From Environmental Movement to Smart Growth Policy
- The Case of Austin, Texas -

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국문요약

본 연구는 미국 텍사스 주 오스틴 시의 환경정책 형성과정에 대한 역사적 고찰을 통해, 환경운동과 환경정책과의 관계를 파악하고 그 역사적 경험에 대한 이해를 목적으로 한다. 특히 가장 최근의 도시 환경정책으로서 "스마트 성장 정책(Smart Growth Initiative)"에 대한 정책분석을 시도한다. 오스틴은 과거 35년 동안 급속한 인구와 경제 발전을 경험하였고, 이러한 과도한 발전에 대한 경험은 오스틴 시민들에게 환경적 인식을 키우는 계기가 되었다. 오스틴 시 정부는 "도시기본계획(Comprehensive Plans)", "분수계 보호 조례(Watershed Protection Ordinance)", 그리고 가장 최근의 "스마트 성장 정책(Smart Growth Initiative)"에 이르기까지 다양한 환경정책 등을 통해 이러한 환경적 문제들에 대처하려고 노력하여 왔다. 본 연구의 결론은 다음과 같다. "환경적 이슈 등이 최근 30년간 오스틴 시의 정책적 우선순위가 되어 왔음에도 불구하고 환경정책 노력들이 시의 제도적인 부분으로 완전히 흡수되는 데에는 실패했다." 이러한 결론은 환경운동과 환경정치적 행위자들의 노력이 환경정책 형성에 있어 중요한 동기를 제공함에도 불구하고 진보적인 도시 환경체제(Progressive Environmental Regime)를 유지하는 데에는 충분하지 않음을 보여준다.

주제어 : 환경운동, 도시기본계획, 스마트 성장, 분수계 보호, 환경정의, 도시정치학

ABSTRACT

This paper explores the history of environmental movements and policymaking in the city of Austin, TX and addresses the most recent element of the city's environmental policy, the Smart Growth Initiative. Austin's intense growth over the last 35 years has increased a growing awareness of environmental impacts by

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humans. The Austin municipal government has tried to adopt environmental measures and various policy initiatives ranging from comprehensive plans to its latest Smart Growth Initiative. The long history of comprehensive planning and watershed protection ordinances indicate that while environmental issues have continually presented as priority issues, it has failed to integrate as a part of the municipal government. This shows that the efforts of political actors have not been sufficient to sustain progressive environmental regimes with environmental issues despite the initial motivation of the state.

Keywords : environmental movements, comprehensive planning, smart growth, watershed protection, environmental justice, urban politics.

I. Introduction

The city of Austin ranks third in population growth and fifth in job growth in a poll of the fastest-growing cities in the United States during the 1990-2000 decade, and is projected to be among the top three cities for population growth throughout the year 2020. The population in the city of Austin, as of October 1, 2005 was 709,238(City of Austin Demographics 2005). The Austin Metropolitan Statistical Area(MSA) nearly tripled in population between 1970 and 1999 to 1,146,050, and is projected to be 2.5 million by the year 2025. The MSA has experienced the largest increase in income within the state of Texas(O'Neill, 2000).

Austin is also on the Sierra Club's list of Five Most Sprawl-Threatened Medium Cities because of its rapid population growth, the amount of open space lost to development, and increased traffic volume and congestion(Austin Green Builder Program 2003). Furthermore, the total mixed-use zoned acreage in Austin is below 1% of the total land area(City of Austin Smart Growth 2004). Austin's relative low cost of living and low cost of setting up businesses have been major contributing factors to the significant growth in high employment in the technology sector. The growth of associated housing and jobs are spreading away from the central city and stretching further and further into Austin's suburbs. Assuming current trends in growth, Williamson County, to the north of Austin, will equal the size of the central city within 25 years(The Rapid Transit Project 2003).

Environmental conflicts have been brewing in Austin since the 1970s. At the time, a growing awareness of environmental impacts by humans coincided with increasing land developments in the Austin area, leading to numerous clashes between land owners and environmentalists. The municipal government responded by adopting a series of policies and regulations to balance land development with environmental protection, appeasing economic interests and protecting the quality of life for Austin's residents. The management of environmental conflict in Austin is very much intertwined within the political structure of the municipal government, being the city state of Texas, it provides the context of federal devolution and relatively balanced powers of stakeholders in politics.

According to Beatley and Manning(1997), with this trend of population, job growth and sprawling development, the city of Austin has prepared and adopted many progressive

environmental programs and policies such as the following: a regional habitat conservation plan; Green Builders Program(indeed the first of its kind in the U.S.); ambitious growth management plan(called Austin Tomorrow Comprehensive Plan); Appliance Energy Program for energy efficient appliances; tree protection ordinances(one of the oldest in the U.S.). Environmentally driven measures, in the face of Austin's intense growth over the last 35 years, have had varying levels of success.

The strong environmental policies in combination with developmental pressures in Austin provides us with an attractive opportunity to explore the city as a typical case in an attempt to understand environmental quality and justice within urban regimes. This paper addresses the past and current environmental issues in Austin, the influence of environmental movements on environmental policy, a descriptive explanation of Austin's environmental policy and programs, and the limitations of environmental movements on the institutionalization of environmental policy.

II. Urban Regime Theory and Method

This paper is written with the perspective of urban regime theory(Molotch, 1976; Stone, Orr and Imbroscio1991; Mollenkopt, 1992) in urban politics which suggests the concept of a "dominant political coalition" that integrates the tradition of structuralists and pluralists's interpretation to provide various examples of urban regimes. According to Mollenkopt(1992), structuralists stress the systematic subordination of state and politics as opposed to capital accumulation and the private market. They study makes theories about the political logic of capital accumulation, social control, or the interplay of accumulation and legitimacy. While they show the cumulative pattern of inequality in the economy and society, economic factors tend to be overemphasized within the role of society (Mollenkopt, 1992, p. 34). Criticizing an elitist view that socioeconomic elites dominate urban politics, pluralists implicitly reject the notion that local politics is subordinated to private economy. They see politics as an autonomous realm and argue that bargaining among a multiplicity of groups define urban power structure. They focus on building a coalition of political leaders and private interests, emphasizing a process of negotiation and mutual accommodation, and giving equal importance to urban development and social

services within urban politics.

But this view does not recognize the possibility that "non-elite elements of the urban population would feel systemically excluded from power and would react by pressing for greater representation and more vigorously redistributive policies" (Mollenkopt, 1992, p.26). In conclusion, while structuralists tend to overemphasize the economic factors in urban politics, pluralists tend to underestimate aspects of economic inequality and status when observing urban politics. This paper attempts to integrate these two approaches, focusing on the possibility of environment movement(or politics)'s importance on urban environmental policy outcomes(pluralist view) and the potential of low-income people's exclusion in the formulation of environmental policy(structuralist view).

Methodologically, this study is a single case study, using qualitative methods such as interviews with stakeholders, historical document reviews and key players' lectures. This case study's goal is to understand the growth and decline of environmental policies in Austin. Historically, this paper starts with the 1970s because of the government's efforts for environmental quality. And after, following sections show various policy initiatives from the municipal government, ranging from watershed protection to the latest Smart Growth Initiative. This single case study provides a historical review about policy adoption related to environmental issues. Considering that a policy process is an open structure that can be changed in the future, this story-telling description can be an effective tool to understand the policy process involved. Through interviews and lectures of key players, this paper focuses on the structure of power, political coalitions, and the limitation of each policy during implementation, by summarizing the history of environmental movements and policymaking in the city, and the most recent element of the city's environmental policy, the Smart Growth Initiative.

III. Emergence of the Environmental Movement in Austin

In the beginning of the 1970s, two companion pieces of proposed policy, the Lake Austin Growth Management plan and the Austin Tomorrow Comprehensive Plan(ATCP) defined environmental policy in Austin. The ATCP(1979) was an overarching document that addressed several key issues regarding the growth and vitality of Austin projected

many years into the future. The projected growth in the Lake Austin area, over a 20-year period, included 35,000 new residents, 14,000 new homes, and 4,000 acres of projected residential land development, excluding non-residential development(City of Austin, 1980).

The ATCP(1979) addressed the land use beyond city limits, acquisition of park lands, and protection of natural areas. Its policies were created through a collaborative effort between lay persons and the City of Austin staff, primarily planners. From 1974 to 1977, there were a series of focus groups that determined the goals of the city from interested persons. These discussions resulted in an Austin Tomorrow Goals Program, which consisted of eight designated topics: Urban Design, Economic Development, Environmental Management, Government and Utility Services, Housing and Neighborhoods, Transportation Systems, and Health and Human Services(City of Austin, 1980, p. 12). Today, after 25 years, the Austin Tomorrow Comprehensive Plan remains as the mandated comprehensive plan:

> The City of Austin is a home-rule city that derives its land use control and development authority from the Texas Constitution. That authority is articulated in the City's Charter, which stipulates that development must conform to a comprehensive plan. Comprehensive plans integrate social, economic and environmental planning into a framework that zoning and subdivision ordinances must conform to. A comprehensive plan's effectiveness will often be judged by the ordinances and rules developed to implement it. The City of Austin's current comprehensive plan, known as the Austin Tomorrow Comprehensive Plan(1979), articulated many of the watershed protection goals that are only now coming to fruition(City of Austin, 2004).

While comprehensive plans offer guidelines and objectives that many would deem to be the best interests for sculpting responsible and environmentally sound growth, they are not binding documents. Instead, they serve merely as tools to determine ways to achieve the "best" growth patterns for equality, environmental preservation and economic prosperity in the city. Some of the objectives outlined in the Austin Tomorrow Comprehensive Plan are important environmental issues addressed during the 1970s that were carried on to other

planning efforts and future ordinances.

The two sections in the ATCP(1979) that directly addressed environmental concerns were Urban Design and Environmental Management. The Urban Design section proposed a set of design goals for developments to follow, the majority of which was related to the physical, aesthetic, and natural aspects of environmental protection. The first goal states that "the development of the urban environment is compatible with the unique natural and constructed features in the Austin area(City of Austin, 1980)." Although clearly about maintaining the aesthetic character and its architectural style of this region in Texas, it also addresses the preservation, maintenance of open space and protection of watersheds. Subsequent objectives and policies parallele this overarching idea, suggesting that development should be compatible with the existing natural environment; that special districts should be established based on unique environmental features, and that visually prominent areas and corridors should comply with a prescribed set of development standards. While some of these goals are conventional tenets of planning, they also show the specific intentions of the Austin community that were expressed in the Lake Austin Growth Management Plan and later, in a number of watershed ordinances.

In terms of environmental management, again, we see some very clear goals, consistent with the values of planning. But some of the suggested implementation is rather telling, in what happened and did not happen in the following years, leading up to the Smart Growth Initiative. The primary goal was to preserve large amounts of open space, particularly in areas referred to as "critical". To do this, development had to be discouraged in areas of environmental and agricultural value. Utility extension and annexation had to give serious weight to environmental value(as well as impact assessments), and the use of tax policies to encourage low intensity and density in high environmental value lands.

Another policy suggested by the ATCP(1979), and later utilized in the Balcones Canyonlands Conservation district and other areas, was the purchase of key pieces of property for preservation before the development community moved into a particular area. Not surprisingly, this policy required significant financial capital to purchase lands and municipal bonds were often used. This was used as a concession to environmental groups and help passing of ordinances and agreements. Other notable objectives were to minimize impacts of activities related to development that were indirectly affecting the environment

(for example, Barton Springs running muddy after the construction began at Barton Creek Mall in the late 1970s) (Arnold, 2004), creating a set of rules that developers had to follow in all new developments, the protection and improvement of water quality in Travis County, and advancements in the collection and disposal of wastewater volumes.

In 1974, just as the Austin Tomorrow Comprehensive Plan process was underway, the City Council authorized the Lake Austin Growth Management Plan(LAGMP) (Wallace, McHarg, Roberts and Todd, 1976). It covered a 92 square mile area encompassing Lake Austin and its tributaries. To cover all of the areas associated with Lake Austin, the plan included extraterritorial jurisdictions of the City of Austin. The plan determined land use, by type and density, for the entire area. The LAGMP was not only meant to be used in the Lake Austin area, but also intended to be a blueprint for future environmental management modeling(City of Austin, 1980). Described as an environmental mapping program prototype, the ATCP(1979) suggested that the LAGMP was a "development suitability factor" for the natural environment:

> In the spring of 1975, the city of Austin initiated a comprehensive study of the 90 square miles Lake Austin Watershed from Tom Miller Dam to Mansfield Dam. The Lake Austin Growth Management Plan recommended management and site planning guidelines based on percent of slope, physiographic features, and development zones. This rather complex package of development guidelines included provisions for the cutting and filling of land, the maximum of clearing and grading, maximum impervious surface ratios, a septic tank licensing system, special building foundation requirements and policies concerning the extension of public facilities. The plan generated a mapping methodology of environmental analysis which can be used at the site plan level, and which should be extended to other areas around Austin(City of Austin, 1980).

Part of the reason why the ATCP(1979) described the LAGMP as a prototype was because it deviated significantly from the conventions of traditional planning. The plan did not count on fixed districts and certainly did not use the outmoded idea of a master plan, which was often not revised for five years or more, making it less useful over time.

Growth Management was adopted instead, which is more oriented toward public policy and performance standards than district mapping(Wallace, McHarg, Roberts and Todd, 1976, p. 1). This provided inherent flexibility because the set boundaries were not key elements and each project could be evaluated with a certain amount of autonomy, allowing for greater flexibility and lower costs for revising plans over time.

The LAGMP divides this large area of land into distinct regions. The Lake Austin Region contains escarpments from the Colorado River, which partially necessitated careful environmental and community planning. According to the LAGMP, the area was to be used almost entirely for public parks and, as a result, the rules of development were extremely stringent, going as far as prohibiting private wastewater systems. The attitude was that "major public investments should not occur unless it improves access to Lake Austin for recreation" (City of Austin, 1976). The Lower Terrace Region is adjacent to the Lake Austin corridor. There was an opportunity for residential development in this region, with its "diverse housing types and densities" (City of Austin, 1976). However, developers paid the price for having access to a windfall of residential development in this area; they were given the responsibility of funding the transportation infrastructures for their developments. This piece of policy speaks to the political and economic effects of Federal devolution which created the climate of making cities "husband what resources can be raised locally" and "placed a premium on local public management skills" (Eisinger, 1998). It also addresses the idea that:

> In a progressive political climate, however, strategic or growth management processes can be mechanisms to accommodate private development while ensuring long-term community benefits through targeted programs or public amenities that are financed in part by private-sector contributions based on the impact of commercial development(Turner, 1992).

While this does not quite fall in line with what is happening in Austin, as fiscal concerns far outweigh social concerns, it is consistent with the private sector having to contribute improvements for the general public's interests(more roads, more access, all acquired without the tax dollars of citizens) and with the overarching shift of urban politics

dealing more with management than social and racial agendas(Eisinger, 1998).

In the 1970s, tangible results and the successful implementation of environmental policies in Austin did not occur. As stated, the Austin Tomorrow Comprehensive plan was an effective way to tease out the concerns of Austin citizens, especially in terms of growing responsibly and conservatively. However, there was never a plan to implement any of the objectives or policies. Some items on the agenda were successfully carried out, recycling being at the forefront. But if anything, there were no major systematic results (Arnold, 2004). However, these efforts were successful in putting environmental concerns more evident on city agendas and it encouraged certain parts of the environmental community(public and private) to become more organized. The Environmental Progress Report, which outlines developments from 1975 to 1981, discusses what happened during this time period. The following exemplifies some of the changes seen municipally:

> In response to ATCP, water and wastewater department is preparing a master plan for its distribution and collection systems. The intent is to apply the sensitive design methods learned on individual projects to the broad scope of a water and wastewater master plan and to allow sensitive response to the impact of growth on the quality of life in Austin...Water and Wastewater Department Projects are reviewed for environmental impact by the office of Environmental Resource Management(The Environmental Progress Report, 1975-81).

The agenda and development pressures of the 1970s set the stage for significant watershed protection movements of the 1980s. In 1974, the development of the Barton Creek Country Club and the Estates of Barton Creek, along with a proposal for a bridge to span Town Lake to South Austin, triggered a significant change in development patterns and encroachment into socially and environmentally critical areas(Austin Chronicle staff, 2002). This was followed by the controversial Circle C Ranch development in 1982. After this point, ordinances and wariness of residents and the environmental community increased, specifically with regard to the activities of land developers in Austin.

In terms of policy proposal, Austin Plan and the Town Lake Plan were the two major documents of the 1980s. The Austin Plan, another attempt at comprehensive planning, did

not advance much from the ideas of the ATCP(1979). However, the planners of the Austin Plan did not attempt to include as many individual citizens as the ATCP(1979). Business was more of a concern, as economics is certainly more tangible and influential than the wants and desires of a citizenship. However, this was the last major attempt at developing a comprehensive plan and it foreshadowed a move away from this method of planning.

> Austin Plan, completed in 1988, was the last major effort at comprehensive planning. Prior to 1995-96, this division was able to undertake limited studies such as the RM 2222, scenic arterial review, and traffic demand modeling. Current activities include Austin Metropolitan Area Transportation planning, development of Annexation Plan, and publication of Growth Watch. This division functions as an information resource related to development. In 1996-97, Council approved the Neighborhood Planning, Long Range Planning and the Street Classification Initiatives. Funding is included in the 1997-98 proposed budget to annualize these programs. No additional funding is included for Long Range Comprehensive Planning(City of Austin, 2004).

The Town Lake Park Comprehensive Plan was not as environmentally focused as some of the other projects discussed. By the virtue of its being open space preservation and for recreational use, some environmental issues were only implicitly addressed. What is more important about this plan is the significance placed on issues of public outdoor space for Austinites and the value of yet another body of water, Town Lake.

The 1980s included the repackaging and downfall of comprehensive planning. However, the environmental agenda was not sidelined by this shift in policy direction. Instead, environmental concerns shifted to creating new city ordinances.

IV. The Rise of Watershed Protection Issues in the 1980s and 1990s

Beginning in the late 1970s, the Austin City Council passed a number of watershed protection ordinances. The growing concern over watershed protection issues was due to

an increased understanding of the fragile Edwards Aquifer, located underneath a portion of the city, and the growing impacts on water quality due to new developments. The rise of watershed protection as a priority environmental issue marked a shift in environmental politics from being dominated by comprehensive planning efforts such as the ATCP(1979) to watershed protection ordinances. These ordinances defined the political atmosphere of Austin throughout the decade and solidifies watershed protection as the key political issue that continues to this day. The progression of watershed ordinances is summarized in **Table 1**.

<Table 1> Summary of Watershed Ordinances in the City of Austin, 1980 to 1991(Butler, 2004)

1980	*The Lake Austin Watershed Ordinance* City of Austin's first major attempt to address water quality degradation in the face of increasing urbanization Key features of the ordinance include: - impervious slope-based cover limits of up to 30 percent; later raised to a maximum of 80 percent with transfers - provisions for water quality and quantity structural controls when minimum ordinance standards are not fufiled - a requirement for an erosion /sedimentation control plan prior to subdivision application approval. One should note that every ordinance discussed hereafter makes provisions for an erosion/sedimentation control plan. The LAWO did not require stream setbacks or buffer zones. The ordinance did, however, prohibit building sites within a 100-year floodplain of any creek or tributary in the watershed.
1980	*The Barton Creek Watershed Ordinance* Represents a significant departure from the Lake Austin Watershed Ordinance. Key features: - impervious cover limits capped at 35 percent for commercial and multi-family development - the use of density limits that vary with the location of development. BCWO does not require water control structures, nor did it provide a mechanism

whereby an applicant could increase impervious cover, using alternate methods. This ordinance relies entirely on non-structural water quality controls and introduces stream set-back requirements that create five water quality zones with enumerated development restrictions for each one. The ordinance also provides incentives(increased density) for the transfer of development rights that includes the conveyance of land in the critical water quality zone, for water quality protection, to the City as parkland.

1980 The Williamson Creek Watershed Ordinance

- applies to the part of Williamson Creek crossing the recharge zone; passed in December 1980.

- includes a requirement for storm water treatment, which is a departure from previous ordinances.

Key features of the ordinance included:

- impervious cover limits for single- and two-family homes of 40 percent and limits of up to 65 percent for commercial and multi-family developments

- uses stream setbacks based on our present concept of major, intermediate and minor waterways

- includes a critical water quality zone that was to remain free of all but certain types of development.

1981 The Lower Watersheds Ordinance

Extends water quality protection into the Slaughter, Bear, Little Bear and Onion Creek watersheds. The LWO resembles the WCWO in many ways, except that it:

- reduces impervious cover allowances for commercial development down to 40 percent and 55 percent with transfers and, for residential development, reduces it to 30 percent and 40 percent with transfers.

- introduces a water quality buffer zone, and sets impervious cover limits of up to 18 percent and 15 percent, respectively, for single-family and commercial development in this zone.

1986 The Comprehensive Watersheds Ordinance

This ordinance was passed to make existing ordinances consistent and introduced limits for impervious cover. It superseded previous watershed ordinances and extended water quality protection throughout the City of Austin's planning area to all but the urban watersheds. While similar in some respects to its predecessors, the CWO contains a number of significant innovations.

	Key Features: - for the first time, watersheds that do not provide a portion of our drinking water received significant water quality protection. - used net site area(NSA) cover calculations instead of calculations based on gross site area(GSA). GSA includes the entire site, while NSA's requirements include only a site's buildable areas and can reduce overall impervious cover. - designates critical environmental features and provisions for their protection. - organizes watersheds into groups based on their relationship to 1) the City's water supply, in particular Lake Austin, 2) the Barton Springs Edwards Aquifer recharge zone and to some extent the Northern Edwards Aquifer and to 3) the degree of urbanization within a watershed, i.e. urban, suburban or rural.
1991	Urban Watersheds Ordinance Urban watershed protection was incorporated via its amendment into the LDC in 1991. - did not place impervious cover limits on new development, but does require water quality control structures to treat storm water runoff - allows for fee-in-lieu of payments instead of building water quality control structures when approved by the Director of the Watershed Protection Department - establishes critical water quality zones with their attendant development restrictions in watersheds outside of the central business district.

While all of the watershed ordinances in the 1980s had significant implications for future land development in Austin, undoubtedly, the most important ordinance passed in 1992, Save Our Springs(SOS) Ordinance was adopted by the City Council. This ordinance differed from its predecessors because it became law through citizen initiative. Two ordinances worth noting preceded the SOS Ordinance: the Interim and Composite Ordinances. These ordinances addressed developments in the Barton Springs Zone, which includes Barton Creek and the other creeks draining to, or crossing, the Edwards Aquifer recharge zone. Highlights of these ordinances included: the first requirements for non-degradation(based on stormwater discharge concentrations) and provisions that excluded variances unless a demonstrable improvement in water quality was shown. Variances, which made departures from an ordinance permissible, were a general feature of watershed ordinances up until the present. Three stakeholder groups were the majority of players in

this watershed protection policy. Environmental advocates include citizens, neighborhood groups, and environmental groups. The Save Our Springs(SOS) Alliance is the most prominent of these organizations to represent environmental interests. The organization is a grassroots environmental group with an aggressive stance on protecting watersheds. Their birth was triggered by the Freeport HUD, which sought to develop 4000 acres along Barton Creek. Its development would have accompanied a requirement for the city to extend wastewater lines for houses and apartment buildings. The Freeport PUD deal was presented before the Austin City Council on June 7th, 1990 and while it was thought that it would pass with ease and 700 citizens showed up to speak out against the PUD. This legendary hearing lasted throughout the night and the city council members voted against the PUD 7-0(SOS Alliance, 2004).

A longtime Austin resident and a co-founder of SOS Alliance, Mary Arnold, understand that it took a powerful coalition of students, the business community, and "old Austin" residents in addition to environmentalists to get the city council on board. "You've got to have a broad community consensus that the council will respect," Arnold said. "The all-night public hearing was really the citizens taking charge and saying, 'we're not going to put up with this anymore.' It was very energizing" (Arnold, 2004). Developments encompass the interests of landholders and private developers such as Gary Bradley and Jim Bob Moffett. Many of the battles over watershed protection were fought between the aforementioned environmental stakeholders and development interests regarding particular properties, especially in Southwest Austin. The municipal government played the role of moderator between these two groups, trying to forge city policies that would protect the environment while allowing for the development of private property.

The watershed issue and the work of the SOS Alliance galvanized strong public support and on August 8, 1992, voters approved the SOS Ordinance by nearly a 2 to 1 majority. Since that time, candidates with strong opposition from environmentalists have won four council races while losing 18(Scheibal, 2002). Thus, the passing of the SOS Ordinance was a significant victory for environmental advocates in Austin and set a precedent that environmental issues should be a top agenda item for the foreseeable future.

The SOS Ordinance, applied throughout the Barton Springs Zone, required non-degradation of waterways and stringent impervious cover limits(City of Austin, 2004). The

ordinance limits the amount of impervious cover that may be placed on property in the Barton Springs watershed from between 15 and 25 percent(SOS Alliance. 2004). Since 1992, such measures have been under siege from developers seeking legal loopholes and "Austin-bashing" legislation aimed at weakening the city's power to limit development and protect regional water sources. Passed in 1999, House Bill 1704 allowed developers to build under certain rules along with the submission of building plans, effectively "grandfathering" property about to fall under more stringent developmental rules before building began. Many building plans were rushed through processing before the SOS Ordinance took effect, and much of this grandfathered property is under the possession of Stratus Properties and Circle C Ranch developer Gary Bradley(Scheibal, 2002).

V. Habitat Conservation Activities

In addition to regulating watershed protection, this period in Austin is also marked by the purchasing of land for conservation. The Balcones Canyonlands Habitat Conservation Plan(BCHCP) was conceived in the fall of 1988, to ensure protection of animals and endangered species under the federal Endangered Species Act of 1973(ESA), while still allowing development to take place. It affected all of Travis county, southern Williamson county, southeastern Burnet county, and parts of Hays and Bastrop county in the ETJ in the City of Austin. There was a discrepancy between the urgency of the endangered species issue(as many animals were determined to be in danger of extinction) and impending development and expansion into western Travis County. Several projects, such as the 3M facility expansion, road improvement projects, and wastewater treatment facilities, had to be stopped or delayed in order to reconcile ESA requirements which called for permits when endangered species were impacted, either directly or indirectly. In addition to federal intervention, the city of Austin proposed an ordinance to "specifically protect endangered species in its corporate and extraterritorial jurisdictions by limiting land development.."

A regime was formed in a "climate of controversy and competing interests" in order to find a solution to benefit all parties, which eventually became the BCHCP (Butler/EH&A Team, 1990). The plan essentially forced the inclusion of a comprehensive habitat conservation plan with every application for a Section 10a permit. The deal

provided certainty to the development community as to the areas that would be available for development. It also required approval on a regional level, instead of a federal level, which eliminated a great deal of the time for administration, in addition to the weariness involved in the approval process. The environmentalists received large parcels of land specifically for the preservation of endangered species, instead of tiny fragments of land over the entire region. The plan also touted its ability to satisfy the community by balancing economic viability of the region with the cautious approach needed to maintain environmental equilibrium and biodiversity.

VI. Environmental Justice, a Second Political Discourse

While watershed protection and general concerns about water quality are clearly the most prominent form of environmental discourse in Austin, a second discourse has also been circulating since the 1970s: Environmental Justice. As opposed to watershed protection activities in Austin, environmental justice advocates have been fighting to make East Austin a safer and healthier place by combating undesirable land uses, particularly by industrial owners. Environmental justice organizations, most notably People Organized in the Defense of Earth and her Resources(PODER) and El Concilio, have continually petitioned the city government on a number of issues.

East Austin is the historic core of minority populations in Austin. The 1928 City Plan of Austin included measures to formally designate East Austin as the center for minority populations and also as the desired location for unwanted land uses – power plants, chemical storage facilities, and other hazardous industries(Koch and Fowler Consulting Engineers, 1928). The zoning regulations adopted in the 1928 City Plan allowed for industrial uses to be cited next to residential areas, creating the potential for future land use conflicts between neighboring property owners. The activities of environmental justice advocates in East Austin have been correcting this injustice perpetuated over the past eight decades by removing undesirable land uses from East Austin and changing zoning properties to be more resident-friendly. Most of the activities of environmental justice activism in East Austin have been on a case-by-case basis, but the overall intent is to reduce the perceived unfair share of environmental burden that East Austin residents

continue to carry. Examples of prominent environmental justice initiatives in East Austin include the Holly Power Plant, the BFI Recycling Plant, and the Austin Tank Farm.

The Holly Power Plant, built in the 1960s, became a political issue in the 1990s when East Austin residents petitioned the City of Austin to reduce environmental impacts associated with the property. In particular, residents were concerned not only about the noise pollution emanating from the property but also the health and safety hazards posed by having a power plant in a residential neighborhood(Briseno, 1999, p. 61). The City responded by soundproofing the plant and making it fire resistant. The City has also promised to close the plant but has since changed the closing date and the phase-out plan several times(Almanza, 2004).

The BFI Recycling Facility, also located in East Austin, has come under scrutiny by East Austin residents for safety and aesthetic concerns. The property is associated with high levels of truck traffic, blowing garbage that impacts the neighboring residences, along with the continual threat of fires at the plant. Petitions by neighborhood residents to the City has resulted in a rezoning of the property to an office classification with a future potential to move the plant elsewhere(Briseno, 1999, p. 62).

The Austin Tank Farm was protested by East Austin residents in 1992 because of the perceived health threats that the property caused. The property consisted of 30 above-ground storage tanks holding gasoline(Briseno, 1999, p. 63). The protests of the residents were successful in closing down the plant and plans are now currently underway to redevelop the property as a mixed-use development. The issue of better sewage management, alternative methods of collection and treatment, in all areas of Travis county is mentioned, as well as the controversial issue of locating landfills "properly", with only the most sound design and disposal methods. The issue of sewage and landfills is a useful issue to highlight the reality of "dumping" unsavory electric and treatment plants, landfills, and toxins in East Austin communities. While this issue has been discussed in documents (theoretical in nature) as early as the Austin Tomorrow Comprehensive Plan, it is still absent from major agendas of the environmental community and City of Austin.

It is important to note that the different ways the city has approached environmental issues in East Austin as opposed to West Austin. The watershed protection ordinances were presented as formal and proactive solutions intended to satisfy watershed protection

advocates or their development opponents. Conversely, the Holly Power Plant, BFI Recycling Facility, and Austin Tank Farm issues in East Austin were reactions by the City which focused on a specific issue. While there has been some zoning progress, much of the activity in East Austin has been crisis-oriented without forward planning(Apple, 2003). This suggests that environmental discourses are handled differently depending on the stakeholders involved. Environmental justice issues should address that areas with low income or minority people experience more environmental disadvantages or hazards than areas with rich or white people.

VII. The Smart Growth Initiative

The Smart Growth Initiative was an effort to combine the issues of city sprawl. Watershed protection was its main environmental issue and represented a compromise between growth and environmental concerns. From an environmental perspective, the Smart Growth Initiative presented an alternative to the sprawl-type of growth that began to occur in Austin in the 1970s with the emergence of the high-tech industry. The initiative was an attempt by the City of Austin to restrict new developments in environmentally sensitive areas and direct regional population growth to the urban core and surrounding neighborhoods. The Smart Growth Initiative is a combination of Transit Oriented Development(TOD) techniques that emphasize connectivity of urban residents and Traditional Neighborhood Development(TND) strategies that are intended to create more livable urban environments. Overall, the initiative strives to balance the protection of the natural environment with economic development to create a more livable environment.

The Smart Growth Initiative is founded on three goals. These goals mirror the three E's of the sustainability triangle: environment, economics, and equity. The first goal, *determining how and where to grow*, has the greatest of all environmental implications. It explicitly calls for avoiding new developments in sensitive watershed areas in Southwest Austin and instead, concentrates development in previously developed areas including downtown, urban core, and surrounding neighborhoods. In addition to its geographical focus, the goal also specifies how growth should be accommodated. This is more in line with planning and urban design, attempting to look at the multi-faceted solutions to growth.

The second goal, *improving quality of life*, is more focused socially and involves improving the urban environment of Austin residents as well as preserving the natural environments for the residents to enjoy. In the urban environments, the focus is on TND principles that create dense, mixed-use neighborhoods serviced by alternative forms of transportation. In the natural environment, improving the quality of life means providing access to environmental preserves and making them publicly accessible. The third and final goal, *enhancing our taxbase*, is economically oriented and frames urban growth, not as a detriment to the community, but as an opportunity to strengthen the community financially. The concept is that good growth will benefit residents through a more stable and robust tax revenue.

While each of the goals is aimed at protecting water quality in the region, they also have their own unique implications. The first and second goals are intended to protect the health of human populations and non-human populations, respectively. The third goal, to protect Barton Springs, is intended to protect an historic recreational area in Austin as well as the Barton Springs Salamander, an endangered species that resides in the Barton Springs Pool. The fourth goal, to prevent building on steep slopes, is more specifically aimed at smaller geographic areas that are unsuitable for building. Building on these slopes would increase erosion and producing adverse impacts on water quality but may also be perceived as a public safety measure.

The Smart Growth Initiative divides Austin into two distinct development regions. The Drinking Water Protection Zone(DWPZ) is the area where the City has deemed development to be undesirable due to the sensitive aquifers underlying the area. The DWPZ includes about one-third of the city. The goals in the DWPZ include protecting the drinking water supply of the city, protecting endangered species in the area, protecting Barton Springs, and preventing building on unsuitable land areas such as those with steep slopes(City of Austin Smart Growth Program, 2004).

The Smart Growth Program consists of ten major programs in the City of Austin(see **Table 2**) (City of Austin Smart Growth Program, 2004). Each of the programs has elements of environmental protection in their goals to a greater or lesser extent. Those programs with the greatest environmental implications include Open Space Preservation, Sustainable Communities Initiative, and Green Building programs.

<Table 2> Programs of the Smart Growth Initiative

Neighborhood Planning	Corridor Planning
Infill & Redevelopment Amendments	Robert Mueller Airport Redevelopment
Downtown Redevelopment Program	Traditional Neighborhood Development
Open Space Preservation	Sustainable Communities Initiative
Smart Growth Incentive Programs	Green Builder

One of the most publicized aspects of the Smart Growth Initiative was the Smart Growth Matrix. The matrix is a tool designed to assist the City Council when analyzing development proposals within the Desired Development Zone(DDZ) with respect to each of the programs in the Smart Growth Initiative. The matrix provides points in three smart growth zones: downtown, urban core, and the neighborhoods within the DDZ. Points are allocated in the matrix depending on a number of measures congruent with the Smart Growth Program including: transportation, economic development, urban design, and environmental protection. A project can gain points based on its proximity to bus or proposed light rail stops. In the land-use category, projects with a mix of residential uses, retail and commercial earn the highest number of points. Some decision criteria includes: the amount of window space at street level, and the compatibility of building height and massing with adjacent facades, drive-through facilities(developments without drive-through facilities will earn a few extra points), building setbacks, pedestrian comfort in the streetscape, bicycle access and amenities, structured parking, and affordable housing. It is designed to measure how well a development project meets the City's Smart Growth goals noted above.

1. Water Quality and the Smart Growth Initiative

The goal of discouraging development in the DWPZ is to shift development away from environmentally sensitive areas and toward areas that can accommodate development. This is congruent with the City's activities of purchasing lands in sensitive areas for conservation purposes, such as the Balcones Canyonlands, but is in stark contrast to watershed protection measures such as the S.O.S. Ordinance which require a change in

development practices. Essentially, the Smart Growth Initiative and various environmental ordinances were developed with the intention of moving development to different areas, but the two programs employ different approaches. The S.O.S. Ordinance has a number of requirements that must be fulfilled while the Smart Growth Initiative offers incentives to develop elsewhere. This difference in the carrot versus stick approach can be traced back to the authors of each of these documents. The S.O.S. Ordinance was written by environmentalists reacting to the development above aquifers while the Smart Growth Initiative was written by the City with economic goals. While the approaches of both differ significantly, they are intended to reduce water quality impacts in sensitive aquifer regions.

Incentives offered through the Smart Growth programs were successful in directing a handful of new buildings away from the environmentally sensitive areas of West Austin and relocating them to the heart of the urban core. CSC was considering a site in Southwest Austin until the city offered to lease the company three downtown blocks for $11.9 million along with $20 million in incentives and utility improvements. The high-tech firm ended up building on only two of the blocks flanking the new city hall, still under construction (Austin American Statesman staff. 2002). In 2000, the city also successfully urged Dell Computer Corporation to reconsider an office relocation that would have placed an 80,000 square foot facility in the DWPZ(Cocks, 2000). The Intel Corporation was offered $10.4 million in incentives to make a downtown home for its chip manufacturing facility, which was little more than a concrete skeleton when the project was suspended (Austin Chronicle staff. 2001). Motorola, Tivoli Systems Inc., and Vignette, has also received Smart Growth incentives to avoid sensitive watersheds.

Environmental activist Mary Arnold believes that Smart Growth policies under Mayor Kirk Watson to be a success, in terms of keeping some developments out of the watershed area and encouraging them to locate downtown instead. However, even after Smart Growth's inception in Austin, problems with developers building over the watershed continued as many other new developments went up without even complying with the Save Our Springs Ordinance(Arnold, 2004). Thus, the application of Smart Growth programs was a successful on a few projects, but overall, it has been unable to create a large impact on shifting developments from the DWPZ to the DDZ.

2. Environmental Justice and the Smart Growth Initiative

If Smart Growth discourages new development above sensitive watersheds to the west, it cannot all be possibly absorbed in downtown. The other half of the plan – perhaps more difficult than waving development away from the west side – is to direct more of Austin's growth to East Austin. Residents have viewed the plan with hope for economic development, but it was tempered with skepticism developed after years of planning efforts were dumped, the least desirable side-effects of growth going to their side of town with little input from those who were forced to live with it. Moving development away from the DWPZ meant that it would have to go someplace else. The other two-thirds of the city was designated as the Desired Development Zone(DDZ), where development was encouraged because it already exists(particularly in the downtown and urban core areas) and does not impact sensitive aquifers. The Smart Growth Program has designated the DDZ as the area where the City desires to see the majority of developments occurring. The target areas for development in the DDZ are downtown and infill areas in the urban core. The focus on the DDZ is to concentrate development in areas already established. There is also a significant focus on transportation access. All of the programs in the Smart Growth Initiative, except for the Smart Housing Program, only apply to developments within the DDZ.

The Smart Growth was not perceived as a positive program for East Austin residents. It posed the threat of increased property values, faster gentrification, and the ouster of existing residents. From the perspective of East Austin community members, Smart Growth failed to address the needs of East Austinites, particularly in terms of affordable housing and job training. This lack of a focus on social services suggests a failure to address the issue of equity(Briseno, 1999. p. 81). PODER's Suzana Almanza likens the Smart Growth Initiative to the Urban Renewal programs of the 1950s and 1960s that dislocated masses of minority and low-income residents in U.S. cities(Almanza, 2004). Almanza's point is that the Smart Growth Initiative does not take into account the needs of the East Austin population but instead sees this area as ripe for redevelopment.

VIII. Discussion

Overall, the Smart Growth Initiative made modest gains in protecting the environment from development. This can be partially attributed to the short time period that the Smart Growth Initiative has been promoted by the City of Austin, or also the program contents of the initiative. The promotion of density for the urban core has the potential to create a metropolitan area that preserves open areas outside of the city from development. It also creates an urban core that can operate with less reliance on automobiles for transportation. Perhaps the most compelling aspect of the Smart Growth program from an environmental perspective is that it has the potential to reduce automobile traffic, which is the primary cause of ozone pollution. A persistent problem in Austin has been the threat of being listed as a Non-Attainment Area by the U.S. EPA under the Clean Air Act(Sheldon, 2000). Compliance with the Clean Air Act could cost millions of dollars if the City is deemed to be a non-attainment area. This would almost certainly hamper the ability for the City to attract new industries because they would have to adhere to very high air emissions standards. Currently, the City has Ozone Action Days where citizens are asked to voluntarily change their routines to produce less ground-level ozone. These actions include using automobiles more diligently or not at all. The Smart Growth Program could have an impact in this area by reducing automobile use and thus, making it easier for Austin to stay within the Clean Air Act ground-level ozone limits.

However, the main thrust of the Smart Growth Initiative appears to be economic development and not environmental protection. This is perhaps due to an inability of policymakers in the City to enforce environmental laws such as the SOS Ordinance. Instead, political actors are trying to find compromises that won't rile the development community into going to the State Legislature. Although the Smart Growth Initiative seems to be a win-win situation for business interests and environmental groups, some people see it as a zero sum game. Mayor Will Wynn said, "You had people who were opposed to growth blaming Smart Growth and you had people opposed to government intervention blaming Smart Growth(American-Statesman, 2003)." The current picture shows that business usually wins the war between both groups. Recently, the City Council replaced the Smart Growth Initiative with a far more extensive economic development policy that

will, in part, allow for incentive packages larger than could ever be awarded under Smart Growth.

One of the reasons for the failure of the Smart Growth Initiative to achieve any tangible environmental gains is that environmentalism has not been institutionalized in Austin. Instead, we have a see-saw effect of developers and environmentalists going back and forth on the issue of environmental protection and how it will affect urban development. The long history of comprehensive planning and watershed protection ordinances indicates that while environmental issues are continually a top priority in Austin, it has failed to become an accepted part of the municipal government. Similar to Chicago's experience with social mobilizations in the 1980s, which illustrates that the efforts of political actors were not sufficient to sustain progressive regimes of social equity despite providing the initial motivation, so is the City of Austin with environmental issues. Austin has a different political structure than Chicago, particularly Austin's weak mayor system. While there is a progressive middle class that is vocal concerning environmental interests, there is the common experience with Chicago that a progressive regime is difficult to sustain. Both cities share a problem of institutionalization. Insufficient efforts for institutionalizing and securing the progressive regime(neighborhood interests in Chicago and environmental interests in Austin) may explain the situation where urban politics tend to exclude progressive interests.

It is interesting to note that despite the similarities between the environmental discourses in Austin, there has been little crossover and cooperation. The environmental justice issues of East Austin and the watershed protection issues in West Austin are both aimed at protecting and improving the quality of life of citizens. Yet, there is little support for the other group's initiatives. When PODER supported the SOS Initiative in 1992, they received a great deal of criticism from their constituents, as the initiative was seen as a white issue with little relation to East Austin's environmental problems(Almanza, 2004). The SOS Initiative, as well as the various activities in East Austin, had the potential to gather different environmental groups under a similar cause, but cultural, political, and social differences between the groups prevented a united environmental voice from emerging. The Smart Growth Initiative may have worsened the situation by instituting a city policy that favored watershed protection advocates, at the expense of environmental justice interests.

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