

WORKING THE WATERS: THE POLITICAL ECOLOGIES OF SCALE AND GEORGIA'S 100-YEAR DROUGHT

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REFERENCE: *Proceedings of the 2009 Georgia Water Resources Conference*, held April 27–29, 2009, at the University of Georgia

Abstract Throughout 2007, as forecaster's predictions provided no relief for the drought stricken Southeastern United States, Georgia's politicians grappled with how to manage a dwindling water supply. The interactions between a 100-hundred year meteorological drought, dramatic population growth, and unmanaged water usage, stressed North Georgia's water supplies to an extreme level. Within Georgia, responsibility for drought management lies with both state and local governments. Drought management plans are developed at multiple levels and are implemented by state and local water suppliers. These scalar interactions challenge local governments, as they must follow multiple guidelines within the framework of their own communities.

As governments struggle to manage water supplies locally, regionally, and statewide, water users struggle to meet water restrictions placed upon them. In particular, the green industry, a self-identified group who depend on garden, lawn, and plant maintenance for their economic livelihood, have confronted economic hardships due to outdoor watering restrictions that have eliminated their customer base. The green industry has recognized the political interactions between state and local governments, and has begun to organize themselves to maximize their political influence. The scale of analysis, the scale where people are exerting their political power, and the scale in which organizations are acting, co-determine their power to access water resources during a time of shortage. To understand the power relations, and authority, members of the community legitimated in relation to drought management, it is critical to understand how these relationships developed through the framework of politics of scale. In this study I address the interactions between state and local governments in the development and implementation of drought management policies. I will examine how members of the green industry have worked within this scalar political framework to protect the interests of their industry.

INTRODUCTION

In 2007, the Southeastern United States experienced a 100-year drought. As water supplies dwindled, and forecasts predicted little relief, politicians in the state of

Georgia grappled with how to best manage remaining water supplies. State and local officials were faced with the challenging decisions as river levels reached record lows, and reservoir levels dropped. The decisions of how to best manage the state's resources occurred in a complicated, multi-scalar context. During 2007, Athens-Clarke County (ACC), located in the northeast Georgia, received sixty-five percent of its thirty-year average rainfall. The impacts of the decreased levels of rainfall were exacerbated by existing deficits due to less than normal rainfall in 2005 and 2006.¹ The decrease in available water supplies was coupled with increased demand for water due to burgeoning population growth. Between 1990 and 2000, Georgia experienced a twenty-six percent population growth; the state's population is predicted to grow by another thirty-four percent (to 10,813,573 people) by 2015.²

Historically, in Georgia, little emphasis has been placed on the allocation and management of water. Only within the past tens years have local and state governments begun to develop drought management plans. The 2007 drought was the first opportunity for the state and many local counties to implement their drought management plans that had been updated, and revised, after a drought conditions in 2002. The implementation of these plans highlights the scalar nature of the relationship between local and state governments. Water is managed on both state and regional levels. As a result, conflicts often arise due to the conflicting interests of state and local governments. Conflicts can also arise as the different levels of government negotiate relationships with stakeholders, stakeholders being identified as self-organized and self-identified members of the community who are impacted by policy and are collectively organizing to change policy. In the case of water management in ACC and the state of Georgia, a group of stakeholders, organized around economic interests, acted within the scalar relationships between the state and local government to influence the way water is managed within the state of Georgia. Based on their interpretation of the power relations between state and local government, they successfully lobbied the state legislature to pass House Bill (HB) 1281. From their perspective, the bill shifted the balance

¹ National Weather Service Forecast Office 2008

² Office of Planning and Budget 2005

of power from the local to the state government. In contrast, state and local governments contended that HB 1281 eliminated their flexibility in managing water supplies during times of drought.

BACKGROUND

The allocation of water during drought requires management on multiple scales. ACC's drought management plan is contingent on Georgia's drought management plan and the Upper Oconee Basin Water Authority's (the Authority) drought management plan. The Authority is a consortium managed by the four counties, Athens-Clarke, Oconee, Jackson, and Barrow that depend on Bear Creek Reservoir as their primary or secondary water supply.

Georgia's drought management plan consists of pre-drought mitigative strategies and drought response strategies. The plan outlines the requirements for declaring drought, and the responses to drought. Drought declarations are based on indicators within the nine climatic divisions indicated by the National Oceanic and Atmospheric Administration (NOAA). There are four primary indicators: precipitation, reservoir levels, groundwater levels, and stream flow. Each drought level correlates to outdoor watering restrictions. For example, if a level two drought is declared, water users are allowed to water on an even-odd schedule from 12 midnight to 10 a.m. and from 4 p.m. to 12 midnight. Exceptions are maintained for new landscapes, and commercial uses based on the severity of the drought. Watering restrictions increase in severity as the drought worsen until a level four drought is reached, and an all-outdoor watering ban is enforced.³

The Authority approaches drought management in a different manner. Like the state, the Authority uses environmental triggers to determine a drought's severity. They rely on the Palmer Index, stream flows of the Middle Oconee River, and the level of Bear Creek Reservoir. The Authority does not indicate how participating counties should restrict their water use; instead, they set percent consumption reduction goals in correlation to each declared drought level. Therefore, each county can accommodate the diverse economic and social needs of their constituents.⁴

ACC's drought management plan is implemented during periods of drought "to prevent threats to public health, safety and welfare arising from periods of water shortage and drought and to prevent acts that cause, or can be reasonably expected to cause, harm to limited water resources."⁵ The ordinance prioritizes potable uses

in times of water shortage. Similar to the Authority's, ACC's drought declarations are also based on the Palmer Index, the stream flow of the Middle Oconee River, and the level of Bear Creek Reservoir. All declared levels of drought are associated with a minimum consumption reduction goal. To achieve these consumption goals, there are a series of steps, from A – F that limits outdoor water use. ACC must comply with mandated drought regulations from the state, as well as from the Authority.

ACC began implementing their drought management plan April 18, 2007 when the state declared a level 2 drought in parts of northern Georgia. Through the summer, as drought conditions heightened, ACC implemented progressively more stringent water restrictions. On September 17, 2007, ACC implemented Step E, a total outdoor watering ban. They made the decision to move to a total outdoor watering ban eleven days ahead of the state because they felt the conditions in ACC were severe enough that it was necessary to protect the local water supply. Until May 2008, local water suppliers had to be at least as restrictive as the state government's drought restrictions but they could be more restrictive than the state based on their water supply and demand. Georgia issued a total outdoor watering ban for sixty-one counties within north Georgia on September 28, 2007.

The implementation of the total outdoor watering ban impacted members of the community differently. One group in particular, the members of the green industry, a self-identified business based organization consisting of urban agricultural members, such as nursery retailers, nursery wholesalers, landscapers, and irrigation specialists, were vocal about the effect the implementation of these drought management plans had on their industry. Prior to the 2007 drought, members of the green industry were organized at the state level through the Georgia Green Industry Association (GGIA). In response to the financial hardships they experienced through the implementation of local, regional, and state drought management plans, the green industry in ACC, and the surrounding region, formed a local chapter of GGIA, the Northeast Georgia Chapter of GGIA (NEGAGGIA). By organizing at the local scale, they recognized that it is not necessarily beneficial for people to politically organize at larger scales. Instead, there are benefits to organizing at a larger scale versus a smaller, more localized scale.⁶ Their perception that the majority of the power to manage water during times of drought rested with the local government was one factor that led them to organize at the local level.

The members of the green industry debated whether to form as a local chapter of GGIA or as a new, independent organization. By choosing to form as a local chapter of the statewide GGIA, members of the green

³ Georgia Drought Management Plan 2003

⁴ Upper Oconee Water Authority Drought Contingency Plan 2006

⁵ Drought/Water shortage management plan (DWSMP)2004

⁶ Cox 1998

industry recognized the importance of identifying with the larger, statewide organization that already had resources and political connections. They were able to benefit from GGIA's resources and connections, simultaneously, they were able to focus on issues at the local level. Through GGIA and NEGAGGIA, the members of the green industry responded to state and local drought management plans to protect their economic interests based on their perceptions of who has the political power to implement these policies.

RESEARCH DESIGN AND METHODOLOGY

This research was conducted as part of a larger research project. To answer the empirical questions of this research project, I conducted a single case study with embedded units of analysis to critically examine the interactions between state and local government in the implementation of drought management policies. The methodological approach I used enabled me to build on my theoretical perspective to gain an understanding of how stakeholders can frame questions of political ecology within a scalar framework to directly influence policy decisions.

The case study relied on multiple sources of information and discourses, including archival sources, semi-structured interviews, and observation. Data from multiple sources was triangulated to "address a broader range of historical, attitudinal, and behavioral issues" to construct the validity of the data collected.⁷ Archival data included newspaper articles, state press releases, state and municipal law, executive orders from Governor Perdue's office, and EPD publications.

Throughout the course of my research I observed the interactions and the development of the Northeast Georgia Chapter of the Georgia Green Industry (NEGAGGIA) by attending their monthly meetings. I began my relationship with the NEGAGGIA before they had officially formed. I attended their first meeting, and the subsequent meetings they had from November 2007 through December 2008. I directly observed monthly meetings, collected meeting minutes, group communications via email, and publications the group developed.

I conducted twenty-four semi-structured interviews with state officials, local officials, and members of the green industry. One goal of the interviews was for research participants to express their views on the relationship between state and local governments in the development and implementation of the drought management plans. They were also used to establish power relationships between the entities that contributed to the management of water in times of drought. Interviews were

semi-structured, based on protocols specific to the sphere of policy (state, local, NEGAGGIA). Questions were developed through on-going document analysis and reflected attention to:

- development of state and local drought management plans;
- limitations of the implementation of these plans;
- community impacts of these plans;
- state and local government interactions during the implementation of these plans;
- role the green growers played in influencing the implementation of these plans.

Specific interview questions were developed for state officials, Athens-Clarke County and UOWBA officials and members of the green industry. While I did have prepared questions for the interviews, the semi-structured nature of the interviews allowed for follow-up questions and discussion according to the responses to my prepared questions.

To analyze my data, I drew on critical discourse analysis from a Foucauldian approach. Although I drew on Fairclough's notions of critical discourse analysis with attention to how language influences power through social practices, I did not carry out a linguistic analysis.⁸ Instead, I used critical discourse analysis to gain a better understanding of the power relations between the state and local levels of government, and how stakeholders develop power as a group and use the power relations between the state and local government to their advantage.

DISCUSSION

The multi-scalar regulation of water supplies during drought can lead to difficulties as local water suppliers try to abide by multiple drought management plans, and manage the response of their constituents. Conceptions of scale are not static; instead, they are produced and constructed by economic, social, and cultural factors. Consequently, scale can be altered, reconstructed, or used for political, social, or economic gain. The multi-faceted production of scale, as seen through this processes, must be considered in terms of what Delaney and Leitner state as the "multiplicity of actors whose interests and ideologies may, from time to time, coincide or diverge. Whatever is produced or constructed from these encounters bears the traces of compromise, of multiple contradictions and tensions, of critical ambiguity and of potential instability."⁹ The scale of analysis dictates the problems seen and the desired outcome of different groups.

⁷ Yin 2003: 98

⁸ Fairclough 1995

⁹ Delaney and Leitner 1997: 96

To understand the power relations that exist in water management in Georgia, an understanding of the scalar relationships between state and local governments must be developed. The understanding and interpretation of scalar power relations depends on both conceptions of who has power to implement drought management policies, as well as the scale at which stakeholders choose to participate politically. Depending on people’s point of view, which is inherently influenced by power structures, their social identity, and their relationship to the topic being discussed, their interpretation of the distribution of power may differ. All but three of the state and local government I interviewed agreed that the state had the ultimate power in the implementation of the drought management plans (see table 1). Representative Terry England, the author of HB 1281, was the only member who asserted that local governments had more power than the state. In contrast, all but one but one of the members of the green industry declared that it was the local government that had the authority. This interpretation of who had power to implement the drought management plans had real political impacts on the way that water is managed within Georgia. The green industry’s interpretation is reinforced by the state’s discourse surrounding drought management. For example, October 23, 2007 Governor Sonny Perdue ordered all utilities and permit holders to reduce their water usage by ten percent. This was in addition to the already existing restrictions the sixty-one counties in the level four drought designation were facing. The reductions were implemented November 1, 2007.¹⁰ On February 6, 2008, while attending the Georgia Agribusiness Council’s legislative breakfast, Governor Perdue announced the state would allow limited hand watering, but local water suppliers would still need to meet their ten percent reduction until the declaration expired on March 30, 2008.¹¹ Therefore, local governments were placed in a politically difficult situation where they were under pressure to allow limited hand watering, but they were still required to meet the Governor’s ten percent reduction.

The conception of who has the ultimate power to determine the implementation of drought management policy depends on an individual’s point of view, which is inherently influenced by power structures, their social identity, and their relationship to the topic being discussed. A person’s point of view also contributes to how they interpret these distributions of power. Although the majority of the members of the state and local governments agreed that the state government had the ultimate power to determine the implementation of the drought management policies, they did not necessarily agree with this distribution of power. Many acknowledged that

each local water provider is unique, and therefore, local water providers often know their water systems best. State officials expressed a desire to work closely in partnership with local water suppliers, rather than from a top-down approach. For the ACC officials, knowledge of their water supplies translated into a desire for more power to manage their own water supply. ACC’s water conservation officer expressed a sentiment, common of local officials when he stated,

We’re always bound by the state. That’s a problem. I mean, well, I should say it’s problematic because the state, what they did was [throw] out that blanket statement over all sixty-one counties, and say you should be in a level four drought response, what it takes away is the consideration, there are vast differences between those sixty-one counties.¹²

Table 1. Government officials’ and NEGAGGIA members’ perceptions of the distribution of power to implement drought management plans before and after HB 1281

	Government Officials	Members of NEGAGGIA
Total Interviews	15	9
State government had more power prior to HB 1281	80%	88%
Local government and state have shared power prior to HB 1281	7%	0%
Local government had more power prior to HB 1281	13%	12%
HB 1281 changed the balance of power	0%	88%

He went on to advocate for a more regional approach to water management based on watershed. At the same time, a Georgia Environmental Protection Division (EPD) official interviewed expressed

that one thing the state, by stepping in, has done was it gave cover to a lot of local governments, and a lot of utilities to do something, I mean, from a local, at the local level. It’s very hard to stand up at commission meeting, or board meeting, or council meeting and say, we need to punish ourselves by turning, by making people stop watering their lawns. It’s much

¹⁰ Georgia. October 23, 2007.

¹¹ Georgia. February 6, 2008.

¹² Interview with Steve Dorsh May 29, 2008

easier for the big bad wolf to come in and do that. So, I think, in a lot cases that helps, you know, to give cover to some local governments.¹³

While there are similarities in the sentiments of local and state officials, their political position influences their interpretation of the problem, and their proposed solutions.

In contrast to governmental officials, the members of the green industry in and around ACC overwhelming believed that local government had the power to determine the implementation of drought management policies. In their interpretation in ACC, this allowed, a liberal, anti-business, government, to respond to the drought in a way that negatively, and unfairly impacted their industry. As one grower explained to me, “they’re [state government and ACC government] kinda [sic] at odds with each other . . . it’s a battle, its all a bunch of politicking . . . in my opinion, they don’t care about us, all they care about is their agenda, their power, and being able to flex their muscles.”¹⁴ The members of NEGAGGIA also contended that ACC’s government did not care about their industry. They argued that their voices were not heard by local officials. On NEGAGGIA member stated

They really didn’t want to hear from our group. They basically wished we would go away. They made their decisions on how they were going to handle it, and it was going to be handled with a ban on outdoor watering and it didn’t matter who got hurt. We were the people that were singled out that they could do without; they just cut us off completely. That’s how they did it.¹⁵

In the minds of many in the industry, since the balance of power was towards the local government, if they were not able to influence local policy, then it was necessary to change the balance of power, to put more control in the hands of the state government.

In ACC, the members of the green industry felt they were dealing with a hostile local government, one that did not understand, or respect, the needs of their community. The members of the green industry reacted in two ways. First, they scaled down their organization by forming the local chapter of GGIA, in order to develop a more unified voice at the local level. When this technique proved unsuccessful in their eyes, they began to work with the statewide GGIA to develop legislation to change the balance of power from local control to state control.

During the 2007 Georgia State Legislative Session, HB1281 was introduced by Representative Terry Eng-

land, who, as an owner of a farm supply store, is a member of the green industry. HB 1281’s stated purpose is

to prohibit local government restrictions on outdoor water use during periods of drought that are more restrictive than those imposed by the state without certain approval; to provide that political subdivisions may be exempted from outdoor watering restrictions imposed by the state.¹⁶

Representative England explained that the bill was designed to create a formal mechanism for local water suppliers to appeal to the Georgia EPD if they believe their needs are different from the state. The green industry, which lobbied heavily for the bill, along with members of the Urban Agricultural Council and representative from the swimming pool industry. The members of the green industry believed that the passage of HB 1281 was a way to change the balance of power from local water suppliers to the state government. All but one member of the green industry contended HB 1281 shifted the balance of power from the local government to the state government (see table 1). The exception was the member of the green industry who believed the state already had the power. For him, HB 1281 provided increased oversight of local water suppliers by EPD. While many of the members of the green industry expressed concerns about the bill, they did believe that their industry would benefit from this change.

Local governments opposed the bill and lobbied against it through the Association County Commissioners of Georgia and the Georgia Municipal Association. In ACC, local governmental officials expressed concerned that HB 1281 would limit their ability to respond quickly if they felt that more stringent water restrictions were needed in their community. EPD representatives also expressed opposition to HB 1281. They felt it placed an increased amount of pressure on them without supplying them with additional staff. They are required to return all requests for increasing or decreasing water restrictions within five business days of their submission, this has proved difficult due to the volume of requests that must be reviewed without additional staff to assist in reviewing applications. EPD has attempted to standardize the process to increase the efficiency of the review process, but they are finding that there are many local water suppliers who do not have enough historical water supply and demand data.

¹⁶ Georgia House Bill 1281

¹³ Interview with Tim Cash July 30, 2008

¹⁴ Interview with green industry member August 25, 2008

¹⁵ Interview with green industry member August 18, 2008

CONCLUSION

The passage of HB 1281 has had a real impact on the way water is managed in the state of Georgia. The bill was signed into law in May 2008, therefore, its consequences and impacts are still unknown. Even though the ramifications are unclear, this is an example of how one group's discursive interpretation of the distribution of power within a scalar political arena has had important policy implications. The green industry supported HB 1281 because of their perception that the power to implement drought management policy lay primarily with the local government. They believed they had more influence at the state level; therefore, it was in their best interest to change the balance of power from local water suppliers to the state government.

The green industry's understanding of where power relations were located within the scalar context of drought management led them to rescale their efforts, both to larger and more local scales. Members of the green industry felt local governments held the power to implement drought management policies. With this in mind, they rescaled to a local level through the formation of NEGAGGIA. They kept the prestige and resources associated with GGIA, while the development of the local chapter enabled them to engage directly with their local governments. Through the course of 2007, members of NEGAGGIA felt their voices were not being heard by ACC's government. At this juncture, they jumped scale, this time from the local level to the state level. They used the statewide influence and political clout to pass HB 1281, which in their eyes changed the balance of power from the local government to the state government. In contrast, from the perspective of governmental officials, the bill does nothing but limit their power to effectively manage water in times of drought.

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