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외교학석사 학위논문

**Conditions for Successful Environmental Policy Making in Globalized
Metropolitan Areas: Understanding Los Angeles County Air Pollution
Policies**

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Abstract

Environmental degradation, particularly in air pollution, is posing a serious threat for cities and urban agglomerations around the world since 45 percent of global air pollutants and CO₂ emissions stem from cities. By way of investigating the cases of successful clean air policies in the city of Los Angeles, this paper will elaborate on the conditions for successful environmental issues, specifically in clean air politics, in addition to contributing to a global challenge of counteracting against its local origins. The main goal in this study is to identify institutional and procedural specifics that can be transferred in the sense of the best practice model to other global cities dealing with the same problem. By applying a new-institutional concept combined with a policy cycle analysis, this will allow not only an analysis of the decision-making process of air pollution control in the local government, but also to examine the role and the influence of NGOs and public opinion. The empirical basis of the analysis is an in-depth study of two policies, County Code Chapter 5.90 and Rule 1143. Studying these two cases will explain how the political system of Los Angeles was able to identify air pollution as a local threat and to react with effective and efficient clean air policies. As a result, this study argues that three major conditions, institutional diversification and specialization, court jurisdiction and access points for contributions of NGOs and the wider public are crucial for successful clean air policies. Moreover, this study presents how the Los Angeles County can contribute to counteracting global environment and health threats.

Keywords: clean air policies, air pollution, local government, Los Angeles, cities, international relations, globalized cities

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Chapter 1

Introduction

The World Health Organization (WHO) has estimated that over two million people die every year from air pollution. Since the Industrial Revolution in the 1700s, urbanization has become a worldwide trend in which a large number of people are migrating to small areas, forming cities. Due to the consistent migration from rural to more fast-paced urbanized areas, urbanization has become a chief driver in influencing the new revolution to become globalized. As cities increase in population, so does facilitation to accommodate their growth, causing a new wave of education, economics, politics, and culture, contributing to new globalized cities. However, there are drawbacks to such changing demographics and the path to becoming globalized, such as overpopulation and dramatic increases in traffic, crime, and air pollution. Concerning air pollution, in cities and agglomerations in developing and the least developed countries, one of the main problems is indoor pollution due to the use of solid fuels, such as coal or biomass, for cooking and heating. Extensive problems for cities in developed and industrialized countries stems from outdoor pollution. Developed countries' cities and agglomerations, such as Los Angeles, are adversely affected by air pollution from transportation, factories, energy, and electricity production facilities, as well as residential wood and coal burning. These hazardous conditions have affected the environment and people in negative ways. For example, acid rain contaminates drinking water and vegetation as well as causing damage to aquatic life.¹ Another consequence is health issues such as cancer and birth defects. In addition,

¹ *The Columbia Electronic Encyclopedia*, s.v. "air pollution", accessed September 17, 2011, www.infoplease.com.

ozone depletion caused by chlorofluorocarbon (CFC) increases ultraviolet radiation, which affects crops and causes skin cancer.²

Air pollution is a serious problem in Los Angeles. Although Los Angeles is considered one of the most polluted cities in the world, its local government and its citizens have been fighting to decrease the amount of pollution since 1943. Since then, many groups, both in and outside the government, have worked together to continue the trend of decreasing and preventing pollution, in addition to maintaining its global position being one of the centers of tourism and economic development. This study will elaborate on the air pollution problem in Los Angeles and attempt to understand the policy-making process through a policy cycle analysis of specific Los Angeles anti-air pollution policies in combination with the neo-institutionalist approach. One of the main focal points will be on the policy process and three factors: the separation of environmental departments, the role of the courts, and the participation of citizens and non-governmental organizations (NGOs). Another main focal point in this study is Los Angeles County, which is a political and geographical subdivision of the state of California. The county seat, or administrative center, is located in the city of Los Angeles and therefore will be referred to as the Los Angeles County. Air pollution is an issue in almost all cities around the world, and the Los Angeles County is known to be one of the most polluted. Although the Los Angeles County has been ranked as one of the top ten most polluted cities in the world, the process through which the Los Angeles County raises awareness to create and explain the success or shortcomings of clean air policies will be discussed in the following chapters. In addition, cities are a major factor in the global struggle against environmental degradation and the Los Angeles County may be the best practice case for other cities, which will be explained in the next chapter.

² *The Columbia Electronic Encyclopedia*, s.v. "air pollution."

1.1 The Importance of Globalized Cities

Individual cities are becoming increasingly recognized in the field of international relations following their growing importance to becoming vital players in tackling global issues. One of the areas local government is enhancing its role is to attract multinational companies and foreign investment in the global competition to host tax and job generation enterprises.³ In addition, Saskia Sassen has argued that global cities have developed in the contemporary period in ways that go beyond the traditional role of cities, such as international trading and banking systems and marking global cities as a qualitatively new historical development.⁴ By cities to network institutionalized relationships between local governments, cities become linked with cities from other countries and can voluntarily exchange information and knowledge, provide or receive material aid, and lobby the central government and international organizations.⁵ One type of cooperation, developed by local governments, is an exchange of best practices that often occurs with the collaboration or intermediation of several international institutions (i.e. the World Bank or the European Commission) or even their own central governments.⁶ As cities become more globalized, local governments will seek alliances to build cooperative spaces. This also causes alliances with non-governmental groups that can facilitate the insertion of local governments into decision-making processes on a supranational scale.⁷

³ Monica Salomon, "Local Governments as Foreign Policy Actors and Global Cities Network-Makers: The Cases of Barcelona and Porto Alegre" (paper presented for the International Political Science Association 21st World Congress, Santiago, Chile, July 12-16, 2009).

⁴ Saskia Sassen, *The Global City: New York, London, Tokyo*, (Princeton: Princeton University Press, 1991), 5.

⁵ Salomon, "Local Governments as Foreign Policy Actors."

⁶ Salomon, "Local Governments as Foreign Policy Actors."

⁷ Salomon, "Local Governments as Foreign Policy Actors."

In international relations theory and practice, it is assumed that global environmental governance is often assumed to take place at a global level.⁸ Throughout history, debates have taken place concerning whether realism can always be applied to growing countries and whether international relations can raise serious questions about the state-centric model.⁹ Although realism was able to account for state behavior in world affairs during the 1960s, many theorists, such as Robert Keohane and Joseph Nye, have rejected the ideology of the state-centric model.¹⁰ Both Keohane and Nye have argued that actors are not always or only states.¹¹ Other actors now have the ability to make decisions and implement them with or without the state. For example, NGOs are able to change the air quality conditions in their cities. Through cooperation with citizens, other NGOs and certain members of the government challenge the assumption of a unitary state.¹² Each group, such as an NGO or the local government, will always have a few individuals with different leadership skills and preferences. The decision to create a law mandating clean air policies may be unanimous among decision-makers and voters; however, how they interpret the specifics of a given law and how it should be implemented may be different. With this in mind, states can no longer control and monitor each individual city's policies on clean air due to their various responsibilities in maintaining every citizen's activities and policies that are implemented within the state, respectively. Therefore, there must be an

⁸ Michele M. Betsill and Harriet Bulkely, "Cities and the Multilevel Governance of Global Climate Change," *Global Governance* 12, no. 2 (2006):142, http://sciencepolicy.colorado.edu/students/envs_4100/betsill_2006.pdf.

⁹ *Cities and Global Governance New Sites for International Relations*, eds. Mark Amen, Noah J. Toly, Patricia L. McCarney, and Klaus Segbers (Burlington: Ashgate Publishing Company, 2011), 22.

¹⁰ Amen, et al., *Cities and Global Governance*, 21.

¹¹ Amen, et al., *Cities and Global Governance*, 21.

¹² Amen, et al., *Cities and Global Governance*, 21.

explanation as to why many cities have made the decision to create clean air policies within their respective regions and why citizens have created NGOs with the sole aim of protecting the air from pollution.

Other scholars have argued that the roles of cities require a more historically sensitive approach. Cities within international systems are viewed as “units” and “structures” such that a set of interacting units is organized by a structure of some kind.¹³ As such, the definition of units and their behaviors should not be viewed from the realist’s point of view since realism can no longer conceptualize cities as state-centric. However, by taking a more neo-liberalist view, states are being restructured and weakened as the unchallenged unit across all of domains of the international system.¹⁴ As transnational structures develop, other units have emerged and started to take on some of the roles of the modern state. Other units, also known as “global cities,” are becoming one of the most promising avenues that emphasize the comparative historical sociology of the international systems.¹⁵ Global cities are becoming vital as states are becoming more modernized. Cities no longer merely tie the nation-state together but tie different areas of global space together.¹⁶ States are now recognizing that investing in and upgrading the global city infrastructure will attract global capital flows in their territory.¹⁷ Thus, globalization affects the environment both positively and negatively as a city’s economy begins to flourish.

¹³ Simon Curtis, “Global Cities and the Transformation of the International System,” *Review of International Studies* 37, no.4 (2011): 13, accessed March 05, 2013, doi:10.1017/S0260210510001099.

¹⁴ Curtis, “Global Cities,” 15.

¹⁵ Curtis, “Global Cities,” 15.

¹⁶ Curtis, “Global Cities,” 18.

¹⁷ Curtis, “Global Cities,” 18.

Therefore, the term “global cities” was coined to describe the fact that global governance is no longer viewed as solely international and occurring at the nation-state level, including environmental politics. In contrast, subnational authorities and non-governmental actors are relevant for outcomes and developments at the national and global levels as well. Hence, the scope of this research study will focus on the local level as a relevant level to deal with international or global challenges. The term “global city” defines the relationship between a city and the rest of the world.¹⁸ Global governance is now considered a broader notion than solely a nation-state government. Rather, governance is now understood as various locations of actors with decisive authority.¹⁹ As air pollution becomes a serious global threat, cities are no longer enmeshed, embedded, or nested in a national urban system alone.²⁰ Cities have shifted their roles to participate directly in global governance. Local communities can solve problems that may appear to be state failures. Allowing local governments to create clean air policies provides incentives, expectations, and openings for people to undertake collective action within the political system.²¹

Noah Toly explains how actors today will utilize cities as sites for scale-jumping in multi-level environmental governance.²² Literature on cities and their environmental conditions, such as pollution or climate change, has been either fragmented or focused on specifics (i.e.

¹⁸ Amen, et al., *Cities and Global Governance*, 24.

¹⁹ Amen, et al., *Cities and Global Governance*, 28.

²⁰ Amen, et al., *Cities and Global Governance*, 143.

²¹ Ade Kearns, “Social Capital, Regeneration & Urban Policy,” *ESRC Centre for Neighbourhood Research* 15 (April 2004):11, quoted in Jarl K. Kampen, “Good Governance at a Local Level: Toward a Global Village or a City Republic?” *Economic and Environmental Studies* 9 no. 1(2009): 13, doi: 1642-2597.

²² Amen, et al., *Cities and Global Governance*, 7.

technical or political). As cities globalize, pollution increases and resource depletion accelerates. Timothy Luke has argued that cities are beginning to leave very destructive environmental footprints as their inhabitants reach out into markets around the world.²³ Globalization affects the environment; for example, trade that has become liberalized can create economic growth and can lead environmental degradation, such as air pollution.²⁴ As the globalization of cities increases, the cities' economies expand, the mechanisms that cause air pollution to be used more efficiently through the production process. This "spillover effect" occurs when private firms establish their own costs and digress from the social costs. For example, liberalized trade may generate economic growth, which, in turn, may translate into increased pollution (i.e. unsustainable consumption of natural resources)²⁵. As many firms begin to trade internationally, vital resources such as water, oil, coal, etc., are underpriced, while ecosystem services such as water prevention and carbon sequestration are entirely un-priced.²⁶ Since these underpriced and un-priced resources are being depleted, companies are able to spill over harms (i.e. pollution and unsustainable consumption) to the other environmental costs that they generate, causing environmental strain to be heightened.²⁷ Cities are becoming more aware of this rising pollution. Many firms are claiming responsibility for their actions and creating strategies to minimize the problems they have caused. In addition, many cities have taken the initiative to utilize their local

²³ Timothy W. Luke, "Global Cities vs. "global cities:" Rethinking Contemporary Urbanism as Public Ecology," *Studies in Political Economy* 70 (2003): 12, accessed March 18, 2013, ISSN 1918-7033.

²⁴ Daniel C. Esty and Maria H. Ivanova, "Globalization and Environmental Protection: a Global Governance Perspective," (paper presented at the Global Environmental Governance: the Post-Johannesburg Agenda, New Haven, Connecticut, October 23-25, 2003).

²⁵ Esty and Ivanova, "Globalization and Environment Protection."

²⁶ Esty and Ivanova, "Globalization and Environment Protection."

²⁷ Esty and Ivanova, "Globalization and Environment Protection."

governments and implement policies in relation to pollution. Some individual cities have shown flexibility in addressing specific environmental goals and policies in ways that are apparently more difficult to realize at a larger scale. Therefore, this study will focus on the importance of cities and their roles in the implementation of clean air policies at a local level. With awareness of air pollution becoming stronger, local governments are becoming strong actors because they play potential roles in creating and implementing laws and therefore contribute to the global struggle against environmental degradation.

1.2 Purpose and Case Selection

The purpose of my study is to explore the policy-making process at a local level and use Los Angeles County as a case study to determine the effectiveness of passing clean air policies by showing the local accomplishments the county and how it may offer other cities guidance in making changes in their own policy-making process for clean air policies. In addition, this study will discuss why cities are important and why the Los Angeles County is an excellent example of the policy-making process in clean air policies at a local level. In recent decades, awareness among the local government and its citizens in the Los Angeles County has led to the creation of public agencies to continuously monitor and report to the local government about air quality, while others create and implement clean air policies. The state of California may monitor the actions of the Los Angeles County; however, the decision to implement laws within the local government's jurisdiction is decided locally rather than at the state or national level. In many cases, among those are the case studies presented in this study, the Los Angeles County policies go beyond the standards and policy targets set on the U.S. federal level. This allows the Los Angeles County to participate in the work of international organizations focused on assisting

cities instead of a nation-state or country. Within one city, various responsibilities to eradicate air pollution have been divided so that no single governmental department is accountable for air pollution. With its different divisions for dealing with the problem, the Los Angeles County has consistently shown improvement, and the policy-making process in producing clean air policies has been efficient. Air pollution in the Los Angeles County is caused by many diverse reasons, and a variety of clean air policies are currently being implemented. Therefore, the research question is **why is the Los Angeles County a successful example of clean air policy?** What are the success factors that contribute to the successful policies? The Los Angeles County, which will be pointed out in chapters three, four, five and six in greater detail, achieved significant reduction in air pollution mainly because of administrative specialization, the role of the courts, and by being open and responsive to public opinion. Accordingly, additional research questions this paper elaborates on are: is there a division in the local government that focuses only on clean air policy? How does the local government decide which policy will be effective? What roles do citizens and NGOs play? The following section will explore literature that has explained the Los Angeles County as an example in the development of successful environmental policy-making.

1.3 Literature Review

Research on the causes and effects of air pollution in the Los Angeles County has been mostly written by Western scholars. Unfortunately, many of the studies concerning clean air policies in the Los Angeles County are almost non-existent regarding the policy-making process in relation to clean air policies. By reviewing the literature, I intend to show the limits of the previous works since the processes of developing clean air policies at the local level have yet to be studied in the Los Angeles County.

The first aim is to describe the policy-making process in the local government of Los Angeles with a focus on the local government's political structure and NGO participation that is closely related to environmental policy. The structure of the policy-making process in Los Angeles is far more coordinated, and there is a higher degree of awareness about pollution among the decision-makers. A study by Lars P. Feld explains the initial process of policy-making in the Los Angeles County. In comparing Los Angeles with European states, Feld explains that policy-makers would make less of an effort to acquire information since there is stronger representation by citizens.²⁸

A study from Daniel Mazmanian provides examples of public agencies and their role in decreasing air pollution. Similar to the local government in the Los Angeles County, public agencies, which will be explain in the following chapters, have the power to create specialized policies. Mazmanian's study focuses on the progress of air pollution and the establishment of public agencies in the Los Angeles County. Karen Louis, Emanda Thomas, and Stephen Anderson's study differentiates itself from Feld and Mazmanian and emphasizes how the local population in the Los Angeles County reacts to the state air quality standards. Since the Los Angeles County is the most populous county in the United States, the state government of California created a public agency to support the local government in creating clean air policies. Once a policy is implemented, the local government is required to follow and adjust its clean air policies to conform to the state agency's policy. Although Louis et al.'s study focuses more on the state standards; their research shares valuable information on the policy-making process at the local level in the Los Angeles County. Finally, Chang-hee Bae concentrates on the influence

²⁸ Lars P. Feld, "The Political Economy of Direct Legislation: Is There a Role of Direct Democracy in EU Decision-Making?" CESifo Working Paper Series, Research Division of the Federal Reserve Bank of St. Louis, 2003, http://ideas.repec.org/p/ces/ceswps/_1083.html

of the local government in the Los Angeles County following the decision to approve environmental policies. Most of her research focuses on the state or federal level rather than the local level of the policy-making process. In all the studies mentioned above, the efficiency of the policy-making process in the area of clean air policy is not mentioned. In addition, many of the studies lack information on the political structure of Los Angeles County.

Furthermore, the local decision-makers in the Los Angeles County view policy change addressing air pollution more seriously since there are separate environmental departments. Studies from Terence Kehoe contribute by discussing some of the environmental problems of the Los Angeles County and the process of policy-making specifically for environmental policy. Douglas Lawson, on the other hand, explains the importance of the separation of environmental departments. These environmental departments formulate clean air policies for the local government and provide data for the public and local government. Lawson's study addresses in detail the relationship between the local government and the separate environmental departments. Similar to Lawson, Xiannuan Lin, Karen Polenske, and Kelly Robinson research the separate environmental departments in the Los Angeles County. However, Lawson's study details the process through which the environmental departments collect data on air pollution and how the data affect the local government and the residents of the Los Angeles County.

Other works from Thomas Durban, Matthew Smith, Joseph Norbeck, and Timothy Truex, present clean air programs implemented by separate environmental departments in the Los Angeles County. One of the programs, which is still being used today, is the CUT-SMOG program, which analyzes the medium and light heavy-duty vehicles and compares them to the population of smoking vehicles. Durban et al. examine the CUT-SMOG database to determine whether this program affected particulate air pollution in a positive way. However, each study

lacks information about how these environmental departments aid in the policy-making process and the involvement of NGOs when policies are formulated at the local level. Studies concerning the separate environmental departments describe the process of collecting data rather than how effective they are when developing clean air policies.

The second aim is to define the causes and effects of air pollution. Even though the causes of air pollution can vary due to geographic and demographic characteristics, most metropolitan cities have similar factors that cause air pollution. A study from Aaron Cohen focuses on specific health effects caused by air pollution. Cohen claims that the rise of casualties from air pollution alerted the local government to establish policies to decrease pollution to not only provide clean air for its citizens but also to boost the economy, which is affected by air pollution. Keith Duane Willett, on the other hand, examines how air pollution controls the local government; he describes how important it is for policy-makers to identify and measure the trade-offs of air pollution in addition to how this task may affect the economy.²⁹

Rather than focusing on how air pollution affects the local government, Michael Jerrett's study explains the relationship between health effects and the pollution of urban areas. Similarly, Patrick Kinney investigates the specific causes of air pollution in the Los Angeles County. This study addresses the relations between the causes and daily mortality. A study from Eun-Hee Ha is similar but investigates how air pollution affects infants. In her study, she finds that women who are pregnant are most susceptible to air pollution since their infants may become asthmatic. Yoonae Jo and Jong Ho Hong's study examines the relationship between air pollution and socio-economic characteristics at the local level. Finally, Xiannuan Lin, Karen Polenske, and Kelly Robinson explain the effects of air pollution and its effect on the economy in the Los Angeles

²⁹ Keith D. Willett, "A General Equilibrium Analysis of the Economic Effects of Pollution Control Policies," PhD diss., University of Oxford, 1982, ProQuest (AAT 8314002).

County. Each study describes the causes and effects of air pollution, which is critical to my study since the effects of air pollution cause the local population to react immediately. In summary, while these studies focus primarily on medical issues associated with air pollution, the results indicate how air pollution affects a city's local government and economy. Although the studies mentioned above may not mention clean air policies established at the local level, the results aid in verifying the hypothesis that is addressed in this study, in addition to providing new information on the effectiveness of the policy-making process at the local level. With a deeper look into different studies regarding the topic of clean air policies and the Los Angeles County, many empirical findings have been revealed.

The literature review for this study shows that direct democracy, which allows people to affect policy initiatives directly, has a beneficial impact on policy outcomes. In addition, the establishment of public agencies has proven how effective they are in the reduction of air pollution since public agencies also have the power to create and implement clean air policies. Moreover, specialized environmental departments were examined to show their importance through collecting data and measuring air pollution to inform the local government and its citizens of the current state of air pollution in their region. On the other hand, in all the studies mentioned above, public influence and various methods of rescinding or amending a clean air policy are not mentioned, nor are there any studies providing examples of how effective the two factors could be with respect to the actions of the local government and the reduction of air pollution. Therefore, according to these studies, the government at the local level is significant and influences the environment since the quality of the air directly affects the Los Angeles County. However, due to the lack of information on public opinion and the role of the courts, I

will study these two factors to answer the research question and confirm that the public and the courts play an important role in implementing an effective clean air policy.

The literature review indicated that theoretical concepts such as neo-institutionalism have not been utilized to elucidate the importance of globalized cities and the Los Angeles County. For example, Bae, Louis et al., and Feld base their research on comparative studies, while Mazmanian, Lawson et al., and Durban et al. elaborate on the specific roles of public agencies and specialized environmental departments. Thus, it cannot be determined which theoretical approach each scholar used. However, for the purposes of my study, I will focus on neo-institutionalism, as it is the most suitable method to elaborate on the research question and support the significance of successful environmental policy-making in globalized metropolitan areas.

1.4 Theoretical Framework

1.4.1 Theoretical Concept—Neo-Institutionalism

The theoretical concept applied to analyze the political process in the Los Angeles County is drawn from the concept of neo-institutionalism. Neo or new institutionalism focuses on developing interaction between society and institutions. This new framework is a formal structure of adaptive products, responding to environmental influences and defining cultural propriety and legitimacy.³⁰ Rather than institutions or actors operating under rules, they can influence or be influenced by the behavior of individuals or the environment. Institutions, according to this approach, consist of cognitive, normative, and regulative structures and

³⁰ Philip Selznick, "Institutionalism "Old" and "New"," *Administrative Science Quarterly* 41, no. 2(1996): 274, <http://www.jstor.org/stable/2393719> .

activities that provide stability and meaning to social behavior.³¹ Scholars such as Guy Peters, James March, and Johan Olsen have divided institutionalism into three analytical approaches: historical, rational choice, and sociological institutionalism.

1.4.1.1 Historical Institutionalism

In historical institutionalism, the interest is to understand and explain specific political outcomes and then to explore alternative explanations for the outcomes that are observed through historical events. The main idea is that policy choices made when an institution is being formed or when a policy is initiated will have a continuing and largely determinate influence over the policy far into the future.³² This is known as path dependency. Historical institutionalism focuses on the influence that a variety of institutional factors can have over policy choices and over the performance of governments.³³ Path dependency plays a major role because, once governments make their initial policy and institutional choices in a policy area, the patterns created will continue.

Therefore, historical institutionalism implies that a course of evolution and decisions in the past influence heavily developments in the future. This study will integrate historical institutionalism by trying to understand the outcomes, imply a course of evaluation, and then explore alternatives for the observed outcomes. In the Los Angeles County, an issue is raised not from abstract assumptions but through observing the situation for a specific period in addition to

³¹ Ken G. Smith, *Great Minds in Management: The Process of Theory Development*, Eds. Ken G. Smith and Michael A. Hitt (Oxford: Oxford University Press, 2004), 2.

³² B. Guy Peters, *Institutional Theory in Political Science*, (Hampshire: Ashford Colour Press, 2005), 63.

³³ Peters, *Institutional Theory in Political Science*, 63.

extensive research on similar issues. Once the issue of air pollution is presented to the local government, the environmental department will play a major role and operate in a strategic manner. The department will study past policies and decide whether a policy should be amended or whether a policy should be created. In both situations, policies, programs, models, etc., that have already been formulated tend to be followed through the development of the policy, and before the approval of a policy is achieved, officials will seek to understand whether the policy will result in predictable occurrences. This process can be better understood as path dependency when a policy has met the intended structure. This will be explained by addressing what occurs when the separate environmental departments in the Los Angeles County are developing a policy. The roles of the environmental departments will be studied in addition to any influences of NGOs in this stage.

1.4.1.2 Rational Choice Institutionalism

In rational choice institutionalism, institutions are perceived as collections of rules and incentives that establish the conditions for bounded rationality. This means that individuals are expected to maximize their personal utilities, but their options will be constrained since they will be operating within the rule set of one or more institutions.³⁴ Rational choice institutionalists view politics as a series of collective action dilemmas, making predictions of political behavior understandable. Under this school of thought, a variety of models that are utilized; however, all of the models share the following similarities:

³⁴ Peters, *Institutional Theory in Political Science*, 44.

- A common set of assumptions: individuals are seen as central actors in the political process and will act rationally to maximize their personal utility.³⁵ Therefore, most individuals are expected to respond in the same way.
- A common set of problems: the main concern is ways of constraining the diversity of human behavior and trying to solve the common problems that arise in political and other decision-making situations.
- A common state of inexperience: it is assumed that institutions form in a mind that is not yet affected by experiences. The outcome of the model is determined by the nature of the incentives and constraints being built into the institutions.³⁶ Here, the historical events of an institution are not as important since any phenomenon can easily change behavior.

This theory will be integrated in this study by emphasizing the concept of an individual maximizing his or her own utility. This theory assumes that actors are rational and will make decisions based on intelligent calculation or experience. In addition, it is assumed that actors in institutional settings have a fixed set of preferences. To maximize these preferences, actors will seek alternatives that are systematic and strategic through cost-benefit calculation. The task in rational choice institutionalism is to provide comprehensible explanations based on emerging cultural and social norms and institutions.³⁷ Although cultures may structure preferences, a rational agent will continue to decide to maximize his or her preference. The agent's choices will

³⁵ Peters, *Institutional Theory in Political Science*, 47.

³⁶ Peters, *Institutional Theory in Political Science*, 47.

³⁷ Thomas A. Koelble, "The New Institutionalism in Political Science and Sociology," *Comparative Politics* 27 (1995):239.

influence the choices of others, which may or may not have unintended consequences.³⁸ If air pollution is affecting society, NGOs will consult the local government to create clean air policies to decrease the amount of pollutants. During this process, NGOs want to maximize their utility by informing the public to receive donations or new members to help raise awareness of issues related to air pollution and to become more influential over both the public and local government. On the other hand, certain business groups may not benefit from an NGO's set policies and will try to maximize their benefits by lobbying the local government to receive sanctions against clean air policies. Each group will try to use the Los Angeles system for their own benefit. The local government has to decide which group to maintain a sound relationship with or to attempt to satisfy all parties for the sake of garnering support in future elections. Once the decision to create or amend a policy begins, a separate environmental department will evaluate the beneficial preferences. For example, before creating a policy, the department must conduct extensive research on the issue. It requires time and technology to measure air pollution and generate alternatives. If some of the selected alternatives require more funds to invest in machinery or other methods of observation, the department will include the necessary materials that will aid in measuring and reducing air pollution. Finally, once the clean air policy is presented to the local government, the decisions will be based on selfish gains. The public must vote for officials within the local government to receive the desired outcome. Thus, officials must win the favor of their citizens to continue to stay in office. If they agree with public opinion, the public will continue to vote for them. However, in other cases, the local government sides with businesses to maintain a stable job market and obtain secure support in future elections. This study will describe the steps through which a clean air policy is approved or rejected. Moreover, the roles

³⁸ Koelble, "The New Institutionalism," 239.

of NGOs and environmental departments both influence the decision of the local government in terms of the policies.

1.4.1.3 Sociological Institutionalism

Finally, sociological institutionalism posits that institutional forms and procedures used by modern organizations are seen as processes that are associated with the transmission of cultural practices instead of rational practices. These practices are concerned more with the process of creating values and cognitive frames within an organization than with the end state—the differences among organizations that can predict the behavior of those institutions and the individuals within them.³⁹ Institutions, according to this approach, consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior.⁴⁰ Institutions are broadly defined as cognitive stripes or moral templates to provide frames of meaning in guiding human action. Therefore, sociological institutionalists insist that, when faced with a situation, the individual must find a way of recognizing it as well as responding to it, and the scripts or templates that are implicit in the institutional world provide the means for accomplishing both of these tasks, often more or less simultaneously.⁴¹ Thus, I will be utilizing sociological institutionalism in this study.

³⁹ Peters, *Institutional Theory in Political Science*, 105.

⁴⁰ Smith, *Great Minds in Management: The Process of Theory Development 2*.

⁴¹ Peter A. Hall and Rosemary C.R. Taylor, “Political Science and the Three New Institutionalisms,” *Political Studies* 44, no. 5 (1996): 16, <http://chenry.webhost.utexas.edu/core/Course%20Materials/Hall%26TaylorPolStuds/9705162186.pdf>

Unlike rational choice institutionalism, agents ignore utility to some extent and instead take social and cultural factors into consideration. Institutional forms and procedures as well as the outcomes they provide are seen through the lens of culturally specific practices and norms. Sociological institutionalism takes on the perspective of what an agent can imagine doing in a given context in addition to specifying what options are available. If a situation occurs, an agent recognizes and responds by utilizing the procedures or templates provided by institutions to accomplish the task. Applying this to the local level is possible since culture and social norms play a role when policies are developed. For example, NGOs recognize a problem with air pollution, contact the public, and educate them to build a stronger support system. NGOs will then go to the local government and discuss the issue to alert the local government that action must be taken. The actions of the citizens are value-driven rather than merely oriented based on short-term economic profit. The citizens and NGOs use instruments such as protests or demonstrations outside of the narrow political decision-making process to gain influence. Once the local government takes the comments from the NGOs into consideration, clean air policies will be formulated. During this process, environmental departments consider the views and opinions of NGOs and create or amend policies that will benefit both sides. Thus, NGOs have the ability to influence the departments even though regulations and procedures must be followed. Once the clean air policy is completed, the NGOs may again participate and influence the local government in the decision to approve or reject the policy.

1.5 Operationalization

1.5.1 Hypothesis

To answer the research question and against the backdrop of the theoretical concepts presented in the previous section, a hypothesis was formulated as followed: three prerequisites are decisive for the formulation and implementation of a successful clean air policy: a) a specialized department in the local government, b) a formal influential position, and c) the influence of the public, NGOs, and lobbying groups. None of these prerequisites is sufficient in and of itself. Hence, the hypothesis states:

If there is a specialized department within the government (H_1), a formal influential position (H_2), and influence of the public, nongovernmental organizations (NGOs), and lobbying groups (H_3), then clean air policy that affects air quality is likely to be approved.

The selected dependent variable is the outcome of clean air policies. The independent variable is separated into three subsections:

- (1) A specialized department in the local government
- (2) A formal influential position
- (3) The influence of the public, NGOs, and lobbying groups

To clearly identify whether one of the given subsections is supported, I will measure the first subsection of the independent variable by researching the political structure of the Los Angeles County to determine whether there is a specialized department that handles clean air policies. For the second subsection of the independent variable, I will examine how policies are amended or created due to the request of citizens or the local government through various methods (i.e.

court action, referendum, elections, etc.) to make the final decision regarding a clean air policy. Finally, I will analyze the influence of the public, NGOs, and lobbying groups through their participation in town meetings and their use of addressing issues (i.e., newspapers, ads, petitions, etc.), which exist in the Los Angeles County.

To answer the research question and prove the hypothesis in this study, two examples of how policies are formulated and decided will be utilized. The two policies differ since one was created by the local government of the Los Angeles County and the other by a public agency. The first policy was developed by the Los Angeles County Board of Supervisors. The policy was first implemented in 1988 and is currently being implemented throughout the county. However, due to the constant changes in this urban area and the increase of air pollution, the policy became outdated, and a need for modification became apparent. The second policy that will be applied in this study is a policy developed by a public agency called the South Coast Air Quality Management District. This public agency has powers similar to those of the local government in the Los Angeles County and is strongly influenced by the public. The policy was implemented in 2009 but amended in 2010 due to the criticism raised by NGOs and other figures from the public. These two policies will be analyzed using a policy cycle analysis to clearly determine whether the variables defined in the previous section are influential or not. How the policy cycle concept is framed within this paper is explained in the following section.

1.5.2 Analytical Method—The Policy Cycle

The analytical tool used in this study is the policy cycle, and the theoretical concepts that will be used are historical institutionalism, rational choice institutionalism, and sociological institutionalism. The idea of modeling the policy process in terms of stages was first suggested

by Peter Bridgman, who used the Lasswell Cycle in an attempt to establish a multidisciplinary and prescriptive policy science. Lasswell's 1956 model has long been a basic framework for the field of policy studies. It divides the policy process into five basic stages: agenda-setting, policy formation, decision-making, implementation, and evaluation.⁴² Although the policy cycle has been modified into multiple stages, this study will target all five stages of the Lasswell Cycle. However, to understand how the policy cycle will be utilized in this study, a detailed description of each stage is necessary.

The first stage is the agenda-setting stage, when policy-makers recognize a policy problem. In this stage, problem recognition requires that a social problem is defined as such and that the necessity of state intervention has been expressed. This is the beginning stage, where actors within and outside the government seek to influence and collectively shape the agenda. The agenda here is nothing more than the list of subjects or problems to which governmental officials and people outside the government who are closely associated with those officials are paying some serious attention at any given time.⁴³ The goal in agenda-setting is to move an issue from recognition—frequently noted by interested groups or affected actors—to a formal political agenda.

The second stage is policy formation, when the expressed problems, proposals, and demands are transformed into policies and programs. The objectives in this stage are (1) what should be achieved with the policy and (2) consideration of the different action alternatives.

⁴² P. Bridgman and Glyn Davis, "What Use is a Policy Cycle? Plenty, If the Aim is Clear," National Council of the Institute of Public Administration, accessed September 11, 2011, http://www.dpac.tas.gov.au/__data/assets/pdf_file/0008/121130/11_What_use_is_the_policy_life_cycle.PDF.

⁴³ John W. Kingdon, *Agendas, Alternatives, and Public Policies*, 2nd ed, (New York: Wesley Longman, 1995), 3.

Studies on policy formation have shown that the outcomes of policy formation have been heavily influenced by efforts to improve practices within governments by introducing techniques and tools of more rational decision-making.⁴⁴ Moreover, policy formation is theory-oriented, and the approaches and explanations range from pluralistic and corporate interest intermediation to perspectives of incrementalism.⁴⁵

The third stage is decision-making, which comprises not only information-gathering and processing but includes conflict resolution within and between public and private actors and government departments. Mayntz and Scharpf (1975) have argued that, instead of a rational selection among alternative policies, decision-making results from bargaining between diverse actors within a policy subsystem—the result being determined by the constellation and power resources of substantial and institutional interest among the involved actors and processes of mutual partisan adjustment.⁴⁶

The fourth stage is implementation, defined as what happens between the establishment of an apparent intention on the part of the government to do something or to stop doing something and the ultimate impact in the world of action.⁴⁷ The ideal process of policy implementation involves:

- Specification of program details (how and by which agencies and organizations should the program be executed?)

⁴⁴ Gerald J. Miller, *Handbook of Public Policy Analysis*, eds. Frank Fischer, Gerald J. Miller and Mara S. Sydney (New York: Taylor & Francis Group, 2007), 48.

⁴⁵ Miller, *Handbook of Public Policy Analysis*, 48.

⁴⁶ Miller, *Handbook of Public Policy Analysis*, 49.

⁴⁷ Laurence J. O'Toole, "Research on Policy Implementation: Assessment and Prospects," *Journal of Public Administration Research and Theory* 10, no. 2 (2000): 266, <http://jpart.oxfordjournals.org/content/10/2/263.full.pdf>.

- Allocation of resources (which units of an organization will be in charge of the execution?)
- Administrative decisions (how will administrative decisions involving single cases be carried out?)

This stage plays a major role in triggering the move of policy research away from a state-centered endeavor that is primarily interested in enhancing the internal administrative and governmental capacities and in fine-tuning program design and implementation.⁴⁸

Finally, the evaluation stage is when the outcomes of policies move to the center of attention. Evaluation can lead to diverse patterns of policy learning, with different implications in terms of feedback mechanisms and a potential restart of the policy process.⁴⁹ For example, one of the patterns is that successful policies are reinforced. However, not all policies are successful. In this case, if a policy has been adopted and implemented but proven ineffective, this could trigger termination. Overall, there are concerns about policies' departure from the initial focus on evaluation toward wider issues of policy change and the variables affecting these patterns.⁵⁰ Therefore, all five stages of the policy cycle will be utilized in this paper and using the conceptual assumptions that resulted from the elaborations on the historical, rational choice, and sociological institutionalism, this paper will contribute to understand the casual factors for the clean air policies in the Los Angeles County.

⁴⁸ Miller, *Handbook of Public Policy Analysis*, 53.

⁴⁹ Miller, *Handbook of Public Policy Analysis*, 54.

⁵⁰ Miller, *Handbook of Public Policy Analysis*, 54.

1.5.3 Case Studies

Clean air policies will be studied in light of the policy cycle and aid in explaining the three schools of institutionalism and validating the hypothesis mentioned above. For the first stage, I will measure the influences of NGOs by researching the importance of town meetings and debates concerning the two policies held for the public. Regarding the second stage, I will measure how both the local government and public agency created the two policies and examine the interaction of the separate environmental departments, NGOs, and business groups. I will then assess the third and fourth stages by observing the final decisions made by the local government and public agency through the town meetings. In every meeting, NGOs or other members of the public are allowed to share their input about the policies, which allows the decision-makers to decide whether the policy should be implemented or rejected. Finally, I will measure the last stage of the policy cycle, evaluation, by utilizing only one of the case studies. The policy created by the public agency is unlike the other case study since the initial reason to amend the policy was due to a court ruling. Although the court trial was instigated by an NGO, the amending of the policy would be considered to be in the evaluation stage rather than the agenda-setting stage in the policy cycle. It is important to note that the policy cycle is constantly repeating itself. In most cases, a policy is not terminated but reviewed, and reformed.

The remainder of the paper is structured as follows: the second chapter will describe the political structure of the Los Angeles County in addition to the causes and effects of air pollution affecting the citizens residing in Los Angeles. The third chapter will further detail the first stage of the policy cycle and describe how specific causes of air pollution become an issue and how the issue is presented at the local level in the Los Angeles County. The fourth chapter explains the second stage of the policy cycle, in which the issue of air pollution is transformed into a

policy and how NGOs and the division of environment departments play a role at the local level. The fifth chapter will address the third and fourth stages of the policy cycle and show the interaction between NGOs and the local government when deciding whether a clean air policy should be approved or rejected. Finally, the sixth chapter will review the two clean air policies in the fifth stage of the policy cycle and determine whether the policy should be accepted, amended, or rescinded. Before looking at the policy-making process to deal with clean air policies at the local level, it is important to have a firm understanding of the background of both the Los Angeles County political structure and air pollution in the area.

Chapter 2

Political Background and History of Air Pollution

Before analyzing the political structure and the policy-making process of the Los Angeles County, an understanding of the demographics and the economy is needed since there is a direct correlation between air pollution and the demographics and economy.

2.1 Demographics and Economy

The Los Angeles County was founded in 1781 and is the principal city of a metropolitan region stretching from Ventura, San Clemente, and San Bernardino to the Pacific Ocean.⁵¹ The Los Angeles County draws many people to flood to the area due to the temperate climate and highly valued real estate. What started as groups of dozens quickly grew to thousands migrating to the west from the northeastern and Midwestern parts of the United States. In the 1800s, the main focus of the region was not commerce and industry. At that time, the main sources of economic development were agricultural and oil production, ports, the opening of the Panama Canal for import and export, and extending the water system by establishing the city-financed Owens Valley Aqueduct.⁵² However, as the population surged beginning in the early 1800s, the economy expanded to tourism, trade, entertainment (i.e. motion picture and television production), technology (i.e. biomedical and environmental technology), and manufacturing.⁵³

⁵¹ “City of Los Angeles Economic & Demographic Information,” City of Los Angeles City Administrative Officer, last modified April 9, 2012, accessed November 9, 2012, http://cao.lacity.org/Appendix_A.pdf.

⁵² “City of Los Angeles Economic & Demographic Information,” City of Los Angeles City Administrative Officer, last modified April 9, 2012, accessed November 9, 2012, http://cao.lacity.org/Appendix_A.pdf.

⁵³ “City of Los Angeles Economic & Demographic Information,” City of Los Angeles City Administrative Officer, last modified April 9, 2012, accessed November 9, 2012, http://cao.lacity.org/Appendix_A.pdf.

The population grew due to the linkage of railroads with San Francisco in 1876. By 1890, the population of the Los Angeles County had reached 50,000 and continued to grow, showing no sign of stopping. During this time, Los Angeles was under successive Spanish, Mexican, and U.S. rule. After the end of World War II, the population trend shifted to urbanization, and a new wave of migration began. The pollutants in the Los Angeles County have been adversely affecting its citizens since the 1940s.

Once the Los Angeles County became urbanized, research from the Los Angeles County Economic Development (LACED) considered the county to be the largest manufacturing center in the United States and a significant contributor to local employment, which includes apparel, computer and electronic components, transportation equipment, fabricated metal, and food.⁵⁴ Another main source of economic development in the Los Angeles County is trade. The Pacific Rim countries and the ports of Los Angeles and Long Beach fuel trade while serving the television and recording industries. Due to the Los Angeles County's diversity in population and economic development, the county is often regarded as the "Ultimate City" for the future of America.⁵⁵ The 2012 economic report provided by the LAEDC estimated the population to be somewhere in the area of 9.9 million. Unlike most cities in the United States, the Los Angeles County's population is diverse, as it is 48 percent Hispanic, 28 percent Caucasian, 13 percent Asian American, 9 percent African American, and 2 percent other ethnicities.⁵⁶ With the

⁵⁴ "City of Los Angeles Economic & Demographic Information," City of Los Angeles City Administrative Officer, last modified April 9, 2012, accessed November 9, 2012, http://cao.lacity.org/Appendix_A.pdf.

⁵⁵ Christopher Rand, *Los Angeles: The Ultimate City* (New York: Oxford University Press, 1967), 2.

⁵⁶ "Los Angeles County Profile," Los Angeles County Economic Development Corporation, accessed August 08, 2011, <http://laedc.org/reports/LA%20County%20Profile.pdf>.

expansion of the population and business sectors, so grew the complexity of the political structure of the Los Angeles County.

2.2 Political Structure

2.2.1 Los Angeles County Local Government

The Los Angeles County government was first established in 1850 and constructed to aid the state government. The functions of the local government were limited to administering social welfare programs, operating courts, registering property rights, and other local concerns.⁵⁷ By the time the 20th century began, the role of the local government had increased. In 1910, there was a transformation within California's government that allowed local governments throughout the state of California to establish rules locally.⁵⁸ The Los Angeles County took advantage of this measure and amended the county services of tax collection and assessment, library, and health programs. As the local government expanded, so did the formal structure of the government. Currently, the local government in the Los Angeles County includes five city council districts. Within those five city council districts are 500 other political districts, with each district varying in responsibilities and constituencies.

The Los Angeles County government consists of 37 departments and about 200 committees and commissions.⁵⁹ As a subdivision of the state of California, the Los Angeles

⁵⁷ Helen L. Jones and Robert F. Wilcox, *Metropolitan Los Angeles: Its Government* (Los Angeles: The Haynes Foundation, 1949), 8.

⁵⁸ Akira Nakamura, "The Politics of Air Pollution Control in Los Angeles and Osaka: A Comparative Urban Study" (PhD diss., University of Southern California, 1973).

⁵⁹ See Appendix A

County is in charge of providing numerous services that affect the lives of all its residents. The local governments in the Los Angeles County have a strong mayor-council system consisting of five mayors representing one district each, and the voters in their respective districts elect each mayor. The five mayors make up the Board of Supervisors, which appoints all department heads other than the assessor, the district attorney, and the sheriff, which are elected positions. The Board of Supervisors also acts as a “city council” for unincorporated areas.⁶⁰ Unincorporated areas in the Los Angeles County are parts of the county that are outside the jurisdictional boundaries of the Los Angeles County, meaning that they are not organized as specific cities due to population scarcity. About 65% of the Los Angeles County comprises unincorporated areas consisting of national forests and sparsely populated regions. Thus, the county government serves as the “city” for these areas, and the supervisor who represents that area serves as a sort of “mayor.” This allows the Board of Supervisors to maintain power throughout the Los Angeles County.

Within the Los Angeles County’s local government, there are separate governing boards for air quality, water, sanitation, transportation, and education. The County Office of Sustainability (COS) was created under the Board of Supervisors in 2009 in response to legislation and environmental issues in its region.⁶¹ It is headed by a general manager and has a staff with expertise in energy efficiency, renewable energy, transportation, climate change, land use planning, green building, conservation programs, grant and contract administration,

⁶⁰ See Appendix B

⁶¹ “About the County of Sustainability,” Green LA County, accessed August 09, 2011, <http://green.lacounty.gov/wps/portal/green/about>.

marketing, and outreach.⁶² COS operates with a \$53 million budget drawn from State and Federal Recovery Act grant funds to develop and implement programs that affect and benefit the constituents of the Los Angeles County. Even though the Board of Supervisors has the power to create clean air policies, the COS aids in responding to legislation, regulation, and policy related to climate change that the Board decides to implement. Other than the local government, public agencies that specialize in clean air were established to create policies aimed at reducing air pollution. Two of these agencies play a particularly important role in clean air policy, one being the South Coast Air Quality Management District and the other the Southern California Association of Governments.

2.2.2 History of Clean Air Policy and Creation of the South Coast Air Quality Management District

Before any involvement occurred on the part of the federal government, the local government in the Los Angeles County took action on air quality prior to the 1960s. Citizens residing in the area could see smoke polluting the air and inhaled its fumes. By 1945, the local government had prohibited factories from emitting “dark smoke”; this was followed by the prohibition of burning garbage in the early 1950s.⁶³ During this time, “smog cops” were established, and many were employed to report any vehicles belching excessive exhaust on freeways.⁶⁴ In 1946, the newspaper company that operated *The Los Angeles Times* decided to take action by hiring an air pollution expert to analyze the smog problem and make

⁶² “About the County of Sustainability.”

⁶³ Mazmanian, “Achieving Air Quality: The Los Angeles Experience,” 5.

⁶⁴ Mazmanian, “Achieving Air Quality: The Los Angeles Experience,” 5.

recommendations. The *Times* received the analysis and concluded that smog was caused not only by smokestacks but by a plethora of uncontrolled sources.⁶⁵ This reality led the the Board of Supervisors to implement a series of law to allow counties to set up united air pollution control districts in 1947.⁶⁶ In addition, specific laws and programs were formulated and implemented to reduce smog and other pollutants filling the air. One of the most successful programs created by the Board of Supervisors was the “Smoke School Program” in 1953, which educated people about air pollutants and how to analyze smoke in their homes and communities. The Los Angeles County took it a step further and began to work with scientists and researchers specializing in air pollution to find the exact cause of air pollution, how it affects citizens, and what the local government could do to reduce it. Although these measures raised awareness among citizens and local governments alike regarding air pollution, the programs proved to be inefficient. Air pollution in the early 1970s mostly originated from vehicles and businesses in the Los Angeles County, and, due to the western winds coming in over the ocean, most of the pollution blew toward the counties of San Bernardino and Riverside in the afternoon. Over time, this caused many residents to suffer from the effects of smog. Residents and air quality officials in San Bernardo and Riverside Counties were dissatisfied with the lack of responsibility that the Los Angeles County officials exhibited. Thus began a five-year political battle involving environmental NGOs and the regional government of California.

One of the organizations that led the campaign for the establishment of a regional air pollution control agency was the Los Angeles County League of Women Voters. Due to the

⁶⁵ “The Southland’s War on Smog: Fifty Years of Progress Toward Clean Air,” The South Coast Air Quality Management District, accessed September 18, 2012, <http://www.aqmd.gov/news1/Archives/History/marchcov.html>.

⁶⁶ “The Southland’s War on Smog: Fifty Years of Progress Toward Clean Air,”

pressure of the people, eventually, an agency was created, called the Southern California Air Pollution Control District, which covers the four counties surrounding the South Coast Air Basin. However, the agency was flawed and short-lived since any one of the counties could withdraw at any time.⁶⁷ Therefore, on July 2, 1976, California Governor Jerry Brown signed the Assembly Bill that established another agency, the South Coast Air Quality Management District (AQMD). The AQMD, which will play a major role in the analysis in the chapters below, is mainly responsible for air pollution control for the four-county area of Los Angeles, Ventura, Riverside, and San Bernardino. A board of twelve governs the AQMD, and the members are appointed by the residents of the four counties, residents of the cities in the basin, the governor of California, the speaker of the California State Assembly, and the head of the State Senate Rules Committee. The Governing Board meets on a monthly basis not only to create, accept, reject, or amend a rule but also to appoint members to the AQMD. Below the Governing Board is the Executive Office, which is responsible for managing other departments and developing and implementing strategies to attain its in air quality goal.⁶⁸ Other departments within the AQMD aid in the research, analysis, and monitoring of air pollution as well as advising the Governing Board on current and/or new rules.⁶⁹

⁶⁷ “The Southland’s War on Smog: Fifty Years of Progress Toward Clean Air,” The South Coast Air Quality Management District, accessed September 18, 2012.
www.google.co.kr/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCoQFjAA&url=http://www.aqmd.gov/news1/Archives/History/marchcov.html&ei=ob-tUOTJKIPniwKmr4HYCw&usq=AFQjCNGEIRV5_QcW8wPhvM920U5_QXNi0g&sig2=WAv3SgYsGWcFap8i29oW0A&cad=rjt.

⁶⁸ “AQMD Organizational Structure,” South Coast Air Quality Management District, accessed March 20, 2013, <http://www.aqmd.gov/aqmd/offices.htm>.

⁶⁹ See Appendix C

2.2.3 Southern California Association of Governments

Another well-known public agency in the Los Angeles County is the Southern California Association of Governments (SCAG), which is the analysis below, next to the AQMD introduced in the previous chapter, another influential administrative body. The relations of both administrative units to each will be explained further below. Mandated by the federal government in the 1960s, SCAG includes Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial Counties. In the 1960s, local officials from over 50 cities and the five aforementioned counties met and planned the growth of a more environmentally friendly Southern California. Unlike AQMD, SCAG is a voluntary planning council that is composed of the counties' mayors, city council members, and county supervisors. SCAG aims to research and forecast the basin's economy through its findings concerning transportation, air and water quality, housing needs, and growth management. Under SCAG is the regional Transportation Planning Agency (RTPA) and a Council of Government (COG), established by the state of California. SCAG began with the Executive Committee department but expanded its governing structure into a 70-member Regional Council to aid the newly mandated state government.⁷⁰ Currently, SCAG is guided by the 84 members of the Regional Council.

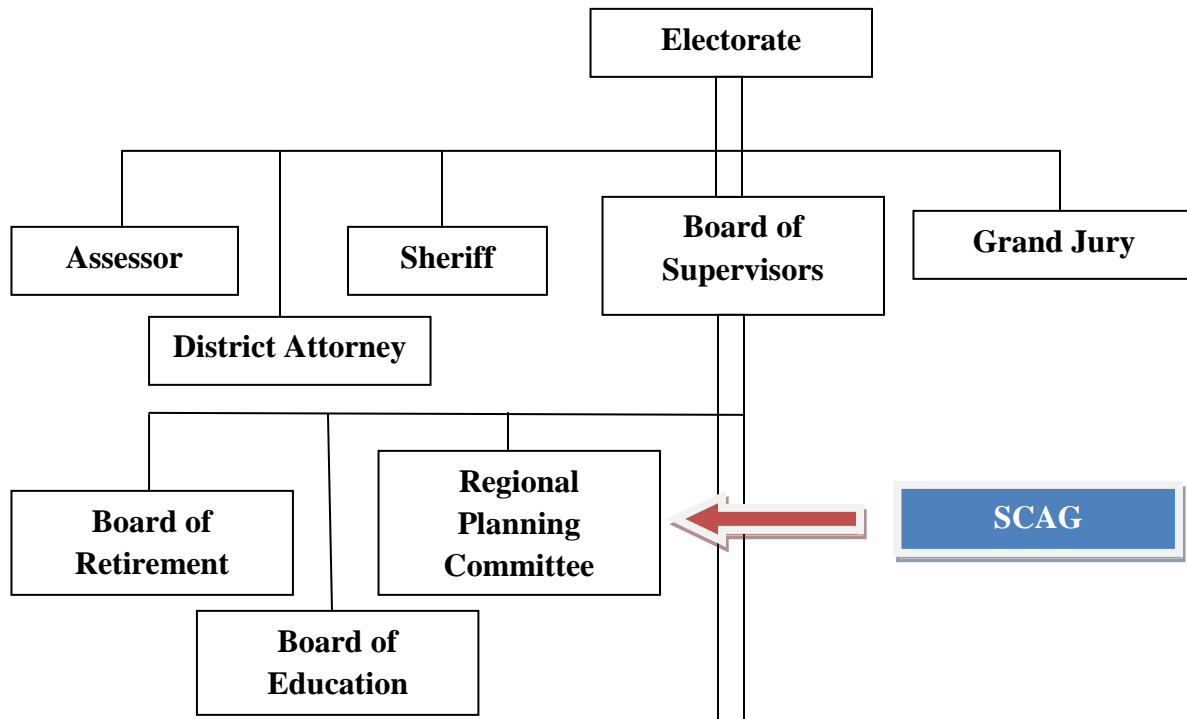
Membership in the Regional Council includes one representative from each county Board of Supervisors, with the exception of the Los Angeles County, which has two representatives. Together with the six counties, over 190 cities within Southern California work together within SCAG.⁷¹ Each county has a county Transportation Commission that monitors and implements

⁷⁰ "History," Southern California Association of Governments, accessed March 20, 2013, <http://www.scag.ca.gov/history.htm>.

⁷¹ See Appendix D

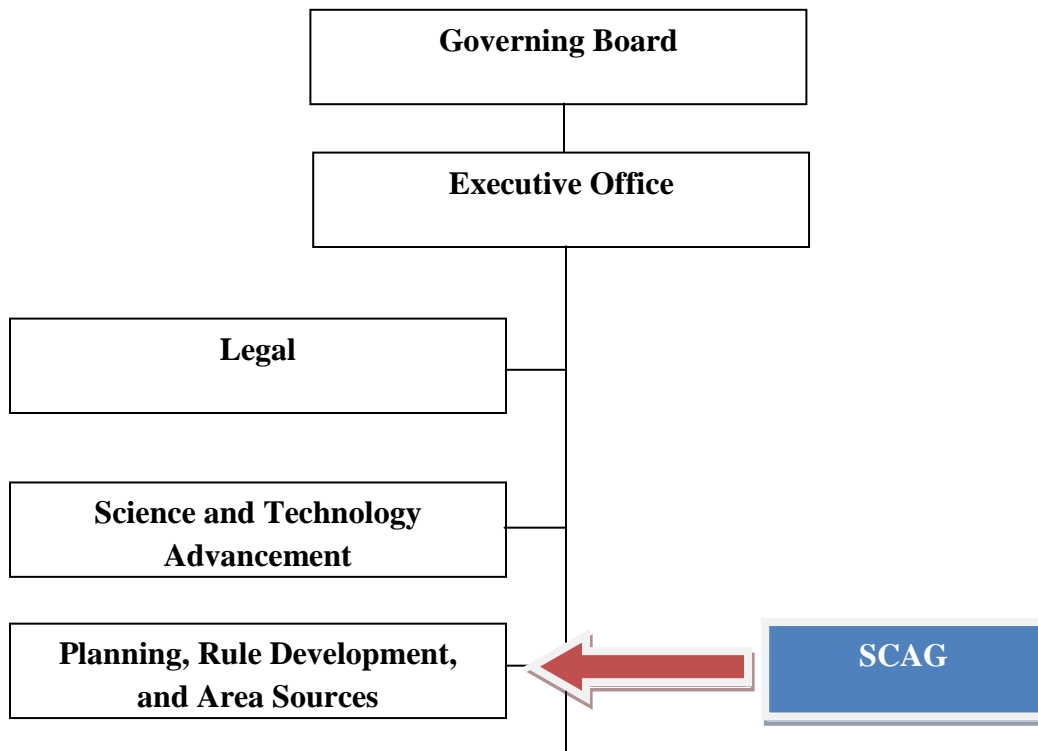
transportation-related project. Although SCAG does not focus solely on air pollution, it is still responsible under the Federal Clean Air Act for determining conformity to air quality projects, plans, and programs. Due to its limited power to implement its findings, SCAG works with local governments to address and aid in dealing with the issues during the policy-making process by providing regional perspectives regarding those decisions. Since SCAG has members from among elected representatives from the Los Angeles County government and AQMD, SCAG works with both the Los Angeles County and AQMD. With governing members in the Los Angeles County government also working in SCAG, the members will work together with other SCAG members to create a Master Transportation Plan in their respective counties. Under the Master Transportation Plan, SCAG monitors toll roads, gathers demographic data, and develop local transportation plans.

Chart 1: Organizational Chart of the Los Angeles County Government with SCAG's Involvement



In cooperation with AQMD, annual Air Quality Management Plans are formulated by SCAG to inform citizens of plans implemented to meet federal requirements or to incorporate the latest technical planning information.⁷² SCAG members meet with members of AQMD to provide the necessary data to create the Air Quality Management Plans.

Chart 2: Organizational Chart of AQMD with SCAG's Involvement



To better understand SCAG's involvement with its local government and AQMD, the charts pictured above show which department works directly with SCAG. The role of SCAG and the Los Angeles County government will be elaborated on in the following chapters, which present the case studies.

⁷² "Air Quality Management Plans (AQMP)," South Coast Air Quality Management District, <http://www.aqmd.gov/aqmp/aqmpintro.htm>.

Since the Los Angeles County has two separate governmental agencies that are involved in creating clean air policies, this study will describe two established laws. One law pertains to the reduction of emissions of paint thinners, while another concerns carpooling among employees. These two policies were chosen to describe the wide range in causes of air pollution. Although vehicles may be the leading cause of air pollution, other unknown and unforeseen variables also contribute. The Los Angeles County was chosen as the focus of this study because the government of the Los Angeles County recognizes that air pollution is not merely a vehicular problem, so it has designed its government to deal with the problem by establishing two separately operating agencies, with each agency having its focus on a different aspect of Los Angeles air pollution. For governments at a local level to establish clean air policies efficiently and effectively, it is important for government officials to understand the causes and effects of air pollution in general.

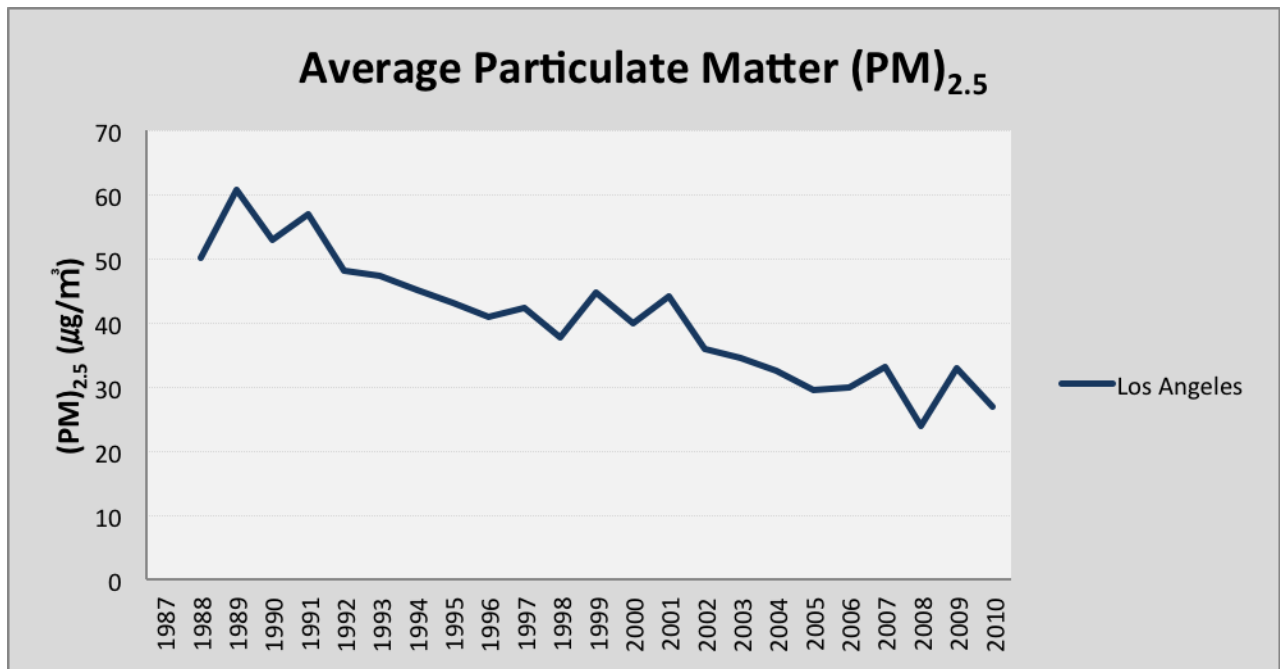
2.3 Causes of Air Pollution

Air pollution has become a serious threat to economic and political concerns. Air pollution directly affects the economy and the local government by decreasing productivity, tourism, and foreign investment by leading to the creation of policies aimed at shutting down factories that heavily pollute the air. The economic and political factors are explained in detail in the following sections. For this study, I will be focusing on three causes of air pollution that affect the Los Angeles County. It is important to explain why the Los Angeles County can serve as a model for other urbanized areas to improve their air quality.

The first cause of air pollution is particulate matter (PM_{2.5}), which is a term for particles and liquid droplets that are suspended in the air and measured in micrograms per cubic meter.

Particulate matter is released into the air mostly due to the combustion of particles from mechanical process such as vehicle tire wear on the road, industrial cutting, and the re-suspension of particles from the ground or other surfaces by wind and human activities.⁷³ As shown in Graph 1, pictured below, in the late 1980s, Los Angeles had PM in the amount of about 60 micrograms per cubic meter. By the early 1990s, Los Angeles had decreased the amount of PM in the air to a steady rate of 57 micrograms per cubic meter.

Graph 1



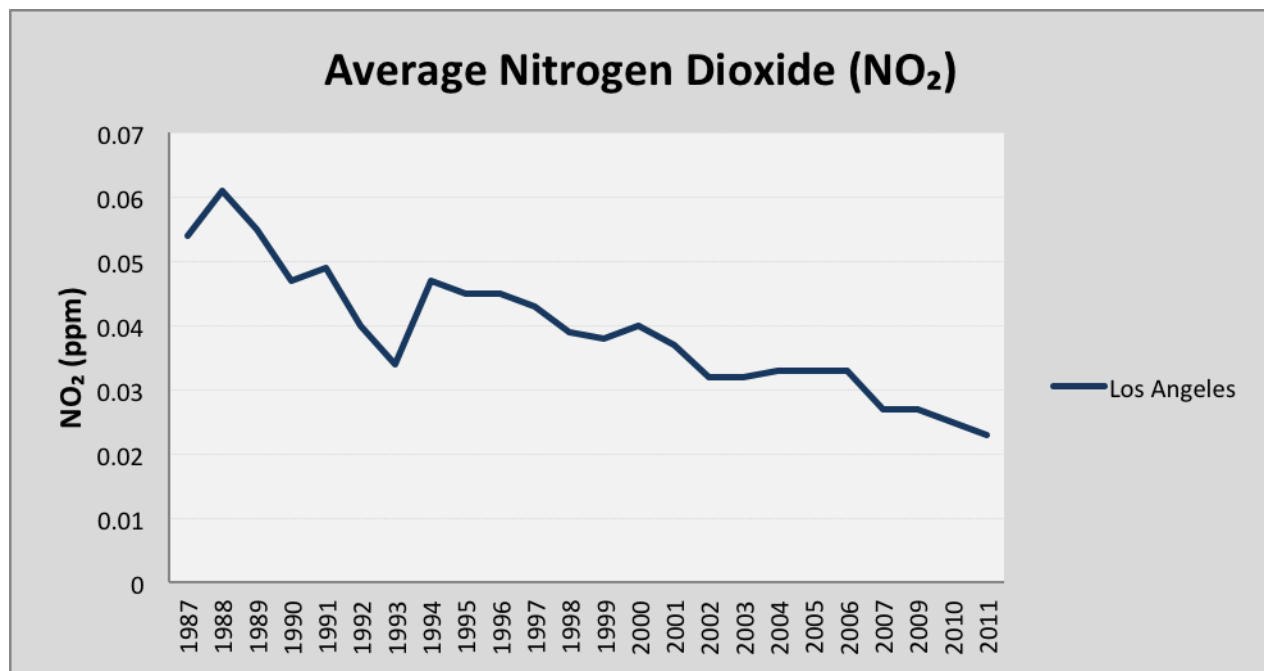
Natural materials from plants, molds, and bacteria are also considered to be particulate matter. Furthermore, particulate matter may include smaller particles from combustion sources: power plants, vehicle exhaust, or reactions transformed from gaseous pollutants into solid or

⁷³ Michael T. Kleinman, "The Health Effects of Air Pollution on Children," The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

liquid particles.⁷⁴ The Los Angeles County began to implement clean air policies in the 1950s and has continued to create new policies nearly every year. Another contribution is the Air Resources Board's identification of diesel particulate emissions as a toxic air contaminant in the late 1990s. Since then, the Los Angeles County has launched a series of clean air policies to reduce smog-forming emissions caused by factors ranging from cleaning products to transportation.

The second cause of air pollution is nitrogen dioxide (NO₂), which is produced when nitric oxide reacts with oxygen in the air. Vehicles and power plants are the major contributors of NO₂. However, the environment may play a factor in creating the gaseous pollutant.

Graph 2

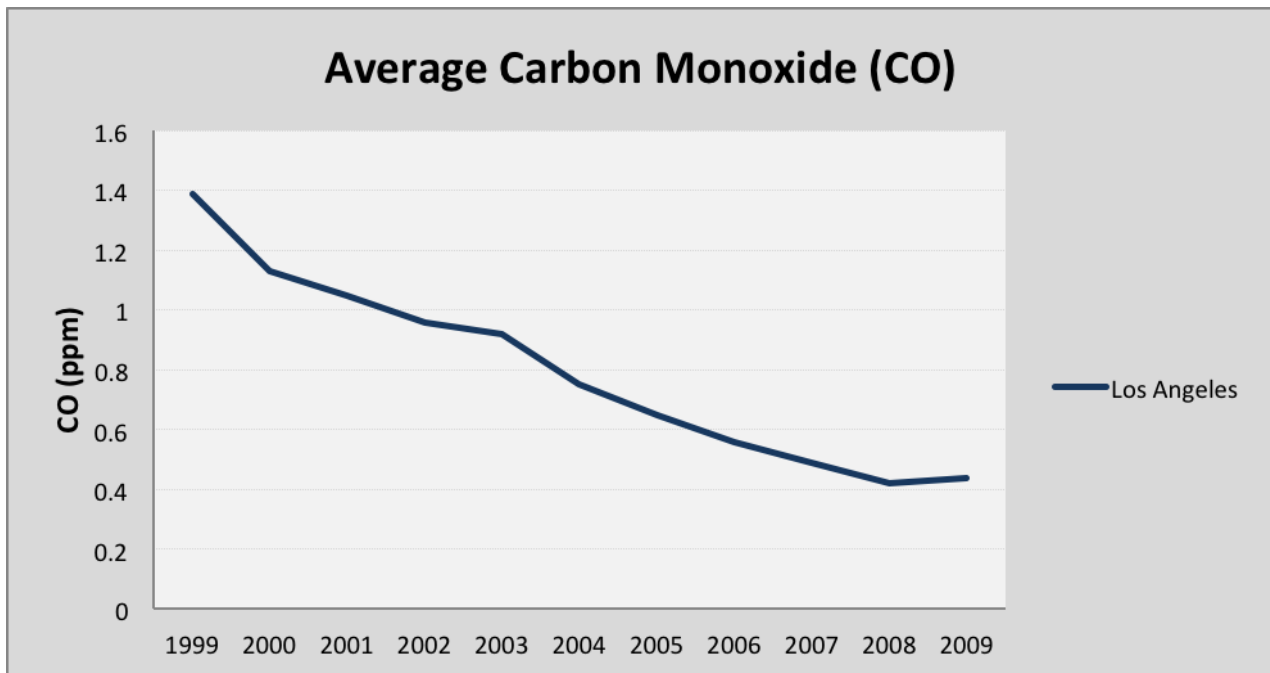


known as free radicals, that are responsible for tissue damage and disease. Free radicals react to

⁷⁴ Michael T. Kleinman, "The Health Effects of Air Pollution on Children," The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

organic compounds in the air to produce nitrogen-related organic compounds, which may be mutagenic and carcinogenic. As shown in Graph 2, the Los Angeles County exceeded its NO₂ emission limit in 1987, reaching .054 ppm (parts per million). By 2001, Los Angeles had reduced the amount of NO₂ immensely, as it fell to .037 ppm and continued to decrease to a steady rate of .023 ppm. This is interesting because the Los Angeles County had five million registered vehicles in the 1980s and currently has seven million registered vehicles,⁷⁵ but, even with an increase in the number of vehicles every year, the Los Angeles County has succeeded in reducing smog and other sources of air pollution from motorized vehicles.

Graph 3



range from internal combustion engines in vehicles or lawn mowers to propane and charcoal

⁷⁵ “The City of Los Angeles Transportation Profile,” The Los Angeles Department of Transportation, accessed November 02, 2012, <http://ladot.lacity.org/pdf/PDF10.pdf>.

fuels. Although there are various methods that produce carbon monoxide, determining whether the pollutant is the sole factor in some of the health risks is often difficult.

Indoor pollution due to water heaters, kerosene room heaters, and fireplaces can easily raise CO emissions to lethal levels. Finally, tobacco smoking is one of the most significant sources of carbon monoxide. Smoke from cigarettes can contain a concentration of the gaseous pollutant ranging from 1,000 ppm to 50,000 ppm.⁷⁶ Second-hand smoke indoors yields a higher carbon monoxide level than the levels produced outdoors. As seen in Graph 3, CO emissions in the Los Angeles County have been high at 1.39 ppm. By 2006, however, Los Angeles had improved and lowered its CO emissions to .44 ppm. The graphs above present the overall decrease in air pollution and support the hypothesis of this study. Due to the various factors that may cause air pollution, fully explaining each factor for every year is unnecessary, as the main focus of this study is to determine whether specialized environmental departments, courts, and public influences can aid in the reduction of air pollution through clean air policies. According to these graphs, there has been a steady decrease, which aids in supporting this study and its hypotheses.

Each cause of air pollution is influenced by human and natural factors. High emissions of the pollutants have caused heavy smog in the Los Angeles County and the surrounding areas. Since the 1940s, the Los Angeles County has been a center for motorized vehicles, the principle mode of transportation. At the same time, the Los Angeles County is positioned in a “bowl,” and most of the pollution continuously lies over the area. Mountains to the north and east surround the Los Angeles County, and the wind from the ocean traps pollution under a thermal inversion

⁷⁶ Michael T. Kleinman, “The Health Effects of Air Pollution on Children,” The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

layer.⁷⁷ This is visible as a gaseous, brown-grayish haze blanketing the Los Angeles County that is carried inland due to the eastward-blowing ocean breeze, in addition to the sun's "cooking" the haze into a photochemical smog.⁷⁸ As the influence of both human and natural factors increases, the effects of air pollution increase as well.

2.4 Effects from Air Pollution

Air pollution has many effects on those residing in Los Angeles County. The main effects are health-related issues for both children and adults. Children are more susceptible to the effects of air pollution than adults. Research from the South Coast Air Quality Management District has shown that children who exercise at maximum levels (i.e. through sports, bicycling, etc.) take in 20 to 50 percent more air than other people.⁷⁹ Other differences between children and adults include the amount of time spent outside. The average adult spends most of his or her time indoors, while children spend their time outdoors, usually during periods when air pollution is at its highest.⁸⁰ When adults are exposed to air pollution, minor symptoms may occur, such as soreness in the chest, sore throat, and headache. Children, on the other hand, can suffer more severe consequences and become asthmatic or experience other diseases, such as bronchitis or respiratory infections.

⁷⁷ Daniel A. Mazmanian, "Achieving Air Quality: The Los Angeles Experience," (Environment & Sustainability Working Paper, Bedrosian Center, March, 2006).

⁷⁸ Mazmanian, "Achieving Air Quality: The Los Angeles Experience," 5.

⁷⁹ Michael T. Kleinman, "The Health Effects of Air Pollution on Children," The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

⁸⁰ Michael T. Kleinman, "The Health Effects of Air Pollution on Children," The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

As mentioned previously, the main causes of air pollution are particulate matter, nitrogen dioxide, and carbon monoxide. Particulate matter strongly affects the elderly when they are exposed to 30 to 150 micrograms per cubic meter. Studies from the American Thoracic Society's Environmental and Occupational Health Assembly have found that particulate matter can cause:

1. Hospital admission of children with acute respiratory symptoms
2. Decreased lung air flow rates
3. Increased asthma medication use in adults and children⁸¹

Nitrogen dioxide differs from particulate matter since the pollutant causes acute adverse health effects. Studies suggest that the compound has caused children to experience lung-related irritations such as cough and sore throat. Other effects may include increased allergy symptoms and damage to the lungs. Finally, carbon monoxide can cause chronic illnesses. When children and adults are exposed to carbon monoxide, cases have been reported of flu-like symptoms. Research has shown that carbon monoxide decreases oxygen delivery to vital organs (i.e. the heart and brain).⁸² Those who are most susceptible to the health effects of carbon monoxide are:

1. Persons with heart disease or other heart-related illnesses: may reduce the ability to respond to external stimuli when oxygen flow is impaired
2. Pregnant women: may increase the risk of having low birth-weight babies
3. Newborns: may suffer permanent changes during organ maturation

⁸¹ Michael T. Kleinman, "The Health Effects of Air Pollution on Children," The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

⁸² Michael T. Kleinman, "The Health Effects of Air Pollution on Children," The South Coast Air Quality Management, accessed October 31, 2012, http://www.aqmd.gov/forstudents/health_effects_on_children.html.

Still other pollutants affect residents in the Los Angeles County and are listed in the table below. The table lists the various pollutants that can be found in the Los Angeles County, including descriptions, sources, and health effects.

Pollutants: Causes and Effects⁸³			
Pollutant	Description	Source	Health Effects
Particulate Matter (PM)	Small particles from soot, dust, etc., including tiny droplets of liquid	Diesel engines, power plants, industries, wood	Visibility impairment, aesthetic damage
Nitrogen Dioxide (NO₂)	Reddish, brown, highly reactive gas	Motor vehicles, electric utilities, industrial, commercial, and residential sources of fuel burning	Contributes to the formation of smog, acid rain, water quality deterioration, and visibility impairment
Carbon Monoxide (CO)	Colorless, odorless gas	Motor vehicle exhaust, kerosene or wood burning stoves	Headache, heart attack, cardiovascular disease, death
Ozone (O₃)	Gaseous pollutant when formed in the troposphere	Fumes from motor vehicles and other sources	Eye and throat irritation, coughing, respiratory tract problems, asthma, lung damage
Sulfur Dioxide (SO₂)	Colorless gas that dissolves in water vapor to form an acid that interacts with other gases or particles in the air	Coal-fired power plants, petroleum refineries, sulfuric acid manufacturers	Contributes to the formation of acid rain, visibility impairment, aesthetic damage

Most of the listed pollutants can affect the skin, eyes, and other parts of the body, but because these pollutants are usually inhaled, the primary focus is on the respiratory system. For

⁸³ “Effects of Air Pollutants- Health Effects,” table, 2010, Environmental Protection Agency, <http://www.epa.gov/apti/course422/ap7a.html>.

cases such as particulate matter, particles can reach and stay in the trachea, the bronchi, and the bronchioles of the lung. Although removing the particles may be easy through coughing or sneezing, extremely small particles may settle on the lungs' alveoli and may take months or years to be eliminated.⁸⁴ Breathing in air not only supplies oxygen throughout the body but also cleans the lungs. Gaseous pollutants such as nitrogen dioxide and carbon monoxide can slow the cleaning action and result in particles reaching the bottom section of the lung. Many residents of the Los Angeles County are affected by the pollutants on a regular basis not only with respect to health but also economically.

Economic effects have occurred due to poor air quality. Air pollution directly affects the economy as follows, causing:

1. Loss of or damage to crops and flowers
2. Expenditures for the adoption of mechanical or technical measures to reduce smoke emissions from factories
3. Expenditures to remove dust or smoke from power or nuclear stations
4. Research costs to measure air pollution⁸⁵

In addition, air pollution has reduced productivity in forestry, agriculture, fishing, and tourism in the Los Angeles County. A study conducted by two professors from California State University, Dr. Jane Hall and Dr. Victor Brajer, cites billions of dollars per year in economic losses due to

⁸⁴ "Effects of Air Pollutants – Health Effects," Environmental Protection Agency, last modified January 20, 2010, accessed November 02, 2012, <http://www.epa.gov/apti/course422/ap7a.html>.

⁸⁵ Jane Vise Hall and Victor Brajer, "The Health and Related Economic Benefits of Attaining Healthful Air in the San Joaquin Valley." Kirsch Foundation. Accessed October 24, 2012. <http://business.fullerton.edu/centers/iees/reports/SJVFinalReport.doc>.

premature death, chronic illness, hospitalizations, and missed school and workdays.⁸⁶ Moreover, the study states that the cost of air pollution is more than \$1300 per person per year for the residents of the Los Angeles County. Due to the lack of studies focusing on clean air policies at the local level, obtaining information on the Los Angeles County's demographics, economy, and political structure is critical in explaining the causes and effects of air pollution. The political structure in the Los Angeles County is designed so as to be efficient and effective in the formation of its policy-making regarding the reduction of air pollution levels in the area. To guarantee the success of each formulated policy, cooperation between citizens of the county and officials at the policy making level is imperative.

⁸⁶ Jane Kay, "Bad Air Costing State's Economy Billions," *SFGate*, November 13, 2008, accessed September 11, 2012, <http://www.sfgate.com/health/article/Bad-air-costing-state-s-economy-billions-3185388.php>.

Chapter 3

Agenda-Setting for Clean Air Policies

In agenda-setting, as defined in chapter 1, policy-making involves the recognition of a policy problem. A social problem must be identified, and a need for state intervention must be stated. This is the beginning stage, where actors within and outside the government seek to influence and collectively shape the agenda. The agenda is the list of subjects or problems to which governmental officials and people outside the government are paying substantial attention at a specific time.⁸⁷ The goal in agenda-setting is to move an issue from recognition—frequently expressed by interested groups or affected actors—to a subject on a formal political agenda.

Citizens residing in the Los Angeles County have the ability to speak to their local government, which will be explained in the following section. However, if the local government refuses to listen, alternative actions may be taken. Citizens, NGOs, and even business groups can appeal to the courts to amend or rescind a law implemented by the local government. The courts have the jurisdiction to overrule laws implemented by government officials. With this in mind, the local government must make rational decisions when creating a policy on clean air. Otherwise, irresponsible or ill-planned laws may be rescinded if they are not created with all parties' best interests in mind. The Los Angeles County Board of Supervisors holds town council meetings every Tuesday at 9:00 a.m. These meetings are open to the public, and the agenda for the meetings is published beforehand either on the official bulletin board or the official website. Once the topic of the meeting has been determined, residents are allowed to address the Board.

⁸⁷ John Kingdon, *Agendas, Alternatives, and Public Policies*, 2nd Ed. (New York: Wesley Longman, Inc, 1995), 3.

To speak to the Board of Supervisors, sign-up sheets are available at kiosks located within the meeting room, and those who wish to speak must sign in before the item of interest is called. Each person is allotted three minutes and may discuss the item or items related to the subject matter under the jurisdiction of the Board. Moreover, the fourth Tuesday of the month is dedicated to issues for which public hearings are legally required, Board of Supervisors' motions, and departmental items continued from previous meetings.

In the case of AQMD, the organization creates public documents concerning how they conduct the public's business. Allowing the documents to be viewed by the public ensures public participation and accuracy for future reference. Moreover, the AQMD's Governing Board discusses various methods to improve air quality and clean air programs through public workshops, voting, and board meetings, where public opinion is key. Through these various methods, citizens can educate themselves about the problems of air pollution and the rules and regulations that are applied. Once the residents know the rules and regulations, they have the opportunity to voice their opinions and begin the process of alerting the local public agencies of the need to amend a law or create a new law that would benefit them and their community. Similar to the town council meetings, residents can request to testify before the Governing Board. Before the meeting begins, a concerned citizen must fill out a "Request to Speak" card and give it to the Board Clerk. Shortly afterward, the Board Chairman will call the names on the card, and the citizens will be given three minutes unless the issue is more complex or if a representative of a large group is speaking.

SCAG has also assisted the local government through the involvement of the public. A number of subcommittees, task forces, and working groups are responsible for reporting any air-related issues to the Regional Council, while other departments are established on an ad hoc

basis for specific process. The Regional Council has created various committees to research, create, consult on, and facilitate forums and provide information to report to SCAG and the public to assist the community and address the issue of air pollution. Each committee hold public meetings on a monthly basis, which gives concerned citizens an opportunity to speak. Similar to the AQMD, SCAG makes the meeting agendas available to the public, and citizens may speak on agenda items by completing and presenting a speaker's card to the Assistant prior to speaking. All comments must be a maximum of three minutes long, and the Chair may discuss the comments for up to twenty minutes. Residents of the Los Angeles County simultaneously follow the policies established by both the local government and AQMD. The following sections will describe two clean air policies that emerged in the agenda-setting stage.

3.1 Board of Supervisors and Chapter 5 of the Los Angeles County Code

The Los Angeles County must abide by rules established by AQMD. The AQMD's rules are designed for cities in the South Coast Basin to attain a specific goal in reducing air pollution within a certain amount of time. Once the AQMD implements a rule, the local government in will propose and adopt policies to meet the goal. Regulation XV was implemented by the AQMD on July 1, 1988 and required public and private employers that employ 100 or more employees at a worksite to create a plan to increase their Average Vehicle Ridership (AVR) level within one year.⁸⁸ The Average Vehicle Ridership is the ratio of the number of employees to the number of vehicles arriving at the worksite. The higher the AVR is at a worksite, the more

⁸⁸ Genevieve Giuliano, Keith Hwang, Diane Perrine and Martin Wachs, "Preliminary Evaluation of Regulation XV of the South Coast Air Quality Management District" (Working paper, The University of California Transportation Center, 1991).

employees there are in relation to the number of vehicles.⁸⁹ This allows companies as well as the local government to determine the number of employees riding together, using public transit, walking or biking, and telecommuting. Each firm is required to submit a plan to the local government to increase AVR and educate and train an on-site Employee Transportation Coordinator (ETC). To comply with AQMD's Regulation XV, the Los Angeles local government established County Code Chapter 5.90 Vehicle Trip Reduction – Ridesharing. County Code Chapter 5.90 is similar to Regulation XV except that the local government requires appointing department heads to monitor county employees at any county worksite in promoting participation in trip reduction and ridesharing programs.

Regulation XV was implemented for only one year, however, and, on December 8, 1995, the AQMD's Governing Board repealed the Regulation during their monthly public hearing and instead adopted Rule 2202. AQMD created Rule 2202 to provide employers with alternatives to reduce mobile emissions such as nitrogen oxides (NO_x), volatile organic compounds (VOC), and carbon monoxide (CO) generated from commuting. Under Rule 2202, AQMD offered an alternative method to Regulation XV, the Employee Commute Reduction Program (ECRP). The ECRP applies to employers that employ 250 or more employees at the worksite; these employers must collect data concerning the employees' average vehicle ridership (AVR) and/or implement a program to meet the performance goal of reducing traffic congestion and mobile emissions.⁹⁰ Any employer that fails to comply will be subjected to penalties.

⁸⁹ "Sustainable City Progress Report," Office of Sustainability and the Environment, accessed May 15, 2013, http://www.smgov.net/Departments/OSE/Categories/Sustainability/Sustainable_City_Progress_Report/Transportation/Average_Vehicle_Ridership.aspx.

⁹⁰ South Coast Air Quality Management (AQMD), Rule 2202, "Rule 2202—On-Road Vehicle Mitigation Options Employee Commute Reduction Program Guidelines," October 11, 2011, <http://www.aqmd.gov/rules/reg/reg22/r2202.pdf>.

Despite the rescinding of Regulation XV, the Los Angeles County made no changes to its County Code Chapter 5.90 and continued to follow its original procedure to promote ridesharing. At that time, however, County Code Chapter 5.90 did not comply with Rule 2202. It was not until 2012 that the Chief Executive Office of the Los Angeles County recommended an amendment to County Code Chapter 5.90 to comply with Rule 2202. On June 12, 2012, staff of the Chief Executive Office provided information to the Board of Supervisors suggesting that County Code Chapter 5.90 be updated to meet Rule 2202's requirements as well as to make technical changes, such as:

1. Identifying geographic areas as "Performance Zones"
2. Replacing Regulation XV with Rule 2202
3. Replacing trained transportation coordinators with Employee Transportation Coordinators (ETCs)
4. Replacing the trip reduction plan with the Employee Commute Reduction Plan⁹¹

Regarding requested changes for County Code Chapter 5.90, external help from residents and NGOs did not have much influence. Nevertheless, public awareness about pollutants caused by vehicles became visible, and, instead of the public reacting to the problem, the local government took the initiative to reduce air pollution and create policies and programs directed at achieving cleaner air. This process of raising awareness is different with the AQMD since the Governing Board is required to listen and respond to the public regarding air pollution issues.

⁹¹ County of Los Angeles Chief Executive Office, County Code Chapter 5.90, June 12, 2012, http://file.lacounty.gov/bc/q2_2012/cms1_179571.pdf.

3.2 AQMD and Rule 1143

Rule 1143 was adopted on March 6, 2009 to reduce emissions of volatile organic compounds (VOCs) from the use of consumer paint thinners and multi-purpose solvents that are commonly used in coating materials, cleaning coating application equipment, and other solvent-based cleaning operations.⁹² This prevented any person or industry from selling within the Los Angeles County any consumer paint thinner or multi-solvent that does not comply with the VOC content limit set by Rule 1143. AQMD adopted Rule 1143 to control ground-level ozone formation through VOC emissions released into the air by consumer solvents and thinners. One subcategory of Rule 1143, however, exempts solvents and thinners used by artists from the requirement since VOC emissions from the solvents and thinners used by artists were small compared to the overall VOC emissions from the consumer products category.⁹³ After Rule 1143 was implemented, an analysis from the AQMD indicated that VOC emissions had dropped by 113.7 pounds per day, which exceeded the AQMD's VOC significant threshold of 55 pounds per day.⁹⁴ Since the proposed Rule 1143 contributed to an air quality violation, the AQMD staff identified solvents containing isopropyl alcohol, xylene, ethyl benzene, toluene, methyl ethyl ketone, and hexane as toxic air contaminants (TACs) that pose a risk of carcinogenic effects.

⁹² South Coast Air Quality Management (AQMD), Rule 1143, "Final Environmental Assessment for Proposed Amended Rule (PAR) 1143 – Consumer Paint Thinners and Multi-Purpose Solvents," November 2010, <http://www.aqmd.gov/ceqa/documents/2010/aqmd/finalEA/1143FEA.pdf>.

⁹³ South Coast Air Quality Management (AQMD), Rule 1143, "Final Environmental Assessment for Proposed Amended Rule (PAR) 1143 – Consumer Paint Thinners and Multi-Purpose Solvents," November 2010, <http://www.aqmd.gov/ceqa/documents/2010/aqmd/finalEA/1143FEA.pdf>.

⁹⁴ South Coast Air Quality Management (AQMD), Rule 1143, "Final Environmental Assessment for Proposed Amended Rule (PAR) 1143 – Consumer Paint Thinners and Multi-Purpose Solvents," November 2010, <http://www.aqmd.gov/ceqa/documents/2010/aqmd/finalEA/1143FEA.pdf>.

After Rule 1143 was implemented, on April 1, 2009, W.M. Barr & Company, Inc. (Barr), a manufacturer of paint thinners and solvents, challenged Rule 1143 through the Court of Appeals of the State of California on the grounds that:

1. Rule 1143 was prohibited under the Federal Hazardous Substances Act;
2. Rule 1143 was effectively blocked by regulations propagated by the California State Air Resources Board; and
3. The AQMD did not comply with the California Environmental Quality Act (CEQA) since Rule 1143 failed to consider alternatives to the adopted measures.⁹⁵

Rather than complaining to AQMD, Barr deemed the court to be a more effective authority to amend Rule 1143 in their favor. When the trial was pending, between March and September 2009, the AQMD held numerous meetings with the State Fire Marshal, local fire officials, and the Board staff. On December 7, 2009, the Court of Appeals rejected the claims presented by Barr. The court, however, ordered the AQMD to rescind Rule 1143's final VOC limit pending further CEQA review but allowed the Rule to retain its provisional limit.⁹⁶

After the court's decision, the AQMD Governing Board held its monthly public meeting on June 4, 2010 to discuss the amendment of Rule 1143. After the issue was presented to the Governing Board, Luis Cabrales from CCAIR addressed the Board, urging AQMD to finalize the implementation of the new VOC limits and oppose the exemption of small containers and low-vapor pressure solvents in the rule.⁹⁷ Moreover, CCAIR mobilized activists and the general public to testify regarding the importance of the limits. Due to the lawsuit brought by Barr and

⁹⁵ W.M. Barr & Company, INC., v. South Coast Air Quality Management District, (2012), 12 C.D.O.S. 7502.

⁹⁶ W.M. Barr & Company, INC., v. South Coast Air Quality Management District, (2012), 12 C.D.O.S. 7502.

⁹⁷ South Coast Air Quality Management District, "AQMD Public Hearing July 9, 2010," (Los Angeles, 2010), 13.

the concern by CCAIR and the public, the AQMD responded to the complaints and immediately presented a new amendment to re-adopt Rule 1143 in the next month's public hearing on July 9, 2010.

3.3 Coalition for Clean Air

One of the major reasons that the Los Angeles County has an effective and advanced clean air control program is the activities of its interest groups. Although there are various types of ecology groups in the Los Angeles County, they have several similarities. These groups take advantage of any available political means just to have their voices heard. Moreover, they have devised a multitude of methods to get public attention. Not only are they issue-oriented but these groups are scientifically informed, and, due to their concern with pollution, ecology groups can openly challenge their local governments' political and economic power. The Coalition for Clean Air (CCAIR) NGO will be used as a case study to better exemplify the Los Angeles County as the ideal model for utilizing public opinion and its effectiveness in the agenda-setting phase.

The Coalition for Clean Air was organized in 1970 by a small group of concerned citizens gathering on Saturdays to discuss air quality in Southern California.⁹⁸ Due to its active members, the CCAIR grew to become one of the most well-recognized NGOs in the Los Angeles County. The CCAIR aims to restore clean and healthy air to all of California, raise awareness among its residents through community involvement, and advocate for responsible public policy.⁹⁹ One of the CCAIR's main strategies is not only collaborating with the state and federal legislatures but also working with businesses to adopt technologies and educating the

⁹⁸ "Our Story," Coalition for Clean Air, accessed September 11, 2012, <http://ccair.org/our-story/mission-and-vision>.

⁹⁹ "Our Story," Coalition for Clean Air, accessed September 11, 2012, <http://ccair.org/our-story/mission-and-vision>.

public about the issues surrounding air pollution. The CCAIR has twelve staff members with experience in air quality and environmental policy, community organizing, and government affairs.

Although the CCAIR rarely participates in town council meetings, they still affect the agenda-setting process by alerting the public of issues related to air pollution, in addition to hosting events to inform citizens of opportunities to speak to local government officials. For example, to raise awareness about the rising problems of air quality in the Los Angeles County, the CCAIR posts background information about the specific issue and information on where one can sign a petition or write a letter to the members of the local government via their website. Other methods include educating the public on how to reduce air pollution in their everyday lives or through donations.

3.4 Conclusion

This chapter has focused on the process of raising awareness of air pollution on a local level and the considerations involved in creating clean air policies. Concerning subsection one in the presented hypothesis, a separation of environmental departments is supported and affects the approval of clean air policies. Within the Los Angeles County, the AQMD was created for the purpose of reducing air pollution. AQMD creates regulations that the local government must implement within their own laws. The first case study shows that County Code Chapter 5.90, created by the Board of Supervisors, was outdated and required replacement with the current AQMD standards. Moreover, AQMD must always update or create a new law that would decrease air pollution within the Los Angeles County. Since AQMD was established with the sole purpose of reducing and minimizing air pollution, the AQMD is constantly creating new

regulations to achieve that goal. This, in turn, creates a challenge for the local government to update and amend those laws, but, in time, departments within the local government will rescind a law that is deemed unfit for the Los Angeles County. With subsection two of the presented hypothesis, court jurisdiction played a strong role in the second case study. Paint thinner and solvent manufacturers made efforts to rescind AQMD's Rule 1143 in addition to requesting that artists be exempt from Rule 1143. These industries took the initiative of reviewing Rule 1143, and, recognizing its many flaws, filed suit against AQMD in the Los Angeles County Judicial Court. Despite ruling against Barr, the process forced AQMD to amend Rule 1143, proving that the role of the courts can still force improvements in air quality regulations. Moreover, CCAIR was active at this time, providing testimony from residents affected by the use of paint thinners and solvents and influencing AQMD to make changes quickly to the original Rule 1143. Although the main effort to rescind Rule 1143 is considered to have been in the evaluation phase in the policy cycle, public opinion and NGO influence played a strong role, causing the AQMD to make changes. These events aided in supporting subsection three in the presented hypothesis regarding NGO participation and the effects of approving clean air policies. In the case of the Board of Supervisors, NGO participation may not have been strong, but the updating of County Code Chapter 5.90 by utilizing policy choices can influence County Code Chapter 5.90 in the future or the performance of the government. In most cases, the participation of NGOs and even business groups has informed the public, leading to complaints to the local government by citizens attending town council meetings, going directly to the local government or AQMD staff, or taking the clean air policy to the courts. The examples presented above prove the importance of NGO involvement since an individual action can influence an institution. NGO participation in the agenda-setting stage affects the initial process of creating clean air policies. In both cases

examined, NGO involvement was beneficial to the environment. Two policies that focus solely on reducing air pollution are being updated because NGOs and the departments within the local government have discovered the problem. As shown by the case studies, CCAIR, Barr, SCAG, COS, the courts, and even private citizens can have an influence on the local government. The following chapter will focus on how clean air policies were formulated within each of the previously mentioned case studies and how the citizens, NGOs, and business groups collaborate with the local government and AQMD.

Chapter 4

Policy Formation in Clean Air Policies

In the policy formation stage, identified problems, proposals, and demands are transformed into government programs. The objectives in this stage are (1) what should be achieved with the policy and (2) the consideration of the different action alternatives. Studies on policy formation have shown that the outcomes of policy formation have mostly been heavily influenced “by efforts to improve practices within governments by introducing techniques and tools of more rational decision-making,”¹⁰⁰ Moreover, policy formation can be informed by theory; for example, different approaches are applied, and explanations of policy formation are drawn from concepts ranging from pluralistic and corporate interest intermediation theories to perspectives of incrementalism.¹⁰¹

In this stage, technical information about possible policy alternatives from the general public to university students to businesspersons to NGOs is collected and evaluated by the city council or public agencies. After a political authority in charge prepares a policy proposal, the information is submitted to the council, which will begin the next step of the policy cycle. Environmental departments, such as COS, SCAG, and AQMD, will monitor air pollution and collect data for future reference. When formulating a policy, it must be considered that methods to reduce air pollution may require new equipment that may need to be funded. Thus, AQMD and COS will take into account the assumed costs of implementation during this stage. The Los

¹⁰⁰ Frank Fischer, Gerald Miller and Mara Sidney, eds., *Handbook of Public Policy Analysis* (New York: Taylor & Francis Group), 48.

¹⁰¹ Fischer et al., *Handbook of Public Policy Analysis*, 48.

Angeles County takes this into consideration when the Board of Advisors instructs a specific county department, such as the County of Sustainability (COS) to develop a written document reflecting the Board's policy.

When the local government is creating or amending a policy related to air pollution, the Commission Services Division of the Executive Office will notify the responsible department of the Board's action. For example, COS would draft the policy manual statement and submit the draft to the Commission Service Division of the Executive Office or directly to the Board of Supervisors. After reviewing the draft, the Committee Service Division of the Executive Office will make recommendations to the Board of Supervisors to accept the revision or repeal the policy. If, however, the draft is submitted directly to the Board of Supervisors, COS will prepare and present the policy to the Board for approval. The Commission Services Division of the Executive Office will then review the format. During this process of writing the document, COS or any other department may consult public agencies if data is needed.

If, however, COS has developed an administrative policy on its own initiative, then COS has to seek the Board's approval. First, the department will complete and attach the Board letter to the policy manual statement and submit the documents to the Commission Services Division of the Executive Office. If the Board approves the policy, then the Commission will notify COS after reviewing and editing the document in its correct format via the County intranet website. In certain instances, a policy may be approved by the Board, but it will ask for changes that will affect the draft. For these specific cases, the Commission Services Division of the Executive Office will notify the responsible department to redraft the policy based on the changes requested by the Board. Once the redraft is completed, COS will send the revised copy to the Commission, and, as mentioned earlier, the Commission staff will edit the policy and upload to the county's

website. In both cases, COS will work alone and will not hold public hearings to discuss the items with the public. Written documents are internally formulated and presented to the Board of Supervisors.

Unlike the local government, when the AQMD proposes a rule or regulation, it must consult with the state and local governments that have jurisdiction. A member of the AQMD will then prepare and publish a staff report 30 days before the public hearing to adopt, reject, or amend a rule or regulation. While preparing the report, AQMD will seek data and plans presented by SCAG that are related to the subject matter. The report will include a description of the proposed action, an assessment of significant long- or short-term adverse and beneficial environmental effect associated with the rule or regulation, and an analysis of the effects.¹⁰² Furthermore, AQMD staff will consult with NGOs or the public during the policy formation stage if external information is needed on a specific issue when compiling the documents. After the staff report is completed, the report will be submitted to the public, the California Air Resources Board, the Environmental Protection Agency, the SCAG's Clearinghouse, and other organizations that have requested the report.¹⁰³ To further understand how the policy formation stage is executed, the relevant cases presented in the previous chapter will be explained.

4.1 Board of Supervisors and Chapter 5 of the Los Angeles County Code

In the case of the Board of Supervisors, the Chief Executive Office made the request to amend County Code Chapter 5.90. One of the responsibilities of the Chief Executive Office is to

¹⁰² "Rules and Regulations," South Coast Air Quality Management, last modified October 26, 2012, accessed July 24, 2012, <http://www.aqmd.gov/rules/>.

¹⁰³ "Rules and Regulations," South Coast Air Quality Management, last modified October 26, 2012, accessed July 24, 2012, <http://www.aqmd.gov/rules/>.

present recommendations that result in cost-efficient programs. Thus, COS works directly with the Chief Executive Office and monitors data related to the environment. Transportation is a major issue in Los Angeles County among its residents, and it is one of the main items that COS focuses on.¹⁰⁴ When creating a new document to amend County Code Chapter 5.90, the Chief Executive Office sought data and strategies to reduce air pollution.

While formulating new information to change County Code Chapter 5.90, COS developed several strategies to meet AQMD's goals. One of the more important strategies is the Code's Rideshare Program. For this program, COS provided three main strategies to help reduce employee vehicle commutes. The first is the Market Strategy, which advertises the Rideshare Program through:

1. Annual communication directly from the Chief Executive Office
2. Annual Rideshare events
3. Semi-annual Rideshare meetings/focus groups
4. Quarterly distribution of flyers/announcements¹⁰⁵

Second is the Basic and Support Strategy, which implements ETCs to encourage employees' transition from solo driving to Rideshare¹⁰⁶ through:

1. Preferential parking for Rideshare members
2. Guaranteed rides home
3. Personalized commute assistance

¹⁰⁴ "About the County of Sustainability."

¹⁰⁵ "Employee Commute Reduction Program," South Coast Air Quality Management District, last modified October 16, 2009, accessed November 12, 2012, <http://www.aqmd.gov/trans/>.

¹⁰⁶ "Employee Commute Reduction Program," South Coast Air Quality Management District, last modified October 16, 2009, accessed November 12, 2012, <http://www.aqmd.gov/trans/>.

4. A transit information center¹⁰⁷

Finally, the Direct Strategy involves offering the following incentives to members of the Rideshare Program:

1. Auto services
2. Parking charge and subsidies
3. A compressed work week
4. Discounted or free meals¹⁰⁸

The detailed Rideshare Program plan was submitted to and accepted by the Chief Executive Office and then presented to the Board of Supervisors during their meeting. Again, the use of external information from NGOs may not be necessary, but it enables NGOs to pressure local governments to ensure that the need to reduce air pollution becomes an issue that allows NGOs to educate the public, influencing the local government to create policies. In contrast, policy formation in the AQMD is different, as outside sources of information are necessary when creating rules and regulations.

4.2 AQMD and Rule 1143

The responsibility for producing a written document on the new proposal for Rule 1143 belongs to the Office of Planning, Rule Development, and Area Sources (PRDAS). During the amending of the existing rule, SCAG is a primary source. First, the policy must be developed in compliance with SCAG's Regional Comprehensive Plan and Guide (RCPG) policies. The RCPG

¹⁰⁷ "Employee Commute Reduction Program," South Coast Air Quality Management District, last modified October 16, 2009, accessed November 12, 2012, <http://www.aqmd.gov/trans/>.

¹⁰⁸ "Employee Commute Reduction Program," South Coast Air Quality Management District, last modified October 16, 2009, accessed November 12, 2012, <http://www.aqmd.gov/trans/>.

goals that must be attained are to increase the region's economy, avoid social and economic inequities and the geographical isolation of communities, and maintain the region's quality of life.¹⁰⁹ For Rule 1143 to comply with the RCPG, the PRDAS must analyze the region's population, housing, and job forecasts adopted by SCAG's Regional Council. Second, the draft of the amended Rule 1143 will be submitted to SCAG's Intergovernmental Review (IGR) under the Environmental Documentation Listing section. Under this section, the IGR will present Rule 1143's regional and non-regional significance facilities (i.e. transportation, residential, etc.) for review by the local governments.¹¹⁰

4.3 Conclusion

According to the present analysis of policy formation at a local level, the influence of NGOs and specific environmental departments aids in designing a policy. Both case studies illustrate the effectiveness of having a separate environmental department that assists in creating or amending clean air policies, supporting subsection one in the presented hypothesis. For the Board of Supervisors, COS presented the data that was needed when amending County Code Chapter 5.90. COS then relied on their own transportation data and developed strategies that would reduce air pollution, in addition to providing incentives for the citizens. On the other hand, AQMD worked within its own department, PRDAS, and SCAG to create new policies within Rule 1143. Unlike the Board of Supervisors, PRDAS had to produce an alternative policy within Rule 1143 and have it approved by SCAG. If the new alternative meets the requirements of

¹⁰⁹ *The Program Environmental Impact Report for 2007 Air Quality Management Plan*, (Los Angeles: Environmental Audit, Inc. for the South Coast Air Quality Management District, 2007), 4.6-1.

¹¹⁰ "Clearinghouse Report," Southern California Association of Governments, accessed November 05, 2012, <http://www.scag.ca.gov/igr/creport.htm>.

SCAG, then the new policy will be presented to the Governing Board. Because there are separate environmental departments, the process by which a clean air policy is approved is efficient and focuses on the reduction of air pollution. Court jurisdiction still plays a role in the second case study and, therefore, supports subsection two of the presented hypothesis. In the case of AQMD, due to their recent court incident with Barr, the changes that the court ordered were taken into consideration as well. Although Barr did not participate in the process of amending the policy, AQMD was still required to make any court-ordered changes to Rule 1143. Due to the court case mentioned in the previous section, public opinion plays a role, and, for the amendment of Rule 1143 to be approved by the Governing Board, PRDAS needed to take the effects of exempting artists' paint thinners and solvents into consideration. Before changing Rule 1143, AQMD concluded that artists' paint thinners and solvents did not have an effect on air pollution compared to other consumer thinners and solvents, in addition to complying with programs administered by SCAG. Through extensive research and the use of information from external sources and data provided by SCAG, AQMD concluded again that exempting artists' thinners and solvents would not increase VOC emissions. Despite the minimal involvement of NGOs with the local government, pressure to create clean air policies comes into play. Hence, subsection three in the presented hypothesis is supported; NGO influence affects the approval of clean air policies. Regarding the first case study, past data shows that many residents in the Los Angeles County are not actively participating in executing County Code Chapter 5.90. Rather than allowing NGOs such as CCAIR to influence the Board of Supervisors directly to create a new policy to reduce vehicle emissions, COS established a program that would encourage residents to become active, help to reduce air pollution, and support the decision to amend County Code Chapter 5.90. In the second case study, PRDAS worked with external sources to

determine how consumer paint thinners and solvents affects air pollution. The involvement of NGOs involvement and the establishment of separate environmental departments to assist during the policy formation stage have been very beneficial to the environment. NGOs have the ability to influence the creation of rules that are purely beneficial to themselves and others, while environmental departments can receive funding or other necessary means that will benefit the department's research or even promote the careers of employees working within those departments. NGOs and environmental departments work together during this process to influence the governing heads in the local government. The next chapter will detail the process within the local government with respect to decisions to amend, approve, or reject clean air policies.

Chapter 5

Decision-Making and Implementation of Clean Air Policies

The decision-making stage determines whether the documents from the previous stage will be approved and developed into a policy or not. Although NGOs, by definition, are excluded during this stage, the political institution in charge, such as the city council or the mayor, makes the ultimate decision. In the case of the Los Angeles County the Board of Supervisors or the Governing Board will decide whether to approve or reject a policy. Although citizens, NGOs, and business groups are not formally included, many citizens feel that they have an obligation to be affiliated with a political community or group and that it is a norm for these groups to influence politics not only during agenda-setting but also in the later stages of the policy process. NGOs will see to it that the interests they are representing are reflected in the decisions made by the institutions in charge. They will influence the actors in the policy-making process through the mass media, rallies, or other available means. The local government and AQMD, on the other hand, create policy choices when formulating a policy that will continue to determine the influence of the policy in the future. Although this is true for the local government, the AQMD differs with respect to where public opinions during Board meetings play a role in determining the outcome of a policy. The decision to approve or reject clean air policies falls to the local government or public agencies. As previously stated, political actors such as the Board of Supervisors and the AQMD Governing Board must win the votes of their citizens. Allowing the NGOs to comment on a policy and participate in decisions regarding the formation of the policy will provide support for the political actors. This will then maximize votes for the Board of Supervisors and the AQMD Governing Board and keep them in office. The next stage is the

implementation stage, in which the newly adopted policy is put into effect. This phase is often ignored because this process is invisible to the public, and it is essential to the local government to determine a policy's effectiveness. This stage, however, is crucial for the local government and AQMD since experts from COS or SCAG will be called upon to provide any data or predictions concerning the implemented clean air policies. Therefore, the implementation stage falls into the decision-making stage.

In the Los Angeles County, the power to accept clean air policies lies with either the Board of Supervisors or the AQMD. For the local government, the fourth Tuesday of the month is reserved for legally required public hearings, Board of Supervisors motions, and department items continued from previous meetings.¹¹¹ In a meeting, the Executive Officer will begin to call on items necessary for the Board's decision. The mayor or chair will motion for the item and seek a second approval. After receiving a second motion, a "so order" will be called to approve the item. This process will continue until each item has been addressed. During the hearing, citizens are permitted to address the Board to ask questions, but testimony and comments from the individuals are permitted after the decision is already made.

In contrast, public opinion is required before any decisions can be made by AQMD's Governing Board. In the monthly public hearing, comments and testimony from individuals are received during the evaluation process. If any comments raise any environmental issues regarding the proposed rule or regulation, the AQMD staff must respond orally during the public hearing or in a supplemental written report.¹¹² In the case of a comment made during the

¹¹¹ "Regarding Agendas and Meetings of the Board of Supervisors," County of Los Angeles Board of Supervisors, accessed September 11, 2012, http://bos.co.la.ca.us/LinkClick.aspx?fileticket=w_0eBPKwAyw%3D&tabid=114.

¹¹² "Rules and Regulations," South Coast Air Quality Management, last modified October 26, 2012, accessed July 24, 2012, <http://www.aqmd.gov/rules/>.

evaluation process regarding a proposed rule or regulation that will have a significant negative environmental impact, the Governing Board will not proceed to adopt the proposed policy. If there will be no significant effects and the Governing Board addresses each comment and testimony, then a decision to approve, rescind, or adopt the proposed rule or regulation will be made. A good example of how the decision-making and implementation process is executed is shown in the following two cases.

5.1 Board of Supervisors and Chapter 5 of the Los Angeles County Code

On June 12, 2012, a regular meeting was held and opened to the public. Clerk Sachi Hamai of the Executive Office of the Board of Supervisors presided over the meeting. In regard to County Code Chapter 5.90, the Chief Executive Office requested that this code be pushed to the next week's meeting. The request was discussed by the Board of Supervisors, moved by Supervisor Molina, and seconded by Supervisor Knabe, without any objection to hold the issue of the Code change until the following week. On June 19, 2012, the Board of Supervisors held another regular meeting that was open to the public. During this time, the amended County Code Chapter 5.90 was presented to the Board. The main focus in deciding whether to adopt the changes was conforming to Rule 2202 and promoting the Rideshare Program developed by COS. After the Board of Supervisors was informed, a public hearing to comment on County Code Chapter 5.90 was opened. There were no comments or testimony from the public, which led the Board of Supervisors to decide. Supervisor Molina motioned the County Code Chapter 5.90 change, and Supervisor Ridley-Thomas seconded the motion. Thus, the amendment of the County Code Chapter 5.90 was adopted and went into effect on the same day. This was an example of the public not exercising their right to voice their opinions and have an influence on

public policy, leaving it completely up to the Board to make the necessary decisions on whether to amend a rule or not. Although such cases do exist, the following is an example of the public exercising their right in full, and, in turn, having a great influence in the formulation of public policy.

5.2 AQMD and Rule 1143

Before making a decision on the amended Rule 1143, the AQMD presented the Rule in its monthly Governing Board public hearing on July 9, 2010. During the meeting, Naveen Berry of AQMD's PRDAS presented the Governing Board and the public with the new proposals:

1. To rescind Rule 1143's final VOC emission limit by 3.81 tons per day (effective January 1, 2011)
2. To clarify definitions
3. To include additional labeling and public education requirements

In response to the presentation, Supervisor Campbell of the Governing Board requested information on past policies in addition to the potential for future litigation. General Counsel Kurt Wiese of the Governing Board responded that AQMD was ruled against by the court, which ordered that Rule 1143 be amended. After General Counsel Wiese spoke, Mr. Berry responded to Supervisor Campbell's request about past policies and explained that Rule 1143 had to comply with the California Air Resources Board (CARB) regulations concerning air pollution. Councilwoman Mitchell then asked for the AQMD staff's opinion on the difference in how CARB measures VOC and how AQMD measures VOC. In response, Dr. Wallerstein, an executive officer of the AQMD, explained that CARB's technology cannot measure VOC in a regulatory manner. Thus began the public hearing on Rule 1143. Representatives from the

Solvents Industry Group of the American Chemistry Council, the American Coatings Association, and W.M. Barr and Company, Inc. explained their opposition to the proposed amendments. Ryan Kenny of the Solvents Industry Group of the American Chemistry Council argued that CARB had already adopted VOC standards for consumer paint thinners and multipurpose solvents, so AQMD had no legal authority to create a new set of VOC standards. Michael Hickok from Barr also argued that there were legal deficiencies in the amendments to Rule 1143, stating that the new consumer paint thinner definition was too broad and would cause confusion with a product that is regulated differently by CARB and AQMD. He also reminded the Governing Board that the Rule had been challenged in court and suggested that these discrepancies could be resolved if AQMD revised Rule 1143 and deferred action on the proposed amendments. Members of AQMD replied that the staff had considered Barr's recommendations and were searching for alternatives, such as creating a loophole for Barr. However, Dr. Wallerstein added that negotiations between AQMD and Barr had reached a stalemate and that additional time would not benefit either party. On the other hand, representatives from Soy Technologies and the Institute for Research and Technical Assistance expressed their support for reducing VOC emissions through restrictions on the use of paint thinners and solvents. Steve Bunting of the Southern California Fire Prevention Officers Association explained that the proposed amendment had already begun to be presented in public service announcements and brochures to educate the public on paint thinners and solvents and that he fully supported the new Rule 1143. Finally, Katy Wolf from the Institute for Research and Technical Assistance expressed her support since the Rule would reduce VOC emissions and decrease the toxicity of materials that currently involved the use of paint thinners and solvents. After the individuals addressed the Governing Board, the Board voted to adopt and amend Rule 1143.

5.3 Conclusion

As stated previously, specific environmental departments help clean air policies to be approved. Therefore, subsection one of the presented hypotheses is supported regarding both the decision-making and implementation stages. In the first case study, COS was responsible for amending County Code Chapter 5.90 by providing strategies that would address the problem of air pollution. By analyzing past programs provided by the AQMD and Regulation XV, COS recognized the ineffectiveness of the programs and a general lack of participation from residents. Thus, COS created the Rideshare Program in an effort to attract residents of the Los Angeles County by providing incentives. COS focuses on environmental issues and facilitates the approval of clean air policies by the Board of Supervisors. Unlike COS, SCAG provides data to AQMD before the Governing Board makes a decision. When a rule or regulation is being evaluated, past data and reports that may or may not be beneficial to a rule or regulation are presented to the Governing Board before the public hearing. With both data and comments that support a rule or regulation, a decision will be made by the Governing Board in favor of the public and/or NGOs. The separation of environmental departments played a strong role in the two case studies since both clean air policies have been approved.

Although the role of courts was strong in the previous stages, courts had no influence in both the decision-making and implementation stage. Hence, subsection two of the presented hypothesis is rejected for this stage of the policy cycle. Despite the court's lack of influence in this particular stage of the policy-making process, it is important to remember that the policy cycle is constantly in rotation; therefore, court jurisdiction to change a policy will always be in the minds of local government officials, citizens, NGOs, and business groups.

NGO participation was not as important since the majority of the decision-making responsibility lies solely with the local government or AQMD. Consequently, subsection three of the presented hypothesis is also rejected for both the decision-making and implementation stage. Although the AQMD relies on the public, which allows NGOs such as CCAIR to voice their opinions, the Governing Board of the AQMD may choose to disregard any information and make a decision based on the facts provided by SCAG. When both the local government and AQMD reject clean air policies, NGOs may raise public awareness to encourage a different decision. The use of various resources has allowed CCAIR to become a well-known NGO that works directly with the local government and AQMD to reduce air pollution whether their participation has a strong effect in this stage or not.

Chapter 6

Evaluation in Clean Air Policies

The final stage is the evaluation stage. The role of the evaluation stage has evolved from simply trying to apply an idea of a new policy systematically in a controlled setting to providing information on whether or not a policy is effective and efficient for the local government to receive the necessary feedback. Once a policy is implemented, a policy will be researched and analyzed to determine whether a policy meets its original intentions and whether there will be any unintended outcomes. During this stage, the government may evaluate the reaction of its citizens to determine whether the policy is effective or not through various methods, such as surveys or audits. If, however, the local government does not properly evaluate a policy, external sources, such as the media, NGOs, and business groups may conduct their own survey to provide any additional data needed to determine the outcome of the policy. If the policy objectives are met, then the policy will stay in effect. However, if the policy is unsuccessful on any level, then the policy may be rescinded or amended. There are exceptions to this stage, in which the public may object to a policy and try to rescind or amend it through petitions, demonstrations, or lawsuits. Unlike the previous two stages, the public plays a strong role in the future outcome of an implemented policy. In contrast to the other stages, the evaluation of a policy is not solely restricted within this stage of the policy cycle. Instead, the evaluation process may be applied to all the stages at any given time.

In the Los Angeles County, COS and SCAG collect data to determine the effectiveness of a clean air policy by measuring air pollution and conducting yearly surveys. When conducting a survey, one of the most efficient techniques to receive responses from the public is through the

mail. The survey will consist of multiple-choice questions concerning air pollution and other issues affecting the Los Angeles County. Although surveys may not always ask about a specific clean air policy, providing general questions about clean air policies or inquiring about the status of air pollution has been shown to still be effective. The local government and AQMD try to create and amend policies specifically to reduce air pollution and to gain the ability to access public opinion through surveys to aid in shaping the effectiveness of the policy. Moreover, external sources also assist the local government and AQMD. For example, NGOs, such as CCAIR, have either conducted or provided surveys to the public to gain a clear perspective regarding air pollution and clean air policies.

The results of the surveys conducted by CCAIR or other important sources will be provided to the media to raise awareness of air pollution or facilitate a policy's outcome. However, conducting a survey may not always be successful, and the public may take the actions they deem fit. Therefore, residents or NGOs will circulate petitions to express their dissatisfaction with the government or a clean air policy. However, if petitions fail to attract the attention of local government or AQMD, then holding a demonstration may be beneficial in getting a policy amended or even rescinded. Should all viable options be unsuccessful, however, then the courts may be used as a last resort. Even though lawsuits are expensive and time-consuming, business groups will take this route to increase their chance of exerting control in the amending or rescinding of a clean air policy. In relation to the two case studies examined in this study, surveys were conducted to determine the residents' perspective on air pollution. The following two sections will explain the two clean air policies in the evaluation stage.

6.1 Board of Supervisors and Chapter 5 of the Los Angeles County Code

In the state of California, the Public Policy Institute of California (PPIC) conducts a public survey to inform policy-makers, the media, and the public about air pollution. One of the main issues that the survey focused on was how the citizens in the Los Angeles County felt about air pollution. In the survey, one question asked residents whether air pollution was a problem, which can be reviewed in Table 2. In 2011, 45 percent of the public believed that air pollution was a big problem, while 37 percent said that air pollution was somewhat of a problem, and 19 percent said that air pollution was not a problem. However, when asked the same question a year later, only 35 percent of the public believed that air pollution was a big problem, 41 percent said that air pollution was somewhat of a problem, 22 percent said that air pollution was not a problem, and 2 percent were unsure. In one year, there was a significant change in the Los Angeles County residents' attitude toward air pollution.

Table 2: Air Pollution Census

"We are interested in the region of California that you live in. Would you say that air pollution is a big problem, somewhat of a problem, or not a problem in your region?"

	2011	2012
Big problem	45%	35%
Somewhat of a problem	37	41
Not a problem	19	22
Don't know	-	2

County Code Chapter 5.90 was amended and implemented before the survey was conducted. Although there is no definite evidence to prove that County Code 5.90 directly affected the opinions of the public on air pollution, there is some proof that clean air policies

created and implemented by the local government are effective. The 10 percent decrease in the responses stating that air pollution is not a big problem proves to the public and policy-makers in the local government that creating clean air policies is effective and aids in the reduction of air pollution. In addition, County Code 5.90 was amended to promote the Rideshare program developed by COS and provided various methods for full- and part-time workers to commute to work while reducing air pollution. In a survey conducted by PPIC, the public was asked how they commute to work, and, again, the results varied. As shown in Table 3, the number of workers driving alone decreased by four percent, while the number of those who carpool, take public transportation, and use other types of commuting increased or remained the same.

Table 3: Commute to Work Census¹¹³¹¹⁴

	2011	2012
Drive Alone	70%	66%
Carpool	12%	14%
Public Transportation	8%	7%
Walk	3%	4%
Bicycle	2%	2%
Work from Home	3%	6%
Other	1%	1%

¹¹³ “2011 PPIC Statewide Survey,” Public Policy Institute of California, accessed June 4, 2013, http://www.ppic.org/content/pubs/survey/S_711MBS.pdf.

¹¹⁴ “2012 PPIC Statewide Survey,” Public Policy Institute of California, accessed June 4, 2013, http://www.ppic.org/content/pubs/survey/S_711MBS.pdf.

As mentioned previously, the Rideshare program educates the public and emphasizes the importance of decreasing air pollution when commuting to work through a range of educational workshops and the providing of incentives. The results from the surveys in 2011 to 2012 show that the Rideshare program and the amended Country Code 5.90 have had an effect on its citizens.

6.2 AQMD and Rule 1143

On July 9, 2010, Rule 1143 was adopted and amended by the AQMD Governing Board. However, Barr was unsatisfied with the changes and once again challenged Rule 1143 through the Court of Appeals of the State of California. Barr sought a writ of mandate and injunctive and declaratory relief, stating that:

1. Rule 1143's supplemental environment assessment was inadequate under CEQA since the hangtag was inadequate to warn consumers of the fire hazard and that the public outreach program was voluntary and ineffective
2. Rule 1143's warning hangtag was preempted by the FHSA¹¹⁵
3. Rule 1143 was preempted by pre-existing Board consumer standards¹¹⁶

Again, Barr used the courts to amend Rule 1143 in their favor, again going through the same procedure as in the agenda-setting stage. In the case of Barr vs. AQMD, Barr chose to take the same route and allow the court to make the final decision on Rule 1143. On August 24, 2010, the court rejected injunctive and declaratory relief and found that Barr had not established successful

¹¹⁵ FHSA is known as the Federal Hazardous Substance Act and was enacted in 1960 by the U.S. Congress to provide precautionary labeling of packages of hazardous substance.

¹¹⁶ W.M Barr & Company, INC., v. South Coast Air Quality Management District, (2012), Cal. App.4th.

merits based on the evidence they presented. By May 31, 2011, the court made its final decision, denying Barr's petition for a writ of mandate, finding that the supplemental assessment in Rule 1143 addressed the relative flammability of each product, and determining that consumer warnings would be enough to avoid significant fire hazards. The court also decided that Rule 1143's consumer warning sign was not preempted, as Barr suggested, by the federal law because:

1. Rule 1143's warning label for consumers was adequate
2. Rule 1143's consumer warning program was voluntary since manufacturers, such as Barr, had the option to change the product name to a generic description¹¹⁷

Therefore, the court showed favor toward AQMD and closed the case, allowing AQMD to make no changes to Rule 1143. As shown in Table 2, there was a considerable decrease in the public's concern regarding air pollution from 2011 to 2012. Since the court proceedings and decision for Rule 1143 were completed before the 2011 survey was conducted, Rule 1143 may have played a role in the public's opinion and the reason that there was a decrease on the public reaction towards air pollution in just one year. As a result, the creating and amending of clean air policies in the Los Angeles County is effective.

6.3 Conclusion

This chapter has focused on the effectiveness of clean air policies in the Los Angeles County. Since the role of the local government and AQMD is to assess policies that have been implemented, one of the main methods used is public surveys. Both the local government and AQMD may use the recorded data from the survey conducted by SCAG or provided by external sources to determine the effectiveness of clean air policies. PPIC was chosen for the two cases

¹¹⁷ W.M Barr & Company, INC., v. South Coast Air Quality Management District, (2012), Cal. App.4th.

since the focus of the evaluation stage was the citizens' reaction to air pollution and how citizens commute to work. Therefore, subsection one of the presented thesis is supported for this stage. Although SCAG was not directly used, the contents and the some of the data in the PPIC survey were gathered and utilized to understand the citizens' reaction to clean air policies. External sources and separate environmental departments may conduct different surveys, but some of their contents are similar and may aid in creating data for future research on air pollution. In the first case study, the survey showed that the public found different methods to commute to work after the Rideshare program was implemented, in addition to the decrease in their responses about air pollution being less of a problem in just one year.

In subsection two of the presented case study, business groups used the courts to change the outcome of Rule 1143 and therefore subsection two is supported in this stage. As in the agenda-setting stage, Barr made the decision to use the courts to have Rule 1143 amended in their favor. Nonetheless, after reviewing the newly implemented Rule, the court showed favor toward AQMD, and no changes were made. Barr may again use the courts or other techniques to have Rule 1143 amended or rescinded, thus continuing the policy cycle.

In the evaluation stage, NGO participation is strong, which supports subsection three of the presented hypothesis. During the decision-making stage, NGOs and citizens expressed their approval of County Code 5.90 and Rule 1143, and, even though there is no confirmation that these two groups participated in the evaluation survey, the results revealing significant changes in the answers from 2011 to 2012 shows the effectiveness of clean air policies. The results of the survey aid the local government and AQMD to evaluate clean air policies and determine whether clean air policies should be implemented, amended, or rescinded.

Chapter 7

Conclusion

The trend of urbanization attracts people to migrate to the most populous cities, risking the deadly consequences of air pollution. As a result, air pollution in urbanized cities is increasing to hazardous levels that are beginning to threaten people's health. As populations increased, vehicles, manufacturing and nuclear plants, and residential wood and coal burning for heat also increased, causing gaseous and particle pollutants to enter the air and damage the lives of citizens residing in urban areas. *Forbes* magazine ranked the city of Los Angeles third in its list of the most polluted cities of 2012. Though Los Angeles is still polluted, this ranking has to be considered progress, as Los Angeles has been ranked first by *Forbes* in previous years. How did the Los Angeles County succeed in alleviating the problem of air pollution? According to research on the policy-making process for clean air policies at the local level, a department that focuses only on environmental issues and the participation of NGOs influence the decision to approve and implement a policy.

In this study, each stage of the policy cycle defines the process of the local government in the Los Angeles County through which clean air policies are created. NGOs such as CCAIR maximize their utility by identifying a problem and gathering support from the public to illustrate the danger of ignoring air pollution issues. Each issue is carefully analyzed in light of past policies to explain to the local government the ineffectiveness of a policy or the lack of needed policies. CCAIR was very active when the AQMD was amending Rule 1143 and urged the Governing Board to create policies that would not adversely affect the health of the residents. In addition, other groups, such as W.M. Barr and Company, Inc., maximized their utility by

analyzing the problem with the Rule and trying to have the Rule rescinded by the Court of Appeals in California. Although W.M. Barr and Company, Inc. lost the court battle, the case spurred AQMD to amend Rule 1143 to clarify the goals and consider comments from the public and CCAIR. In contrast, the Board of Supervisors was not as heavily influenced by the public, NGOs, and lobbyist groups as AQMD in amending Code Chapter 5.90. Instead, internal departments, in this case the Chief Executive Office of the Los Angeles County, made the suggestion to update the Code.

After the local government takes into consideration complaints received from the public, one of two methods can be implemented. The Board of Supervisors can consult with their environmental department, COS, to amend or create a suitable policy. COS can analyze a problem involving transportation and find all the necessary data to formulate alternatives to reduce air pollution while commuting to work. The second method is for AQMD to study the problem and request data from SCAG. Similar to COS, SCAG can gather data on, for example, the usage of paint thinners and solvents and present the essential information needed by AQMD to amend its rules. In both methods, the COS and AQMD are driven by self-interested maximizing strategies. Concerning subsection one of the presented hypothesis, the separation in of environmental departments, such as COS, SCAG, and even AQMD, has aided in the creation and approval of clean air policies. Since the Los Angeles County has public agencies and environmental departments that work to reduce air pollution, the local government has an increased ability to focus on other issues affecting the county. This allows for more effective and efficient policy-making, as the individual environmental departments can focus the majority of their time and energy on air pollution. In the presented case studies, COS, SCAG, and AQMD formulated a written document to be given to the Board of Supervisors or AQMD Governing

Board. Moreover, the successes and failures of past policies and predictions for the future of the policy are presented to them. Thus, the analysis of the policy formation stage for County Code 5.90 and Rule 1143 proves that separate environmental departments such as COS and SCAG are crucial in the decision-making process for clean air policies. Both departments focus solely on environmental issues that affect the daily lives of residents, analyze problems, and provide alternatives to decrease air pollution and create more efficient clean air policies.

The case studies presented in this study demonstrated that the policy-making process for clean air policies at the local level in Los Angeles is effective. The example of the policy-making process shows that the mayors on the Board of Supervisors have the final word in approving or rejecting a policy. However, when County Code 5.90 was presented to the Board, rather than making the decision quickly, members of the Board consulted with COS about the alternatives and past policies that related to the current policy. Like the Board, the AQMD Governing Board consulted SCAG and PRDAS about past regulations and how effective the new regulations would be if they were implemented.

In regard to subsection two of the presented hypothesis, court jurisdiction did not have a heavy influence on the policy-making process for clean air policies. Barr took an alternate route by proceeding to the courts to have Rule 1143 rescinded, and the process caused AQMD to change the rule, despite Barr's losing the case. In amending Rule 1143, AQMD had to receive external aid to determine whether the rule should be more beneficial for Barr or CCAIR since the possibility of a lawsuit was high. Though the courts heavily influenced the three of the five stages, they had no influence in the decision-making and implementation stages. At any point, however, the case can be reopened, showing the court's constant influence, as seen in the evaluation stage. Therefore, since the court's jurisdiction involved only the amendment of a

clean air policy, subsection two must be partially accepted in this study. Finally, regarding subsection three of the presented hypothesis, although public, NGO, and lobbyist groups' influence played a stronger role than that of the courts, the responsibility for approving or rejecting a clean air policy belongs to the local government regardless of the comments made by the public. However, the public has the same motives as the local government to reduce air pollution and may continue to request that the local government create policies that will benefit them as well. Thus, interaction between the local government and NGOs is inevitable. Even after new clean air policies are presented, officials will continue to consult with NGOs and other external sources. In one of the case studies, if the Boards have support from the NGOs and the public, then the Boards can maximize their utility and determine whether the policy is acceptable compared to previous policies. Moreover, the Board allowed the public to comment by either supporting or opposing County Code 5.90 in a public hearing. Nevertheless, whether the public comments on a policy or not, the Board does not make decisions on clean air policies separately. Throughout the policy-making process, the public has the opportunity to voice their opinion, thus affecting the decision of the Board. In the second case study, NGO, citizen, and lobbyist groups had a stronger role with AQMD since PRDAS sought help from external sources. Because AQMD is a public agency, comments and testimony from the public are required. When deciding to pass Rule 1143, NGOs and representatives stated their views about the Rule. After receiving the comments and discussing the Rule among themselves, the Board decided to pass the Rule and implement it immediately. Therefore, subsection three is partially supported in this study. In the end, by examining County Code 5.90 and Rule 1143 in light of the policy cycle, the case studies provided insight on how NGOs influenced the local government and how the separate environmental departments heavily influenced the process of approving or rejecting the

policies, making the decision easier for the Board of Supervisors and Governing Board. Each stage demonstrates that either an NGO or environmental department is effective in influencing the creation of clean air policies and in the approval of the policies at the local level.

In this study, historical, rational choice, and sociological institutionalism was supported. In terms of historical institutionalism, the separation in environmental departments has proven to be the most influential. When creating or even amending a new policy, COS, SCAG, and PRDAS research past policies, programs, or models to determine whether the new policies meet a given standard for reducing clean air policies. Regarding rational choice institutionalism, the courts allowed business groups to maximize their benefits by attempting to rescind a clean air policy that would affect their sales of paint thinners and solvents. In addition, court jurisdiction caused AQMD to change Rule 1143 but still in a way that would benefit themselves and CCAIR. Finally, with respect to sociological institutionalism and the integration of NGOs, citizens, and business groups, the actions of these groups are value-driven and not focused merely on short-term economic profit. By creating petitions or going on strike, they can influence the local government or AQMD in creating or approving more effective clean air policies. As previously mentioned, the graphs showing the reduction in air pollution and the public survey responses regarding reduced air pollution support the hypothesis that the public and specialized environmental departments complement each other to determine the effectiveness of clean air policies and support sociological institutionalism. Each group is searching for methods to achieve the long-term goal of reducing air pollution. The graphs and survey showing the overall reduction of air pollution only strengthens the ideas behind this study and aids in future research on the importance of clean air policies at the local level utilizing the Los Angeles County as a model.

Three major factors are critical in adopting successful environment politics from the Los Angeles County: administrative specialization, the role of the courts, and public opinion. Furthermore, analyzing the separation of environmental departments, court jurisdiction, and public participation provides evidence that clean air policies have a higher chance of being approved and implemented when these factors are present. Although the Los Angeles County may not be the cleanest city compared to others, the process through which policies are created is far more advanced, and data confirm that the Los Angeles County has decreased air pollution at a steady rate. Influences from environmental departments, the courts, and public participation are complex, take place throughout the whole cycle of a given policy, and address the political decision-makers in various ways. This study indicates that there is constant participation from internal and external sources. Los Angeles has provided descriptive and valuable cases illustrating the process through which a policy is formed and decided. In addition, every step of the process involves the public, and, in each stage of the examined case studies, public opinion was strong.

The results of this study are consistent with those of Hall and Brajer, who show that citizens who are more active and NGOs that are directly involved in creating or amending the Los Angeles County clean air policies could have enabled the meeting of the required clean air standard and saved \$22 billion.¹¹⁸ Studies similar to that Hall and Brajer demonstrate that air pollution will constantly be problematic and that a reduction in air pollution is necessary at the local level. Applying the Los Angeles County as a case study may offer other cities guidance in the future handling of air quality issues since its progress has provided enough information for other urbanized areas to realize a cleaner city by allowing NGOs, citizens, and lobbyist groups to

¹¹⁸ Jane Kay, "Bad Air."

be a part of the policy-making process and creating environmental departments to aid in formulating clean air policies. Moreover, cities have gone beyond their traditional role and become more globalized and networked in seeking alliances with each other. The Los Angeles County has played a leading role and has been participating in international organizations to assist other cities. Thus, the Los Angeles County has been a model for other globalized cities and should also be a respectable model for clean air policies since the policy-making process for approving clean air policies has been efficient and the amount of air pollution has decreased at a steady rate.

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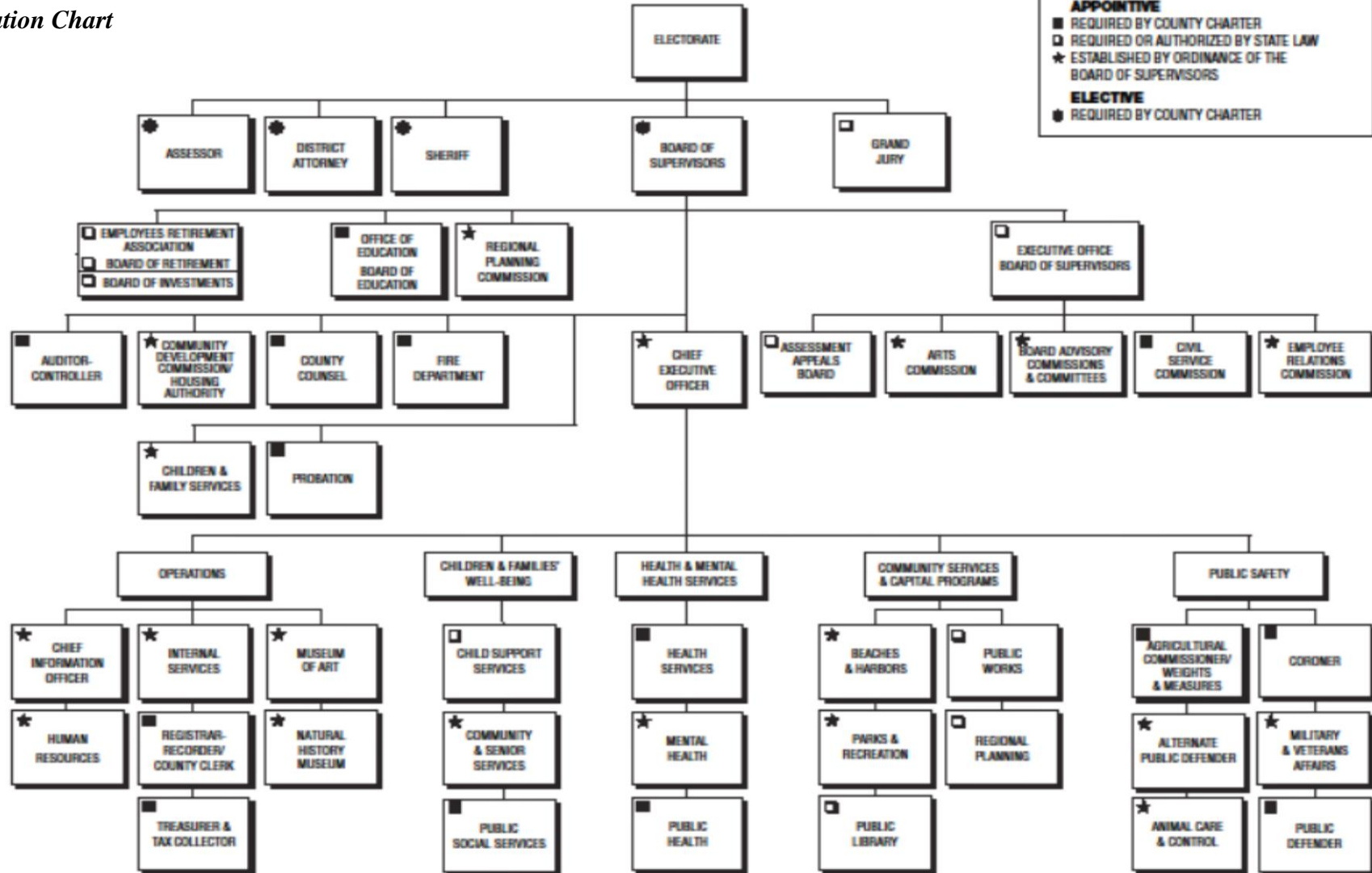
W.M. Barr & Company, INC., v. South Coast Air Quality Management District. Court of Appeal of the State of California. 28 June 2012. [Http://www.law.com](http://www.law.com). The Recorder, n.d. Web. <<http://www.law.com/jsp/ca/PubArticleCA.jsp?id=1202561423767&slreturn=20121102064239>>.

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Appendix A

Los Angeles County Government
Organization Chart

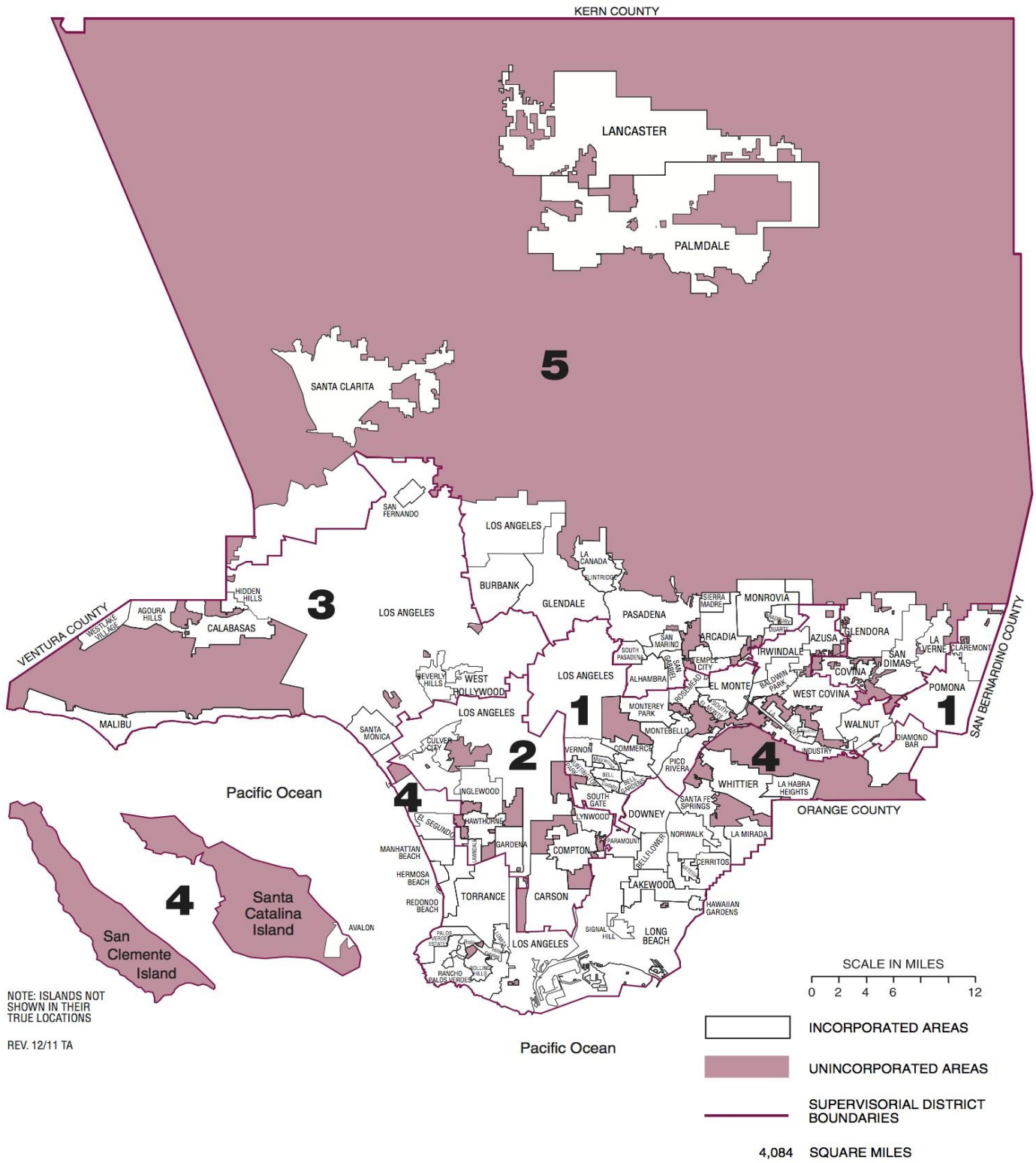
COUNTY OF LOS ANGELES



Footnote: Several departments report directly to the Board of Supervisors or are headed by elected officials, but work with the Chief Executive Office through the clerks. These are: Assessor, Auditor-Controller, Executive Office of the Board of Supervisors, County Counsel (Operations); Community Development Commission (Community Services and Capital Programs); Sheriff, District Attorney, Fire (Public Safety).

Appendix B

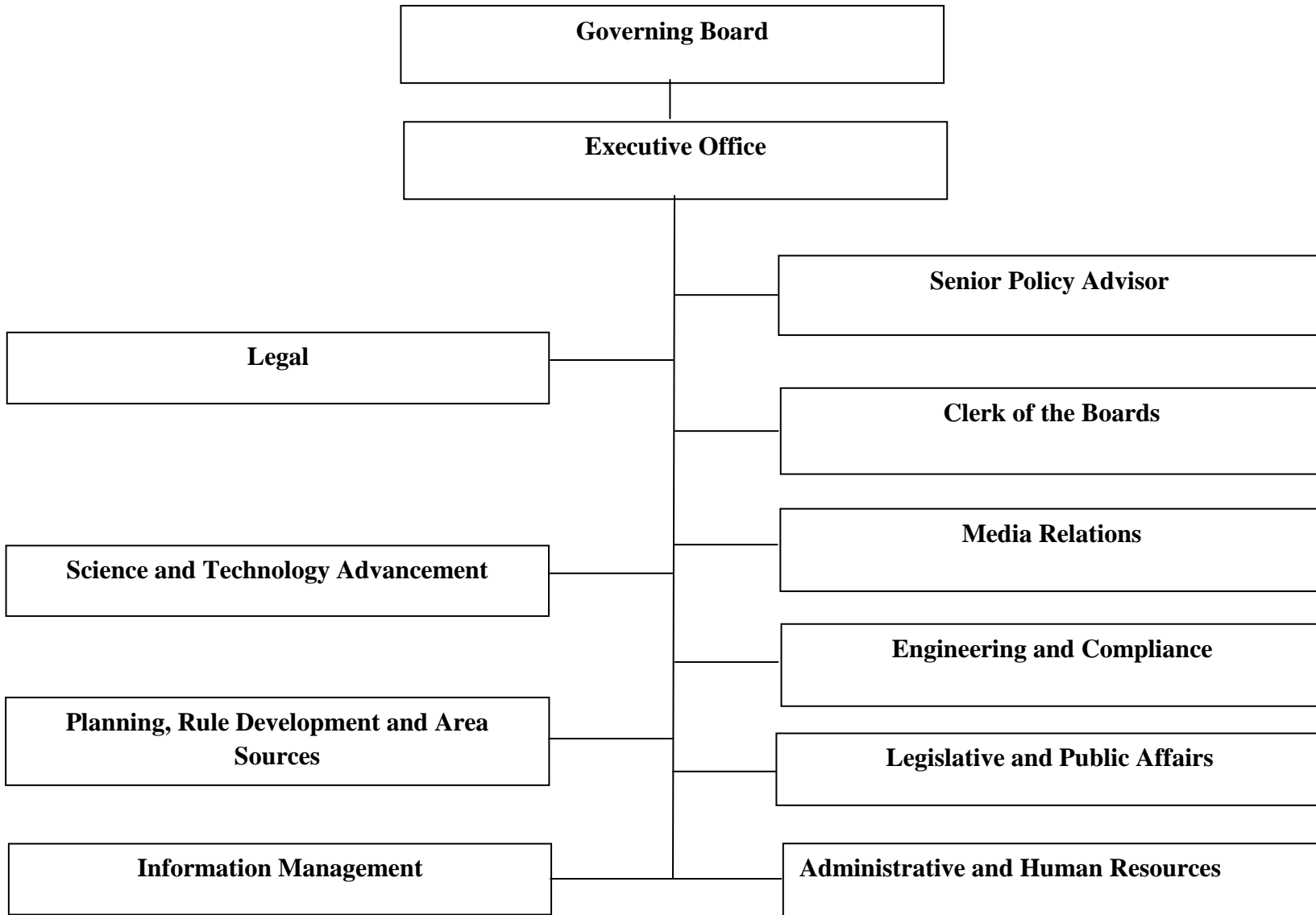
**Los Angeles County Districts including
Unincorporated Areas**



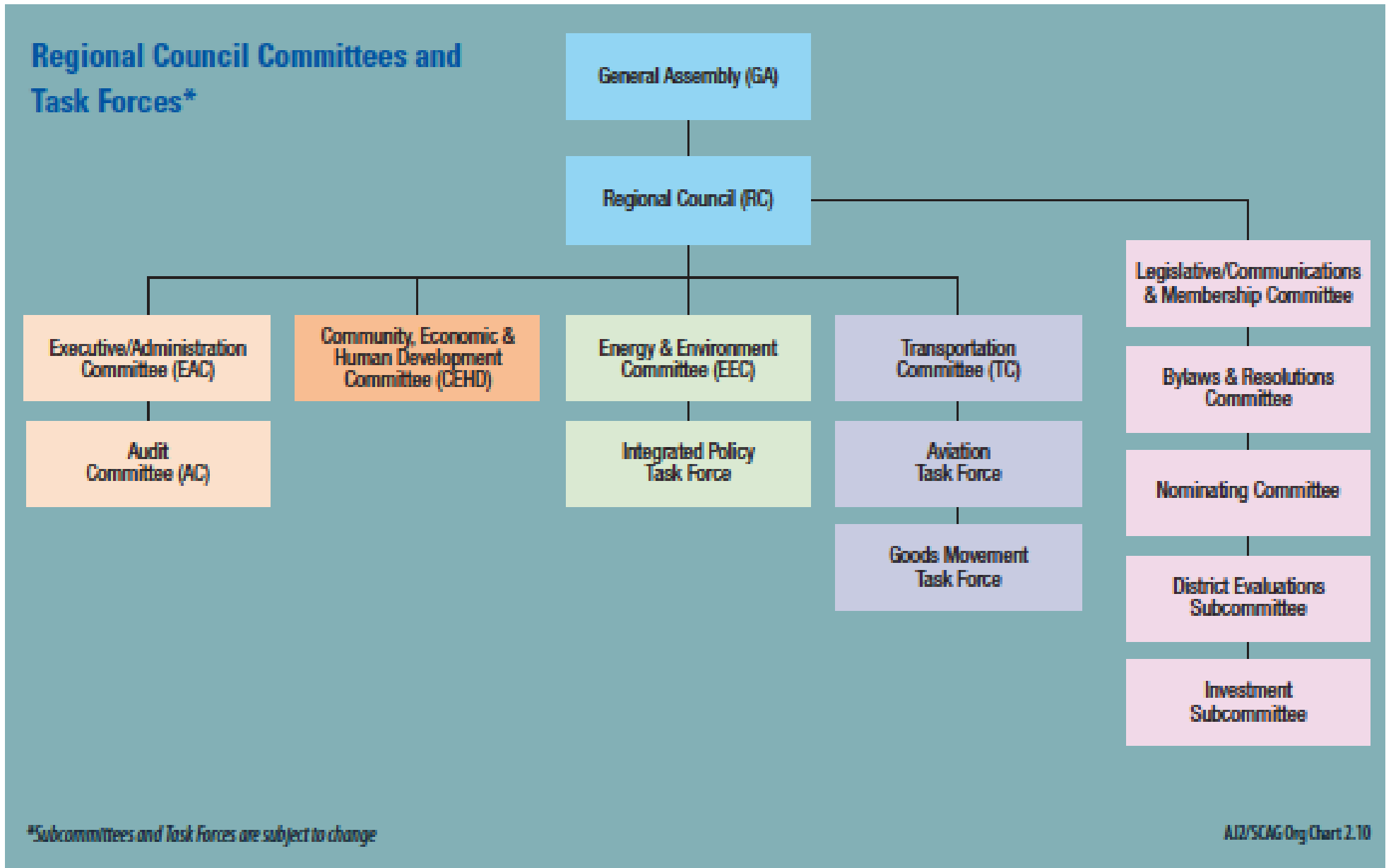
NOTE: ISLANDS NOT SHOWN IN THEIR TRUE LOCATIONS
REV. 12/11 TA

Appendix C

AQMD Organization Chart



Appendix D
SCAG Organization Chart



*Subcommittees and Task Forces are subject to change

국문 초록

45 퍼센트의 전세계 대기 오염 물질 및 이산화탄소가 도시에서 배출되므로 환경의 질적 저하 특히 대기 오염이 전세계의 도시와 도시 복합 지역에 심각한 위협을 가하고 있다. 이 논문에서는 로스앤젤레스시의 성공적인 청정 대기 정책 사례를 조사하고 더불어 지역의 오염원에 대응하는 세계적 난제에 기여하며 성공적인 환경 관련 사안 특히 청정 대기 정치 분야와 관련된 조건에 관해 자세히 설명한다. 이 연구의 주요 목표는 최상의 관행 모델의 측면에서 같은 문제를 다루는 다른 세계 도시들에 적용될 수 있는 제도 및 절차적 세부 사항을 파악하는 것이다. 정책 주기 분석과 결합된 새로운 제도 개념을 적용하여 지방 정부에서의 대기 오염 관리의 의사 결정 과정뿐만 아니라 NGO(비정부 기구) 및 여론의 역할과 영향을 조사할 수 있다. 본 분석의 실증적 근거는 자치주 규정 5.90 장 및 규칙 1143 에 해당하는 두 가지 정책에 대한 심도 있는 연구이다. 이 두 가지 경우에 대한 연구가 로스앤젤레스시의 정치 체계가 어떻게 대기 오염을 지역에 대한 위협으로 파악하고 효과적이고 유효한 청정 대기 정책을 통해 대기 오염에 대응할 수 있었는지를 설명하게 된다. 결과적으로 이 연구는 NGO 및 폭넓은 대중의 기여를 위한 제도의 다양화 및 전문화, 법원의 관할권 및 접점과 같은 세 가지 주요 조건이 성공적인 청정 대기 정책을 위해 아주 중요함을 주장한다. 게다가 이 연구는 세계 환경 및 건강에 대한 위협에 대응하는 데 로스앤젤레스시가 어떻게 공헌할 수 있는지도 제시한다.

키워드: 청정 대기 정책, 대기 오염, 지방 정부, 로스앤젤레스, 도시, 국제 관계, 세계화된 도시