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WATER, POLITICS & LAND USE

Water Supply and Land Use Planning: Respecting the Boundaries

There is a fundamental but generally misunderstood relationship between the availability of water and development in the arid southwestern United States. This distortion is due in part to unfamiliarity with water system operations and financing, and in part to the limiting nature of political objectives designed to redress historic impacts on the environment. This unfortunate situation has diverted public attention from the real linkages between water supply and growth. It also threatens to prevent more efficient use of water, its redistribution to areas of greatest need, and the creation of a water environment more favorable for wildlife and fisheries.

California's laws governing land use, water, and the environment allocate authority in three ways, generally giving direct authority to cities and counties for land use, to water utilities for water service, and to the state for environmental protection. All three levels of government have indirect authority for these three activities. We run into trouble,

waste money, and degrade the environment when an entity uses its *indirect* authority to affect an area where *direct* authority exists and should be exercised—an application of the principle of ends justifying means, in this case for the management of water systems.

I will address four key factors in the complex water-growth debate: service

costs and extensions, land use planning and regulation, indirect growth controls, and strategies for the future.

URBAN WATER COSTS

Most of California's managed water is used in the business of agriculture, and in large measure its partially subsidized price defines its use. The portion of the state's water used for industrial and municipal purposes is unsubsidized and comparatively small. So far price has not defined its use, notwithstanding thousands of miles of pipelines and huge investments in treatment plants and reservoirs.

Until the 1970s, most public and investor-owned urban water utilities financed all service facilities using long-term debt or loans repaid with rebates from water sales. Now most utilities require capital contributions at the outset from all new developments, and use long-term debt to finance basic supply with debt repayment included in the water rate. Except in areas of extreme water shortage, such as Marin County and Santa Barbara, water rates have been kept relatively low. It is generally believed that low rates encourage people to waste water; therefore, new water rate structures are being studied. Because utilities are required to recover only the cost of service plus either a regulated or nonexistent profit, the new inclining block rates must give special benefits to small users in order to impose special assessments on large users. The data on this approach are limited, but so far cannot separate any effect that rate reduction may have had on demand from the effect of public desire to conserve water, particularly in times of shortage. It is possible to predict the level at which rates will affect demand, but that level is likely to be so high that new laws would be needed to divert the excess revenues to other public purposes.

Some contend that high capital costs of new water systems affect the feasibility of development projects. This is true for small, difficult-to-serve areas, but for most development the increase in land value attributable to change from agricultural to urban use is so great that front-end capital costs do not deter building. Utilities in urban areas—whether providing gas, electricity, or water and sewer service—are obligated by law to provide service under reasonable terms and conditions. The terms and conditions



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may in fact make individual extensions of service infeasible, but feasibility has to do with the physical characteristics of the development and the fairness of new service charges. During an emergency the law does allow for the restriction of new services (see, e.g., Wat C §353), but this is illogical. Water service is extended not for drought periods but permanently. If in general the utility's source is adequate or if reasonable water conservation measures or water purchases can improve reliability, using a temporary shortage to restrict permanent connections makes no sense.

LAND USE PLANNING AND REGULATION

The way we plan and regulate land use reflects the fundamentally fragmented nature of our society. The result is complex and not necessarily effective. It is characterized by arbitrary divisions on county and city lines, lack of regional authority, and strong protection of private property rights. Recently, the opportunity for individuals and groups to challenge decisions has been greatly expanded, largely through the environmental review process mandated by CEQA. The result is occasionally well-intentioned but increasingly uncoordinated approaches to land management. In the 1970s, a federally funded regional planning program attempted to integrate air, water quality, and land resource planning, but it lacked an institutional base to make long-range decisions and trade-offs, and so it did not fulfill the goals of at least some of the authors of the Clean Water Act. The lack of authority was due largely to the continuing gap between broad management strategies advocated by legislative staffs and resource planners, and the unwillingness of politicians and the electorate to accept the restrictions inherent in regional land use management.

In a general sense, water is necessary to support growth. However, the last few years have shown that the adequacy and reliability of water supplies are largely in the eye of the beholder. For instance, an advocate of growth limitation in Marin County or Santa Barbara is more likely to declare the supply exhausted, support only limited reliability improvements, and declare that one more house is the "breaking point." In reality, most communities face declining reliability as growth (due to immigration and repro-

duction) continues. Housing and serving these people are social responsibilities that affect long-term, but rarely short-term, water supply reliability. Nevertheless, public agencies responsible for both water and land use planning, or independent agencies acting in concert, have used water shortage as a convenient excuse to limit new connections.

In a November 1991 article, the prominent water lawyer Anne Thomas presented a cogent summary of the law on the use of utility systems to manage growth. Thomas contends that a city can limit water service extensions to achieve nonutility purposes (environmental or cultural), but that an independent utility can do so only during a period of shortage. See Thomas, *No Water, No Growth: What's the Connection?* 2 Cal Water Law & Policy Rep 23 (Nov. 1991). Even under current California water conditions, shortage should be the exception rather than the rule, particularly with the potential for water transfers and rationing.

DO INDIRECT GROWTH CONTROLS WORK?

Water management and growth management are separate and distinct needs. When responsible elected officials are unwilling to manage growth, there are increasing attempts to use the water system to limit that growth. This approach is inconsistent with the letter and intent of existing legislation, and is ineffective and counter-productive. When a water utility is arbitrarily prevented from supplying areas where it has capacity or can most feasibly serve, the cost of water per gallon served goes up and reliability goes down. In the case of wastewater service, limitations may preclude preferred treatment or discharge options. In addition, it is an offense to our system of government to achieve *indirectly* through water agencies what may be politically unachievable directly through land use authorities.

Marin County offers a classic example of conflicting objectives. In the 1960s, southern Marin had what was believed to be a bountiful water supply. It therefore delayed obtaining a new source of supply until the 1970s, when antigrowth sentiment resulted in rejection of all supply improvement proposals. In the 1960s, unlike southern Marin, northern Marin had an inadequate supply of low-quality water and therefore connected to the high-quality Russian River. As a result of

these actions, during the last 30 years the northern Marin water rates dropped from the highest to near the lowest in the Bay Area. At the same time southern Marin's rates did the reverse, while significant growth has continued in both areas.

In the 1970s, the EPA was providing grant funds under the Clean Water Act for sewerage facilities. One major Bay Area project was the construction of a treated effluent outfall sewer from the Livermore Valley to the San Francisco Bay. EPA insisted that the sewer capacity be limited or no grant would be provided even if local agencies paid for the growth capacity. The intent was to prevent or slow growth to minimize any increase in air pollution or other environmental impacts. As a result, a smaller facility was built; nonetheless residential and business growth accelerated. By 1990, the outfall pipe was at capacity.

In an effort to solve the Livermore problem, a project was proposed to deliver wastewater for treatment and disposal through the presently under-utilized EBMUD system in Oakland. However, even though this proposal would provide a significant reduction in ERMUD sewage rates, some city and water district officials and environmental advocates objected because of what is considered to be the inappropriateness of development in the Livermore Valley, as opposed to redevelopment in the urban center. The only current option is to build an expensive new outfall sewer to a less desirable discharge location.

EPA's Livermore Valley grant restriction and EBMUD's reluctance to serve the area are attempts to achieve worthwhile goals through inappropriate methods. EPA desires to eliminate or reduce air pollution, waste of resources, and environmental impacts of growth. EBMUD shares these goals but also supports inner city redevelopment. The effect of these efforts has been to increase costs and achieve none of the goals.

EBMUD has confronted the growth issue in still another way. It is possible to significantly reduce fresh water demand of potential developments adjacent to the southeast part of the district by constructing a dual-distribution system using reclaimed waste water to serve most of the needs of the new area (thus relieving the pressure on the Livermore Valley's inadequate wastewater sewerage system).

When such a reuse system is built, it could supply a number of adjacent existing golf courses, the net effect being an overall reduction in EBMUD's district-wide water demand. Yet this option—which could improve river flows in the Sierras, reduce energy use, and increase water availability in drought years—has not been supported, for the same social and political reasons described above: objection to growth in the Livermore Valley and desire for inner city investment.

These examples, and the presence of urban supply systems in extensive areas where growth has not occurred, make it clear that growth management is a land use issue that should be addressed by those agencies with direct authority for land use planning and regulation. However much those with global environmental and social objectives wish to act locally through utility systems, the net result is a failure to achieve those objectives at the expense of both the cost and reliability of the utility systems. We need to stick to the fundamental purpose of our utility systems—providing an adequate and reliable supply of water for the communities they serve.

CHANGING PRIORITIES FOR WATER USE

Until very recently, the universal objective of land use and related water use has been to protect public health and support economic growth and its resultant opportunities for landowners, job seekers, and people from throughout the world who seek a better life. Safe, reliable, and secure urban water supplies to match this growth have largely been provided in the developed world. Our utility systems have effectively eliminated municipally caused water pollution and, notwithstanding extended periods of drought, have generally provided high-quality water supplies to levels of population that were never envisioned by the planners and builders of the biggest regional water systems. With effective conservation and fair water transfers from users in appropriate agricultural areas, these goals can be met indefinitely. But other needs are not so easily satisfied.

Major environmental effects have resulted from past water management practices, due to nineteenth century mineral extraction projects, reclamation of the

San Francisco Bay and Sacramento-San Joaquin Delta for salt ponds and agriculture, and construction of storage reservoirs. The state, which has primary responsibility for environmental regulation, needs to play a stronger role in resources management to mitigate these effects and to use existing and modified water projects to achieve long-term environmental protection. Environmental reviews, however, should not be used just to stop water and development projects but to develop a sensible state plan. Then utilities should plan their operations to meet state priorities in the most cost-effective manner.

DEVELOPING A CONSTRUCTIVE APPROACH

California's growth will not be controlled or its fisheries protected by placing conditions on water transfers from agricultural to urban use. We cannot improve the drought tolerance of our urban utilities by restricting their service areas when ample resources are available through recycling, conservation, or transfers. We cannot reduce the overdraft of the extensive groundwater basins of the San Joaquin Valley by refusing to export groundwater from the annually recharged groundwater basins of the Sacramento Valley.

Most of the water-growth dialogue is based on finding fault with past practices instead of focusing on areas of common ground to solve problems. Groundwater protection, growth management, price reform, and instream flow enhancement are important goals. If each is to be achieved *absolutely*, however, none will be achieved. If the political agendas of competing interest groups are determined by the least flexible members of those groups, be they agricultural, environmental, or urban, then little progress can be made on achieving any goals.

We are living in a time of extraordinary political diversity together with timidity on the part of elected officials fostered by media impact. The result is short-term responses to long-term problems. The legislation and court decisions of the 1970s and 1980s addressed individual environmental wrongs but failed to generate the kinds of comprehensive governmental approaches needed to solve the problems of growing urbanization. Al-

though we have corrected or reversed most of the major pollution, our short-term desires to protect local authority and avoid any further damage to the environment have prevented the adoption of far-reaching legislative programs like those that characterized the 1960s (e.g., CEQA; creation of Local Agency Formation Commissions (LAFCOs) and the Bay Conservation and Development Commission). Nevertheless, only future compromises on all sides will allow intelligent planning and growth management.

Existing authority, if effectively used by cities and counties, can deal with growth. That authority includes: the general plan process; environmental review under CEQA; regulating the provision of governmental services through LAFCOs; and evolving regional land use authority, such as the structure recommended by the Bay Vision 2020 project. (For discussion of the Bay Vision 2020 project, see *Growth Management: Interview With Ira Michael Heyman*, 1 CEB Land Use Forum 95 (Winter 1992).)

Regional approaches through modified city and county authorities are essential to achieve a more rational umbrella under which growth and redevelopment can take place. When and until such approaches are established, water utilities should provide continuing advice to planning agencies on the costs and impacts of plans on water and wastewater systems, and conform their practices to match the current goals and objectives of the responsible governmental units. Then the utilities' energies can be directed toward maintaining and improving quality, reducing costs, improving reliability, maintaining and enhancing watersheds, and other tasks that suffer when water agencies divert their energies to the goals they are least capable of influencing.

What then is the ultimate solution to water system reliability and growth management? We must use our governmental authorities directly, not indirectly. If public resistance and other factors make that impossible, then we must work to resolve those issues. The solution to growth management lies in achieving a public understanding of the need to conserve our resources, reduce environmental pollution, and provide a better urban lifestyle, while at the same time encouraging appropriate growth and development. ▲