Water Service Policy as a Growth Management Technique: Experiences in the Denver Metro Area

by

Matthew Lee White
B.S.M.E. Rensselaer Polytechnic Institute (1968)
M.B.A. Harvard Business School (1975)

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and Planning
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Certified by _____
Lawrence Susskind
Thesis Supervisor

Accepted by _____
Chairman, Langley Keyes, Departmental
Graduate Committee

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ABSTRACT

The urban planning literature was reviewed to determine the extent of use of water service policy in growth management cases. It was found to play an integral part of the growth management systems in several cities and counties. On the basis of these experiences, their related court tests, and the general planning literature, the author formulated six prerequisites for the successful use of water service policy as a growth management tool. These are as follows:

1) the water service agency must be geographically congruent with the area in which growth is occurring,

2) a comprehensive plan to guide water service extensions should be available,

3) water service policy should be only one element in a growth management system,

4) unconstitutionally exclusionary outcomes must not be fostered when water service policy is a part of a growth management system,

5) the water service agency must be accountable to a body politic, representative of it, and perceived to have legitimacy to participate in a growth management system, and

6) the utility law of the relevant state must permit water service policy to be utilized for non-utility purposes such as growth management.

The history of the Denver Water Board since 1950 is examined to determine whether it could have served as an active participant in a growth management system for the Denver metro area had one existed. While it was found that the Denver Water Board has had significant influence on some of the spatial distribution of growth in the Denver metro area, it was by no means the sole actor in accommodating growth. It was found that when the Denver Water Board decided not to provide service to large development projects in suburban areas, it was often the case that investments were made by non-Denver Water Board water supply agencies to serve this growth. It was also found that the Denver Water Board's structure did not meet some of the other criteria developed in the first chapter to qualify it as an effective candidate for participation in a growth management system.

A speculative design for a successor to the Denver Water Board and other suburban Denver water supply agencies was proposed. A new entity, a metro water agency, was outlined which would meet the criteria for an effective water service agency and participant in a growth management system. It's urban planning role was defined as an agency to assist local governments direct the location, quality, and timing of growth. It was not designed to curb aggregate metro growth.

Thesis Supervisor: Dr. Lawrence Susskind

Title: Associate Professor of Urban Studies and Planning

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CHAPTER 1

WATER SERVICE POLICY AS A GROWTH MANAGEMENT TECHNIQUE

"Extension of utility service is an important tool for controlling the location and timing of development in a rational, coherent, and efficient fashion."[1]

Barbara Ramsey
Urban Planning Attorney

"It's like the tail wagging the dog. It's kind of ludicrous to try to obtain the control of other aspects of our society by controlling water or wastewater facilities. It doesn't seem to be a rational approach."[2]

John Parkhurst
General Manager
Los Angeles Sanitation District

These statements reflect divergent views regarding water service policy as an urban growth management technique. On one hand urban planners consider water service and the denial thereof to be a valid, effective tool to achieving various urban growth management objectives. On the other hand utility experts say, "It is not for the utility to determine what the future is going to be. To prohibit the expansion of a water supply system to try to slow down growth--we don't think this is proper."[3]

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[1] Barbara Ramsey, "Utility Extensions:Timing and Location Control," Management and Control of Growth, Edited by Randall Scott, Urban Land Institute, Washington, D.C., 1975, Vol. 2, p. 448.

[2] William Forestell, "Should Water Utilities Control Growth?", Management and Control of Growth, op. cit., Vol. 2, p. 458.

[3] Ibid.

This chapter examines the role of water service policy as a means to influence the location and timing of development, i.e., as a growth management technique. First, from a general perspective urban water service policy is discussed as one of a large number of growth management tools. Second, five case histories are presented where communities have used capital facilities planning and in some instances water service policy in a growth management system. Third, conclusions are drawn from these cases and the planning literature justifying six criteria necessary to effectively utilize water service policy as a growth management technique.

The information in this chapter is contextual for the succeeding chapters. Chapter 2 examines the role of the Denver Water Board in the growth of the Denver metro area since 1950. The six criteria developed in this chapter are applied to the Denver Water Board to establish whether it could serve as an effective participant in a growth management system.

WATER SERVICE POLICY IN RELATIONSHIP TO OTHER GROWTH MANAGEMENT TECHNIQUES

In a 1974 National Science Foundation supported report Robert Einsweiler and others prepared a comprehensive list of 57 specific techniques available for utilization in what they called municipal growth guidance systems. They further grouped these techniques into 18 categories which are listed below. "The techniques are listed in a general order from

most permanent to most easily changed, from highest to lowest degree of intervention in the market, and from most powerful to least powerful."[4]

1. Public Acquisition - This includes fee simple acquisition, land banking, compensable regulation, and less than fee simple acquisition.
2. Public Improvements - This refers to availability of necessary facilities essential for development such as water and sewer service and access to roads and highways.
3. Environmental Controls - Pollution controls, wetland controls, and critical area regulations.
4. Development Rights Transfer
5. Restrictive Covenants
6. Zoning Techniques - This category includes conventional zoning, PUD regulation, and performance zoning.
7. Subdivision Regulation
8. Regulation for Permanent Population Control - Agricultural zoning, height restrictions, etc.
9. Controls Relating to Adequacy of Off-Site Facilities
10. Exactions - This includes dedication of land or capital facilities and low-income housing requirements.

[4] Robert Einsweiler, et. al., "Comparative Descriptions of Selected Municipal Growth Guidance Systems," Management and Control of Growth, op. cit., Vol. 2, p. 290.

11. Tax and Fee Systems - Preferential taxation, development districts, and special assessments.
12. Annexation
13. Official Mapping
14. Capital Programming Process - This is the timed allocation of public investments.
15. Official Plans
16. Geographic Restraints - Urban service areas
17. Numerical Restraints or Quotas - Population caps, annual permits, fair share allocations.
18. Other Planning and Management Techniques - Moratoria, Environmental Impact Assessment, Information and Education.

It is no surprise that land acquisition techniques and availability of public services rank at the top of the list. These relate to the fundamental requirements for development to proceed, that is, land itself and service to that land by water, sewer, and transportation improvements. All the other elements of growth guidance systems are moot if land is not available for development or the essential elements of human survival and mobility are absent. The factors of land ownership and utility availability are indeed powerful influences on urban growth.

An American Society of Planning Officials' conducted literature review on growth management systems confirmed the

intuitive notion that water service policy was a more influential factor in growth management in the more arid climes. "The impact of water investments on development is clearly more significant in those areas of the country that have inadequate water supplies. Certain sections of the West, Southwest, and Southeast portions of the nation must rely on the transmission of potable water from considerable distances. In these cases, development even at low densities has tended to be related to the availability of a water supply system. In areas where there is a real or potential water shortage, extensions to water distribution systems might be successfully used to influence future development if the public can control the system."[5]

Simply because a technique is powerful does not mean that it is useful to be employed in actual situations or even ought to be employed. Every technique must be evaluated on the basis of criteria relating to the effectiveness, equity, and actual availability of that technique. Using a specific strategy in one situation does not imply that it would be useful if, for example, different objectives for community growth existed or governmental arrangements were not conducive to that strategy.

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[5] American Society of Planning Officials (ASPO), Local Capital Improvements and Development Management:Literature Synthesis, Frank S. So, Project Manager, Chicago, Illinois, 1977, pp. 42-43.

GROWTH MANAGEMENT CASES WITH WATER OR UTILITY SERVICE POLICY AS AN ELEMENT

Water service decisions are normally capital facility programming decisions. The rise in interest in the use of capital facilities as a growth management tool can in part be attributed to the wide-spread belief that not to do so results inevitably in poor growth management, or worse yet (to the urban planner) no growth management. "A qualitative case study of sewer and water delivery systems in Knoxville, Tennessee, found that the absence of consistent sewer and water extension policies resulted in urban sprawl. Willingness on the part of the institutions to construct main and interceptors wherever and whenever a request is made ... not only hinders efforts to guide urban growth but, in fact, fosters urban sprawl."[6]

"A recent survey of 105 communities that identify themselves as engaged in growth management shows the percentage that use techniques directly involving public improvements: 59% use the location of facilities to influence growth, 43% use capital programming to influence growth timing, and 55% use the control of access to existing facilities. Thirty-four percent of the communities indicated that they intended to use capital programming techniques to influence growth timing. This ranked among the few tools that were not in use but in which communities expressed interest."[7]

[6] ASPO, op. cit., p. 42.
[7] Ibid. p. 20.

The following are some case studies frequently referred to in the literature of the role of capital improvements in growth management.

Petaluma, California

A small town with 1970 population of 24,870 Petaluma found itself becoming a commuter suburb of San Francisco. In order to slow growth and match the growth of public facilities with the ability of the city to pay for infrastructure the city developed a 5-year development strategy. In order to limit growth to 50 housing units per year it assigned points to developer housing proposals on the basis of two sets of criteria. The first category included utility and public service criteria such as the ready capacity of water and sewer systems, fire protection, school absorption, and street capacity near the proposed development. The second category included factors related to the quality of the housing proposed and contribution to public welfare and city amenities. Other elements in this growth guidance system in addition to a plan, location of facilities to influence growth, and annual permit limits were acquisition, controls relating to the adequacy of off-site facilities, money in lieu of capital facilities, special permits, annexation policy, low income housing requirements, and PUD provisions.[8,9]

[8] Robert Einsweiler, et. al., op. cit., p. 321.

[9] Robert Meyer, "Petaluma: Five-Year Development Strategy," Management and Control of Growth, op. cit., Vol. 3, p. 268.

In January 1974 the Petaluma plan was initially declared unconstitutional by a federal district court on the right to travel argument. "The court ruled that the basic constitutional rule is that no city can regulate its population growth numerically so as to preclude residents from any other area from traveling into and establishing residence there."[10] The objectionable feature of the plan to the district court was apparently the numerical limit placed upon annual building permits. The Court of Appeals reversed this finding and upheld Petaluma's position that "The concept of public welfare is sufficiently broad to include the city's interest in preserving its small town characteristics."[11] The courts obviously tried to balance the rights of the residents of Petaluma with the rights of those who wanted to move to Petaluma.

Ramapo, New York

This suburban New York town enacted a scheme for controlling the timing of its residential development. It enacted a zoning ordinance which established a requirement for a special permit for development to proceed regardless of the existing zoning. The permit is granted if the developer's proposal indicates that his land will be served by a certain minimum level of community facilities. The town developed an 18-year capital improvement program for its sewerage, parks and recreation areas, roads, and firehouses. Thus, the rate at which the town implements its capital improvements plan

[10] Ibid., p. 270.
[11] ASPO, op. cit., p. 64.

governs the rate at which developer proposals will meet the criteria for a special permit. Land not served by capital facilities receives reduced taxation because of its status of being held for deferred development.

The Ramapo plan was fully litigated and its validity affirmed by the New York Court of Appeals. Quoting from the majority opinion, "It represents both in its inception and implementation a reasonable attempt to provide for the sequential, orderly development of land in conjunction with the needs of the community ... while simultaneously obviating the blighted aftermath which the initial failure to provide needed facilities so often bring. In sum, where it is clear that the existing physical and financial resources of the community are inadequate to furnish the essential services and facilities which a substantial increase in population requires, there is a rational basis for phased growth and hence, the challenged ordinance is not violative of the Federal and State Constitutions. It is a first practical step toward controlled growth achieved without foresaking broader social purpose."[12]

One commentator on the Ramapo plan has listed the virtues of the approach which allowed it to pass legal muster.[13] First, the taking issue wasn't invoked because development wasn't stopped but rather deferred over a period of time the court

[12] Golden v. Planning Board of Ramapo, 30 N.Y. 2d 359, 285 N.E. 2d 291 (1972).

[13] Herbert Franklin, "Controlling Urban Growth:But for Whom?", Management and Control of Growth, op. cit., Vol. 2, p. 88.

did not find to be unreasonable. Second, the zoning wasn't exclusionary because equal protection, right to travel, and due process guarantees hadn't been violated. Specifically, growth had not been stopped or arbitrarily limited but rather the town has adopted a plan for public investment to assimilate growth.

Coon Rapids, Minnesota

Coon Rapids' population increased by 500% in the '50's, doubled in the '60's, and leveled off to a still high 4% per year in the '70's. It was the fastest growing suburb in the Twin Cities area. It is a low density community with only 34,000 people within its 26 square mile area. Its growth management goals are to avoid further leapfrog development, promote in-filling of land already served by utilities, and preserve natural areas and appropriate open spaces.

A key feature of its growth management plan was establishment of a development district beyond which subdivision plats with lots less than 5 acres would not be considered and utilities including water service would not be extended. Other elements of its growth guidance system were deferred tax assessments of parcels outside the development district boundaries, mandatory contribution to public facilities, and special zoning techniques. According to its City Manager these development controls have meant that "Coon Rapids has been able to avoid many of the typical problems of rapidly developing suburbs." [14]

[14] John Cottingham, "Coon Rapids:Development District," Management and Control of Growth, op. cit., Vol. 3, p. 272.

Prince George's County, Maryland

"Prince George's County has realized a rather high degree of success with its water and sewerage plan in controlling land use and development. At the present time, approximately 50% of the land area of the county is in a nondevelopment, system staging category requiring a minimum of two acres per home site. No other land use control device has been more successful in achieving a low growth or controlled profile than this plan." [15]

The system works through a comprehensive 10-year water and sewer plan, a county capital improvement program, stringent subdivision regulations and other measures. The program's legal validity has been upheld.[16]

Salem, Oregon

Utilizing an urban service area approach, the City of Salem has utilized its water and sewer utility authority and its annexation power to slow scattered residential development outside its boundaries. It was assisted in this objective by the creation of a Boundary Commission including county participation to wield authority over "expansion of private water and sewer lines from any existing provider of services."[17] Other elements of the system included exclusive agricultural zoning, user fees, a capital programming process,

[15] Robert Edwards, "Prince George's County:Staging Growth," Ibid., Vol. 3, p. 274.

[16] Einsweiler et. al., op. cit., p. 316.

[17] Ibid., p. 327.

controls relating to off-site facilities, and preferential taxation. The key to the success of the program was the consensus among officials of Salem, its county government and neighboring jurisdictions that growth management was a legitimate regional objective. This fostered the necessary intergovernmental cooperation to make the program work.

CRITERIA FOR A SUCCESSFUL GROWTH MANAGEMENT SYSTEM WHICH INCORPORATES WATER SERVICE POLICY

The experience of several municipalities has demonstrated that water service policy can serve as an effective element in a growth management system. However, it is not sufficient for a municipality to believe it can simply direct growth by ordering its water utility to supply or deny service. Careful study of these cases, related court tests, and the planning literature imply that several conditions are necessary for establishment of a growth-related water service policy. The following six criteria for effective use of water service in a growth management system need to be carefully considered.

Geographical Congruence

"The capacity to execute or institute a system of growth management is dependent, in part, upon the coincidence between the area of growth and the area of governance."[18] All of the communities described above were able to use utility service

[18] Einsweiller, et. al., op. cit., p. 327.

as a tool in directing growth in a certain geographical area because they had gained control over the utility extension and service decision-making process. Particularly instructive is the case of Salem, Oregon. As a result of intergovernmental agreements with surrounding county governments, Salem, which operated a water utility, was declared to be the prime source of water service even beyond its city limits. The Boundary Commission, composed of both county and city representatives, was able to utilize this clear policy statement as a reason for controlling the establishment of private water companies and districts outside of Salem's borders. This has forced developers to be dependent upon the municipal utility and has put some teeth into the effectiveness of the city-county development plan tied to a utility extension policy.

In contrast to the Salem example is that of Boulder, Colorado. A joint city-county comprehensive plan had been prepared and on the basis of a growth limiting policy statement, the City of Boulder denied extension of its municipal water service to a developer outside of Boulder's city limits but within the utility's non-Boulder service area. In Robinson v. Boulder,[19] in which the developer sued for provision of service, the court found for the developer. "The court observed in this connection that the County Commissioners, not the City of Boulder, had jurisdiction over the

[19] Robinson v. Boulder, 547 P 2d 228 (1976)

decisions concerning conformity of the development with the comprehensive plan, a fact which may sharply distinguish Robinson from cases where both land use and utility are within the jurisdiction of a single agency."[20]

"Intergovernmental agreements often are required both in carrying out annexation policies and in defining urban service districts. This is true both because the land area necessary for a rational facilities plan often crosses jurisdictional boundaries, and because a variety of special districts is involved. If local governments are committed to the use of capital facilities for managing development, they must obviously retain a measure of control of these facilities. Where alternatives exist outside of the control of the municipality, facilities cannot be as important a factor in directing development."[21]

The above suggests that for reasons of both effectiveness and legal validity, one of the minimum conditions in the use of water service policy as a growth management tool is some form of recognized jurisdictional authority coincident between the utility service area and the area for which growth management plans are directed. "Unfortunately, in most localities the government that controls the use of land may not control financing and construction of supportive public services such as water. Until such facilities are

[20] ASPO, op. cit., p. 61.
[21] ASPO, op. cit., p. 23.

publicly committed by agreement with appropriate governing bodies, the deferring of development rights is not reasonable."[22]

Establishment of a Regional Plan

Common sense would suggest that if utility service were to be used as an element in growth management, a necessary precondition is the existence of a plan specifying and justifying community's growth management objectives. Utility engineers and managers correctly point out that they shouldn't be unilaterally shaping a community's value system. Joe Kuranz, Manager of the Waukesha (Wis.) Water Utility, states "You can't say categorically that it's right or wrong to use water as a tool to guide growth. We need some good planning ... some good land-use planning and some objectives for developers. Then we can tell the utilities what demands they will be expected to meet."[23]

Capital improvement plans (CIP) are not new to municipal and utility planners. Historically, the CIP has been viewed "as a valuable means of improving a community's financial management and scheduling."[24] "Capital improvement plans have normally been technical documents and have little to do with planning,"[25] is an extreme but not all that uncommon perception among public works engineers.

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[22] Herbert Franklin, op. cit., p. 95.
[23] William Forestell, op. cit., p. 458.
[24] ASPO, op. cit., p. 2.
[25] Ibid., p. 17.

This view is changing rapidly. As reported in a recent survey on this topic, "As communities have gained a better understanding of the relationships between their capital facilities decisions, their development patterns, and their costs, the potential power of the CIP to serve as a technique to implement planning policy has become a matter of increasing interest. Evidence that decisions about capital facilities are being more closely linked to land use and development policies is beginning to be reflected in a number of CIPs, procedures manuals, and community studies."[26]

Case studies of this issue validate the point.[27] As examples are the following:

Richmond, Virginia and Montgomery County, Maryland

"Although Richmond and Montgomery County present their capital improvements programs as documents separate from their plans, the format in which they are presented strongly emphasizes the connection between the CIP and the plan."

San Luis Obispo, California

"San Luis Obispo states its capital facilities policies within its plan. Growth management as a community goal has provided a strong impetus for linking the capital improvements plan to the plan."

Ann Arbor, Michigan

"Ann Arbor's Capital Improvement Budget and Program for 1977-78 though presented separately from the comprehensive plan, relies heavily on the city's General Development Plan and Area Development Plans."

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[26] Ibid., p. 3.
[27] Ibid., p. 14-16.

Daniel Mandelker has pointed out that "A comprehensive plan reflects a collective judgement about the allocation of development opportunities throughout the community ..."[28] Referring to what is known as the consistency requirement, he advocates the use of a comprehensive plan to tie together all the elements of a regional growth plan to insure internal logic among its parts. "Comprehensive planning is necessary because of the careful orchestration of community regulatory and public service programs that growth management requires. Both zoning and subdivision control ordinances may be employed in a managed growth program, and these in turn will be linked to community capital facility programming. An adequate planning base is needed if these various programs and regulatory ordinances are to be administered cohesively in furtherance of common policy objectives."[29]

The consistency requirement for comprehensive plans not only fosters a more efficient growth management system but a more equitable and predictable system as well. Private landowners and developers often complain about the tyranny of inconsistency on the part of local government. Substantial sums of money are invested in development projects before governmental approval is sought. It is clearly in the interest of public officials to provide the development community unequivocal, prompt, consistent responses to questions of development approval. Not to do so increases development

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[28] Daniel Mandelker, "The Role of the Local Comprehensive Plan," Management and Control of Growth, op. cit., Vol. 4, p. 28.

[29] Ibid., p. 25

and housing costs to the consumer and makes for inefficient use of capital. As Mandelker notes, "In the absence of a local comprehensive plan, zoning and rezoning actions by local governments may be ad hoc and arbitrary. It is principally this concern that has moved courts to accord a greater role to the comprehensive plan as a check on local zoning administration."[30]

Legal necessity appears to dictate the need for a comprehensive plan in order for utility service policy to be a tool in effective growth management. "The existence of a CIP is considered to be one of the reasons for the court's upholding of the widely-cited development management of Ramapo."[31] Fred Bosselman, another observer on the same case, noted, "The court now holds that when a community has a sound plan for the development of its entire jurisdiction, it can preclude development inconsistent with that plan in outlying areas."[32] He also stated that "to the extent that municipalities are required to follow their own zoning ordinance, the construction of capital facilities must be consistent with the comprehensive plans in these jurisdictions."[33] Finally, as a Maryland court noted in the Smoke Rise v. Washington Suburban Sanitary Commission case, "It is well established that development demand may properly be impeded where growth

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[30] Ibid., p. 30.
[31] Ibid., p. 16.
[32] Fred Bosselman, "Town of Ramapo:Binding the World," Management and Control of Growth, op. cit., Vol. 2, p. 104.
[33] ASPO, op. cit., p. 61

restrictions are imposed pursuant to well-reasoned, comprehensive plans for the improvement of the region."[34]

The notion here is that the courts see the capital improvement plan as embodiment of the policies expressed in a comprehensive plan. Furthermore, the CIP represents the good faith effort of a community to provide physical facilities to accommodate community growth consistent with the objectives stated in the overall community plan. This is a necessary legal requirement in order for the courts to avoid the conclusion that a community's actions are either arbitrary or unconstitutionally exclusionary (about which more is discussed in the next section). "In the absence of a publicly adopted plan for the specific commitment of resources for sewers, water treatment plants, roads, and schools in a definite period of time, policies to slow or stop urban growth can only be exclusionary in motivation or effect."[35]

The desirability of having not only a plan but having it regional in nature is becoming increasingly apparent. Several observers are critical of the Ramapo plan because it tends to perpetuate the single family home characteristic of its neighborhoods and push problems such as the legitimate need for higher density housing upon its neighbors. Herbert Franklin sums up this view well by stating, "Ramapo's

[34] Smoke Rise v. Washington Suburban Sanitary Commission, 400 F. Supp. 1369, 1384 (D.C. Md. 1975).

[35] Herbert Franklin, op. cit., p. 95.

controlled growth policy, if administered reasonably, will produce only marginal improvements in the environment for the relatively few who can afford to live there, by assuring that community facilities will be in place when they move in. From the standpoint of the urban region, however, it will assure the continued sprawl of housing across the landscape and the excessive transportation, sewer, and other environmental costs that flow from this pattern of development. Ramapo will also, in effect, deprive most of the households in the region from any opportunity to reside within its boundaries."[36]

While the courts have not yet required regional values to be explicitly weighed in a community's growth management plan, they are hinting at it. As Fred Bosselman states, "Berenson v. Town of New Castle (another New York Appeals Court decision subsequent to Ramapo) suggests that the court may now subject municipal land use policies to a more rigorous regional impact test than was the case in Ramapo."[37] He predicts the possibility that neighboring communities each seeking to establish their own growth management policies at the expense of each other might be extremely myopic. "So it may be that the tide of capital improvement programming to deliberately influence growth will carry with it an outcome

[36] Ibid., p. 98.
[37] ASPO, op. cit., p. 64.

that most municipal decision-makers would dislike: the state as referee between municipality and landowner and, indeed among communities."[38]

Exclusionary Tests

The act of denying utility service to a given parcel of land, either indefinitely or for a specified period of time, is an intentional act to discriminate against that parcel of land in favor of some other land. Furthermore, it is an act of discrimination against the ultimate users of that land, whether they be homeowners, renters, or businessmen. The question that arises from constitutional law is whether that act of discrimination is not "undue discrimination which leads to unconstitutionally exclusionary outcomes."[39]

In a monograph on this topic, Herbert Franklin suggests that "three legal principles can be applied to anti-growth policies in a locality to test potentially exclusionary aspects. Under these principles, the exercise by a locality of its power to regulate the use of land within its jurisdiction may be invalid (1) if it does not sufficiently serve the interests of people of the state as a whole; (2) if in effect it singles out a racial minority and denies them housing opportunities; or (3) if it limits the freedom of citizens to migrate and settle in areas of their choice. Lawyers often

[38] Ibid., p. 70.
[39] Ibid., p. 55.

refer to these as due process/general welfare, equal protection and right to travel principles."[40]

These issues were discussed at length in the Ramapo case majority opinion. "There is, then, something inherently suspect in a scheme which, apart from its professed purposes, effects a restriction upon the free mobility of a people until sometime in the future when projected facilities are available to meet increased demands. Under its guise (zoning) townships have been wont to try their hand at an array of exclusionary devices in the hope of avoiding the very burden which growth must inevitably bring. What we will not countenance is community efforts at immunization or exclusion."[41]

The court concluded that Ramapo's plan was not exclusionary. "Far from being exclusionary, the present amendments merely seek, by the implementation of sequential development and timed growth, to provide a balanced, cohesive community dedicated to the efficient utilization of land. We only require that communities confront the challenge of population growth with open doors."[42]

In many of these cases, the courts are trying to establish the equities of each situation. The quest for efficient utilization of land and community facilities in a growing community reflects the attempt to balance the rights

[40] Herbert Franklin, op. cit., p. 88.
[41] Golden v. Planning Board of Ramapo, op cit.
[42] Ibid.

of several parties. The existing residents of a community are often interested in preserving its character and avoiding growth-induced tax burdens. They argue their rights in the form of the general welfare of their community. Landowners and developers are interested in maintaining the viability of their private property rights and perceive infringements, often even with compensation, as inequitable treatment of these rights. Finally, future residents have certain rights of travel and mobility. Direct and indirect burdens upon these rights (such as growth plans which require the costs of new community facilities to be totally borne by the new residents) are viewed as inequitable by these residents. Any growth management system must seek not only efficient solutions to community problems, but equitable solutions as well.

Water Service Policy as an Element in Growth Management Systems

Robert Einsweiler, a leading researcher in the field of growth management systems, points out that "the term system is used advisedly. It includes all the development controlling, guiding, or influencing elements employed by the public sector. Normally, all elements have not been conceived as an integrated system, but they do act concurrently on a given development decision and should therefore be viewed as a system. The lack of integration among the elements should be seen as a problem in system efficiency rather than a question of whether or not a system exists. The need is for a systematic view of development controls." [43]

[43] Einsweiler et. al., op. cit., p. 284.

Case studies bear out the conclusion that the more successful growth management plans utilize facilities development as one element of an overall strategy. "A number of communities are beginning to link these devices with each other ... Such systems are designed in an attempt to make the community's regulations, ordinances and fiscal policies consistent and mutually supportive. For example, in communities attempting to follow a systematic approach, the intention of the specific location and phasing of water and sewer lines can be supported by a zoning ordinance that regulates density of development in the affected area ..." [44] It is further reported that "integrated land management systems that coordinate all or some of these devices--capital improvement programs, zoning and subdivision ordinances, service districts, land acquisition, negotiation, and formal and informal pricing policies--are attracting the interest of a number of municipalities. Planning practice is shifting to include a wider range of processes and techniques than it once depended upon." [45]

Growth Management and Political Accountability

The notion of the inviolability of the property right is deeply held in American culture. As Professor George Cabot Lodge has discussed, this stems from the Lockean tradition that a society which guarded property rights cherished individual freedoms as well.[46] In a sense, property rights have

[44] ASPO, op. cit., p. 32.
[45] Ibid., p. 32.
[46] George Cabot Lodge, The New American Ideology, Knopf Co., N.Y. 1976.

served as an ideological proxy for generally accepted rights of individuals within our society.

Governmental actions which serve to infringe upon the exercise of privately held property rights have been viewed with circumspection by the judiciary. However, from the earliest zoning cases, such as Euclid v. Ambler Co., there have been established principles of general welfare which in certain situations supercede the rights of an individual to do with his land as he pleases. In the United States, a precondition of such governmental intrusion into the private market system is a legislative finding by a governmental entity with the authority to wield police powers that such a restriction on individual rights is necessary in order to meet a more desirable general and public welfare objective.

It is small wonder that the courts have been reluctant to insert themselves in the process of arbitrating these issues. The questions of land use are directly tied to some of the most fundamental values in our society and generate considerable passion (and bile). While these controversies are normally postured upon the economic interests of developers versus citizen perception of the quality of his lifestyle, they really touch a deeper nerve. Public land use boils down to the authority we wish to invest in institutions of representative government to circumscribe landed property rights on behalf of legitimate community interests; in short, to our trust of public ends.

On such a sensitive subject as using capital facilities to affect an individual's right to the use of his property, the institution that hazards such action must be perceived within the community as having the legitimate right to do so. This perception of legitimacy is both legally and intuitively tied to our notion of local government being most accountable to the community at large. When regulatory decisions are being made, a postulate of such actions seems to be that those who make them must be accountable to public investiture and recall. The government that delegates such regulatory policy making to subunits too far removed from direct processes of representative government runs the grave risk that regulatory decisions aren't perceived as legitimate and those who make them unaccountable.

It is true that the courts have a post hoc role regarding the constitutionality of land use decisions. "But in the long run, it is the legislators who must get about the business of realigning some of the decision-making power and redefining the criteria by which the public regulation of land use is to be measured."[47] In practical terms, this means that public water utilities that have been delegated the right to use water service policy as an instrument of a community growth management plan should be directly accountable to the government making the delegation. If not, it must in

[47] Richard Babcock and Fred Bosselman, "Land Use Controls: History and Legal Status", Management and Control of Growth, op. cit., Vol. 1, p. 207.

some other way be viewed as an entity with sufficient political legitimacy to responsibly and equitably establish such policies. In short, the utility's "legislative" authority in situations must be well established and accepted within the community.

The Role of Utility Law

Before approaching the fundamental question of using municipal water service for non-utility purposes, a preliminary legal issue as to the applicability of general utility law to municipally owned utilities must be resolved. Babcock and others "support the view of most authorities that basic utility law is equally applicable to both private and municipally owned utilities."[48] This issue is important because utility law generally obligates a utility to provide service to all customers within its service area unless the utility has reasonable grounds not to do so. Such reasonable grounds may include unprofitability and temporary shortages of supply. The case law is very recent, small, and inconclusive on the question of whether a municipality is governed by general utility law and how far it may push the concept of reasonable grounds for denial of service.

Restated, this question is whether or not a municipality can deny or delay utility availability for purposes not related to the functioning of that utility. Many commentators believe that utility law does not allow utility service to be

[48] ASPO, op cit., p. 53.

conditioned upon community objectives apart from the engineering, technical and fiscal imperatives of a utility system. Others assert just the opposite. Barbara Ramsey, in a monograph of this subject, concludes "local government has broad power to refuse to extend utility service to certain areas within its jurisdiction. The magnitude and significance of this power has not been fully appreciated. It is an important tool for controlling the location and timing of development in a rational, coherent, and efficient fashion."[49]

In the previously mentioned Robinson v. Boulder case a Colorado judge found "that the City has a legal obligation to provide the plaintiffs with water and sewer services under two theories of law. First, the City is a public utility insofar as supplying water and sewer services ... is concerned. Second, the City may not discriminate between prospective users of water and sewer services where it has established an area of service and has become the exclusive supplier of services in that area."[50] Thus, the City of Boulder was required to supply water services to a parcel of land outside its city boundary but within its contracted service area even though to do so was inconsistent with its growth management plan.

Other courts have reached opposite conclusions. "As far as the federal courts are concerned, California cities may

[49] Barbara Ramsey, op. cit., p. 448.
[50] Robinson v. Boulder, op. cit.

refuse to provide utilities and then deny a permit on the basis of inadequate facilities."[51] As previously mentioned in the Smoke Rise case, a Maryland Court upheld the right for municipal utilities to deny service for non-utility related reasons.[52]

One approach to remedy any question as to a publicly-owned utility's legal ability to operate its system while being mindful of community growth management objectives is to establish such a role in a specific grant of legislative authority from state government. Since it is state government that creates general public utility law in the first place, it would seem reasonable that the state could establish or permit exemptions from normal utility law requirement for municipally-owned utilities.

"However indistinct the legal road signs may be, however obscure the trail between the interests of each municipality and of the region, it can be expected that the use of capital improvements to direct municipal growth will proliferate in those areas where pressures are apparent."[53]

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[51] ASPO, op. cit., p. 65.
[52] Smoke Rise v. Washington Suburban Sanitary Commission, op. cit.
[53] ASPO, op. cit., p. 67

CHAPTER SUMMARY

Evidence from communities which have successfully implemented growth management policies indicates provision of water service can be an element of such systems under certain circumstances. Six criteria or prerequisites are developed for water service policy to be a viable planning tool. Briefly, these criteria require the following:

1) geographical congruence between the water service agency's jurisdiction and the growth management area,
2) availability of a well-defined, enforceable regional growth management plan,
3) water service policy be only one element of a growth management system,
4) water service policy not be implemented in such a way as to promote constitutionally exclusionary outcomes,
5) the water service agency to have sufficient political accountability so as not to call into question the legitimacy of its authority, and
6) the utility law of the state in question to permit the water service agency to consider non-utility purposes in its decision-making.

CHAPTER 2

A CASE HISTORY OF THE DENVER WATER BOARD AND GROWTH IN THE DENVER METRO AREA

This chapter probes the history of the Denver Water Board (DWB) over the last 30 years that relates to the question of the effect of the DWB on the growth of the Denver metro area. Evidence is examined to address the issue of whether the DWB could and should have played a role in curbing aggregate growth in the Denver area or substantially affecting the spatial distribution of this growth. In particular, the criteria developed in the previous chapter for effective utility involvement in growth management are applied to the DWB water supply system.

Due to the foresight of its early management and the financial resources of the City of Denver the DWB, a Charter agency of the City of Denver, by 1950 had acquired substantial water rights both near Denver and also high in the Rockies on the other side of the Continental Divide, the Western Slope. The Denver Water Board was for the better part of the first half of this century the dominant supplier of water to the metro Denver population. In 1950, the DWB served not only all the people of Denver but also most of the people living in the towns surrounding postwar Denver, in total over 85% of the entire metro population.

By entering into service contracts with suburban distributors for provision of treated water, the DWB acted as a de facto metropolitan water agency. It was not, however, considered to be a water utility subject to the control of the Colorado Public Utilities Commission when selling water outside the boundaries of the City of Denver.[1] The DWB retained its rights as a highly independent agency governed solely by a five-member board appointed by the Mayor of Denver.

At the end of 1979, the DWB was a much larger entity than it had been 30 years earlier. Its safe annual water yield had increased by 100% to over 300,000 acre-feet of water. Its number of taps served had increased by 213%. It was the largest water supply agency in the Denver metro area with six times the number of taps than Aurora, the second largest municipal water supply agency in the Denver area, services.

Yet, interestingly enough, in 1979 the DWB share of the urban water customers had dropped to about 55%. Unlike the early 1950's, several independent municipal water systems now exist with substantial water supply, storage, and treatment facilities. The creation of many of these systems is rooted in the history of the Blue Line of the '50's, DWB's first policy of restricting its water service area.

[1] Englewood v. Denver, 123 Colo. 290, 229 P2d. 667 (1951)

HISTORY OF DWB SERVICE AREA RESTRICTIONS

One role for a utility in growth management is to use the expansion or limitation of its service area as either an inducement or prophylactic to growth. The DWB has had two extended periods in its history when it limited expansion of its water service area boundaries. Both cases were the product of utility planning considerations and not as a result of conscious growth management intentions. Nonetheless, it is instructive to examine the history of the DWB service area restrictions to determine what, if any, impact they had upon metro growth.

1951 Blue Line

The DWB found itself in difficult circumstances in the early 1950's. Though it had acquired senior water rights on the Western Slope in the 1920's, it had not developed all these rights and effectively utilized them in the DWB system. At the same time, Denver was experiencing the initial phase of what turned out to be a prolonged drought. It was caught in a period with undeveloped reserve supplies of water and much lower than normal supplies in its existing reservoirs.

Because of its Charter requirements that the DWB provide a reliable supply of water to the residents of Denver as its first priority and because to do this the DWB couldn't meet future extra-Denver needs, the DWB established a prohibition on expansion of its service area boundaries. Water Board

planners drew a blue line on a map around its existing metro service area and refused to consider extension of distributor contracts beyond these boundaries. The Blue Line encompassed much of the then suburban population including Aurora, Englewood, Lakewood, Arvada, and numerous water special districts in unincorporated areas. The Blue Line policy lasted nine years, until 1960.

The reaction of neighboring communities was a mixture of embitterment and determination to seek independence from the DWB. "The drawing of the Blue Line by Denver ... forced the development of independent and sometimes marginal new water systems outside its limits. This step accelerated and accentuated the fragmentation of the metropolitan area with many small water systems which ultimately formed the basis for a number of small governments."[2] As stated by another researcher, "During the 1950's, urbanization occurred in many unincorporated areas. The DWB extended service to any special district within reach of its borders. However, when Denver began to experience a water shortage, it limited the extent of its extraterritorial service. Many special districts were no longer able to secure water from Denver, and, as a consequence, they turned to other municipalities for service. New demands placed upon municipalities prompted the expansion of municipal

[2] Denver Water Board, Metropolitan Water Requirements and Resources, 1975-2010, Colorado State Legislature, 1975, Vol. 1, p. 10.

water supply programs."[3] The following represent some examples.

> Aurora - This fast growing eastern neighbor of Denver, while relying upon the DWB had its share of complaints; among them the higher charges it paid for water and the fact that Denver offered Aurora only annual water service contracts without guaranteeing long term supply. "Relations between Denver and Aurora began to deteriorate in the early 1950's. Much of the City of Aurora (which was land yet to be developed) was beyond this Blue Line, and consequently these areas could not in the future be provided with water purchased from Denver. Officials of the DWB and Aurora met several times in an attempt to resolve the problems which had resulted from Denver's water service extension policy (the Blue Line). Statements made during these meetings resulted in severe hostility between the two governments and precipitated a complete breakdown of negotiations on questions of water policy. Aurora began planning the development of a water supply system which would be independent of Denver."[4] Aurora now has such a system. First, by developing wells and surface rights on the South Platte River, Aurora in 1956 began supplying residents beyond the Blue Line. In the mid-1960's it completed a joint project, Phase I of the

[3] James Cox, Metropolitan Water Supply:The Denver Experience, Bureau of Governmental Research and Service, Univ. of Colorado, 1967, p. 148.
[4] Ibid. p. 124.

Homestake Water Project, with the City of Colorado Springs to import water from the Western Slope. "It has been estimated that the Homestake project is capable of providing water supply to guarantee Aurora an adequate water supply until 1985."[5]

Littleton - Littleton had its own well water system in place before the Blue Line and itself was not dependent upon the DWB. "Littleton experienced a very rapid population growth in the 1950's. During that period, the municipal water supply system was not expanded sufficiently to keep pace with the growth. Also, because of the Blue Line many unincorporated areas near Littleton requested the City to provide them with water service. By 1960, it was apparent that Littleton's water supply sources were wholly inadequate to meet future needs."[6] After several years of considering options for expanding its own system, Littleton in 1968 reached agreement with the DWB to have it take over its system. The Blue Line did not stop or slow growth in the vicinity of Littleton, but rather drove non-DWB served special districts to another supplier. The consequences of this were acceleration of demand on that City's water supply system to the point that it became inadequate at a time well before it otherwise would have.

[5] Ibid. p. 126.
[6] Ibid. p. 134.

Westminster - "Like other municipalities in the metropolitan area, the expansion of Westminster's water supply system was unable to keep pace with the increase in demands which resulted from population growth during the 1950's. Between 1950 and 1960, the population of Westminster increased from 1,686 to 13,850, a growth of over 700%."[7] Westminster approached the DWB, "during the mid-1950's when Westminster's water supply was no longer adequate, in order to secure water from the central city. However, it was informed that it was beyond Denver's Blue Line."[8] After several years of rationing and near crisis within, the City of Westminster made the decision to invest in its own water supply system which was completed in 1964.

Other Districts - As reported in a Colorado Legislature report on the metro water needs, other entities were also influenced to invest in water supply works. "As a result of this restriction (the Blue Line), Englewood severed connections with Denver and developed a separate system. Other entities including Consolidated Mutual, Crestview Water and Sanitation District, Arvada, Northwest Utilities (now Thornton, Western Hills, and Northglenn), South Adams County and Broomfield developed and expanded independent water supplies to allow land development growth."[9]

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[7] Ibid. p. 143.

[8] Ibid. p. 142.

[9] Llewelyn-Davies Carson Ltd., Relationship of Water Supply and Urban Growth in the Denver Region, Prepared for Army Corps of Engineers, Missouri River Division, August, 1978, p. 71.

Aggregate metro population growth during the Blue Line decade of the '50's was hardly inhibited. The Denver region grew by 309,000 people or about 50%.[10] Denver itself grew by 78,000 people or a rate of 18% while suburban areas grew at fantastic rates. Aurora, for example, increased its population from 11,420 in 1950 to 48,550 by 1960, a 325% increase.[11] In contrast the decade of the 1960's, without a Blue Line, saw a slower growth rate. The metro area population increased by 298,000 people or about 32%.

"Housing supply appears to show no significant effects from the Blue Line period. Increases in supply during the fifties are not dissimilar to the rate of increase during the sixties. Multifamily housing increased over the years but in no greater proportion than single family."[12]

"Overall, the Blue Line and water supply restrictions appear to have had very little influence on either constraining growth in the Denver Region or promoting higher densities within the area."[13]

The DWB, while a dominant factor in the metro water market, was by no means the supplier of last resort. It had no monopoly upon water supplies. Suburban communities with

[10] Unless otherwise noted population figures are from the Demographic Section, Colorado Dept. of Local Affairs.

[11] Llewelyn-Davies Carson Ltd., Relationship of Water Supply and Urban Growth in the Denver Region, Prepared for Army Corps of Engineers, Missouri River Division, August, 1978, p. 40.

[12] Ibid. p. 41.

[13] Ibid. p. 41.

sufficient amenities and land to attract growth devised methods to supply themselves with water even to the extent of adopting a variety of shortsighted solutions which would cost them more later.

1970's Policy of limited Service Area Amendments

A quarter century later, the DWB found itself in somewhat similar circumstances to those of the 1950's. While it had virtually doubled its raw water capacity with the completion of the Dillon Reservoir and Roberts Tunnel system, it still had problems. This new supply had carried Denver for the last fifteen years and would only last to the end of the '80's. Due to the enormously long lead times necessary to bring on additional development of Western Slope rights, the DWB began to worry about the problems in financing a huge new raw water collection project. This was particularly true given the problems the DWB had in gaining Denver voter approval of a general obligation bond issue for new collection and treatment projects. Turned down earlier, the DWB succeeded in 1973 only after offering Denver voters a scaled down project.

The DWB was also concerned about its facilities for treatment capacity. It had reached the point during the hot summer months when there were several days when treatment capacity of the current system was strained. In order to meet the needs for long term treatment capacity, the DWB had tried to begin construction of a large new facility, the Foothills Water Treatment Plant.

This project was mired in controversy. Because a portion of the construction access road crossed federal property, a Corps of Engineers Section 404 dredge and fill permit was required. This triggered federal environmental impact statement requirements. Several environmental groups and the EPA challenged the EIS on the basis of inadequate attention to alternatives and inadequate investigation of impacts of the treatment plant on metro growth. A citizen law suit was brewing and the DWB recognized the uncertainty that the new plant would be on line in 1977 as scheduled.

Though not widely publicized, the DWB adopted an informal policy of deferring water service area additions in early 1973. This policy lasted until late 1974, during which time few requests for extension had been acted upon. In late 1974, the DWB sent a letter to its distributors mentioning the slow down in extensions of water service areas. It said that in the coming months the DWB would be considering logical additions to areas that it would agree to serve in its distributor territories. In late 1974 and early 1975, the DWB acted upon a small portion of these proposed additions. The chart below indicates the degree to which this policy reduced acreage added to the system of non-Denver distributors:

Area Outside of Denver Amended into DWB Service Area

Date	Acreage
1970	7667
1971	6509
1972	2100
1973	63
1974	353
1975	833

Additions between 1975 and 1978 have been negligible in contrast to the thousands of acres annually added before this policy.

In January 1979, the DWB instructed its staff to develop a formal policy for dealing with distributor requests that had been piling up to amend service area boundaries. In June 1979, the DWB staff recommended the following policy which was adopted by the DWB:[14]

1. Amended areas must be adjacent to existing service areas.
2. Amended areas must be serviceable by existing DWB facilities or within a reasonable distance from facilities.
3. Tap allocations would not be increased as a result of the amendment.
4. Amendments would not be permitted to allow service to any area receiving water service from another supplier.
5. No new distributors would be accepted.
6. The DWB would not approve extensions of service areas which would involve furnishing a greater amount of water outside Denver than it can reasonably anticipate would be available for the entire supply for which the Board had accepted responsibility.

[14] Item C-1, DWB meeting, 6/8/79

The DWB staff, after examining the growth potential of its distributors, estimated that about 4500 acres of land of prime development potential would be requested for amendment to the existing service area within five years and most of that in the first year or two. Beyond this, the staff estimated an additional 5000 acres of land could have long range development potential and would likely be included in distributor requests to the DWB for service area additions by 1990.[15]

The first amendment acted upon in the summer of 1979 was the addition of 400 plus acres to allow development of the Ken Caryl housing development west of the Hogback, a land development project associated with the location of the Johns-Manville Corporation's World Headquarters, in an area adjacent to an existing DWB distributor. Apparently the DWB agreed to the argument of the Denver Planning Office that such an addition was part of an informal agreement which helped persuade the company relocate to Denver.

A year later the DWB staff presented the DWB with requests for an additional 615 acres which met the above guidelines. In the summer of 1980 the DWB approved these additions. Within the year after it modified its policy on service area additions, the DWB had added about 1000 acres including the Ken Caryl parcel to its total service area responsibility.

[15] Personal interview with Bob Jensen, Director of Administration, Denver Water Board, July, 1980.

While this represents a significant amount of new land, it is a far smaller amount of land the DWB itself had expected requests for and far smaller than the several thousand acres per year added in the '60's and early '70's.

The impact upon aggregate metro growth over the 1973-79 period when the DWB significantly slowed extension of its service area boundaries is difficult to establish conclusively. The number of taps on the DWB system grew 12% over this period.[16] The four county metro area's population was estimated to have grown by 9%. Looking at solely these figures one might conclude that the DWB system was capturing a larger share of metro growth and thus encouraging shifts of growth to its service area. More detailed analysis of individual county data indicates a possible problem in this conclusion.

Over this period, Denver itself is estimated to have declined in population by 11% which is significant for the DWB since about 60% of its customer base is in Denver. Adams County, relatively little of which is served by the DWB is estimated to have grown by 12%. Arapahoe County which includes Aurora's and Englewood's independent systems grew at an estimated rate of 32%. Aurora's number of water taps grew 77% over this period and its population 48%. Englewood, relatively well developed itself and with water supply estimated to be almost twice its current demand,[17] has agreed to

[16] Denver Water Board 1978 Annual Report, p. 57.

[17] Metropolitan Water Requirements and Resources, op. cit., Vol. 2, p. 103.

sell water to the new Mission Viejo project. This proposed "new city" with an estimated fully build population approaching 90,000 is being developed on land in Douglas County outside the DWB service area and the Denver Regional Council of Governments regional urban service area. Mission Viejo approached the DWB for service but was refused on the basis that it was outside the DWB boundaries and the DWB was not considering additions to its service area. Jefferson County whose non-mountainous population is largely served by the DWB, with the exception of Golden, grew an estimated 27%.

In summary, the data indicates that the region as a whole grew at a slightly faster rate than national population growth. Its core city, Denver, declined in population due to changes in family composition, some racial composition shifts due to court ordered school busing, and employment center growth outside of Denver. The suburban counties of Arapahoe and Jefferson grew at rates several times the national average with one of these suburban communities, Aurora, being listed as the fastest growing of its size within the nation. Future growth beyond the DWB service area seem uninhibited as evidenced by the approval by the Douglas County Commissioners for a major new town, Mission Viejo, being built of Denver metro's urban fringe.

A realistic appraisal of this data leads on to the conclusion that the DWB informal hold on service area extensions

during the 1973-79 period had little dampening impact upon metro population growth. This is, in part, due to the fact that there exists quite a bit of developable land yet within the DWB service area. But it is also true that non-DWB suppliers had the capacity to add new customers to their systems at a rapid rate.

DENVER WATER BOARD TAP ALLOCATION PROGRAM

One reason the DWB relaxed its limitation on water service amendments in 1979 was the successful establishment in 1977 of a water tap allocation program. The DWB Manager stated, "The tap allocation program has been shown to be a very adequate and responsive tool for controlling expansion of the Denver water system. It is suggested the Board de-emphasize service area boundaries as a means of controlling such expansion and rely upon tap allocation programs when necessary. The benefits of such a policy would include:

1. Distributors would have the means to resolve local problems.
2. Local determinations could govern where growth would occur.
3. Artificial property values, based upon eligibility for water service as opposed to where facilities were located, would not be created.
4. Land use planning, unconstrained by current service area boundaries, would be possible.

5. The Board would not be accused of controlling or directing where growth could occur as a consequence of its service area policy.
6. Better utilization of existing systems and economics in system expansion could be achieved."[18]

The DWB was concerned that it had unintentionally gotten drawn into the business of growth management even though its motivation had been utility related. The above restates the long held position of the DWB that it should not be seen as an instrument of land use planning. In the '50's the DWB had no alternative to service area boundaries to restrain the demand upon its system. In the '70's it realized that its tap allocation program could be used as an effective tool in curbing demand upon its water supplies without itself being involved in "side issues" such as land use and development patterns. The following describes the tap allocation program and analyzes what if any effect it had upon the spatial distribution of growth in the metro area.

History

In the spring of 1977, DWB officials had new worries. That winter's snowfall had been one of the lightest in years and it was clear the state was gripped by drought. The major mountain reservoirs would be only 30-50% full after the snowpack run-off. Raw water reserves clearly were going to be at a premium.

[18] Denver Water Board Meeting Item C-1, June 8, 1979.

Another headache to the DWB was the continuing litigation over its proposed 150 million gallon per day Foothills treatment plant. While it had been planned for operation by this time, delay in the granting of necessary permits, because of environmental controversy, made it clear the plant wouldn't be in operation until the early 1980's. This caused problems in the dry Denver summers since peak treated water needs had exceeded existing treated water plant capacity on several occasions. It was apparent that the DWB service area was in for several more summers of days when water pressure would be low because of excess demand upon the system.

The DWB decided to act. First, it established stringent outdoor watering limitations. All of its customers were limited in their outdoor irrigation to three hours per day once every three days. Second, the Board established its first-ever tap allocation program.

Operation

"The water tap allocation program began in June 1977. At that time, it was determined that there would be approximately 26,000 equivalent 3/4 inch water taps available for distribution over the next five-year period. That resulted in a total of 5,200 taps available for distribution per year.

"The total allocation of 5,200 net equivalent 3/4 inch treated water taps to be allocated each year by the DWB was then reduced by the estimated amount of water required by the

City of Denver. The DWB has a charter obligation to accommodate all new customers within the City of Denver. For that reason the availability of new treated water taps for areas outside the City of Denver, yet within the Denver Water Board service area, was reduced by the amount of anticipated taps Denver would be using."[19]

Taps were allocated to suburban distributors on the basis of a formula which considered historic tap utilization and the relative percentage of developable remaining within the distributor's service area. Taps unused in one service area could be rolled-over into another area but only if the receiving area had already used at least 90% of its taps. This requirement, plus the requirement that a tap had to be in service within a year of its allocation, prevented banking of taps by developers. Finally, to prevent hardship to developers who had made substantial financial commitment to construction but hadn't received taps, a relief tap program was established whereby future taps in the 1980-81 years could be borrowed from that year and used in 1977.

"The DWB tap allocation program was altered starting with the second half of 1979. In June, 1979 the DWB voted to increase the annual limit of new water taps from 5,200 to 7,000 per year. The DWB increased the amount of taps available for several reasons. The major reason is because of the additional

[19] Gail Hermsen, The Effect of Water Tap Allocation Programs on Distribution of Growth in the Denver Region, Denver Regional Council of Governments, August, 1979, p. 5.

water which was available due to the success of the Water Board's tap allocation and conservation programs. In addition, the non-drought conditions of the past few years have also lended a more optimistic view of the total water supply available. The "go-ahead" for the Foothills Water Treatment Complex also played a part in the decision to increase the yearly tap allocation limit.

"It does not appear as if this increase in the number of taps available for allocation per year will result in a significant change in the amount of new development that can occur in the DWB service area when compared to the growth that has occurred during the two years in which the DWB tap allocation plan had been in effect. As indicated earlier, the relief tap program has borrowed into the tap allocation limit for 1980 and 1981. Approximately 1,400 relief taps are subtracted from the new allocation of 7,000 taps per year, the result will be an annual availability of 5,600 taps for 1980 as compared to 5,200 for 1978."[20]

Effect of Water Tap Program on Growth Distribution

In August 1979, the Denver Regional Council of Governments (DRCOG) completed a study on "The Effect of Water Tap Allocation Programs on Distribution of Growth in the Denver Region." The objective of the study was to determine whether the limitation of taps in the DWB-serviced suburbs, as compared to Denver, the City of Aurora and other metro cities

[20] Ibid. p. 9.

which have their own water system and like Denver did not have tap restrictions, affected the spatial distribution of growth in the metro area. (See Figure 1 for map of these areas and Table 1 for list of cities with tap programs.) The study "compared the percentage of growth which was captured by individual municipalities prior to the initiation of the DWB tap allocation program in 1977 to the percentage of growth captured by individual municipalities after the allocation plan to determine if there have been significant changes."[21] The study methodology compares residential unit building permits for the non-allocation period of 1973-76 to the allocation period of 1977-78.

"The results of this study do not show that the water tap allocation program had a dramatic and widespread effect on the distribution of growth in the Denver Region. (See Table 2.) Certain portions of the metropolitan area, namely Denver and Aurora, which were not under tap allocation experienced an increase in the percentage captures of the metropolitan growth (residential building permits) of the region."[22] These two cities averaged 26% capture of permits before and 40% capture of permits after the initiation of the program. "The tap allocation plans did not have a consistent effect of redistribution of growth to communities without tap allocation

[21] Ibid. p. 2.
[22] Ibid. p. 13.

FIGURE 1

EXISTING WATER SUPPLY AGENCY JURISDICTIONAL AREAS (1977)

DENVER WATER SYSTEM

MUNICIPAL AND SPECIAL DISTRICTS

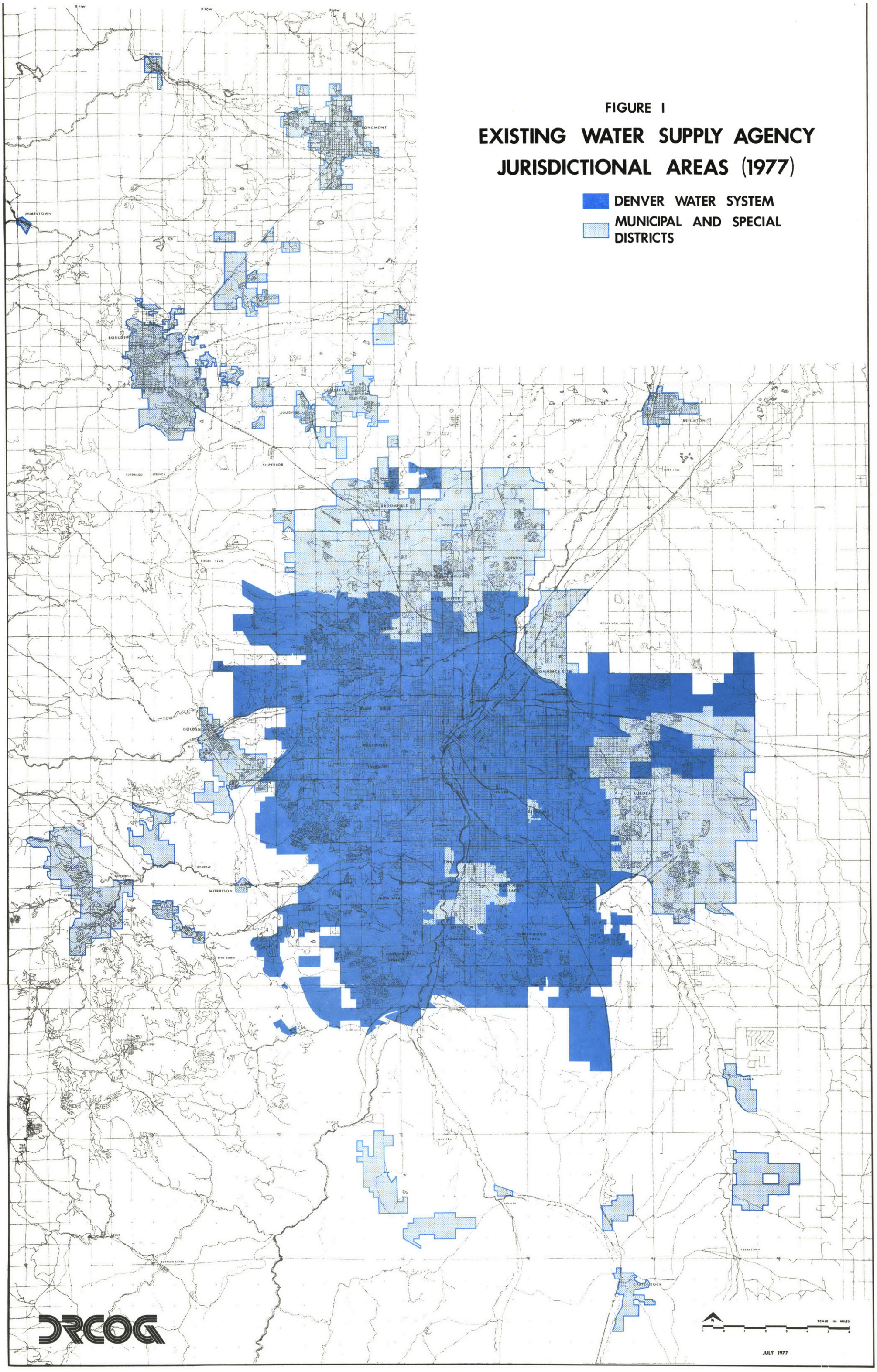

TABLE 1 [23]

WATER SERVICE IN THE DENVER REGION

Jurisdictions Totally Served by the Denver Water Board

Bow Mar
Columbine Valley
Denver
Edgewater
Littleton
Mountain View
Sheridan
Wheat Ridge

Jurisdictions Primarily Served by the Denver Water Board

Arapahoe County
Arvada (Raw Water Only)
Broomfield
Cherry Hills Village
Greenwood Village
Jefferson County
Lakewood

Jurisdictions With Their Own Tap Allocation Plan

Brighton*
Broomfield
Golden
Westminster

*has no tap limitation, but does have a limit on sewer hookups

Jurisdictions Under No Tap Allocations

Adams County**
Aurora**
Arvada
Boulder (City)
Boulder County
Commerce City**
Denver
Englewood
Glendale
Lafayette
Longmont
Louisville
Northglenn
Thornton

**except for small area served by DWB

[23] Ibid. p. 3.

limits." Thornton and Arvada, both communities without tap allocations but with developable land, declined in the percentage capture of permits. The DRCOG study finally concluded that "The tap allocation program does not work alone in guiding the spatial distribution of the region's growth." [24]

One criticism of the DRCOG study is that the author didn't address the question of whether the total limit on taps, that is 5200 initially, then revised later to 7000 annually, was sufficiently less than historical tap growth to cause a squeeze in developer access to taps. A look at tap growth for the DWB between 1969 and 1972 shows that yearly growth of new taps averaged 6800 taps.[25] In two big growth years, 1971 and 1973, annual taps reached the eight to nine thousand level and the average was significantly exceeded.

In other words, average annual DWB tap growth was about 2.6% in the big growth years of 1969-1972. Since then the decade of the '70's has seen slower tap growth, in fact, about half as fast as the 1969-1972 period. Since 1973, growth in new taps has averaged about 1.3% annually, or about 5300 taps per year.

It is not surprising that the tap allocation program has a modest effect upon spatial distribution of growth in the

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[24] Ibid. p. 16.

[25] Denver Water Board Annual Report, 1978, p. 57.

DWB service area to date. It basically allowed the growth rate since 1973 to continue with only minor dislocations in the housing market.

Were the housing market to pick up and resume its growth trend of the 1969-72 period of 2.7% annually, then it is likely that the 5100 annual tap limitation would have been insufficient to meet demand. However, with the action by the DWB in 1979 to increase the limitation of 7000 taps per year, there appears to be sufficient tap growth permissible in the DWB system to accommodate developer demands within its service area during strong housing markets, except for perhaps boom years such as those that occurred in 1971 and 1973.

Effect of Water Tap Allocation Program on Aggregate Metro Growth

During the period of the tap allocation program, the DWB maintained its policy of not significantly expanding its service areas and not adding any new distributors of water outside its service areas. The DWB added new taps to its system at an annual average rate of 1.3% during the 1973-76 period, as well as the 1977-79 period. Metropolitan growth in population also increased in these periods by about 1.1% annually.

Knowing that the DWB continued to serve about 55% of the metro population during these periods leads one to the conclusion that the DWB tap allocation program did not significantly

TABLE 2[26]

PERCENTAGE OF REGION'S RESIDENTIAL BUILDING PERMITS

	Prior to DWB Allocation				DWB Allocation Program		
	1973	1974	1975	1976	1977	1978	1979[1]
Jurisdictions Totally Served by DWB							
Littleton	0.4	1.2	1.1	0.8	0.8	1.4	1.4
Sheridan	0.2	NA	0.1	0.1	0	0	0
Wheat Ridge	0.8	0.5	0.4	0.4	0.5	0.1	0.1
Jurisdictions Primarily Served by DWB							
Arapahoe County - Uninc.	7.4	8.8	13.2	13.3	13.5	12.0	8.7
Broomfield	1.3	1.5	3.1	1.4	2.3	1.0	0.7*
Cherry Hills Village	0.1	0.3	0.4	0.2	0.2	0.1	0.2
Greenwood Village	0.1	0.5	0.8	0.9	0.7	0.3	0.1
Jefferson County - Uninc.	6.7	13.0	17.1	17.1	14.2	12.2	11.2
Lakewood	8.0	6.4	3.7	2.7	4.6	4.6	7.9
Jurisdictions With Their Own Tap Allocation Plan							
Brighton	0.7	0.5	0.5	1.0	0.5	0.5*	0.7*
Broomfield	1.3	1.5	3.1	1.4	2.3	1.0	0.7*
Golden	2.4	0.1	0.4*	0.2*	0.1*	0.2*	0.2*
Westminster	7.3	8.7	6.1	8.1	7.2	7.0*	6.4*
Jurisdictions Under No Tap Allocations							
Adams County - Uninc.	3.9	2.9	1.5	1.0	0.8	1.0	1.6
Arvada	9.3	5.6	6.2	6.4	5.9	3.7	3.2
Aurora	16.3	15.7	13.8	14.6	19.4	22.4	25.9
Boulder	2.9	4.4	2.9	4.6	4.9	2.8	4.3
Boulder County - Uninc.	4.8	2.5	1.2	3.4	2.7	2.2	1.8
Commerce City	0.1	0.1	0.1	0.1	0.1	0.1	1.3
Denver	17.4	15.9	11.7	11.4	10.5	18.0	14.2
Englewood	0.6	0.6	0.2	0.9	0.1	0.3	0.1
Lafayette	NA	0.4	4.1	0.9	1.1	1.1	0.8
Longmont	2.5	4.4	3.8	6.7	4.9	4.2	3.6
Louisville	0.3	2.0	2.1	1.1	0.8	1.0	1.3
Northglenn	0.2	0.2	0.5	0.1	0.3	0.3	0.3
Thornton	6.0	3.9	5.1	1.9	3.8	3.5	3.1

*Indicates years of local tap allocation programs.

[1] Through March, 1979

[26] Ibid. p. 14.

reduce aggregate metro population growth. As discussed in the previous section, it is likely that suppliers of water not dependent upon the DWB increased tap availability to accommodate growth outside the DWB service area. A number of large jurisdictions independent of the DWB with developable land such as Aurora, Northglenn, and Thornton imposed no tap limitation program during this period and enjoyed continued or increased rates of population growth.

COULD THE DWB SERVE AS AN ELEMENT IN A GROWTH MANAGEMENT SYSTEM?

As noted in an EPA report on the Foothills water treatment plant, it is frequently suggested or even stated a fact that the DWB should and could serve as an instrument in growth management in the Denver metro area.[27] In Chapter 1, case studies were presented in which water service policy was an element in effective growth management. Six prerequisites for the establishment of water service policy as a growth management tool were developed from the case studies and planning literature. This section summarizes the water policy experience and institutional history of the DWB in the context of these six prerequisites. The purpose of this analysis is to draw a conclusion as to the feasibility and desirability of the DWB serving as a growth management agency.

[27] EPA, Region 8, Denver Regional Environmental Impact Statement for Wastewater Facilities and the Clean Water Plan, April, 1978.

Geographical Congruence

Most discussions of growth management in the Denver metro area focus upon the issue of sprawl.[28] It is an urban area of relatively low density characterized by spread out, leapfrog and strip development patterns. Employment centers are not highly centralized which causes a large degree of cross-commuting without the benefit of rapid transit facilities.

Government in the Denver metro area also sprawls. When Charles Bernard researched this topic in 1970, he found that "Metro Denver's local governments are a patchwork arrangement. Governments--municipal, county and special district--are stacked one upon another in response to ad hoc demands. Special purpose districts abound and proliferate on the sprawling urban fringe to meet demands for fire protection, water and sewer services, and other urban services without reference to any long-range planning or projection of future development."[29] Wryly commenting on this situation, Bernard titled his study "Metro Denver:Mile High Government," obviously referring to more than Denver's altitude.

Regarding water service, it has already been noted that while the DWB is a major supplier of water, it is far from

[28] This information based upon an interview with John Parr, Director, Governor's Front Range Task Force, July, 1980.

[29] William Bernard, Metro Denver:Mile High Government, Bureau of Governmental Research and Studies, Univ. of Colorado, 1970, p. 11.

the sole supplier. In a 1975 report for the Colorado State Legislature, Denver is one of 26 "major suppliers" listed in the Denver area with about 60% of the 1975 supply.[30]

If the question was whether the DWB could impact spatial distribution of growth strictly within the City of Denver, it is clear that there are no geographical limitations preventing such a policy. By definition, the DWB service area completely encompasses the boundaries of Denver proper eliminating any possibility of geographical inconsistency between the utility service area and the planning area in question. There is also some evidence that is indicative but not conclusive that the DWB tap allocation program operates in such a way to modestly shift some growth from suburban areas to the core city of the region.

However, the major growth management issue of the region is not curbing or stimulating growth in the City of Denver per se but dealing with urban sprawl. The evidence garnered from the DWB's experience with the 1950's Blue Line and its 1970's policy of limited service area additions persuasively suggests that during those periods the DWB had little impact upon aggregate growth in the metro area. The key to its lack of influence was the lack of congruence between its service

[30] Metropolitan Water Requirements and Resources, op. cit., Vol. 1, p. 51.

area and the authority of suburban jurisdictions. Of its 337 square miles of area served, 115 square miles comprises Denver and 222 square miles are in other jurisdictions. Two thirds of the DWB's area is outside the City of Denver. Its Blue Line simply was not expansive enough to cover available growth sites and, more importantly, the DWB was not legally enabled to prevent alternative water supply systems from being established (had it been inclined to do so which it wasn't). It was and is a legal creature of the City of Denver and can only control the water investment decisions of suburban entities to the extent they voluntarily agree to do so through distributor contracts.

An enormous number of factors other than water service policy impact growth. Admittedly, the degree of causality between this conslusion and the evidence in the chapter is difficult to conclusively affirm. However, the author believes that the conclusions stated are reasonable inferences from the data available. On the basis of the criteria of geographical congruence, the DWB could not have qualified during this period as being an effective candidate in regional growth management.

Availability of a Regional Growth Plan

Like many large urban areas, the general purpose governments in the Denver metro area have formed an organization to further regional cooperation. The Denver Regional Council of

Governments (DRCOG) serves this purpose. "It has neither taxing powers nor immediate authority over metro Denver governments."[31] It does have review authority over federal grants-in-aid and it is eligible to receive federal area-wide planning grants. It does develop regional plans in a general sense such as defining, what it terms, the regional urban service area boundaries. Again, local government compliance with DRCOG plans is voluntary.

The previously discussed case studies demonstrate that effective use of water service as a growth management tool requires preparation of a statement of growth objectives developed on a regional basis, if at all possible. Furthermore, these objectives must be related to a detailed water service capital improvements plan. Neither of these plans exist in sufficient depth and detail to actually help the DWB or any other major water supplier comply with regional growth management objectives (should they wish to do so).

The DWB has been notifying DRCOG of impending requests for water service area extensions since it authorized limited expansions in 1979. It is the only water supplier in the metro area to do so.[32] DRCOG's comments are viewed both by the DWB and DRCOG staff as advisory. In most cases the comments have been confined to matters relating to possible floodplains,

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[31] William Bernard, op. cit., p. 60.

[32] Interview with David Pampu, Deputy Director, DRCOG, June 1980.

wildlife habitat, or transportation difficulties. The DWB sees these issues of concern to the community in which the addition is located. In only one case in the recent past was a proposed service area addition beyond the DRCOG urban service area boundary. This was the Hogback addition to the Ken Caryl development previously mentioned. After review and negotiation, DRCOG revised its urban service area to include the proposed addition.

The question of proper development of a regional growth plan can be viewed as a "chicken and egg" process. The DWB and other such municipal service providers have no such plan available to guide them. On the other hand, DRCOG is unlikely to develop a coherent enforceable plan until its membership, local government, agrees that one is necessary. The DWB and other urban utilities have certainly not come forward pushing for such a regional plan or even strongly hinting that one should be developed.

Impetus for development of such enforceable plans rarely comes initially from within the institutions responsible for accommodating growth. A fundamental consensus must exist within the body politic of a community before elected officials endorse growth management as a legitimate community goal. The Denver metro area has seen limited growth management sentiment surface in some communities, notably Boulder and Northglenn. The City of Westminster approved by public referendum, a plan

to pace growth by means of supplying water and sewer services. Even rapdily growing Aurora has exhibited some very recent interest in stimulating infilling and slowing growth beyond its urban fringe. However, none of this sentiment has achieved the breadth of support across the metro area to convince governmental leaders that a regional approach to growth management is an essential responsibility of theirs. Until this happens, the DWB will continue to operate without benefit of a legitimate regional growth plan.

Water Service Policy as an Element in Growth Management Policy

The DWB has resisted the notion that its duties as a supplier of water could and should be tied to the pursuit of non-utility objectives. Further, the Charter of Denver has afforded the DWB the opportunity to achieve public policy isolation for its system.

A few Charter quotes illustrate this independence. "There shall be and hereby is created a non-political Board of Water Commissioners of five members, to have complete charge and control of a water works system and plant for supplying the City and County of Denver and its inhabitants with water for all uses and purposes... The Board shall have and exercise all the powers of the City and County of Denver including those granted by the Constitution and by the law of the State of Colorado and by the Charter in regard to ... conducting and operating a water works system..." In an extensive study of

the DWB, James Cox concluded "The DWB succeeded in maintaining its independence from the city administration and city council. Even though some mayors have been able to appoint a majority of the board members, they have not found it possible to exercise any considerable control or direction over the decision of the board."[33] Bernard in his study of metro government found that "probably the most significant features of the water board's power are its authority to establish its own rules and regulations and to set the conditions and rates under which it will furnish water inside and outside the City and County of Denver."[34]

Given this independence, it's difficult to conceive the DWB being willing to voluntarily participate as a part of a growth management system even assuming one existed for the region. The DWB has even ignored the entreaties of its parent government, the City of Denver, to help achieve even the broadest of goals of the Denver Planning Office. As Bernard noted, "In exercising its authority, the board has never utilized its position as a supplier of water (perhaps the only feasible one) to an area to force that area's annexation to Denver. This practice, quite common in other metropolitan areas where the central city has gained a partial or complete monopoly of water supply, has not been a feature of intergovernmental relations in Metro Denver. This fact probably results

[33] James Cox, op. cit., p. 96.
[34] William Bernard, op. cit., p. 54.

largely from the board's virtual independence of and isolation from the other elements of Denver's city government."[35]

Exclusionary Tests

There is very little likelihood that the DWB's operation could be found exclusionary. The DWB aggressively plans for system growth in terms of raw water supply, storage facilities, treatment plants, and distribution systems. "The Denver Water Department continues to plan ahead to provide quality water at the lowest possible cost for the Denver area. State and regional planners expect the Denver water system will need to supply water to an increasing number of persons. A combination of additional raw water development ... and promotion of water conservation is expected to provide the Denver area with a safe, adequate water supply for the future."[36]

The few times in its history when it found itself in tight supply situations, it refused to accept such conditions as permanent and took positive steps to end such restrictions on system growth. Speaking of the Blue Line of the '50's Cox stated, "As Denver secured additional supplies, it discontinued its restrictions on outside of Denver service."[37] In point of fact, the DWB invested $80,000,000 in a huge transmountain diversion project which doubled its supply.

If the test of exclusionary policies is, to rephrase Ramapo, that a community confronts the challenges of population

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[35] William Bernard, op. cit., p. 54.
[36] Features of the Denver Water System, DWB, December 1976, p. 69.
[37] James Cox, op. cit., p. 148.

growth with closed doors, then it is very likely on the basis of 62 years of history that the DWB, even if it were participating in a growth management system, would not fail such a test. Its institutional objectives are to accommodate growth and it has the fiscal and technical capacity to achieve this.

Growth Management and Political Accountability

As noted in Chapter 1, any governmental institution that endeavors to restrict land use or development patterns must be fully recognized within its community as having the authority to do so. Much current political rhetoric speaks to a perceived tendency of governmental bodies to arrogate to themselves powers extrapolated far from their original purpose. One prominent national developer states, "We are on the verge of adopting or accepting the concept that, although the title to property may be held by a private person, its development rights belong to society. Regulations, more sweeping than those envisioned by proponents of zoning, restrict and control even the smallest developments..." [38] Another complains that "the failure of public planning to manage urban growth has made private developers highly visible scapegoats." [39] These statements reflect concern about both the legitimacy of growth management itself and the rights of communities to pursue and implement growth management policies.

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[38] Ray Drackman, "Land Use Under Current Restraints," Management and Control of Growth, Edited by Randall Scott, Urban Land Institute, Washington, D.C., 1975, Vol. 3 p. 506.

[39] Robert Larson, "Growth is a Metropolitan Issue," Ibid., Vol. 3 p. 485.

Given this skepticism about the use of the police power, it is difficult to make the case that the DWB is a proper institution in which to invest such authority. Its independence from even elected officials within its parent jurisdiction is well established. As Cox points out, "The framers of the charter amendment creating the DWB were determined to create an agency that would be removed, as far as possible, from politics. By creating a board, rather than a department directly responsible to the Mayor, it was hoped that the influence of the Mayor upon board policies would be reduced."[40] As an example of the success of this policy is that only now, in 1980, is the Denver City government proposing that in the fall a Charter amendment be referred to Denver's voters allowing removal of a DWB Commissioner for cause!

Suburban communities clearly have much more reason to be concerned about DWB political accountability were it to move into the arena of growth management. While one can make the argument that Denverites have some tenuous hold on DWB policy by virtue of the Denver Mayor's appointment power of the DWB Commissioners, suburban residents are totally excluded from this process. They justifiably fear the power of a core city authority which is completely unaccountable to them to make decisions affecting their communities' long term future. Many argue that the DWB is far too unrepresentative of metropolitan-wide interests now to make even utility-related judgements

[40] James Cox, op. cit., p. 95.

affecting non-Denver communities. It is no accident that it was a suburban congressman, Representative Tim Wirth of Jefferson County, who felt the need and saw the opportunity to successfully mediate resolution of the Foothills Treatment Plant controversy. It is also no accident that one of the key terms of settlement was the establishment of a Citizens Advisory Committee[41] to the DWB with four of its nine seats reserved for suburban interests.

The structure of the DWB was carefully crafted to achieve a single purpose with as much efficiency and as little political interference as possible. It doesn't have strong ties of accountability to a metro body politic. Without such accountability to a community, its political legitimacy as an active player in metro growth management is suspect.

Colorado Utility Law and Growth Management

The legal cases cited in Chapter 1 illustrate that judicial review of the concept of water service policy as an element of growth management is a mixed bag. The facts of the case, the state in which it is argued, and the jurisdiction of the federal or state courts all bear on the legal outcome. Colorado law is not immune from this confusion.

In Robinson v. Boulder[42] the court held that in providing water service outside its boundary, Boulder acted like a utility and therefore was impressed with the obligations

41 Upon which the author serves as a public interest member and a representative of the Denver Chapter of Colorado Common Cause.

42 Robinson v. Boulder, 547 P2d 228 (1976)

of a utility. One such obligation is to provide service upon demand unless some utility-related exigency prevented it from reasonably doing so. Boulder was precluded from considering growth management as a factor in the utility extension decision process. On appeal the lower court ruling was sustained.

However, in a previous case, Englewood v. Denver,[43] the Colorado Supreme Court held that Denver, even though it sold substantial quantities of water to a customer (Englewood) outside its boundaries, was not a public utility because the water sales were merely "incidental" to Denver's primary purpose in owning and operating a water system; that purpose being to supply water to its municipally-bounded population.

Though this discussion does not purport to represent thorough legal research on the subject, the author's conversations with several attorneys, active in the practice of utility law, leads him to the following conclusion. A water service agency might not be restricted in the use of its authority to deny service for non-utility reasons if the agency is not found to be a public utility per se.

The DWB has assiduously avoided being classified as a public utility. As shown in the Englewood case, it has prevailed in court on this matter in 1951 with a specific

[43] Englewood v. Denver, 123 Colo. 290, 229 P2d 667 (1951)

factual situation. Moreover, the DWB specifically prepares its distributor contracts in such a fashion as to not hold itself out as a utility to the community being served by that distributor.[44] This has been done with the primary motivation of escaping regulation of the Colorado Public Utility Commission which can assert jurisdiction over municipal utilities when they are acting outside their boundaries in the manner of a utility.

If the DWB was deemed to be acting as a utility in the provision of its service to suburban areas, it probably would not be in a legal position to participate in a growth management system. So far, it has not and definitely does not want to fall into such a category. It can therefore be argued that no court has yet established legal impediments to the DWB utilizing water service for non-utility purposes. The DWB is not anxious to test this principle, principally because it wishes to continue to enjoy independence from the rate review and other powers of the Colorado Public Utilities Commission. Given the findings of Robinson it is impossible to state with certainty whether the DWB could participate in a growth management system.

There may be an alternative governmental structure that might assume the responsibilities of water service which could more easily qualify legally as a participant in a growth management system. This alternative is discussed in the next chapter.

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[44] Bob Jensen, op. cit.

CHAPTER SUMMARY

The DWB is a powerful influence in the provision of water service to the Denver metro area. Its actions definitely can affect locational decisions of specific development projects. It has not been, however, an all-powerful agency. The history of water service in the metro area over the last 30 years indicates that an absence of water service to a particular community by the DWB has not precluded development within that community. In the past, significant water project investments have been undertaken by non-DWB entities. The DWB has accommodated much growth in the Denver metro area but is probably not the determinant factor in promoting or curbing aggregate metro population growth.

Such a conclusion is not surprising once one has compared the DWB with the six prerequisites for a water service agency to be an effective participant in a metro growth management system. The DWB has not had sufficient geographical congruence with the total metro area. There is not a consensus on a regional growth plan and its objectives. The DWB has resisted being part of any growth management system. The legal authority for the DWB to participate in a growth management system is unclear.

The question arises as to whether the circumstances of the last 30 years which permitted water supply development by non-DWB entities would prevail in the future. One might

argue that the past is not prologue and only the DWB is capable of raising the capital to invest in water supply projects which are very much more expensive in the '80's than the '50's. This argument suggests that the easy to develop water of the '50's is no longer available and suburban communities are not in a position to invest in large water system projects.

In a recent briefing, the DWB presented its 20-year forecast of water service requirements based upon Denver Regional Council of Governments population projections. While it expects to be serving several hundred thousand more people by the year 2000 in a somewhat larger service area, its proportion of the metro population served is only expected to climb slightly to 59%.

Current forecasts by both DRCOG and the DWB anticipate substantial water supply investments by non-DWB agencies. Much of this investment may take the form of acquisition and condemnation of Eastern Slope agricultural water rights. One Colorado water expert believes that there is substantial reason to believe that there is enough agricultural water to accommodate a many fold growth increase in the Denver area.[45] He further states that several suburban cities are likely to develop such supplies. While these forecasts are problematic, the author does not believe the DWB will acquire a monopoly over new water supplies.

[45] Interview with Bill McDonald, Director, Colorado Water Conservation Board, July, 1980.

Chapter 3 explores the possibility of a successor agency to the DWB, a regional water service agency, as a more effective participant in regional growth management.

CHAPTER 3

A PROPOSAL FOR A DENVER METRO WATER AGENCY

The previous chapters have provided sufficient evidence to conclude that the Denver Water Board is not appropriately structured to curb urban sprawl by itself. Questions have also been raised which cast doubt upon the legal status of the Denver Water Board to pursue non-utility purposes beyond its municipality's jurisdiction. Finally, the political "critical mass" necessary to achieve consensus on growth management objectives and hence a regional growth plan while simmering has not solidified.

This chapter proposes one institutional alternative to the Denver Water Board as a means of utilizing water service policy in a Denver metro growth management system. The alternative is the creation of a new governmental entity, a metro water service agency. It should be carefully noted that the author is not advocating the creation of such an agency. He is pointing out that <u>if</u> at some time water service policy is to be considered as a growth management technique in the Denver area, planners should logically consider establishment of some institution along the lines of a new metro water agency.

The proposal that follows is a speculative design of a water service agency that explicitly considers the criteria for effectiveness developed in the previous chapters.

The boundary and service area size issue is addressed. A legal structure that would permit non-utility purposes to be considered in the water distribution function is suggested. Reform of the governance structure is proposed to make a new agency more accountable to metro-wide interests. The questions of who develops the growth management plans and how a water agency fits into municipal and county growth management systems are also raised.

In short, this chapter describes an outline of what would have to be created to achieve leverage in the use of water service for growth management. It covers the key features and institutional reforms of an alternative to the Denver Water Board and similar municipal water agencies and briefly examines some of the obstacles in getting there.

SERVICE AREA SIZE

A new metro water agency would have to be truly regional in its coverage. If the problems which developed beyond the borders of the Denver Water Board when it established its Blue Line are to be avoided, a metro water agency would have to include in its service area most of the developable land likely to demand water service for a long period of time. Such a service area would include most, if not all major municipal jurisdictions in the path of development to preclude another round of independent investment in water supply systems for those whose property is denied or deferred water availability for growth management reasons.

The startling point for determining service area size is the current Denver Regional Council of Governments (DRCOG) Urban Service Area boundaries. This includes the City of Denver, the non-mountainous portions of Jefferson County to the west of Denver, the non-mountainous portions of Boulder County, southwestern Adams County, and western Arapahoe County (see Map 2). This corresponds roughly to the Denver SMSA.

DRCOG is currently revising its Urban Service Area boundaries. The significant amendments take in the northern portions of Douglas County to reflect growth southward of the Denver metro fringe along I-25 highway. In particular, the Mission Viejo new city will obviously be integrated into the metro area.

The inclusion of large portions of non-mountainous Boulder County in a new metro water agency may appear problematic. While a portion of the SMSA, the City of Boulder has initiated a program to limit its growth and physically remain isolated from the sprawl of the Denver megalopolis. It is still sufficiently far from Denver (30 miles) to try to maintain its identity as a non-Denver metro community. The City of Boulder has a well-funded greenbelt program and has aggressively acquired agricultural land on its borders. Nonetheless, a path of development is steadily pushing along the major Boulder-Denver highway route bringing suburbanization directly into Boulder County. This trend is unlikely to be

MAP 2

FUTURE SERVICE AREAS

URBAN SERVICE AREAS

RURAL TOWN CENTERS

MOUNTAIN DEVELOPMENT AREAS

ADOPTED: AUGUST 18, 1976
REVISED: JANUARY 1, 1980

LYONS
LONGMONT
BOULDER CO. (NON-URBAN)
BOULDER CO. (MOUNTAIN)
BOULDER
ERIE
LAFAYETTE
LOUISVILLE
BRIGHTON
SUPERIOR
THORNTON
BROOMFIELD
NORTHGLENN
WESTMINSTER
BOX ELDER (ADAMS)
JEFFCO. (NON-URBAN)
FEDERAL HEIGHTS
ADAMS CO. (NON-URBAN)
ADAMS CO. URBAN
ARVADA
COMMERCE CITY
JEFFCO. (MOUNTAIN)
JEFFCO. APPLEWOOD PLEASANT VIEW
WHEATRIDGE
GOLDEN
DENVER
LAKEWOOD
AURORA
GENESEE
NON-URBAN
SHERIDAN
GLENDALE
ENGLEWOOD
MORRISON
CHERRY HILLS VIL.
BOW MAR
LITTLETON
GREENWOOD VIL.
EVERGREEN
JEFFCO. URBAN (S.E.)
COLUMBINE VALLEY
ARAPAHOE CO. (NON-URBAN)
ARAPAHOE CO. URBAN
HIGHLAND RANCH
SOUTHGATE
PARKER
LOUVIERS
DOUGLAS CO. (NON-URBAN)
SEDALIA
PINERY
SILVER HEIGHTS
CASTLE PINES
ROXBOROUGH PARK
CASTLE ROCK

DRCOG

SCALE IN MILES

halted without more direct local government actions than have occurred to date.

Jurisdictionally, a new metro water agency should incorporate within its boundaries the service areas of current major water supply agencies. This would include the Denver Water Board, Aurora, Englewood, Thornton, Northglenn, Arvada, Westminster, Golden, and Boulder.

Again, the purpose of carving out such a huge territory for service by a new water agency is two fold. First, new investment in water service and supply facilities would be under the influence of a single agency thus precluding extra-territorial development of water service capital facilities. Second, the externalities, caused by uncoordinated water supply decisions, of one community's growth management efforts spilling over upon neighboring communities could be minimized. A metro water agency would meet the geographical congruence prerequisite presented in the previous chapters.

LEGAL STRUCTURE

A metro water agency must, of course, be imbued with all the necessary powers to own and operate a complete water works system including rights of eminent domain, rate setting authority, contractual powers, authority to incur debt, etc. In addition, to achieve the objective of utilizing water service policy to assist growth management, it must have the following characteristics:

1. the right to provide services conditioned upon certain non-utility related objectives such as location and type of development,
2. the right to act without being overruled by individual jurisdictions within its service area, in particular, home rule governments, and
3. exemption from regulation by the Colorado Public Utilities Commission (PUC).

The following legal structures are proposed as possible means to achieve the above. The author believes these structures would not fail obvious tests of statutory and constitutional validity. He does not hold out this discussion as a definitive legal brief but rather an avenue of further legal inquiry.

One mdoel for a metro water service agency in the Denver area is the legislatively created regional district. The Denver area's surface transit entity, the Regional Transportation District (RTD) is an example. Created by the Colorado Legislature, the RTD is a unique form of regional special purpose government. It has three special characteristics.

First, while not tested in a court of law, it appears the RTD is not subject to regulation by the Colorado Public Utilities Commission. The PUC has declined to assert jurisdiction over the RTD. Second, the RTD has an established regional purpose thus avoiding conflict with the sovereignty

assigned home rule cities for certain services by the Colorado Constitution.[1] Therefore, local governments are precluded from establishing competing bus or transit services. Third and most importantly, because a metro water service agency which had boundaries large enough that it would not be acting extraterritorially would be akin to a municipal entity acting within its borders and thus immune to classic utility law requirements which might inhibit pursuit of non-utility objectives. Obviously, the Colorado Legislature could make this point explicit in the creation of such an agency.

One important distinction between the RTD model and the desired metro water agency's legal structure would be its manner of governance. This is key to the question of political accountability.

Another possible legal structure for a metro agency already exists in Colorado law. Pursuant to a 1970 Constitutional amendment, the legislature in 1972 enacted the Service Authority Act. This bill authorizes popularly elected regional government for certain enumerated purposes after a vote of the residents in the jurisdictions affected. Specifically included among the services which may be designated is "domestic water collection, treatment, and distribution."[2]

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[1] Metro Capital Improvement District v. Adams County, Colo. case decided Feb. 12, 1962. In this case a statutorily formed Metro Capital Improvements Agency was declared unconstitutional because it was not truly regional in purpose but rather only a financing mechanism for channeling tax dollars into individual community public improvements. It imposed duties upon home rule communities in conflict with those cities' rights of self-determination under the Colorado Constitution.

[2] 32-7-111(1)(a) Colorado Revised Statutes 1973

Unlike the case of the Regional Transportation District which appears to be exempt from PUC regulation, it is not clear from the text of the Service Authority Act what utility characteristics are implicit in a metro agency formed under its auspices. As noted in a succeeding section, a regional planning entity formed pursuant to this law is to be voted upon in the Denver metro area in November, 1980. A metro water agency is not a part of this proposal.

METRO WATER AGENCY GOVERNANCE

One of the problems with the Denver Water Board governance structure, if it became involved in the field of growth management, is that its appointed board is not representative of all those it serves, specifically non-Denver residents. A method of representation to provide accountability to all within its service area is an essential requirement. Multi-jurisdictional representation would have to be an element of the agency's governance.

A second issue is whether representation should be the result of appointment by local governments (as is the case with RTD) or by direct popular election. Political science theorists debate the pros and cons of these two approaches. The author believes that at some point in the process of establishing growth management objectives for a metropolitan area, accountability must be provided directly to citizens by means of popular election.

This is not to say that the water service agency board must be elected. An alternative can be the establishment of an elected regional planning body which would be vested with sufficient authority to establish a regional growth plan and require the water service agency to comply with the provisions of such a plan. In this case the water agency, while having the latitude to make judgements about how to best accomplish the regional plan's polciies, would nonetheless be bound by these policies. It would not be as critical that the metro water board members be elected since political accountability had been built into the process of developing the regional growth plan itself.

An effort in this direction is underway at this time. A coalition of DRCOG officials, progressive interests, and the League of Women Voters has drafted a proposal for a regional planning authority with a popularly elected board pursuant to the Service Authority Act of 1972. Having twice failed to obtain state legislative approval of the plan, this coalition conducted a successful petition campaign to have the issue placed on the November 1980 general election ballot by popular initiative.

If the proposal were to pass elections, it would subsequently be held in 15 districts within the 4-county metro area to provide direct citizen representation on the new regional palnning authority. In such a case, the need for directly elected representatives on a metro water agency

is diminished. So long as the water agency's growth management actions were consistent with the policies and plans established either by the popularly elected regional planning authority or by local governments, the legitimacy of the water agency's growth management decisions would be less questionable.

REGIONAL PLANNING CONSIDERATIONS AND OBJECTIVES

The fundamental role of water service policy in a comprehensive plan must be clearly specified. It is the author's belief that the role would be to help control the location and timing of growth, principally large commercial and residential development projects. The purpose of these measures would be to curb extensive, low-density sprawl.

It is unlikely the metro water agency would be able to participate in a plan with the objective of limiting aggregate urban population growth. While a few communities in the planning literature have been noted for growth limitation efforts, Petaluma and Ramapo for example, it appears that they have not dampened aggregate demand for housing and employment opportunities in their region. Whatever growth they don't fully accommodate shifts to neighboring communities within their region.

Studies of the Denver metro area suggest the same conclusion. Speaking of water restrictions that could affect amenity values in the metro area, one study concludes that

"In all likelihood, these restrictions would be insufficient to noticeably affect amenity-driven locational decisions and consequent population growth."[3] "Within wide limits, water use restrictions would be unlikely to become important considerations in the locational decisions of either households or business firms."[4] In other words, there are very strong external forces driving growth in the Denver area. Only the severest water restrictions would measurably lessen these growth pressures. In the author's judgement, it is unlikely a plan could be formulated which would limit migration to the Denver area by means of water availability without impacts so severe to the existing population that the measures would be found unacceptable.

With the understanding that a metro water agency's non-utility objective is to affect distribution and timing of growth, it is next important to determine where the agency looks for guidance to implement this policy. Who plans where growth is to occur and when.

Ideally, a regional planning agency would provide utility agencies with a comprehensive growth and development plan for the region detailing the role of utility agencies in its implementation. As noted in Chapter 1, for reasons of

[3] LTW Assoc., Water and Growth:An Inquiry Into the Potential Impact of Municipal Water Use Restrictions Upon Future Growth of The Colorado Front Range Corridor, Research Report 79-1 prepared for the Colorado Dept. of Natural Resources, February 1979, p. 44.

[4] Ibid. p. 50

both practicality and legal adequacy, a comprehensive plan is the cornerstone of a growth management system.

Experience with metro planning agencies suggests that they are unlikely to produce enforceable growth management plans which are the result of a regional consensus. In a less than ideal world, a metro water agency would have to seek plausible second best solutions for achieving growth management objectives. In particular, the metro water agency would probably first sacrifice a regional view encompassing every one of its jurisdictions in favor of subregional views. It would look toward the planning objectives of local units of government and where it could identify common elements adopt them as its own in cooperation with those governments.

Utility planners, then, would look to the subregional comprehensive plans for the following:

1. What population growth is expected over at least a two-decade period in order for the water agency to plan for the necessary additional raw and treated water supplies needed,
2. Which paths of development and infill are envisioned as candidates for extension of services,
3. What is the anticipated timing of development in new service areas, that is, how is growth to be staged, and

4. Given that treated water is available for distribution to new service areas, how many taps are to be allocated for service from those distribution mains over what period of time and who is to receive them.

The metro water agency under this proposal would be a limited decision maker as far as the fundamental urban growth goals for the area are concerned. It chiefly would be an implementation agent on behalf of local governments to help them achieve broad objectives around the logical distribution and timing of development.

To accomplish its twin objectives, the metro water agency would first have to plan to accommodate growth within its broad service area. This would require it looking to an accountable regional planning agency for long term population growth projections. It would be making its major capital investment decisions, such as when and where to obtain major new raw water supplies based on these population projections.

To help guide locational decisions, the metro water agency would work closely with local units of government to help them use water service policy as a key element of their comprehensive planning and zoning activity. The water agency would have to set standard terms on which this would be accomplished so that non-exclusionary outcomes would be precluded and developers would be facing consistent policies

regarding tap fees, engineering requirements for utility hookups, participation charges and the like. Within such policies, municipalities would be providing tap allocations and making the actual decisions about who receives services for what specific types of development.

In unincorporated areas, the metro water agency would establish criteria to encourage development close to existing development and service facilities. County government, while ultimately responsible for zoning and subdivision approval in unincorporated areas, would be aware of the metro water agency's preference for development logically related to existing treatment and water distribution lines. Developers in these cases would have to seek tap allocations from the metro water agency since no municipal government would, at least initially, be in a position to provide service beyond its borders to such unincorporated developments. A reasonable exception to this procedure would be when a regional planning agency or the metro water agency could make a finding with a local municipal unit that annexation of a potential development to that municipality was desirable. In such cases the metro agency could authorize that municipality to provide taps to the unincorporated development on condition of annexation.

POLITICAL CONSIDERATIONS

The notion of a metro water agency is by no means new. Numerous studies have pointed out that "the Denver Water Board has quietly and effectively transformed itself into

a de facto metropolitan corporation."[5] As Cox points out, "Even though the Denver Water Board, from a legal standpoint, is not a metropolitan agency, its scope of operations is more nearly metropolitan-wide than any other service-performing entity in the area."[6] He goes on to say that "a political consciousness existed in the Denver metropolitan area for a regional water supply agency and that this agency could serve as a transitional device toward further governmental integration in the area." His motive in suggesting this is to promote governmental efficiency in the metro area.

Both in 1974 and 1975, bills were introduced in the Colorado Legislature to create a metro water district. The first of these, House Bill 1131, was sponsored by two suburban legislators whose desire it was to make the Denver Water Board less accountable to Denver and more a creature of suburban jurisdictions. It didn't get out of committee. The following year, House Bill 1308 was introduced by a different set of suburban legislators. Its contents were identical to the previous year's bill and it suffered the same fate. They were both killed by Denver legislators who saw their City having one of its powerful agencies being reshaped toward suburban interests without anything in return being provided by the suburbs to assist the core city.

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[5] William Bernard, Metro Denver:Mile High Government, Bureau of Governmental Research, Univ. of Colorado, 1970, p. 55.

[6] James Cox, Metropolitan Water Supply:The Denver Experience, Bureau of Governmental Research, Univ. of Colorado, 1967, p. 164.

About the same time, the Legislature authorized a study to determine what utility-related advantages could be enjoyed by a metro water agency. It concluded that a hypothetical metro water agency would achieve modest cost savings of about 5% over a 30-year period in contrast to present arrangements of supplying water to the metro area.[7] It also found that a metro water agency would provide improved water quality, water availability, and general water service to the metro population. In an obvious understatement, the report recognized that "while the desire for a metropolitan-wide water agency to solve the problems appears clear to everyone, there is no consensus regarding details of the structure and responsibility of such an agency."[8] In other words, the jurisdictional and political ramifications of a metro water agency overwhelmed the benefits of the proposed agency. Growth management issues were not a part of this study.

Cox points out why "attitudes are essentially negative toward the proposition of integrating the many water supply facilities in the area into a single metropolitan system."[9] First, several suburban communities have made substantial financial investments in their systems and enjoy the autonomy from the Denver Water Board these investments have brought them. Second, Denver officials and citizens are reluctant to relinquish their influence over the Denver Water Board, no

[7] Metropolitan Water Requirements and Resources:1975-2010, Colorado State Legislature, 1975, p. 135.

[8] Ibid. p. 23.

[9] James Cox, op. cit., p. 168.

matter how nominal, without significant assistance from the suburbs, probably in the form of some sort of tax base sharing.

Other factors might compel some structural changes for the Denver Water Board. A recent report from the Colorado Taxpayers Association noted that the Water Board needed substantial new capital to complete large water supply projects. It would have difficulty gaining Denver voter approval of a new bond issue for such purposes. On the basis of more positive feelings for water supply projects among its suburban constituency, a metro-wide bond issue might stand a better chance for approval. In other words, out of need for capital, the Denver Water Board might have to structure a greater suburban role in its activities.

In general, discussions about the pros and cons of a metro water agency have not centered upon such an agency's role in regional growth management. With the exception of modest proposals from the Denver Regional Council of Governments, urban planning motivations for a metro water agency have been minimal. It is likely that were a metro water agency to be created, its genesis would be water supply related. Hopefully, other water service policy issues such as growth management could be raised at that time.

CHAPTER SUMMARY

The outline of a metro water agency for the Denver area is presented. The proposed agency is fashioned to meet the

requirements for a water agency to participate in the region's growth management system. It is designed to be geographically congruent with the areas of growth potential. It is legally structured to allow for water service to be used in conjunction with growth management objectives. Its governance is the accountability of the residents of the urban area. Its role in implementing regional and local government comprehensive plans is outlined.

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