



GOVERNING THE TAP

Special District Governance
and the New Local Politics
of Water

Megan Mullin

Governing the Tap

American and Comparative Environmental Policy

Sheldon Kamieniecki and Michael E. Kraft, series editors

A complete list of books published in the American and Comparative Environmental Policy series appears at the back of the book.

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Special District Governance and the New Local
Politics of Water

Megan Mullin

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For Waugh

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Series Foreword

In response to the increased volume of pollutants entering surface water and groundwater, thereby threatening the quality of community drinking water, the U.S. Congress passed the Safe Drinking Water Act in 1974 and major amendments in 1986 and 1996. Since then, the U.S. Environmental Protection Agency has identified a large number and wide variety of dangerous pollutants that can contaminate drinking water, and it has successfully led the effort to protect the quality of the nation's drinking water. The ongoing monitoring and regulation of tap water is no small task given the existence of more than 160,000 public-water systems throughout the United States as well as the wide range of local conditions that can influence water quality in American communities.

In addition to concern over the quality of the nation's drinking water, increasing demand on local drinking water resources has led to water shortages during periods of drought. Although primarily a problem in western states in the past, recent population growth and migration in other regions of the country have left water systems vulnerable to serious shortages of drinking water. Such incidents have prompted many communities to enact water-conservation measures and regulations and even building moratoria in order to guarantee the supply of scarce drinking water. Protecting both the quality and the quantity of a community's water supply is a growing challenge for the local institutions governing drinking water in the United States. Many of these institutions are specialized water districts that have little public visibility but make decisions about the most essential community resource.

Megan Mullin's book provides an insightful, in-depth analysis of the consequences of specialization and fragmentation for local policymaking by using decision making about local drinking water as an example. As she argues in this well-written volume, local drinking water policy is an

ideal case because some of the first special districts focused their efforts on drinking water. Water districts were later used as a model for the spread of specialized governance into other local government functions (e.g., public health and fire protection). In addition, the investigation of local water-governing bodies is important now because of the rise of the new local politics of water involving both the quality and the quantity of water supplies. As Mullin points out, a system of specialized governance narrows each government's decision authority to one issue or a narrow set of issues, thereby raising a number of critical questions. For example, how does such a system affect the kinds of policies that governments make, and does it influence their responsiveness to citizens' preferences and demands? Her analysis and intriguing findings have important implications for local water policy in particular and for specialized governance in general.

The book illustrates well the goals of the MIT Press American and Comparative Environmental Policy series. We encourage work that examines a broad range of environmental policy issues. We are particularly interested in volumes that incorporate interdisciplinary research and focus on the linkages between public policy and environmental problems as well as on issues both within the United States and in cross-national settings. We welcome contributions that analyze the policy dimensions of relationships between humans and the environment from either a theoretical or empirical perspective. At a time when environmental policies are increasingly seen as controversial and new approaches are being implemented widely, we especially encourage studies that assess policy successes and failures, evaluate new institutional arrangements and policy tools, and clarify new directions for environmental politics and policy. The books in this series are written for a wide audience that includes academics, policymakers, environmental scientists and professionals, business and labor leaders, environmental activists, and students concerned with environmental issues. We hope they contribute to public understanding of environmental problems, issues, and policies of concern today and suggest promising actions for the future.

Sheldon Kamieniecki, *University California, Santa Cruz*
Michael E. Kraft, *University of Wisconsin, Green Bay*
American and Comparative Environmental Policy series editors

Acknowledgments

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1

Introduction

Governance of American communities is becoming more specialized. Independent special districts play a growing role in providing a wide array of local services, with the consequence that most households now fall within a multiplicity of local jurisdictions. Special districts, sometimes called *public authorities*, are autonomous governments that can perform almost any of the functions of a city or county. Over the past fifty years, their number has more than tripled, making the special district the most common form of local government in the United States. Because each special district has only a limited purpose, a system of specialized governance fragments authority over a community's public services among multiple independent institutions.

This book examines the consequences of specialization and fragmentation for local policymaking. Specialization is a common method for managing growth in the size and complexity of a political system (Dahl and Tufte 1973). Legislative districts allow public officials to specialize territorially, and governments establish bureaucracies, legislative committee systems, and independent commissions to organize their work along functional lines and to promote issue expertise. Special districts represent the next step in specialization: the formation of autonomous governments with jurisdictions defined by function as well as by geography. A system of specialized governance narrows each government's decision authority to a single issue or a narrow set of issues. Several questions can be asked about such a system: How does it influence the kinds of decisions that governments make? Does it affect their responsiveness to the preferences of constituents? Do certain interests in a community enjoy a particular advantage in one kind of institutional setting over another? And to what extent are specialized governments able to coordinate their activities in order to address complex, regional policy challenges?

The answers to these questions have important consequences for where and how we live. As special districts proliferate, they absorb more functions from traditional cities and counties, and they take on added responsibility for providing essential public goods. In assigning the location of hospitals and firehouses or in treating drinking water for toxic contaminants, special districts help protect public health and safety. They boost property values when they install sewers in a neighborhood or reinforce a levee. Their choices when allocating resources for parks, libraries, and public transit have significant impact on people's job opportunities and quality of life. Through their control over infrastructure and public services, special districts can help define our physical communities, guide their growth, and influence their composition. At the same time, the crosscutting jurisdictional boundaries that emerge in a system of specialized governance may divide political communities and erode perceptions of common interest.

Analysts and observers of special districts typically have sorted themselves into two camps: one that views specialized governance as a flexible, efficient, and responsive institutional design for meeting local service demands, and one that treats special districts as captured by local-growth machines and unaccountable to their constituencies and neighboring governments. The two perspectives make different assumptions about citizens' ability to express policy preferences and about the political incentives for local officials to respond to those preferences. As a consequence, the two camps offer contradictory assessments of institutional performance across a number of different normative criteria. This study offers a conditional theory of specialized governance that reconciles these competing accounts and improves our understanding of the democratic and policy consequences of specialization. By specifying and measuring the effects of special district governance, I also offer new insights about how municipal governments respond to the severity of public problems and the mobilization of local interests.

Local drinking water policy provides the empirical testing ground for this investigation. Management of the nation's drinking water has undergone transformation in recent decades as population growth and environmental regulation have increased competition for access to limited freshwater resources. Drinking water shortages have become a common occurrence even in communities that receive abundant rainfall. In earlier decades, conditions of water scarcity in a region would have prompted the construction of large-scale engineering projects, typically undertaken

with substantial state or federal assistance, to expand capacity for water storage, treatment, and distribution. In recent years, however, heightened attention to these projects' environmental and economic costs has reduced their political viability. Taking their place are smaller-scale, decentralized public policies designed to promote water conservation and to distribute existing resources more efficiently and equitably.

Governance has replaced technology in the new era of public water supply management, and local decisions are paramount. Local water systems facing resource constraints must act on their own to reduce water consumption or seek to augment their supply through arrangements with neighboring communities. A local government also might attempt to set limits on a neighboring community's consumption of a shared resource. Meeting future water demand will require difficult policy choices that will favor some water uses over others and will tighten the linkages between land-use planning and water availability. As special districts take on greater responsibility for managing public water systems, it is essential that we understand districts' capacity for engaging in responsive and collaborative decision making in this critical policy area.

The Rise of Specialized Local Governance

Special districts are commonly perceived as shadow governments operating primarily in rural areas, but in reality they are an integral part of local governance in the United States. As defined by the U.S. Census Bureau's *Census of Governments*, special districts are autonomous units with substantial administrative and fiscal independence from general-purpose cities and counties.¹ They can provide almost any of the services of a traditional local government; the main difference is that they perform only a single function or in some cases a few specified functions. Some functions lie outside the scope of specialized governance: special districts do not provide public welfare, and they lack the police and land-use powers held by traditional cities and counties. Although school districts are like special districts in their functional specificity and administrative independence, they usually are treated separately because of school districts' distinct origins, purposes, and domination of local finances. But special districts can provide most local services—including water, sewers, parks, transit, libraries, fire protection, health care, electricity, and airports—and they can range from small, low-budget districts responsible for mosquito abatement to the gigantic Los Angeles

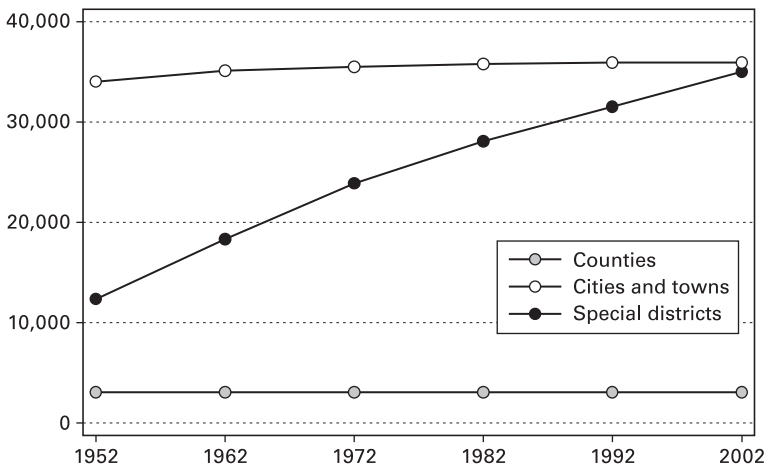


Figure 1.1
U.S. local governments, 1952–2002. *Source:* U.S. Census Bureau 2002.

County Metropolitan Transit Authority and the Port Authority of New York and New Jersey, each with annual expenditures of more than \$2 billion.

American communities have become increasingly reliant on special districts over time. As shown in figure 1.1, in 2002 there were 35,052 special districts in the United States, nearly triple the number that existed fifty years earlier. In the same time period, the number of municipal and town governments increased by 6 percent, and the number of counties slightly declined (U.S. Census Bureau 2002b). Special district spending as a proportion of overall local government expenditures also increased during this period, but at a lower rate. In 2002, special districts accounted for 11 percent of local government spending, up from 6 percent in 1952. That amount may seem trivial, but it is important to remember that special districts do not provide education, public welfare, police protection, and corrections—several of the most expensive functions of local government. Setting aside these functions, limited-purpose special districts account for more than 20 percent of local government spending. Their 2002 expenditures on local services nationwide totaled more than \$122 billion (U.S. Census Bureau 2005c).

No single function dominates among special districts. One in five districts performs services related to natural resources, but even that category includes a diverse set of tasks, including soil conservation, flood

protection, and pest control. Nearly six thousand fire-protection districts make up the second-largest functional category. Special districts are the leading providers of some services: they account for 67 percent of local transit expenditures and 53 percent of local spending on natural resources. They play an important role in a number of other functional areas as well, contributing 40 percent of total local expenditures on housing and community-development services, 37 percent of expenditures on electricity, 36 percent of expenditures on airports and waterports, and 31 percent of expenditures on hospitals.

Although special districts are often treated as rural phenomena, in fact they are more likely than cities and counties to be located within metropolitan areas. Across states, there are no clear patterns in reliance on special districts. Eleven states account for more than 50 percent of all special districts in the United States and 59 percent of special district spending, with Illinois, California, Texas, and Pennsylvania leading in special district expenditures. On a per capita basis, the number of special districts per 100,000 residents ranges from 0.1 in Hawaii to 113 in North Dakota. Just as states vary in their reliance on special districts, they also choose specialized governance for different functions. In most states, for example, operation of public parks lies exclusively within the domain of cities and counties, but 72 percent of Illinois's local spending on parks comes from special park districts. Some states authorize special districts for only a few purposes; others allow communities to set up a district for almost any local government function. More than 80 percent of New York's 1,126 special districts are fire districts; fire districts also make up the plurality of special districts in California, but they account for just 12 percent of all districts.

Further variation exists across and within states on the amount of authority special districts possess. Special districts are independent governmental units, but like all local governments they are creatures of the state.² State enabling legislation—either general for a class of districts or restricted to an individual district—specifies districts' functional scope, their authority to levy property or sales tax and collect intergovernmental revenue, their ability to acquire property through eminent domain, and the structure of their governing boards. Because of their diversity in function, jurisdiction, and authority, special districts exhibit even more variation in structural form than traditional general-purpose local governments. This variation provides an excellent opportunity for examining the effects of institutional design.

A mid-twentieth-century observer called special districts “the new dark continent of American politics” (J. Bollens 1957, 1); decades later, many aspects of special districts remain unknown.³ We have a better understanding of the causes of special district governance than of its effects.⁴ Special districts have proliferated because they offer a convenient structure for providing a new public service: they customize service boundaries to the area in need, they allow cities and counties to escape the financial risk of a large infrastructure project, and they satisfy constituents concerned about corruption and mismanagement in existing local governments. Special districts can provide services to specific areas without following the jurisdictional lines of an existing city or county. They can regionalize service delivery to take advantage of economies of scale or localize it to satisfy individual neighborhoods’ preferences. The opportunity to create new boundaries can be an advantage when designing the policy response to a problem delineated by natural features, such as a watershed or the habitat of an insect species. It also allows provision of services to new developments that do not incorporate or annex to an existing city.

Special districts are formed in response to local demand for public services, but the actions of other government sectors play a role in creating opportunities for specialized governance. The federal government has provided incentives for special district formation in a number of functional areas, in particular soil conservation and housing during the New Deal and more recently transit and the management of natural resources. But federal policy can also inhibit special district formation: Nancy Burns (1994) has shown that from the 1960s onward, the Voting Rights Act was an obstacle to the establishment of new districts in some counties. State policies are even more important. The most consistent factors contributing to special district formation are the number and breadth of state enabling laws (Burns 1994; Foster 1997). In short, local actors will establish special districts where the state provides the means to do so. State-imposed limits on local general-purpose governments’ ability to incur debt or to annex new territory also may contribute to district formation, most likely by reducing the available options for providing services to new development.⁵ Finally, cities may encourage the establishment of special districts in order to meet their own annexation goals (Austin 1998) or to fund projects they cannot afford to administer (Foster 1997; Porter, Lin, and Peiser 1987).

Sometimes it is developers who promote special district formation as an alternative to municipal provision of a facility or service. Special dis-

tricts' ability to issue revenue bonds, often without any debt limit, allows developers to fund infrastructure for growth without incurring private risk.⁶ Kathryn Foster describes the influence of development interests on the establishment of special districts in the latter half of the twentieth century:

As growth controls, environmental regulations, and service moratoria replaced the postwar mentality of growth for growth's sake, property developers found service satisfaction in the relatively autonomous, easy-to-create, politically isolated, financially powerful, and administratively flexible special district. Of particular appeal were districts' bonding powers, which enabled private developers to secure up-front capital for expensive infrastructure projects. Aided often by cooperative public officials and permissive growth policies, developers initiated hundreds of community or subdivision-sized districts to provide water, sewer, drainage, road, street lights, and other development-oriented services. (1997, 19)

Case studies of special district formation offer supporting evidence for developers' influence in creating new districts (Burns 1994).⁷ Developers also play a role in city formations, but not to the same extent. City incorporations emerge from a more public and participatory process, and they are more likely to have local residents' active support (Alesina, Baqir, and Hoxby 2004; Burns 1994; G. Miller 1981).

Existing literature offers conflicting hypotheses about the consequences of specialized local governance, predicting that special districts are either more or less likely than cities and counties to be captured by special-interest groups and to deliver inefficient policies that depart from their constituents' preferences. Conventional wisdom treats special districts as invisible and unaccountable to the general public and to their neighboring governments. Critics highlight the lack of transparency in special district operations, arguing that it creates an opportunity for patronage, corruption, and runaway spending. They also charge that political invisibility produces a bias favoring private interests who invest in lobbying special district officials. A *New York Times* editorial expressed the conventional wisdom in characterizing districts as "small, secretive governmental bodies with the powers to tax and collect fees and to hire well-connected cousins, uncles and sons-in-law." It also called them "notoriously costly and inefficient and just as notoriously hard to uproot" ("Mr. Suozzi's" 2007, 15). Another detractor calls special districts "the backdoor government, the invisible government, the shadow government," quagmires of mismanagement and corruption that are unaccountable to the public (Axelrod 1992, 310). Competing with the conventional wisdom is an argument drawn from public choice theory

maintaining that specialized governance will enhance public accountability and produce cost savings. According to this view, sorting policy issues into separate, limited-purpose venues provides greater transparency and reduces the costs of communicating with public officials, increasing the likelihood that policy decisions will be efficient and congruent with majority opinion.

The policy effects of functional specialization have received little empirical attention, making it impossible to judge the accuracy of these competing expectations. Some evidence exists to back the claim about the costliness of specialized governance, but assertions about patronage and corruption rest largely on anecdotal support.⁸ Critics complain that special districts are difficult to dissolve, whereas supporters of specialized governance applaud special districts for their adaptability to changing problems and conditions (Foster 1997; Frey and Eichenberger 1999; Hooghe and Marks 2003). Most important, little research has examined the representational consequences of specialization or its impacts on public policy outcomes. It remains unknown how specialized governance affects the balance of power among competing interests in a community or the relationships between local officials and their constituents.

Both the conventional wisdom and the public choice framework paint apolitical pictures of special district governance—the former by depicting special districts as operating outside the public’s view, the latter by assuming that special districts are purely responsive to constituent demands, efficiently translating those demands into policy outcomes. Neither accounts for diversity across special district functions or variation in district structure and authority. Moreover, both perspectives ignore the political competition that underlies much of local governance. The provision of local services can have important distributional consequences.⁹ It also is inseparable from the politics of growth. Just like cities and counties, special districts can be highly politicized arenas for interaction among ambitious officeholders, territorial neighboring governments, resource-seeking bureaucrats, competing interest groups, and attentive neighborhood advocates. The question remains whether an institutional structure that compels specialization influences how conflict among these groups plays out.

This book offers a new theory of specialized governance that is explicitly political. I argue that special district officials are motivated by the same reelection and policy goals as other political actors. The institutional setting affects how these goals translate into policy decisions.

Unlike their counterparts in city and county government, special district officials can dedicate their full attention to a single local function. City and county officials must make trade-offs and agenda choices among a broad range of issues, so their response to a policy question will reflect the policy context—in particular, the severity of the policy problem and its salience relative to other local issues. Special districts' attention to an issue does not hinge on problem severity in the same way, but an issue's salience influences the incentives for interest groups to expand conflicts into special district venues. As a result of these dynamics, the policy effects of specialization are conditional on the public importance of the policy problem. Variation in the institutional form of special districts further influences the policy decisions they make. On the whole, I demonstrate that the effects of specialization are complex and contingent on specific governing structures and on the nature of policies themselves. This contingency makes institutional design a risky endeavor for local actors seeking to create conditions that will favor their policy goals.

The Decentralization of Water Supply Management

Local drinking water policy provides an ideal case for investigating the impacts of specialized governance, in part because of historical factors. Water was the purpose for some of the earliest special district formations; in the late nineteenth and early twentieth centuries, communities established independent districts to regionalize water service and address the growing problem of water pollution.¹⁰ In the West, the success of irrigation districts in securing reliable water supplies for farmers prompted urban communities to consider establishing their own specialized governments for water provision. The popularity of revenue bonds and the imposition of debt ceilings and property tax limitations on general-purpose local governments made special districts an even more attractive option for water governance. Water districts later served as a model for the spread of specialized governance into other local government functions.

Apart from historical context, the study of local water-governing institutions is critically important in the current era because of the rise of the new local politics of water. Increased demand on local drinking water resources has left communities throughout the United States vulnerable to water shortages during periods of drought—as has long been the case in the arid West, where battles over scant water resources underlie much of the region's most contentious politics. Water scarcity is no longer

limited to the West, however. Population growth and redistribution have left water systems throughout the country struggling to sate their customers' thirst. When the rain stops falling, newspapers are filled with reports of communities enacting use restrictions and building moratoria in order to stretch out limited water reserves. Seventeen percent of U.S. water utilities responding to a 1999 industry survey reported that they had implemented usage restrictions due to water shortages during the previous five years.¹¹ A community occasionally runs out of water altogether. In 2002, shortages in the Southeast were so severe that one North Carolina town resorted to importing water by fire hose (Jehl 2002). Drought returned to the region in 2007, requiring the town of Orme, Tennessee, to truck water in daily across state lines. Of course, western states remain most vulnerable. A 2008 study estimated that Lake Mead, the primary water supply for Arizona, Las Vegas, and Southern California, has a 50 percent chance of drying up by 2021 (Barnett and Pierce 2008). Without substantial reductions in demand or new sources of supply, by 2020 California might experience annual water shortages of 2.4 million acre-feet, an amount equivalent to the consumption of five million households (California Department of Water Resources 1998).

This growing struggle to keep pace with local demand for drinking water is a strain on the nation's freshwater resources and has far-reaching environmental and economic consequences. Houston over-tapped its groundwater aquifer until the land began to sink, causing property damage and aggravating the region's flooding risk (Perrenod 1984). Groundwater depletion in Tampa has resulted in subsidence, salt-water intrusion, and degradation of local wetlands (Scholz and Stiffl 2005). In Wisconsin, falling groundwater levels have increased the concentration of radium in some communities' drinking water (Gaumnitz, Asplund, and Matthews 2004). Overdrawing from the Ipswich River basin in Massachusetts has reduced surface water flows and caused the river to dry up repeatedly (Glennon 2002). These problems are likely to become more widespread as the escalation of global climate change increases strain on the nation's water resources (National Assessment Synthesis Team 2001).

The historic response to water scarcity was construction of a new dam or aqueduct to increase storage or transport water over a long distance. These large-scale infrastructure projects were typically undertaken with substantial state and federal assistance, and in many cases were led by the U.S. Bureau of Reclamation or the U.S. Army Corps of Engineers.

The grand water projects built during the twentieth century were marvelous feats of engineering that enabled development of the West and many Sunbelt cities. They allowed communities to pursue growth goals with little regard to limits on local water resources. They brought about enormous prosperity and provided to virtually all Americans something that is a luxury throughout much of the world: access to safe, affordable, unlimited drinking water straight from the tap.¹²

These large water projects also carried significant environmental and economic costs, however, and growing recognition of these costs has reduced the political viability of dams and aqueducts as a solution to contemporary water shortages. Heightened environmental regulation rules out many projects that might have been feasible in an earlier era. In some cases, the water simply is no longer available. Claims on the Colorado River exceed the river's flow in most years, and numerous states in other parts of the country are engaged in battles to secure access to rivers that flow across their borders: water-strapped suburbs of Washington, D.C., in Virginia and Maryland are withdrawing all they can from the Potomac; conflict between Virginia and North Carolina over access to the Roanoke River has landed these states in federal court; and Georgia, Alabama, and Florida have been fighting a "water war" for nearly two decades. Even where surplus water might be obtained, it is difficult to win political support for water development. The public no longer backs expensive investments to divert water from its natural course and thus bring about the associated impacts on wildlife, wetlands, and pristine natural areas. New storage projects also attract opposition based on concerns about the possibility that they will stimulate growth. Proposals for major water transfers may falter because of regional loyalties, often incited by resentment over past water projects. And regions such as the Great Lakes Basin that retain plentiful water supplies are acting preemptively to protect their local resources and avoid the risk of future long-distance diversions (Annin 2006).

The aggregate effect of these developments is to hinder construction of new, large-scale water projects. Construction of the Auburn Dam on California's American River halted after a 1975 earthquake, and since then environmentalists seeking to preserve the river canyon have blocked project proponents' repeated efforts to secure funding for the dam's completion. Californians also have consistently rejected proposals for a peripheral canal that would take water from the Sacramento River and carry it around the eastern edge of the San Francisco Bay Delta to

pumping plants. Northern Californians charge that the canal is just another water grab by the southern part of the state. A 2003 proposal by developers in Florida for a major transfer from north to south divided that state along similar regional lines. One indicator of the shifting policy environment is that dam removal now receives more attention than dam construction—the number of new dams has dwindled, and scientists and policymakers are beginning to reconsider the value of existing dams and their operation (Doyle, Stanley, Harbor, et al. 2003).

Communities are beginning to develop strategies for managing existing resources more effectively as it becomes more difficult to build their way out of water shortages. Local agencies have limited opportunity to acquire new supply. In addition to getting over the significant hurdles to building storage facilities, agencies must compete with other user groups for access to water resources available locally. Figure 1.2 shows the sources and competing demands for U.S. freshwater resources. Public water supply accounted for just 13 percent of total freshwater with-

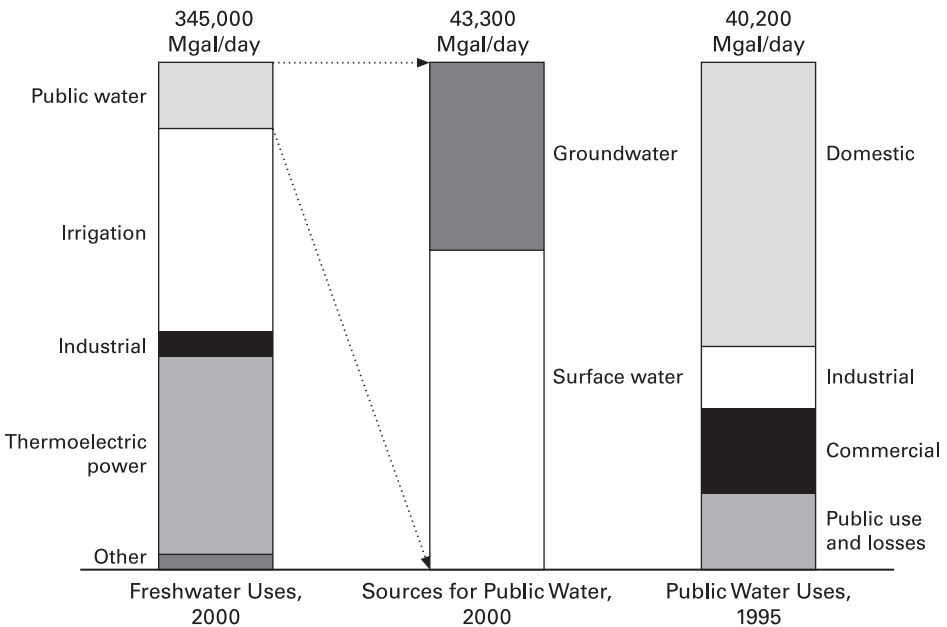


Figure 1.2 Sources and uses of the U.S. public water supply. *Sources:* Hutson, Barber, Kenny, et al. 2004; Solley, Pierce, and Perlman 1998.

drawals in 2000.¹³ The biggest consumers of freshwater resources are farmers and power plants; irrigation and the cooling of steam-driven turbine generators account for nearly 80 percent of freshwater use.¹⁴ Setting aside water consumed for cooling in thermoelectric power generation—much of which eventually returns to the surface water body—public water systems' share of freshwater withdrawals totals slightly more than 20 percent. The remaining withdrawals are dedicated to industrial and mining operations, livestock and aquaculture production, and self-supplied domestic consumption.

Water systems' ability to increase freshwater withdrawals is limited by established water rights in addition to overall resource capacity. The majority of the public water supply (63 percent) comes from surface sources, and neither of the two dominant systems for surface water rights favors drinking water uses over any others, nor do they provide clear guidance on allocation during periods of scarcity.¹⁵ The prior appropriation doctrine that is dominant in western states gives priority to senior rights-holders: the maxim "first in time, first in right" demonstrates the importance of long-established claims. Prior appropriation introduces some order to water allocation in times of shortage, reflecting the scarcity conditions that existed in the West at the time of the doctrine's development. Uncertainty remains for holders of junior rights, however, and the doctrine's strict adherence to temporal priority creates a disincentive for cooperative agreements that might help a public water system meet community demands in times of shortage. Senior rights-holders, be they farmers or neighboring public water systems, will be less inclined to conserve and share water resources if they risk forfeiting their right by doing so.

The riparian doctrine prevalent in eastern states provides no greater certainty. It allocates rights based on the land that overlies or adjoins the freshwater source. Because the riparian system assumes abundance, it fails to account for the possibility of water scarcity. Riparian rights have equal priority, so all holders of the rights to a source share the burden of a shortage. In practice, many states are backing away from strict interpretation of either doctrine in order to attach more value to conservation and in-stream water uses as well as to provide clearer guidance for allocation of an increasingly scarce resource (Deason, Schad, and Sherck 2001).

Some states also are beginning to develop systems to regulate extraction of groundwater, at least on a site-specific basis. Rights to groundwater

tend to be loosely defined. Like riparian rights, they are tied to the land, but usually without restrictions against storage and transfer to other properties. The lack of regulation over groundwater withdrawals has led to widespread overdrafting; in many places, groundwater pumping currently outpaces recharge. Where aquifers are under particular stress, some states have established groundwater management areas that entail permits and caps on withdrawals.

In sum, a legal framework combines with real resource limits to restrict opportunities for public water systems to seek out new sources of supply. Instead, local utilities must find ways to lower water demand and increase the productivity of existing resources. Much of this activity focuses on domestic users. As shown in figure 1.2, domestic use accounts for 56 percent of the water supplied by public systems.¹⁶ Because domestic users are the largest draw on a water system's resources, reducing demand within that sector can do the most to relieve pressure on a system facing supply shortages.¹⁷ Moreover, consumption is often more discretionary for domestic use than for the commercial and industrial sectors.

The United States has already made progress in reducing the amount of water consumed for irrigation and industrial purposes. Figure 1.3 displays public water as a percentage of freshwater withdrawals from 1950 to 2000. Overall per capita consumption of freshwater resources steadily

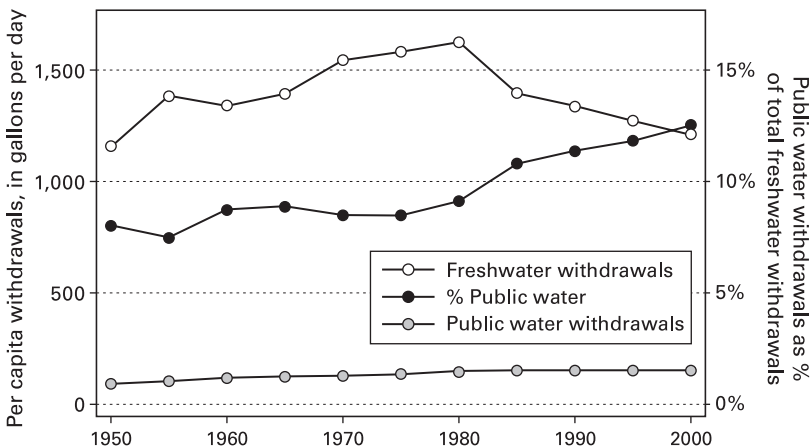


Figure 1.3

U.S. public water withdrawals, 1950–2000. *Source:* Hutson, Barber, Kenny, et al. 2004.

increased after 1950, reaching a peak of 1,625 gallons per person per day in 1980. After 1980, withdrawals for irrigation, thermoelectric power, and industrial purposes declined markedly, thanks to technological improvements and federal regulations that introduced water quality and efficiency standards. These changes have returned per capita withdrawals to their 1950 levels, and the economic productivity of water has improved (Gleick 2003). We have not seen the same conservation gains within the public water sector. Per capita consumption of public-supply resources has steadily increased, keeping approximate pace with the growing number of households that receive public water.¹⁸ With public consumption levels holding steady as other uses become more efficient, public water supply represents a growing percentage of overall freshwater use, rising from 8 percent in 1950 to 13 percent today.

Over time, more people are recognizing water supply as a problem and perceive that they are participating in a solution. Figure 1.4 shows results from a series of nationwide Gallup polls measuring attitudes toward specific environmental problems. In 2000 and 2001, substantially fewer Americans worried about freshwater supply than about pollution of air

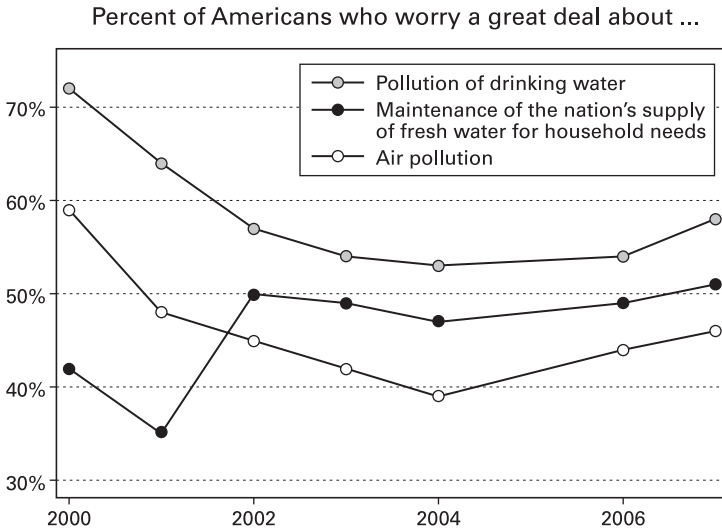


Figure 1.4

Attitudes toward environmental problems, 2000–2007. *Source:* Gallup polls (various).

and drinking water. The percentage of respondents reporting that they worry “a great deal” about having enough water for household needs jumped from 35 percent in 2001 to 50 percent in 2002, and it has remained at approximately the same level in five subsequent nationwide polls. Concern about water supply now scores consistently higher than concern about air pollution.¹⁹ Moreover, people think they are responding to the problem. The percentage reporting that their household tried to use less water over the previous year increased from 56 percent in 1995 to 69 percent in 1999, and then to 83 percent in 2000.²⁰ Despite these perceptions, real per capita domestic consumption did not decline noticeably over this period. The conservation efforts that people make in their homes get balanced by changes in residential patterns that intensify water demand. Although the average lot size of new homes has declined over time, fewer people live in each household, and the nation’s population has redistributed to the warm Sunbelt region, where per capita water consumption is highest.

Only limited demand management can be achieved through voluntary conservation efforts. In the absence of new sources of supply, local water agencies throughout the country are implementing policies that provide stronger incentives for water-use reductions and attempt to distribute existing resources more efficiently and effectively (Beecher 1995). These policies include pricing strategies that send signals about the scarcity of water supplies and the cost of system expansion; contracts and agreements between neighboring governments to share water resources and capital facilities; and procedures for incorporating consideration of water supply into land-use planning decisions. Decision making about water management has become more decentralized as communities and their water providers consider the relative importance of different uses and the appropriate distribution of costs. Meanwhile, the state and federal governments’ role has shifted from builder to regulator. Agencies are less likely to help localities build their way out of shortages and more likely to tell them that they must find a way to live within limits.

The devolution of responsibility for water policy can be seen in the management of freshwater resources at their source. Heightened federal regulation over water quality and endangered species has stimulated development of new cooperative institutions for watershed protection and groundwater management. These institutions provide incentives for diverse local actors to negotiate rules for sharing resources and overcoming collective action problems (Blomquist 1992; Heikkila and Gerlak

2005; Lubell, Schneider, Scholz, et al. 2002; E. Ostrom 1990; Sabatier, Focht, Lubell, et al. 2005; Scholz and Stiftel 2005). A decentralized approach to watershed management allows policy solutions that are responsive to problem conditions as well as to local stakeholders' demands and interests. Public water utilities are a key stakeholder in many watersheds, competing for access to freshwater resources with neighboring communities, other user groups, and environmentalists who advocate for increased in-stream flow. In the end, the declining environmental quality of watersheds and the continuing demands upon them likely will compel public water suppliers to withdraw less water than they desire, whether those restrictions are enforced through voluntary partnerships or by command-and-control regulation. This study focuses attention on how local utilities adapt to requirements that they curtail water usage.

Decentralization of water policy also is part of a global trend toward bottom-up strategies for water-resources management. Peter H. Gleick and his colleagues at the Pacific Institute have done extensive work documenting the costs of what they call the "hard path," the centralized engineering approach to water provision (Gleick 2002, 2003; Gleick, Cain, Haasz, et al. 2004; Gleick, Cooley, Katz, et al. 2006).²¹ In addition to levying environmental and economic costs in the United States, the hard path has imposed severe social costs in many of the poorest regions on the planet. Dams and reservoirs have displaced populations; river diversions have jeopardized communities' way of life. With a billion people worldwide still lacking access to safe drinking water, the hard path also has failed to achieve its most important goal. International agencies have recently highlighted the drinking water crisis, and the global solutions they propose have much in common with the decentralized approach emerging in American communities (United Nations Conference on Environment and Development 1992; United Nations World Water Assessment Programme 2003; World Water Council 2000).²² In 2002, the Global Water Partnership declared, "The water crisis is mainly a crisis of governance" (2002, 17).

The United States is one of a handful of countries in the world where access to safe drinking water is universal and largely affordable (World Health Organization 2000). Without question, the stakes for water management are lower here than in nations grappling with widespread waterborne disease. But the decentralization of water management intersects with another kind of crisis looming for American water systems: a financial crisis brought on by the deterioration of the nation's water

infrastructure. The U.S. Environmental Protection Agency (EPA) predicts that public water systems will need to invest \$270 billion over the next 20 years in order to replace deteriorating storage, treatment, and distribution infrastructure and to ensure compliance with federal water quality regulations (U.S. EPA 2005). Existing revenue from water sales and from state and federal assistance programs falls far short of that sum, and the agency has warned about the possibility of a significant funding gap between needs and spending (U.S. EPA 2002b). In proposing strategies for closing the gap, the EPA has offered the concept of “sustainable infrastructure,” which includes increasing water efficiency, implementing full-cost pricing, and other policies that are consistent with the new, decentralized approach to water management. The decentralization that is helping communities address water shortages and manage their resources more effectively in the short term may also help in the long term to limit the financial damage caused by more stringent environmental regulation and the aging of the nation’s infrastructure.

Specialized Governance and the New Local Politics of Water

Responsible water planning in the current era requires a clear understanding of local conditions related to water quality and supply, coordination across jurisdictional boundaries, and responsiveness to community preferences. It demands effective and accountable governance.²³ In attempting to address water supply challenges, communities are adopting policies that redistribute costs between existing and future residents and impose private costs in order to achieve public benefits. Decisions to extend water lines have consequences that spill over geographic and functional boundaries. The allocation of a scarce resource is an inherently political question. It has important regional consequences as well, because a community’s water policies help determine future development patterns.

Debate over privatization has dominated conversation about local water-system management since Indianapolis, Milwaukee, and many smaller cities and towns began contracting with private companies in order to reduce the costs of providing drinking water.²⁴ In some cases, privatization proposals have sparked public debates about private firms’ accountability to local residents’ interests and about their ability to protect water quality and affordability (Jehl 2003; Reiterman 2006). Atlanta and the city of Stockton, California, ultimately took back control of their water systems from private contractors, the latter after the contract failed

to survive a court challenge brought by citizens' groups. Notwithstanding these high-profile controversies, private firms in fact tend to operate only the smallest water systems: slightly more than half of community water systems are privately owned, but they produce only 9 percent of the total public water supply (U.S. EPA 2002c).²⁵ The great majority of Americans receive their drinking water from a utility that is operated by a local government.

Overlooked in the debate about water privatization is the rise of specialized governance among publicly owned water systems. Between 1962 and 2002, the number of special districts involved in water supply nearly tripled.²⁶ Water districts now account for 28 percent of local government expenditures on water supply. Specialized public governance receives less attention than privatization from industry analysts and the public, yet empirically it is more common. Such inattention is surprising, considering that much of the debate over privatization focuses on private water firms' accountability and responsiveness—the same issues raised by critics of special districts.

Given the rising importance of local decision making in addressing the nation's water supply issues, we must consider whether special districts are up to the task. If special districts are biased institutions as the conventional wisdom suggests, they may be less likely to pursue a public good such as water conservation if the costs fall on influential special interests. Specialized governance also may interfere with the cooperation needed to address local water supply challenges. Efficient distribution of water resources will sometimes require contracts and agreements between neighboring jurisdictions for cost sharing or the transfer of resources. It also will involve greater coordination between water and land-use planning. Water and land use are inseparable—new development requires a reliable water supply, and patterns of land use lock in water demand and groundwater replenishment for the long term. Yet planning processes historically have ignored these interrelationships. With the growing scarcity of water resources, communities are beginning to integrate planning for water and land use, sometimes under pressure from state government.²⁷ As Atlanta's commissioner of watershed management described the change, "This city had a motto for years, and it went something like 'Atlanta grows where water goes.' I think we've learned enough to know that we'd prefer to see the city in charge of that destiny" (Jehl 2003, A1). Coordinating water and land use may be a more profound challenge when a specialized water district governs the tap.

Book Overview

This book offers a new theory about the policy effects of specialized governance and tests that theory in the domain of local drinking water management. At its heart is a series of empirical analyses that directly compare the policies enacted by water districts with those created by cities and counties that operate their own water utilities. These policies provide insight about the existence of bias in governmental responsiveness and the possibility of intergovernmental coordination between special districts and their neighbors. In addition, the book investigates the broad range of special district structural forms and demonstrates that rules governing elections and boundary change further shape incentives for special districts to respond to their constituents and cooperate with neighbors.

Local public water utilities are part of a complex institutional network consisting of wholesalers and retailers, state regulatory agencies, regional bodies designated to protect sources and watersheds, and cooperatives and water districts established to provide irrigation water to agricultural users. This study sets aside most of this network in order to concentrate on the retail provision of drinking water, primarily for household use. Water is a natural monopoly, so residents and businesses in a given location rarely have a choice among providers and cannot exit service without physically relocating.²⁸ This feature allows me to assume that all residents of a given water jurisdiction are affected by the water utility's policies and thus allows direct comparison across governance types.

The analysis is national in scope. Water districts exist in almost every state, but in no state do they have universal control over retail water provision. Figure 1.5 shows special district spending as a percentage of total local government spending on water supply at the state level. It ranges from 0 to 91 percent across the 50 states, with a mean of 22 percent of a state's local water spending being allocated by water districts (U.S. Census Bureau 2005c). The number of water districts in each state appears in figure 1.6. All states except Alaska and Hawaii have at least one independent water district.²⁹ In some communities, drinking water is part of the package of local services overseen by elected city or county officials, but in other communities residents receive a water bill from a specialized government responsible only for water provision. This study assesses the policy effects of that variation.

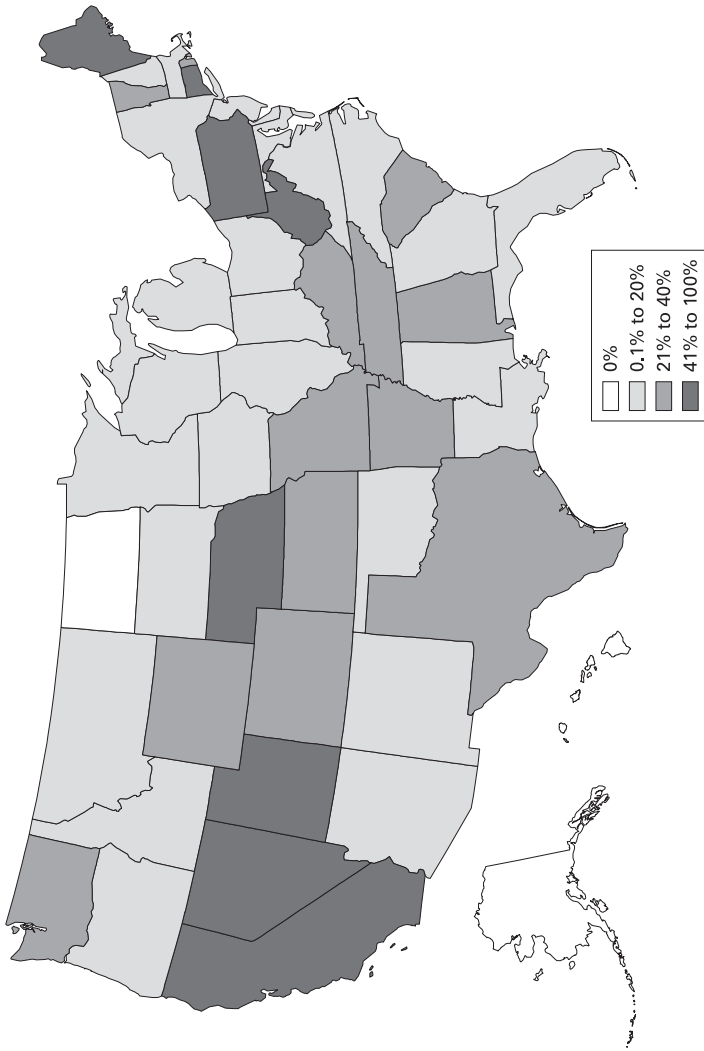


Figure 1.5
Special districts' share of local spending on water by state, 2002. *Source:* U.S. Census Bureau 2005.

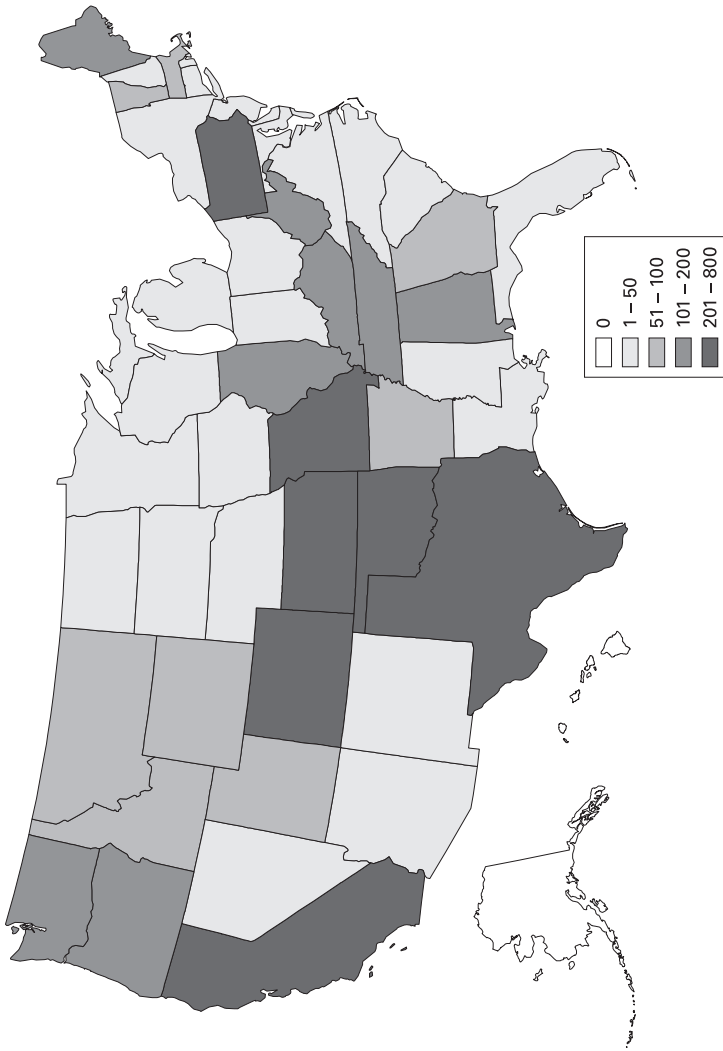


Figure 1.6 Number of water districts by state, 2002. *Source:* U.S. Census Bureau 2002. Count includes single-function districts focusing on water supply and multifunction districts providing water supply and sewerage or water supply and natural resources.

Chapter 2 presents the conditional theory of specialized governance that guides the empirical analyses. The theory reconciles the conventional wisdom treating special districts as invisible and unaccountable to the public with public choice accounts that predict greater policy responsiveness in a system that is fragmented along functional lines. I argue that both of these frameworks oversimplify the dynamics of special district governance by assuming constant effects of specialization across issues and political contexts. The conditional theory takes seriously both the function that a local government performs and features of a special district's institutional design. It predicts that these factors will condition the impact of specialized governance on policy outcomes.

Chapters 3 through 6 discuss and examine a number of recent policy innovations in water planning and test the effects of specialized governance on policy adoption. The first three of these chapters rely on quantitative data from national and state surveys of public water utilities. The main text emphasizes the substantive meaning of the findings, with fuller detail on methods and results appearing in the appendixes. Chapter 3 examines adoption of progressive rate structures that offer the promise of economic efficiency, water conservation, and income redistribution while imposing concentrated costs on the wealthiest members of a community. The analysis demonstrates the impact of institutional design on how a government balances public goods and private demands. Chapter 4 investigates another water-pricing strategy, the use of development impact fees to fund the cost of water-system expansion. Water systems must weigh constituent demands to pass on the costs of growth to incoming residents against developers' opposition to these fees.

In chapter 5, the focus shifts from bias in policy outcomes to patterns of intergovernmental cooperation. It explores the flexibility of special district boundaries and evaluates the relationship between boundary flexibility and establishment of interlocal agreements that might promote efficiency and equity in water management. Chapter 6 investigates interest-group strategies and intergovernmental coordination in a series of local growth disputes in California and Pennsylvania. The chapter draws on interviews, lawsuit briefs, and other qualitative data to evaluate how separating responsibility for water and land use influences the politics of growth. The final chapter reviews the book's main findings and discusses how specialized governance might affect local capacity to promote sustainability and confront the challenges presented by global climate change.

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