS ABSTRACT

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Despite increased knowledge of the causes and consequences of climate change, federal politics has prevented a comprehensive, nationwide effort to reduce greenhouse gas emissions. This inaction at the federal level has prompted local governments to take the lead on reducing greenhouse gas emissions through Climate Action Plans (CAP). This thesis explores the environmental discourses that are at work in the CAP adoption process of three cities that historically vote for democratic candidates and republican candidates, respectively, in federal elections. As a qualitative study, my inquiry evaluates the CAP adoption process through an analysis of public officials' statements, public comments and editorials, and CAP content. John Dryzek's eight environmental discourses are applied to highlight the discourses that are reflected in the data obtained from public officials, the public, and policy outcomes. This examination reveals opportunities of bipartisan agreement and provides insights for governments to move past the politics of climate change.

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CHAPTER I

INTRODUCTION

Climate change has become an increasingly political issue in recent years. The federal government has not been able to adopt a climate change strategy because of the political nature of the issue. However, partisan politics were not always been a barrier for adopting federal environmental policies. The 1970s is known as the decade of environmentalism because of the significant environmental laws passed during that time. Since then, federal action to address major environmental issues has diminished.

The political divide of republicans versus democrats, on environmental issues, began with the 1980 Reagan Administration. Policy gridlock has prevented major bipartisanship ever since. In the January 2012 State of The Union Address President Obama acknowledged, "the differences in [Congress] may be too deep right now to pass a comprehensive plan to fight climate change". Even with the growing knowledge about climate change and its causes, politics is the major barrier in creating a federal level climate change strategy.

With the political disagreement and inaction at the federal level of government, local governments are now leading the charge to reduce greenhouse gases and subsequently take on climate change. Many local governments around the country are addressing climate change by adopting strategies, commonly known as Climate Action Plans (CAPs), to reduce their greenhouse gas emissions.

This thesis examines the discourses associated in the adoption of CAPs. Discourses are defined as shared meanings and ideas, which are spread through the use of language. The examination of discourse is important because it provides a window into our core beliefs surrounding an issue. For example, in the world of sports, American Football is often steeped in war discourse. The United States' most popular sport pits two 'lines' against one another to battle in the trenches of the gridiron. War discourse within American Football speaks to our interests and history more so than, say, a metaphor based on two opponents engaged in an intricate dance.

It is my goal to study the discourses present in the adoption process of a CAP. This goal is accomplished by gathering and analyzing data from various sources, including: politicians' perspectives, public input, and the language within the CAP. I use these three data sources to have a complete understanding of the policy adoption process. Using this data, I explore the following questions:

1) What are the public discourses around the adoption of Climate Action Plans?
2) Does the political setting of a city impact the type of discourses in Climate Action Plans?
3) How can this information be used to assist governments in harnessing the diversity of discourses, thereby improve opportunities for the adoption of Climate Action Plans and/or the reduction of greenhouse gas emissions?

Sample cities were chosen on a number of factors. First, I collected a list of cities with adopted CAPs. Next, the list was filtered to include only mid-sized cities as defined by the U.S. Census Bureau. The remaining cities were stratified to ensure that the sample included cities from all four U.S. Census Bureau regions. Finally, the sample was selected to represent three republican-voting and three democrat-voting cities. A republican-voting city is defined as a populace that, in every other general election since 1968, voted to elect a republican candidate in at least 60% of the U.S. President, House, and Senate elections. Democrat-voting cities were also chosen in this manner.

The data was analyzed using a critical discourse analysis (CDA) that has been developed by John Dryzek. John Dryzek, an environmental policy academic, has categorized eight different environmental discourses that are based upon environmental politics of the past forty years. From each city, data was gathered to capture the discourses present in statements by politicians, the public, and the final content of the CAP. This data was categorized using Dryzek's eight environmental discourse models. These eight categories provide a simple framework to compare the six cities' CAP adoption processes and make deductions based on this information.

The federal government has not yet been able to adopt a climate change strategy because of the politics involved with the issue. The examinations of CAP adoption processes of republican

and democratic cities reveal opportunities of bipartisan agreement and cooperation surrounding climate change discourse. These insights will help local, state and federal governments plagued by political gridlock to move forward with the adoption of comprehensive climate change policy and pave the way for a new decade of environmentalism.

CHAPTER II

BACKGROUND

A. Politics' Role in Shaping U.S. Environmental Policy

Since the 1970's the United States has passed major environmental legislation to address various environmental issues such as air and water pollution. Over time, however, politics has been a constant factor that has shaped the breadth and success of environmental policy in the United States. Environmental policy-making has been subject to partisan battles between the republicans and democrats. From the years 1969 to 1999, republicans and democrats in Congress diverged on environmental issues.[1] The partisan nature of environmental policy continues into today's era. The following summary will show how politics has prevented the federal government from enacting major federal environmental policies, and particularly, policies that relate to climate change.

Political Consensus on Environmental Action: The 1970s

The 1970s, termed the decade of environmentalism by President Nixon, was defined as a decade where public and political bipartisan support worked across party lines to pass a number of important pieces of environmental legislation. In 1970, President Nixon signed into law the National Environmental Policy Act (NEPA), which began the decade of environmentalism.[2] NEPA created the Council on Environmental Quality (CEQ), a federal program that oversaw environmental impacts. Through an executive order, Nixon created the Environmental Protection Agency (EPA) in 1970. During the 1970s there was a total of 17 major federal laws passed that addressed environmental concerns and issues, and is still the largest amount of any decade. Some of the major legislation included Federal Water Pollution Control Act of 1970 (more commonly

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[1] Shipan, C. and Lowry, W. (2001), Environmental Policy and Party Divergence in
Congress, *Political Research Quarterly,* 54, 245.

[2] Rosenbaum, Walter (2005)*, Environmental Politics and Policy* (Sixth Edition). CQ
Press. Washington, D.C. 2005: 98.

known as the Clean Water Act), the Clean Air Act, the Endangered Species Act of 1973, and Safe Drinking Water Act of 1974.[3]

The environmental movement of the 1970s was "a result of broad, bipartisan environmental coalition in both chambers that strongly supported innovative environmental programs proposed or accepted by both Republican and Democratic presidents" (Rosenbaum, 2005, pg. 98). The political consensus and mutual understanding for addressing environmental issues in the 1970s began to diminish into the 1980s with the Reagan Administration.

Decline of the Political Consensus: The 1980s

The eight years (1980-1987) of the Reagan Administration marked a time in politics where political parties were either "pro" environmental policy or "against" expanding environmental policy. Republicans during this time were apprehensive about environmental policies because of the potential economic impacts these policies had on business; however, others believe that politics and ideology, rather than economics, caused the divergence (Kraft, 2003, p. 134). Reagan's time in office created a clear political divide with republicans against expanding environmental policy on one side and democrats on the other side. While the divide was unequivocal neither before nor after the Reagan Administration, scholars point to this time as a momentous turning point in the politicization of environmental issues.

In Reagan's second year in office, he cut the EPA budget by 30%, reduced the number of its employees, and appointed people to key agency positions who supported the party line (Kraft and Vig, 2000). During the early 1980's the republicans had control of the White House and the Senate, which gave republicans the upper hand on restricting enacted environmental policies and stopping the adoption of new policies. However, democrats had the House majority and were heads of House environmental committees. The democrats in the early 1980s investigated Reagan's appointees to key environmental positions and further created tension in environmental policy between republicans and democrats.

In the latter part of the1980s, under President G.H. Bush, there was some environmental

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[3] Kraft, M and Vig, N (2000), Environmental Policy in Congress: From Consensus to
    Gridlock. In *Environmental Policy: New Directions for the Twenty-First Century*
    (Fifth Edition) (pg 127). Washington, D.C.: CQ Press.

policy passed through Congress; most notably, the 1990 Amendments to the Clean Air Act. By this time, however, Reagan's clear anti-environmental stance redefined environmental issues based on political party and ideology. The party lines that were drawn over environmental issues in the 1980s continued to diverge through the 1990s. In President Bill Clinton's administration, the battle to pass environmental legislation underscored the political struggle and Congressional gridlock.

Continued Stalemate: The 1990s

During the Clinton Administration, the economy and other international issues overshadowed environmental concerns (Kraft and Vig, 2000); however, the Clinton campaign had an ambitious environmental agenda when coming into office in 1992. Clinton's environmental pledges include but are not limited to: limit U.S. carbon dioxide emissions to 1990 levels by 2000, support renewable energy research and development, and pass a new Clean Water Act with standards for non-point sources. With this vast environmental agenda, Clinton sought to reignite the decade of environmentalism and pass a number of pro-environment legislation to address a number of issues from climate change to wildlife preservation. However, the 1994 Congressional elections marked a major stall in Clinton's agenda.

The 1994 elections of the 104th Congress brought for the first time in 30 years a new republican majority to the House and Senate. The republicans used this powerful position to work against Clinton's environmental agenda.[4] Clinton continued to push his agenda, but was hardly successful in adopting the policies that his administration promised during the campaign. The combination of public disinterest in environmental issues and the gridlock of Congress marked the Clinton administration of the 1990s as a continued stalemate of environmental policies. However, Clinton was able to get some legislation passed, but the few that made it to a vote became diluted by the time they were passed through Congress. The George W. Bush Administration marked a time of further decline for environmental policies.

Further Decline: The 2000s

When G.W. Bush was elected into the presidency in 2000, environmental issues had little attention given by the public as well as by politicians. For much of the Bush administration

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[4] Kraft, M and Vig, N (2000).

environmental policy was put on the back burner because of the events of September 11th, engagement in several fronts of war, and the severe downturn of the United States economy. However, Bush took an environmental position similar to Reagan's, which focused on economic interests and gains, rather than addressing the protections and regulations of environmental policies.

The G.W. Bush Administration called for environmental de-regulation for industries and oil and gas development in the protected Arctic National Wildlife Refuge.[5] Even though Bush admitted that global warming was occurring, he withdrew the United States from the Kyoto Protocol, an international treaty that is a commitment to reduce greenhouse emissions that are associated with climate change. In 2001, Bush, in order to appease the Republican Party, retracted his promise to reduce greenhouse gas emissions from coal-burning power plants.[6]

Bush, similar to Reagan, was strategic with cabinet and subcabinet appointments for positions with environmental responsibilities. Almost all of his appointments were "pro-business advocates who [had] worked on behalf of various industries in battles with the federal government, largely during the Clinton years," while no individuals considered environmentalist were appointed. [7]

Overall, the Bush Administration (2000-2008) did not have a favorable stance on environmental policy advancement in the United States and internationally with the refusal to sign the Kyoto Protocol. While Bush did not unravel the environmental policies in place, like the Reagan Administration accomplished, Bush did weaken regulations and appointed anti-regulation individuals into environmental cabinet and subcabinet roles. This deregulation approach shifted with the 2008 election of Barack Obama.

Climate Change Policy Gridlock: 2008-Today

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[5] Vig, Norman J. (2000), Presidential Leadership and the Environment. In *Environmental Policy: New Directions for the Twenty-First Century* (Fifth Edition) (pg. 116). Washington, D.C.: CQ Press. 2003 pp. 116.

[6] Douglas Jehl and Andrew C. Revkin. (2001, March 14). Bush Reverses Vow To Curb Gas Tied to Global Warming. *New York Times*.

[7] Katherine Q. Seelye. (2001, May 12). Bush Picks Insider to Fill Environmental Posts. *New York Times*.

Coming into the presidency Obama had an ambitious environmental agenda on two major fronts: non-renewable energy and climate change. Obama has been able to make significant progress to increase the use of renewable energy technology such as wind and solar. This increase is likely because of Obama's extension of tax credits and a new grant program to fund residential solar and wind projects. Obama also raised fuel standards for cars and light trucks. Despite these small successes, little has been done to address the issue of climate change, primarily because of the political gridlock that surrounds the issue.

For example, the House passed cap-and-trade legislation that would help to regulate greenhouse gas emissions produced by industry. However, "[Obama] abandoned it as a long shot in the Senate, where opponents needed to muster only 41 votes to block the measure"[8], which resulted in no policies to address greenhouse gas emissions.

Looking ahead with the Obama administration's environmental record and the knowledge from the history of environmental policy, the 2011 Republic majority in the House will likely bring gridlock to Obamas environmental agenda.[9] During the President's State of The Union Address on January 24, 2012, Obama acknowledged, "the differences in [the House] may be too deep right now to pass a comprehensive plan to fight climate change".[10] Simply put, the political gridlock surrounding climate change will likely continue during the Obama administration, which has prompted local governments to address climate change.

B.   Local Environmental Policy: Climate Action Plans

The political battles resulting in policy-making gridlock of the past forty years has limited the reach of the federal government to further environmental policy in the United States. This partisan nature of environmental policies has stalled progress on many critical environmental issues such as climate change. The lack of federal action to address climate change has put pressure on the local government to reduce greenhouse gas emissions. Local governments are

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[8] Brian Palmer. (2011, August 2). Obama's Record on the Environment. *The Washington Post.*

[9] Office of the Clerk of the House of Representatives (2012), *111th and 112th Congress Composition, by political party*.

[10] Obama, Barack (2012), "*State of the Union Address to Congress*".

taking the lead on climate change policy by developing and adopting Climate Action Plans (CAPs). City mayors have signed the U.S. Mayors Climate Protection agreement whose mission is to advance the goals of the Kyoto Protocol in cities across the United States. In addition, other cities have joined the network ICLEI (Local Governments for Sustainability) that assists cities in developing CAPs and implementing sustainable development at the local level. These two networks display the commitment and leadership local governments take on the issue of climate change and the future of their communities.

Local governments, more so than the federal government, are in a position to address issues associated with climate change because of their intimate proximity to the community they serve. The federal government has a large, diverse community, while local government officials, such as mayors and other public officials, are in a position to react to the community concerns. This may be another reason why local governments have taken the lead on climate change issues. Even so, the shift from federal government environmental policies to local government policies opens a door to studying how this shift may provide clues to creating a discourse that can rebuild a national consensus around environmental policy on climate change.

C.   Environmental Discourses

The definition of a discourse ranges between fields of study. For this thesis, discourse is defined as shared meanings and ideas, which are spread through the use of language (Dryzek, 2005, p. 9)[11]. On their own discourses are simply words that are written or spoken. However, through language, discourses "interpret bits of information and put them together into coherent stories and accounts" (Dryzek, 1997)[12]. Critical discourse analysis (CDA) takes the discourse and connects the language with wider social contexts and theories at work within the dialogue.[13] CDA is particularly important to social sciences, specifically environmental policy, which has an interest in the policy-making process.

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[11] Dryzek, John (2005). *Politics of the Earth: Environmental Discourses (Second Edition)*.
       New York: Oxford University Press.

[12] Dryzek, John. (1997), *Politics of the Earth: Environmental Discourses (First Edition)*.
       New York: Oxford University Press.

[13] Fairclough, Norman and Ruth Wodak (1997), *Critical discourse analysis*. In van Dijk
       (T.). *Discourse as Social Interaction*. London: Sage Publications.

Over the last decade there has been an increase in academics that use CDA for analysis of environmental policy, beginning with Marteen Hajer and John Dryzek. Hajer's (1995) pioneering work, titled *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process,* proves that CDA can be used to explain how language is used to shape opinions and views of environmental politics within the policy-making process.[14]

Following Hajer, John Dryzek has expanded the application of environmental discourses by creating a typology. John Dryzek's book, *The Politics of the Earth: Environmental Discourses* (2005) categorizes eight environmental discourses that represent the range of approaches to environmental policy and politics from the 1970's to the present.

This thesis applies Dryzek's eight categories of environmental discourses (See TABLE 1). Data collected during the adoption process of the CAP was analyzed through the lens of Dryzek's eight environmental discourses categories.

Dryze*k* (2005) classifies environmental discourses as they depart from industrialism in our society. Industrialism, in this instance, is "characterized in terms of the overarching commitment to growth in the quantity of goods and services produces and to the material wellbeing that growth brings (Dryzek, 2005, p. 13). Dryzek groups two overarching classifications of environmental discourses: 1) reformist versus radical, and 2) prosaic versus imaginative.

TABLE 1: John Dryzek's Environmental Discourses

- administrative rationalism
- democratic pragmatism
- economic rationalism
- survivalism
- sustainable development
- ecological modernization
- green consciousness
- green rationalism

The reformist or radical classification is defined by the way that the discourse departs from industrialism. A departure from industrialism by changing just a portion of its function, and not the whole, is reformist. A departure from industrialism by a more aggressive approach, such as departing wholly from industrialism, is defined as radical.

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[14] Hajer, Marteen (1995), *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process.* London: Oxford University Press.

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The prosaic and imaginative classifications are also departures from industrialism. Prosaic accepts the social, economic, and political framework already set by industrialism. In this category, environmental problems are defined inside of the industrialism structures already in place. In contrast, the imaginative category seeks to redefine the industrialism framework and how the social, economic and political structures work together.

These two types of classifications produce four cells (See TABLE 2). These cells describe the environmental discourses that have been incorporated into United States environmental politics over the last four decades.

TABLE 2: Dryzek's Environmental Discourse Classifications

	Reformist	Radical
Prosaic	*Problem Solving* administrative rationalism democratic pragmatism economic rationalism	*Survivalism*
Imaginative	*Sustainability* sustainable development ecological modernization	*Green Radicalism* green romanticism green rationalism

Reformist/Prosaic: Problem Solving

The reformist and prosaic category of discourses are further categorized as environmental problem solving. The three discourses included under environmental problem solving are administrative rationalism, democratic pragmatism, and economic rationalism. These discourses are prosaic because the economic-political status quo of industrialism is taken as a given, but without too much adjustment — thus, they are considered reformist. The distinction between the three discourses rests on the agent that should be in control of environmental reform.

Administrative Rationalism: Leave it to the Experts

The discourse of administrative rationalism emphasizes the role of experts in problem solving for environmental issues (See FIGURE 1). The discourse of administrative rationalism will not look at theories or democratic methods to create action to the issues, but rather looks at practical management of the issue (Dryzek, 2005, p. 87). For example, resource management is one tool that governments can use as apart of the administrative rationalism discourse (Dryzek,

2005, p. 76). Additionally, the creation of the United States EPA can be one agency that relies on science and experts in approaching environmental issues, such as air pollution (Dryzek, 2005, p. 78). In terms of pollution control, regulation is the main key tool to ensure that policies are followed. Regulation "involves the staff of the agency formulating knife-edge standards for particular polluters, who are punished (usually by fines) if and when these standards are not met" (Dryzek, 2005, p. 79).

This discourse focuses on preventing further damage to the pollutants and emissions that have already been produced and discharged. Additional methods of analysis of this discourse are cost/benefit analysis and risk analysis to determine the potential issues and costs of policy options.

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FIGURE 1: Discourse Analysis of administrative rationalism

1. **Basic entities recognized or constructed**
   - Liberal capitalism
   - Administrative state
   - Experts
   - Managers
2. **Assumptions about natural relationships**
   - Nature subordinate to human problem solving
   - People subordinate to state
   - Experts and managers control state
3. **Agents and their motives**
   - Experts and managers
   - Motivated by public interest, defined in unitary terms
4. **Key metaphors and other rhetorical devices**
   - Mixture of concern and reassurance
   - The administrative mind

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Democratic Pragmatism: Leave it to the People

Democratic pragmatism is defined by interactive problem solving within a liberal capitalist democracy (See FIGURE 2). Pragmatism, as defined by Dryzek, signifies two things. The first is a "practical, realistic orientation to the world, the opposite of starry-eyed idealism" (Dryzek, 2005, p. 99). The second refers to school of philosophical thought, which deems that "life is mostly about solving problems in a world full of uncertainty" and that "learning through experimentation" is the only way to solve problems with the uncertainty (Dryzek, 2005, p. 100).

Democratic pragmatism relies on a number of voices and opinions in order to create various perspectives and approaches to a single environmental issue.

This discourse in action focuses on public consultation, dispute resolution, policy dialogue and debate, citizen deliberation, public inquiries, and right-to-know legislation. Each of these methods engage citizens in the public policy process and ensure that the ideals of democracy and pluralism are followed in public processes.

FIGURE 2: Discourse Analysis of democratic pragmatism

1. **Basic entities recognized or constructed**
   - Liberal capitalism
   - Citizens
2. **Assumptions about natural relationships**
   - Equality among citizens
   - Interactive political relationships, mixing competition and cooperation
3. **Agents and their motives**
   - Many different agents
   - Motivation a mix of material self-interest and multiple conceptions of public interest
4. **Key metaphors and other rhetorical devices**
   - Public policy as a resultant of forces
   - Policy like scientific experimentation
   - Thermostat

Economic Rationalism: Leave it to the Market

Economic rationalism has been the most prominent policy discourse of the last three decades (See FIGURE 3). This approach is also called market liberalism, classical liberalism, neoliberalism, and free-market conservatism, and in the United States can be called 'Reaganomics'. Economic rationalism is committed to "intelligent deployment of market mechanisms to achieve public ends" (Dryzek, 2005, p. 121). The centralized government power, as followed in administrative rationalism and even democratic pragmatism, is not employed in economic rationalism. This discourse follows laissez-faire ideals with limited regulation from government entities that allow the market to create solutions to environmental issues. The market mechanisms to address environmental issues can include economic incentives, such as tax incentives and green taxes. Green taxes, also called "environmental taxes" or "pollution taxes",

are excise taxes on environmental pollutants or on goods whose use produces such pollutants. Economic rationalism followers support this because it allows the polluter to have control over the amount of pollution to reduce and the technology to reach that goal (Dryzek, 2005, p. 130).

Economic rationalism lacks democratic processes in its values, because it has a strong focus on the economic market rather than the citizens of a community. This discourse views the natural environment as a mechanism to increase profits and create a competitive, strong economic market without regulation (Dryzek, 2005, p. 134). Economic rationalism, for the last three decades, has been the most prominent environmental discourse.

FIGURE 3: Discourse Analysis of economic rationalism

1. **Basic entities recognized or constructed**
   - Homo economics
   - Markets
   - Prices
   - Property
   - Government (not citizens)
2. **Assumptions about natural relationships**
   - Competition
   - Hierarchy based on expertise
   - Subordination of nature
3. **Agents and their motives**
   - Homo economicus: self-interested
   - Some government officials must be motivated by public interest
4. **Key metaphors and other rhetorical devices**
   - Mechanistic
   - Stigmatizing regulation as 'command and control'
   - Connection with freedom
   - Horror stories

Reformist/Imaginative: Sustainability

Sustainability is an environmental discourse that began in the 1980's. The discourse "attempts to dissolve the conflicts between environmental and economic values" (Dryzek, 2005, p. 16). The reformist and imaginative category is defined by the quest for sustainability. Two types of discourses are defined: sustainable development and ecological modernization. Imaginative

methods to "dissolve the conflicts between environmental and economic values that energize the discourses of problem solving and limits" are a characteristic feature of both. They use multiple images of sustainability, which, according to Dryzek, do not include notions of limits. And, "without the imagery of apocalypse that defines the limits discourse, there is no inbuilt radicalism to the discourse" of sustainability (Dryzek, 2005, p. 14).

Sustainable Development: Environmentally Benign Growth

Sustainable development, as termed by the Brundtland Commission Report in 1987, "ensures that [humanity] meets the needs of the present without compromising the ability of future generation to meet their own needs (World Commission on Environment and Development, 1987). This requires that the discourse of overconsumption by industrialized society be reexamined and a new discourse must look at economic growth and its effects on the environment (Dryzek, 2005, p.153).

FIGURE 4: Discourse Analysis of sustainable development

1. **Basic entities recognized or constructed**
   - Nested and networked social and ecological systems
   - Capitalist economy
   - Ambiguity concerning existence of limits
2. **Assumptions about natural relationships**
   - Cooperation
   - Nature subordinate
   - Economic growth, environmental protection, distributive justice, and long-term sustainability go together
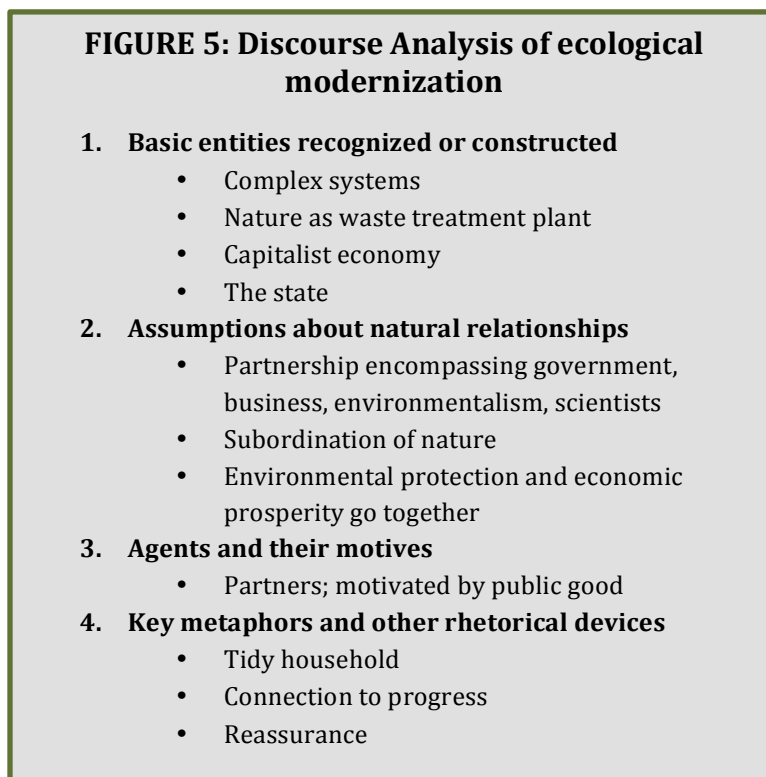3. **Agents and their motives**
   - Many agents at different levels, transnational and local as well as the state; motivated by the public good
4. **Key metaphors and other rhetorical devices**
   - Organic growth
   - Nature as natural capital
   - Connection to progress
   - Reassurance

The concept of sustainable development looks at a whole system and ways to improve the efficiencies of that system both economically and environmentally, with a focus on the limits of natural resources (See FIGURE 4). As opposed to economic rationalist, the sustainable development discourse disregards competition, but emphasizes cooperation of the private and public entities to make a long-term, lasting change. However, success in sustainable development can be measured as "natural capital", or ways that nature can be quantified to have a monetary value associated to it (Dryzek, 2005, p. 156). Sustainable development is a global view but can be employed at a local level, or as the sustainable development slogan suggests, "Think Globally, Act Locally" (Dryzek, 2005, p. 155).

FIGURE 5: Discourse Analysis of ecological modernization

1. **Basic entities recognized or constructed**
   - Complex systems
   - Nature as waste treatment plant
   - Capitalist economy
   - The state
2. **Assumptions about natural relationships**
   - Partnership encompassing government, business, environmentalism, scientists
   - Subordination of nature
   - Environmental protection and economic prosperity go together
3. **Agents and their motives**
   - Partners; motivated by public good
4. **Key metaphors and other rhetorical devices**
   - Tidy household
   - Connection to progress
   - Reassurance

Ecological Modernization: Industrial Society and Beyond

The discourse of ecological modernization was first identified in 1980s by social scientist Joseph Huber (1982) [15] and Martin Janicke (1985).[16] Dryzek defines ecological modernization as

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[15] Huber, Joseph (1982), *Die verlorene Unschuld der Oklogie*. Frankfurt am Main; Fischer Verlag.

[16] Janicke, Martin (1985), *Preventive Environmental Policy as Ecological Modernization and Structural Policy*. Berlin: Wissenschaftszentrum.

"the restructuring of the capitalist political economy along more environmentally sound lines" (Dryzek, 2005, p.167). This is based upon more of a systems approach to issues, rather than piecemeal understanding. This discourse emphasizes that creating ecologically sound societies is good for businesses and industries (See FIGURE 5). Therefore the focus is not on government control, but rather on incentives to business. This means that restructuring environmental issues in terms of how, for example, pollution is waste and waste is inefficient for industry and business practices (Dryzek, 2005, p. 168). Ecological modernization describes how it "pays" for the private sector to invest in ecologically sounds practices.

Ecological modernists view nature as a tool that humans use for their needs and that fits within the capitalist society (Dryzek, 2005, p. 171). Additionally, environmental protection and economic prosperity proceed hand-in-hand within this discourse (Dryzek, 2005, p.171).

FIGURE 6: Discourse Analysis of survivalism

1. **Basic entities recognized or constructed**
   - Finite stock of resources
   - Carrying capacity of ecosystems
   - Population
   - Elites
2. **Assumptions about natural relationships**
   - Conflict
   - Hierarchy and control
3. **Agents and their motives**
   - Elites; motivation is up for grabs
4. **Key metaphors and other rhetorical devices**
   - Overshoot and collapse
   - Commons
   - Spaceship Earth
   - Lily Pond
   - Cancer
   - Virus
   - Computers
   - Images of doom and redemption

Radical/Prosaic: Survivalism

Survivalism, according to Dryzek*,* is an environmental discourse that was made widespread in the 1970s by the Club of Rome and still remains important today. The basic idea is

that continued economic and population growth will eventually hit limits set by the Earth's stock of natural resources and the capacity of its ecosystem to support human agriculture and industrial activity (See FIGURE 6). This discourse is radical because perpetual economic growth and power relations are challenged and the discourse is prosaic because solutions are proposed within the constraints of industrialism (e.g., more administrative control and science-based decision-making).

Radical/Imaginative: Green Radicalism

The last category includes discourses, which are imaginative and radical. These are discourses of green radicalism. This category includes the discourses Dryzek labels green consciousness and green politics. Those who employ these discourses reject the basic structure of industrial society. The discourses imagine radically different understandings of the environment, human-environment interactions, and human society. These two discourses include diverse ecologically oriented political and social movements, including social ecology, deep ecology, bioregionalism, ecofeminism, and environmental justice; some, like ecofeminism and bioregionalism, exhibit elements of both green radicalism discourses.

FIGURE 7: Discourse Analysis of green consciousness or green romanticism

1. **Basic entities recognized or constructed**
   - Global limits
   - Nature
   - Unnatural practices
   - Ideas
2. **Assumptions about natural relationships**
   - Natural relationships between humans and nature that have been violated
   - Equality across people and nature
3. **Agents and their motives**
   - Human subjects, some more ecologically aware than others
   - Agency can exist in nature too
4. **Key metaphors and other rhetorical devices**
   - Wide range of biological and organic metaphors
   - Passion
   - Appeals to emotions, intuition

Green Consciousness: Changing People

Green consciousness or green romanticism requires that our "industrial society induces a warped conception of persons and their place in the world" which emphasizes a "more humble human attitude to the natural world" and also their limits (Dryzek, 2005, p. 193). (See FIGURE 7). As Dobson (1990) suggests 'the foundation stone of green politics is the belief that our finite Earth places limits on our industrial growth.' (p. 73).[17] This discourse relies on mainly a change of ideas of society by individual change, rather than a material change. The change of ideas would mainly refocus nature, not as subordinate to humans, but working in concert with one another (Dryzek, 2005, p. 194). Some of the subsets of green consciousness include: ecofeminism, bioregionalism, lifestyle greens, and eco-theology.

Green Politics: Changing Society

Green politics is the idea of using political parties and lobbying groups to push green initiatives (See FIGURE 8). This discourse seeks to change the role played by institutions and

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FIGURE 8: Discourse Analysis of green politics

1. **Basic entities recognized or constructed**
   - Global limits
   - Nature as complex ecosystems
   - Humans with broad capacities
   - Social, economic, and political structures
2. **Assumptions about natural relationships**
   - Equality among people
   - Complex interconnections between humans and nature
3. **Agents and their motives**
   - Many individual and collective actors, multidimensional motivation
   - Agency in nature downplayed though not necessarily denied
4. **Key metaphors and other rhetorical devices**
   - Organic metaphors
   - Appeals to social learning
   - Link to progress

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[17] Dobson, Andrew (1990), *Green Political Thought: An Introduction.* London: Unwin Hyman.

practices in public policies (Dryzek, 2005, p. 218). Torgerson (1999) suggests that the 'green public sphere' is a continual reminder to the industrial society of their shortfalls, the ways that they can change, and the alternatives that can move that change through public policy changes.[18]

Green politics as a discourse, does not only appeal to emotion, like green consciousness, but also frames progress as something that humans can achieve through policy and legislation change, much like sustainable development or ecological modernization discourses (Dryzek, 2005, p. 218). Metaphors associated to this discourse include using organic as a way to show balance in the world. Additional metaphors include ideas of progress and looking toward the future generations to see where society will be without changes now (Dryzek, 2005, p. 217).

D. Research Questions

Using Dryzek's discourses as the methodological framework, this thesis will seek to address the following questions:

1) What are the public discourses around the adoption of Climate Action Plans?
2) Does the political setting of a city impact the type of discourses in Climate Action Plans?
3) How can local, state and federal governments use this information to harness the diversity of discourses and thereby improve opportunities for the adoption of Climate Action Plans and/or the reduction of greenhouse gas emissions?

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[18] Torgerson, Douglas (1999). *The Promise of Green Politics: Environmentalism and the Public Sphere.* Durham, NC: Duke University Press.

CHAPTER III

METHODS

City action planning for climate change is a relatively new trend, which is why I approach this thesis from a qualitative, analytical approach. This approach presents the opportunity to use analytical methods through non-quantifiable means that highlight key patterns, trends and themes that are apparent through the CAP adoption process.

A. Methods for Sample

Climate Action Plan (CAP)

The first variable that I used to find my sample was cities that have a Climate Action Plan, which for this thesis will be shortened to CAP or CAPs. According to the US Environmental Protection Agency (EPA) a CAP outlines specific policy proposals or planning processes, including institutional and policy structures that a local government will use to develop and implement a climate change mitigation strategy. CAPs typically addresses 1) Regional and local risks and vulnerabilities; 2) Baseline emissions; 3) Goals and targets for greenhouse gas emission reduction; 4) Identification and screening of mitigation options; 5) Estimated results of mitigation actions; 6) Recommendations and strategy for implementation*"*[19]

City Demographics

To determine if a city has a CAP, I performed a thorough search on the EPA's website and a general web search to find the cities that have CAP's. From the list of 40 cities with CAPs, I further narrowed down the sample using the following boundaries, in this particular order:

- Cities that are categorized as "mid-sized cities", or, as the U.S. Census Bureau defines, a territory inside an urbanized area and inside a principal city with a population less than 250,000 and greater than or equal to 100,000.
- Cities with similar household median incomes between $30,000 and $60,000.

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[19] US Environmental Protection Agency (2011), *Local Climate Action Plans.*
http://www.epa.gov/statelocalclimate/local/activities/action-plan.html#one, 2011.

- Cities that represent all 4 US Census regions[20], which include the Midwest, Northeast, South, and West.

Political Party Leaning

This thesis defines political party leaning as the number of election wins for democratic candidates and the number of wins for republican candidates, rather than examining political party leaning based on issue votes. While there are often more than republican and democrat parties represented in most elections, third party candidates are not significant to this thesis.

The method used to measure a city's political party leaning is based on the election results from the county, or counties in some cases, where the city is located. If a city's limits touch two counties then both counties election results are combined. I use county election data because it is accessible, there are records that go back in time, and because this data will provide a more accurate measure of the cities political leaning than other measures. The county election results were collected for:

- General election results for the U.S. President for 2008, 2000, 1992, 1984, 1976 and 1968.
- General election results for the US House of Representatives for the years 2008, 2000, 1992, 1984, 1976 and 1968.[21]
- General election results for the US Senate elections for the years 2008, 2000, 1992, 1984, 1976 and 1968. [22]

I use presidential election data and U.S. House and Senate election data, rather than local election data because candidates that run for the U.S. President, U.S. House of Representatives and the U.S. Senate always run with a political party. At the local level elections, candidates do not always run with a political party. Therefore to easily categorize republican and democratic party candidates I used U.S. Presidential elections, U.S. House and Senate election results.

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[20] Dolan, Dana, Genevieve Borg Soule, Jill Greaney, and Jason Morris (2010), Warming Up to Climate Action: A Survey of GHG Mitigation through Building Energy Efficiency in City Climate Action Plans, *Carbon and Climate Law Review*, 2.

[21] Of these years not all of them were election years for the U.S. House of Representative, and years without an election were not included.

[22] Of these years not all of them were election years for the U.S. Senate, and years without an election were not included.

Using the election data, I calculate the percentage of elections that a democratic candidate won, and also the number of wins to a candidate in the county or counties. For this thesis, I use a 60-40 ratio to determine whether a particular county leaned toward a republican or democratic candidate. If 60% or more of the elections wins were for a republican candidate, then that city is categorized as leaning for the republican. If I used a higher percentage other than 60% to determine if a city leaned toward a particular political party then my sample would be reduced to only a couple of cities and then my research would not be as comprehensive. With that said, the 60-40 percent measure is a potential limitation to this study.

TABLE 3: Study Sample of Republican and Democratic Cities

Republican Cities	Democratic Cities
• Cincinnati, Ohio • Charleston, South Carolina • Chattanooga, Tennessee	• Berkeley, California • Durham, North Carolina • Worcester, Massachusetts

After applying the methods above six cities, three republican and three democratic, were the cities that fit all of the above criteria. See TABLE 3 for the list of cities.

B. Methods for Data Collection

The data collected for this thesis contains the components of the CAP adoption, including: public official perspective, the public's input, and the policy outcome. Public officials consist of mayors, city council members, and City Managers because these individuals are directly involved with drafting and passing local ordinances in a city, such as a CAP. The public input consists of citizens and stakeholders who have an interest in the CAP. Finally, the policy outcome is the content of the CAP. For this inquiry, data is collected from the following sources:

Public Officials Perspective:

- Message from Mayor or other public officials from beginning of CAP or from CAP website.
- Major local newspapers for quotes that relate to the adoption of the CAP in the community, including both articles and opinion pieces. The quotes are from City Council, citizens, city staff, and any additional stakeholders.

Public Input:

- Public survey comments
- Public Meeting Minutes, for both public comments and city council comments.
- Major local newspapers for quotes that relate to the adoption of the CAP in the community, including both articles and opinion pieces. The quotes are from City Council, citizens, city staff, and any additional stakeholders.

Policy Outcome:

- Mission statement/Introduction/Executive Summary
- Introductory paragraph presenting each CAP chapter

C. Methods for Analysis

I analyze the public officials quotes and statements, the public involvement comments and feedback, and the contents of the CAP through a coding system based on Dryzek's checklist of elements for analysis of discourse (See FIGURE 9). This framework guided my identification of the environmental discourses that were within the language that I analyzed. This structure also is how Dryzek outlines the eight environmental discourses, which can be found in the previous section. The following are some examples of how I used the language from my data and applied Dryzek's discourses to that dialogue.

FIGURE 9: Checklist of elements for the analysis of discourse

1. Basic entities recognized or constructed
2. Assumptions about natural relationships
3. Agents and their motives
4. Key metaphors and other rhetorical devices

The data collected was analyzed based upon keywords, phrases, and the context of the text that were also identified with Dryzek's discourses. While Dryzek discourses do not outline the exact phrases and keywords found in my data, the meaning of them within their context was

similar. For example, Dryzek identifies a key phrase or rhetorical device of the discourse survivalism as "overshoot and collapse" and in Worcester, Massachusetts the city manager warns that "within a generation we may face changes that will cause great dislocation, strife and energy shortage as the world's economic development demands more from an oil exploration and production system that has already peaked" (*Worcester Climate Action Plan*, 2006, pg. 5). Therefore the city manager's statement would be categorized within the survivalism discourse not only for the keywords, but also because Dryzek's identifies the basic idea behind survivalism discourse as continued economic and population growth will eventually hit limits set by the Earth's stock of natural resources and the capacity of its ecosystem to support human agriculture and industrial activity.

A public comment from Chattanooga that states "provide tax incentives for LEED certified projects" (*The Chattanooga CAP,* 2009, p.82) would be categorized as economic rationalism because it promotes private entities to build sustainable buildings, while still relying on market principles. A public comment in Cincinnati that states that there is a "need second round of evaluations to determine the biggest bang for the GHG buck" (*City of Cincinnati Climate Protection Public Hearing Minutes*, 2008, p. 2) falls within the administration rationalism because it relies on experts to determine the cost-effectiveness of priorities. Another example, found in Berkeley's CAP, states that "from planning to action: everyone has a role to play" (*Berkeley Climate Action Plan,* 2009, p. ES6). In this instance the Berkeley's approach is democratic pragmatism. These are examples of the type of analytical process that I applied to categorize different texts within Dryzek's discourses.

CHAPTER IV

DATA AND ANALYSIS

This section includes the data and sources of data that I analyzed using Dryzek's environmental discourses. Upon analysis, I summarized my findings into tables. The categories at the top of the tables represent Dryzek's eight discourses grouped together into their broader type. These tables provide a source of easy comparison between the discourses of public officials

TABLE 4: Dryzek's Discourses Based on Public Officials Perspective, Public Input and Policy Outcome in Democratic and Republican cities

	Problem Solving			Survivalism	Sustainability		Green Radicalism	
	Administrative Rationalism	*Democratic Pragmatism*	*Economic Rationalism*	*Survivalism*	*Sustainable Development*	*Ecological Modernization*	*Green Consciousness*	*Green Politics*
Democratic Cities								
Berkeley, California	Public; Policy Outcome	Public officials; Policy Outcome		Policy Outcome	Public officials; Policy Outcome			
Durham, North Carolina	Public officials; Public; Policy Outcome	Public; Policy Outcome	Public	Policy Outcome				
Worcester, Massachusetts	Public; Policy Outcome	Public officials; Policy Outcome	Public officials; Public; Policy Outcome	Public officials; Policy Outcome			Policy Outcome	
Republican Cities								
Chattanooga, Tennessee	Public officials; Public; Policy Outcome	Public officials; Policy Outcome	Public officials; Public; Policy Outcome		Policy Outcome			
Charleston, South Carolina	Public officials; Public; Policy Outcome	Public	Public officials; Public	Public officials	Public		Public	
Cincinnati, Ohio	Public officials; Public; Policy Outcome	Policy Outcome			Public officials		Public officials; Public; Policy Outcome	

perspective, public input, and the policy outcome in the three republican cities and three democratic cities. TABLE 4 provides a summary of the discourses representing each city. The

information is summarized based upon the findings of the public official perspective (TABLE 5), public input (TABLE 6), and the policy outcome (TABLE 7).

A. Public Officials Perspective

The public officials in this thesis consist of the city mayor, city manager, City Council members, and city staff. To capture the public official perspective I collected data from the message from the mayor, which is often found at the beginning of the CAP. The message from

TABLE 5: Dryzek's Discourses Representing Public Officials Perspective in Democratic and Republican cities, by role

	Problem Solving			Survivalism	Sustainability		Green Radicalism	
	Administrative Rationalism	*Democratic Pragmatism*	*Economic Rationalism*	*Survivalism*	*Sustainable Development*	*Ecological Modernization*	*Green Consciousness*	*Green Politics*
Democratic Cities								
Berkeley, California		Mayor; Council Member			Mayor			
Durham, North Carolina	City Planner							
Worcester, Massachusetts		Council Member	City Manager	City Manager				
Republican Cities								
Chattanooga, Tennessee	Mayor	City Planner	Mayor					
Charleston, South Carolina	Mayor		Mayor; Council Member	Council Member				
Cincinnati, Ohio	Mayor				Mayor		Council Member	

the mayor or city manager message provides a good context with which to judge how the mayor or city manager frames the need for a CAP in the community. Other data sources to identify the public official perspective were quotes from the local newspaper. Refer to TABLE 5 to see which of Dryzek's environmental discourses that were employed by the mayor, city manager, city staff and councilmembers.

B. Public Input

The public input consists of public meeting notes, committee notes, public quotes and editorials in the local newspapers, and public feedback and surveys summaries. Not every city had all of these data sources. For example, only two cities conducted public surveys and therefore the other four cities did not have this information. I used as much data that I could collect from each city to determine the public's input. Refer to the Appendix for a complete list of the data sources that were collected and analyzed from each city. TABLE 6 summarizes the environmental discourses of the public's input.

TABLE 6: Dryzek's Discourses Representing Public's Input in Democratic and Republican cities, by source

	Problem Solving			Survivalism	Sustainability		Green Radicalism	
	Administrative Rationalism	*Democratic Pragmatism*	*Economic Rationalism*	*Survivalism*	*Sustainable Development*	*Ecological Modernization*	*Green Consciousness*	*Green Politics*
Democratic Cities								
Berkeley, California	Summary of Public Comments							
Durham, North Carolina	Summary of Public Comments; Public Forum Minutes	Editorial	Summary of Public Comments; Public Input Survey Results; Public Forum Minutes	Editorial				
Worcester, Massachusetts	Energy Task Force Meeting Minutes	Energy Task Force Meeting Minutes	Editorial	Editorial				
Republican Cities								
Chattanooga, Tennessee	Public Input Results		Public Input Results		Editorial		Editorial	
Charleston, South Carolina	Green Committee Members	Non-profit stakeholders	Real Estate interest					
Cincinnati, Ohio	Editorial; Public Comments from Public Hearing	Public Comments from Public Hearing	Public Comments from Public Hearing		Public Comments from Public Hearing		Editorial; Public Comments from Public Hearing	

C. Policy Outcome

The policy outcome in this thesis analyzed two key sources of data, 1) CAP introduction and 2) CAP chapter introductions. The chapter introduction provides an insight to the different discourses that are used to describe different topics that relate to climate action planning. I did

not analyze the implementation of each CAP because this thesis is evaluating the discourses within the adoption of the CAP, which is more appropriately summarized with the introductions of the CAP and section introductions. Refer to TABLE 7 to see which of the environmental discourses were active with the CAP of each city.

TABLE 7: Dryzek's Discourses Representing Policy Outcome in Democratic and Republican cities, by source

	Problem Solving			Survivalism	Sustainability		Green Radicalism	
	Administrative Rationalism	*Democratic Pragmatism*	*Economic Rationalism*	*Survivalism*	*Sustainable Development*	*Ecological Modernization*	*Green Consciousness*	*Green Politics*
Democratic Cities								
Berkeley, California	*Sustainable Transportation and Land Use* Intro; *Adapting to Climate Change* Intro	CAP Intro; Sustainable Transportation and Land Use Intro; *Building Energy Use Strategies* Intro; *Waste Reduction and Recycling* Intro; *Community Outreach and Empowerment* Intro; Implementing, *Monitoring and Reporting* Intro		CAP Intro	CAP Intro			
Durham, North Carolina	CAP Intro; *Commercial* Intro; *Industrial* Intro; *Transportation* Intro; *Solid Waste* Intro; *Buildings* Intro; *Fleets* Intro; *Streetlights, Traffic Signals and Other Outdoor Lighting* Intro; *Water and Sewage* Intro; *Local Government Waste* Intro; *Schools* Intro	*Residential* Intro;		CAP Intro				
Worcester, Massachusetts	*Energy Efficiency* Intro; *Waste and Recycling* Intro	CAP Intro	*Renewable Energy* Intro; *Transportation and Vehicle Fleet* Intro; *Waste and Recycling* Intro; *Green Space* Intro	CAP Intro			*Outreach and Education* Intro	
Republican Cities								
Chattanooga, Tennessee	CAP Intro	*Education and Implementation* Intro	*Natural Resources* Intro; *Education and Implementation* Intro		*Energy Efficiency* Intro; *Healthy Communities* Intro			

Charleston, South Carolina	*Cleaner Energy* Intro; *Sustainable Communities* Intro; *Improved Transportation* Intro; *Zero Waste* Intro; *Education* Intro		*Cleaner Energy* Intro		CAP Intro; *Better Buildings* Intro		
Cincinnati, Ohio	CAP Intro; *Transportation* Intro; *Energy* Intro; *Waste* Intro; *Land Use* Intro; *Food-related Issues* Intro	*Land Use* Intro					*Advocacy* Intro	

CHAPTER V

DISCUSSION

Using the data and analysis from the previous section, this chapter highlights key patterns and themes that provide insights towards addressing my research questions. The discussion section is broken into three main sections: 1) Republican Cities; 2) Democratic Cities; and 3) Similarities between Republican and Democratic Cities. Each of these sections includes information on the public official perspective, public input, and policy outcome.

A. Republican Cities

Public Officials Perspective

The first key theme from the public officials perspective is that the all three mayors from the republican cities framed the issues of climate change and the need for climate action planning within the administrative rationalism discourse, which is categorized under the problem solving approach. According to Dryzek, the administrative rationalism discourse emphasizes the role of experts in problem solving for environmental issues.

Charleston, South Carolina's mayor, Joseph P. Riley, Jr., said, the "City Council decided that Charleston needed its own think tank to address [climate change] issues at the local level" and "appointed 22 citizens and business leaders to create this plan" (*Charleston Green Plan: A Roadmap to Sustainability*, 2010, Introduction). The City Council appointed experts and key community leaders to develop the climate action plan. This discourse is not democratic pragmatism, because the local government was the appointees of the committee that develops the plan. If it were democratic pragmatism then the process to develop the plan would be open to all of the public. Chattanooga, Tennessee and Cincinnati, Ohio also had similar processes in creating the CAP. Tennessee's Mayor Ron Littlefield, "appointed the Chattanooga Green Committee to advise and assist us in moving Chattanooga further toward the long-sought goal of sustainability…" (*The Chattanooga Climate Action Plan,* 2009, Introduction). In addition, Cincinnati, Ohio's Mayor Mark Mallory challenged each city department to reduce utility and

usage, promote conservation and increase alternative energy use (*City of Cincinnati Office of Environmental Quality e-News*, 2007, pg. 1-2).

Each of these cities' CAP adoption processes are consistent with Dryzek's category of administrative rationalism. These cities have framed the issues of climate change as a problem that can be solved through strategies and steps, with the cities as the leaders to accomplish this task.

The second key theme is that public officials from republican cities, more than the democratic cities, used economic rationalism as a method of approaching the CAP adoptions process. Economic rationalism, like administrative rationalism, is categorized under the problem solving approach. Chattanooga and Charleston's mayor and councilmembers framed the CAP within Dryzek's economic rationalism discourse. Charleston's Mayor, Joseph P. Riley, Jr. and Councilmember and Chattanooga's Mayor Ron Littlefield highlighted that a CAP will create a "green economy" and "green jobs". Mayor Ron Littlefield in a local newspaper states that their two major corporations, Volkswagen and Alstom Power located to Chattanooga because of their "environmental story – the transformation of Chattanooga from the dirtiest city…to one of the most cleanest and most livable" ("Chattanooga won't abandon environmental initiatives," 2008). These two republican cities highlight that by developing a CAP and reducing greenhouse gas emissions that the economic market will become more prosperous and expand to different sectors. This is essentially what Dryzek categorizes as the economic rationalism discourse of environmental policy.

Public Input

The first key theme identified after reviewing the public input is that almost all of the public's comments, not including newspaper editorials, were within Dryzek's problem solving paradigm: the administrative rationalism discourse, democratic pragmatism discourse, and the economic rationalism discourse. This trend is likely because the public hearings, surveys, and public forums approached feedback within the problem solving approach. For example, Chattanooga's CAP public workshop asked roughly 500 citizens question like, 'How can Chattanooga become a greener, more sustainable city?'. This question assumes that there is a problem with Chattanooga in terms of sustainability and there are solutions that are in reach within the current political, social and economic structures.

An interesting example of the difference of public approaches to the CAP is the process in Charleston, South Carolina. Charleston has a City Council-appointed Green Committee that is made up of representatives from the scientific, business and government communities. The committee meetings provided opportunities for the public, stakeholders and special interest to participate, including non-profits and business interests. After reviewing the Green Committee meeting notes an interesting theme emerged. The Green committee members approached the CAP and its recommendations from Dryzek's administrative rationalism discourse. For example, the Green Committee members focused on the cost and benefit of certain actions and how the City could implement different strategies, based upon funding (*Charleston Green Committee Meeting Minutes*, 2007). The non-profit interests approached the CAP from a democratic pragmatism discourse. The majority of these interests suggested recommendations that encouraged partnership and coordination with community members. For example the Charleston Area League of Women Voters suggest that there should be "citizen participation and input in the distribution of funds" for the implementation of the CAP (*Charleston Green Committee Meeting Minutes*, November 2007).

The business interests, mainly real estate interest came from an economic rationalism discourse. For example in meeting notes and the local newspaper the real estate industry voiced concern about additional charges for building practices and impact fees. The Charleston Trident Association of Realtors also criticized the CAP as a "mandate on private individuals" because of the potential tax increases to residents ("Green plan takes milder approach," 2010). These beliefs take on the economic rationalism approach with the economic interest, rather than the city or residents determining the solutions for the CAP. This evaluation provides a glimpse of how different sectors of the public, whether that is individuals, non-profits, or governments, fall within various environmental discourses depending on their agency.

Policy Outcome

Similarly with the public officials perspective and the public input, the policy outcome remained within Dryzek's problem solving paradigm, with a few exceptions. First, both Chattanooga and Cincinnati's CAP introduction frames the need for a CAP within the administrative rationalism discourse. For example, Chattanooga's CAP introduction states that "the [Chattanooga Green] Committee and staff have been analyzing data, taking the community's

pulse on priorities, meeting with subject matter experts, and developing a set of recommendations" (*The Chattanooga Climate Action Plan*, 2009, pg. 7). Charleston's CAP introduction mirrors the sustainable development discourse, which highlights that the environment, economy and social capital can work together rather than a tension within the three. Charleston's CAP introduction declares, "[p]rosperity and sustainability go hand in hand" (*Charleston Green Plan: A Roadmap to Sustainability*, 2010, Introduction). The introductory summary of the CAP is important in framing the entire CAP; however, the topic introduction for each chapter provides more depth into how different climate change issues are approached.

      While the different chapters for all of the cities were not completely consistent, there are clear patterns for the broad topics. The majority of the chapter introduction in Charleston and Cincinnati remain within the administrative rationalism discourse. More specifically, the waste, transportation, energy, and land use chapters all fall with the administrative rationalism discourse.

      However, none of Chattanooga's chapter introductions fall within the administrative rationalism discourse. In fact, the introduction includes the democratic pragmatism, economic rationalism, and sustainable development discourses. The education and policy introduction can be categorized as the democratic pragmatism discourse, as it stresses the need for "broad participation from the entire community" to implement the CAP (*The Chattanooga Climate Action Plan*, 2009, pg. 63). The economic rationalism discourse is applied to the natural resources introduction, highlighting how water quality from protected natural resources "is essential to continued economic growth" (*The Chattanooga Climate Action Plan*, 2009, pg. 51). Finally, energy efficiency and healthy communities introductions, respectively, fall within the sustainable development discourse because each highlight the economic, social and environmental benefits from both energy efficient buildings and healthy communities (*The Chattanooga Climate Action Plan*, 2009, pgs. 27 and 39).

B. Democratic Cities

Public Officials Perspective

Most of the public official perspective from democratic cities, like republican cities, can be categorized within Dryzek's problem solving paradigm. However, unlike republican cities, the mayors from the democratic cities do not frame the CAP adoption process by administrative rationalism. Berkley's Mayor Tom Bates frames the CAP in democratic pragmatism discourse and Worcester's City Manager, Michael V. O'Brien uses both economic rationalism discourse and survivalism discourse[23]. Berkeley represents a city where both the councilmembers and Mayor approach CAP adoption from the same discourse.

For example, Councilmember Laurie Capitell in Berkley's local newspaper states "we have an opportunity to engage in this project as a community project, not just looking at 'Why do I have to change?' but moving together as a team" ("City Unveils Plan to Decrease Gas Emissions," 2008). In addition, Mayor Tom Bates "provided leadership in engaging the community in a local climate protection campaign" (*Berkeley Climate Action Plan*, 2009, pg. ES2). The reason why in Berkeley the Mayor and Councilmembers approach CAP from democratic pragmatism may be because in 2006, Berkeley voters issued a call to action on the climate change challenge by overwhelmingly endorsing ballot Measure G that sought to reduce Berkeley's greenhouse gas emissions by 80% below 2000 levels by 2050. Therefore Berkeley, when compared to any of the other cities, may be more apt to turn toward the citizens because the citizens were the ones who initiated the CAP. In the other cities, the Mayor was typically the initiator of the CAP.

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[23] Note: I could not find Durham, NC mayor comments regarding the CAP. Therefore, Durham is not analyzed in this section.

Worcester's City Manager took a different approach than Berkeley, employing economic rationalism and survivalism. The City Manager use the survivalism discourse, which can be characterized as continued economic and population growth that will eventually hit limits set by the Earth's stock of natural resources which results in severe consequences. For example, Worcester's City manager warns that "our reliance on fossil fuels has left a legacy of a fundamentally altered planet" and this "will cause great dislocation, strife, and energy shortages as the world's economic development demands more from an oil exploration and production system that has already peaked" (*Worcester Climate Action Plan*, 2006, pg. 1-2). The survivalism discourse captures the audience's attention to the severity and need for action.

Public Input

After analyzing the public input for the democratic cities, it is clear that most of the public comments are within the problem solving paradigm. However, the type of outlet for the public to comment appears to have different trends and patterns. For example, the editorials in Durham and Worcester revolve around the survivalism discourse. One editorial in Durham warns of "the catastrophic potential impact of global warming…is already seen in shrinking ice caps, melting glaciers, and rising sea levels" which means that "[a]ction is needed" ("Durham sets example," 2007). A Worcester resident and environmental activist shares this opinion further stating that the effects of climate change "reads not unlike passages from the Book of Revelations" ("Climate Action Plan Elicits Praise," 2007). These newspaper opinions embody Dryzek's survivalism discourse.

However, the public input captured by minutes and meeting notes from public hearings, surveys, forums and meetings embodies a different discourse. All three democratic cities held public outreach mechanisms that offered insight into the public's take on the CAP adoption. Administrative rationalism is the distinct discourse that the public shared in all three democratic cities. Other discourses also included democratic pragmatism and economic rationalism, but were not a consistent theme for all three cities.

In Berkeley the key themes of the public meeting notes offered input on "more specific implementation steps, including an implementation timeline, estimates of costs associated with implementation, and identification of potential sources of funding" (*Berkeley Climate Action Plan*,

2009, pg. 5). These public suggestions fit within Dryzek's administrative rationalism because it "looks at practical management of the issue" (Dryzek, 2005, p. 87).

Worcester and Durham also shared the "practical management" of CAP adoption. For example, many of the public comment revolved around changes in the city codes and administrative action to reduce greenhouse gas emissions. Durham's public comments followed administrative rationalism more closely than the other cities. For example, Durham's public input revolved around all city-based initiative to reduce their greenhouse gas emission. For example, one resident believes "the City should buy energy efficient windows/doors in bulk and sell them at costs or with a subsidy" (*Greenhouse Gas and Criteria Air Pollutant Emissions Inventory,* 2007, pg. 121). This discourse is not democratic pragmatism because of the reliance on the City, and it is also not economic rationalism. Economic rationalism discourse would encourage the private companies to provide discounts to consumers, and not the City.

Policy Outcome

Similar to the republican cities, the democratic cities all had policy outcomes that embodied Dryzek's problem solving paradigm, with the exception of the CAP introductions which expanded to the survivalism discourse. Worcester's CAP introduction highlighted the "threat of climate change impacts – increased temperatures, more extreme heat days, and changing precipitation patterns…" (*Worcester Climate Action Plan*, 2006, pg. 11) while Berkeley's CAP states that "global warming is a real and significant threat to humankind…and the impacts…make action at all levels an urgent and absolute necessity" (*Berkeley Climate Action Plan*, 2009, pg. ES1). Durham uses the same survivalism approach in the CAP introduction, "flooding and erosion in coastal regions…a decrease in the quality and quantity of drinking water" and that "[h]uman health will also be affected" (*Greenhouse Gas and Criteria Air Pollutant Emissions Inventory, 2007, pg. 7).* While the CAP introduction leaned toward survivalism, the majority of the CAP chapter introductions fell within administrative rationalism.

The majority of Berkeley's CAP chapter introductions overwhelming represented the democratic pragmatism discourse, but the chapters that introduce transportation, land use and adapting to climate change implement the key discourse of administrative rationalism. This pattern potentially can be explained by the practicality of the topics within the city functioning, and also the technical nature of the information.

Durham used mainly administrative rationalism except when talking of residential program and then used democratic pragmatism. In Durham, for example, the structure of the CAP chapters was different than the other cities. The Durham CAP outlines a baseline greenhouse gas emission measure, reduction measures, and finally the greenhouse gas emissions that were saved after the measures were enacted. Durham's CAP organization, when compared to the other cities, was the most linearly structured and included the most scientific solutions for greenhouse gas reductions. Worcester's CAP chapter introductions revolved around the economic rationalism discourse, except for touching on the administrative rationalism discourse when introducing the energy efficiency and waste and recycling sections.

C. Similarities Between Republican and Democratic Cities

While the difference between republican and democratic cities provide interesting conclusions, the similarities between the republican and democratic cities is especially important in finding clues for areas of consensus in climate action planning. The following section provides patterns and themes associated with the areas of agreement between the cities based upon my analysis.

The public official perspective, public input, and policy outcome for both republican and democratic cities mirrored the problem-solving paradigm. This means that the adoption process of CAPs is agreed upon by all cities that climate change and reducing greenhouse gas emissions is "tractable within the basic framework of the political economy of the industrial society" (Dryzek, 2005, p.73). According to Dryzek's problem solving approach, humans cause greenhouse gas emission, a main contributor to climate change, and therefore humans need to take the initiative to reduce greenhouse gas emissions (Dryzek, 2005, p.73).

The cities analyzed have a consistent pattern that within the problem-solving paradigm: administrative rationalism is the discourse most embodied by the policy outcomes and a portion of the public input. On the other hand, public official perspective fell within all three environmental discourses under the problem-solving paradigm: administrative rationalism, democratic pragmatism, and economic rationalism.

In addition, the editorials for both cities fell outside of the problem-solving paradigm into the survivalism discourse, sustainable development discourse, and green consciousness discourse. Perhaps this finding can be explained because in an editorial one can be more anonymous than in a public hearing put on my the City. Therefore, the writer of an editorial may use different methods of communicating the issues around the CAP, such as using language of "doom and gloom" or something more extreme that suggests changing individual behaviors, falling within the green consciousness discourse. For example, an editorial Cincinnati's local newspaper provides radical support for a measure in Cincinnati's CAP that urges the residents to eat less red meat, as the production of red meat produces a large amount of greenhouse gas emissions.

While the public comments within the public hearings, meetings and surveys were framed around what the respective city can do to reduce greenhouse gas emission in the community, and therefore would automatically direct most of the public to comment within the problem solving paradigm, and especially the administrative rationalism discourse. This analysis shows that different outlets for the public to respond shape the environmental discourse that is used to approach the adoption of a CAP.

Policy outcomes also follow the problem-solving paradigm and for the most part followed similar discourses as the public officials perspective and the public input. The policy outcome data largely embodied administrative rationalism and democratic pragmatism. There were some outliers, particularly with the democratic cities that fell within the survivalism discourse to introduce the CAP, but the heart of all of the cities' CAPs followed the administrative rationalism and democratic pragmatism discourse.

CHAPTER VI

CONCLUSIONS

The conclusion section describes what impact this research has on planning and policy. This section outlines the policy implications, limitations, and areas of further study.

A. Policy Implications

This thesis provides insights to the environmental discourses that impact republican and democratic cities differently, and most importantly, the discourses that overlap in republican and democratic cities. The findings have interesting policy implications for local governments.

The problem-solving approach that overlapped in both democratic and republican cities has an intriguing implication to climate change planning. This shows that cities must frame climate change plans in terms of pragmatic means, such as cost-effectiveness, in order to prove the value of climate change. This approach is how most local governments work to create plans, but it is important to note that this is the most common way that climate change issues are approached. Most of the discourses in this study occurred before the financial crisis in 2008, and therefore if examining discourses from 2008 to today the discourses would likely encompasses the administrative rationalism discourse. While city budgets are limited, discourses for environmental policies that cost cities the least amount of money for the greatest impact are common.

However, into the future as more severe and extreme weather patterns occur, it is likely that survivalism will become the predominant discourse. The findings suggest that democratic cities use survivalism as their story to move individuals to believe in climate change and that it will affect them personally. Survivalism discourse is currently being used to develop adaptation plan in areas, mainly in coastal cities, like San Francisco, who will be most negatively and significantly effected by rising sea levels caused by climate change.

It is likely that the problem solving approach will continue in cities no matter the political leaning; however, as climate change affects cities differently, survivalism will become the

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common approach. For example, a Southwestern city with a climate action plan may use survivalism as their overarching discourse, with details of the city's water resources drying up because of extreme heat patterns caused by climate change. Conversely, a city in the middle of America, not in a desert or coastal area, may frame climate action plan as an economic rationalism discourse without mention of natural disasters or other severe consequences of inaction.

In addition, local governments can use this research as a methodology for one way of determining what environmental discourse is at work within their community. This thesis approached discourses based on content analysis of public officials statements and quotes, editorials and public comments, and CAP introduction. Local planners or sustainability coordinators in a city can use these methods to determine their cities environmental discourse. Understanding the environmental discourse that is at work within your community provides opportunities to find language of agreement. This is also true between the public and public officials. When they have a unified discourse that is when the CAP gets developed. This thesis identifies that overall the public discourse and public official discourses in republican and democratic cities were the same. This information is powerful in determining consensus on climate change planning and other environmental policies, which as the research suggests, is difficult to find amidst the politics of the issue.

B. Limitations of the Study

The limitations of the study revolve around the type of cities that I chose as my sample and also include Dryzek's environmental discourse approach. While no sample is perfect, my sample had a large amount of cities that were located in the Southeastern region of the United States. Including more cities representing different bioregions of the United States may produce different results because climate change affects bioregions differently.

Another limitation of the study includes the application of Dryzek's environmental discourses to my data. I found it difficult to apply all of the many, specific details of Dryzek's eight discourses to the data that I collected. Therefore, I captured Dryzek's environmental discourses by broad ideas and used those to apply to the statements, public comments, and meeting notes. Some critics of Dryzek may disagree that it is impossible to categorize environmental discourses because they change and evolve constantly; however, I found that

Dryzek's discourses, with my own broad interpretation, provided essential information to draw definite conclusions. This examination reveals opportunities of bipartisan agreement and provides insights for governments to move past the politics of climate change.

C. Further Research

This thesis is just a beginning to CAP research and the application of environmental discourses as a method of analysis. This study has the potential to be expanded and developed for further research in the following ways:

- Examine cities based on political leaning, but also location. If the study sample represented cities in a particular region, as it will answer the question of, does a region in the United States have a particular environmental discourse and how is it different from other regions?

- Include an evaluation of implementation. Studying the outcomes or outputs from the six cities CAPs, can answer the question of how different discourses used in the CAP adoption process create consistent outputs. Also, are different or similar discourses identified in the implementation process than from the adoption process?

Identifying and understanding the environmental discourse that represents cities is important for the future of environmental politics in the United States. If cities, states and the federal government can move past the politics of climate change and find language of agreement, then the country will be well positioned for influential policies that could launch a new decade of environmentalism.

APPENDIX

CATALOG OF DATA SOURCES BY CITY

Democratic Cities:

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