WATER AND POWER

The Conflict over Los Angeles' Water Supply in the Owens Valley

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CHAPTER SEVEN

Legacy

There is no statue of William Mulholland at the Department of Water and Power today. His portrait has been relegated to an obscure corner outside the commissioners' meeting room at the department headquarters. But the building, like the agency it houses, is a testament to his achievement. Its seventeen stories command the top of a hill overlooking the complex of local, state, and federal offices in downtown Los Angeles. Whereas the other government structures in the city center are clad in white stone, the department has chosen to sheath itself in black glass. The main entrance is approached by a black slate bridge over a 4.75-acre pool that borders the building. As a result the overall effect is of a dark tower guarded by a moat, brooding over the city like some ancient battlement in a fairy tale.[1]

In keeping with its medieval aspect, the Department of Water and Power building is framed by the main court of the Chandler family pavilions, which house the city's major cultural events. It is especially fitting that the monuments of these two great institutions, the *Times* and the department, which have played so large a part in the development of Los Angeles in this century, should be thus paired on a special prominence, with all the other agencies of government appropriately arrayed at their feet.

Each structure expresses something of the contributions its builders have made to the modern metropolis. The department's headquarters, for example, is studiously impersonal, bureaucratic, its interior spaces divided by seven and a half miles of entirely movable partitions. Its design, rather than emphasizing individuals, stresses the commodities the agency has brought to the building up of Los Angeles: the structure is powered entirely by electricity, and the conspicuous display of water abundance in the vast exterior pool and ornamental fountains is its principal architectural feature.[2] The Chandler pavilions, by contrast, stand as monuments to the ego of their patrons. The pavilions are built in that style peculiar to Southern California which confuses empty space with opulence. But here the barren expanses of marble walls have been turned to listing the names of every individual or corporation who contributed significantly to their construction. Where these congratulatory graffiti give way, floor-to-ceiling mirrors take their place. And in the center of the main pavilion, the gown Dorothy Chandler wore to the building's opening has been enshrined on a mannequin whose flesh is money green and whose eyes are opals.

If the physical presence of William Mulholland has been all but expunged from the Department of Water and Power headquarters, his influence there is undiminished. None of his successors has ever dominated the city's water programs or captured the public imagination as he did. The public works he initiated remain the principal source of the city's water supply. And the policies and attitudes he originated with regard to the Owens Valley have been pursued without significant alteration or even serious reconsideration throughout the half-century since his fall.

The most obvious and immediate aspect of Mulholland's legacy that the department had to contend with was the enduring bitterness of relations with the Owens Valley. Even after the backbone of the resistance to Los Angeles had been broken by the collapse of the Watterson banks, the valley's partisans continued to wage battle with the city in print. As a result, the Owens Valley controversy came to be one instance in which the history of a conflict was not written by the victors. The most prominent formulator of the legend of the valley's victimization was Willie Arthur Chalfant, the lone survivor among the leaders of resistance in the 1920s. Chalfant's love for the Owens Valley was deeply rooted. His father, Pleasant Arthur Chalfant, founded the valley's

first newspaper, the *Inyo Independent*, in 1870. From 1889, Willie was sole owner of his father's second paper, the *Inyo Register*.[3] Having grown up with the valley, Chalfant resolved to stay on to write the history of the city's conquest. In 1933 he published a revised version of his *Story of Inyo* in which he depicted the valley's plight with all the sentimental flourishes Court Kunze had introduced in his advertisements for the protective association in 1927. Los Angeles was presented unquestionably as the aggressor, and the problems of valley irrigation and the role the Wattersons and their district had played in the conflict were accordingly given little notice.

The readership for county histories is usually quite limited. But the same year Chalfant's revised *Story of Inyo* appeared, Morrow Mayo published his own version of the controversy in a trashy and sensationalist history of the city called *Los Angeles*. The thrust of his analysis was encapsulated in his title for the chapter dealing with "The Rape of the Owens Valley," a phrase that has endured in the public memory of these events long after Mayo's book has been forgotten. "The City of Los Angeles moved through this valley like a devastating plague," he wrote. "It was ruthless, stupid, cruel, and crooked . . . For no sound reason, for no sane reason, it destroyed a helpless agricultural section and a dozen towns. It was an obscene enterprise from beginning to end."[4]

Both Chalfant and Mayo relied heavily upon the research of Andrae B. Nordskog, whose *Gridiron* newspaper in Los Angeles had taken up the valley's cause. An opera singer manqué and aspiring politician, Nordskog ran as the Liberty party's vice presidential nominee in 1932 on a platform calling for abolition of the electoral college, monetary reform, and America First. Water policy and the denigration of the Department of Water and Power, however, were his special passions. Through the pages of his newspaper and his radio talks on the "Gridiron Hour," Nordskog poured out a steady stream of abuse against the "political plutocrats" who shaped the city's water programs. He fought the Metropolitan Water District, the state's plan for development of the Central Valley Project, and the Los Angeles County Flood Control District's efforts at water conservation, arguing in all

instances that salt water conversion would be cheaper than these programs for freshwater development. As president of the Southwest Water League, he gave a new platform to another self-appointed crusader against the Department of Water and Power, F.C. Finkle, who had denounced Mulholland's concrete fifteen years earlier. And in Washington, he burrowed into the early records of the Reclamation Service to unearth much of the documentary evidence of J.B. Lippincott's perfidy.[5]

The works of Chalfant, Nordskog, and Mayo drew together the separate threads of controversy that had grown up around the aqueduct since the first bond election in 1905 and wove them into the popular perception of Los Angeles as the devastator of a fabulously productive agricultural community. Thus the pundit Will Rogers observed caustically of the Owens Valley in 1932, "Ten years ago this was a wonderful valley with one quarter of a million acres of fruit and alfalfa. But Los Angeles needed more water for the Chamber of Commerce to drink more toasts to its growth, more water to dilute its orange juice, more water for its geraniums to delight the tourists, while the giant cottonwoods here died. So, now, this is a valley of desolation."[6] In a similar vein, Cornelius Vanderbilt commented in the *Reno Journal*, "Probably in all Western history there has not been a more flagrant example of one part of the country, politically and financially powerful, destroying a weaker section. And doing it without regard to obligations, moral or financial."[7]

So compelling was this simple story of noble farmers in conflict with the malevolent city that it passed readily into the realm of popular fiction. In 1935, Republic Pictures sent a youthful John Wayne and the Mesquiteers riding to the aid of New Hope Valley in the film *New Frontier*.[8] The valley is threatened by a water project for Metropole City, and when the ranchers prove reluctant to give up their homes, the city's construction chief, Murdoch MacQuarrie, an obvious stand-in for Mulholland, turns belligerent. "Say, mister, you don't know the kind of people you're dealing with," John Wayne warns MacQuarrie—while his sidekick, Windy, chuckles toward the camera, "But he'll find out." In the ensuing conflict the ranchers reveal themselves to be "a bunch of fighting fools." The city nevertheless bests these

"mule-headed hicks" with "lowdown Injun tricks." In the end, Wayne punches out the Mulholland character and the city is compelled to resettle the ranchers and provide them with an irrigation project in a nearby valley, Devil's Acres.

George Palmer Putnam and Frances Gragg tell a similar story in their novel of the Owens Valley conflict, *Golden Valley*. Here J.B. Lippincott makes a brief appearance as a double-dealing liar, and Wilfred Watterson is depicted even more briefly in the person of Frank Master, a proud but stubborn banker who is destroyed "trying to fight Los Angeles with dollars—the city that had a hundred thousand dollars to his one." Rather than resisting the city, most of the ranchers simply go off and commit suicide in this story. There are some incidents of night riding and there is an attempt to dynamite the aqueduct, which the hero easily deflects. But in the end the violence is revealed to be the work of land speculators who have been fomenting armed hostilities in the hope of persuading the city to buy up their properties. Since the ranchers extract confessions from these evil-doers by torture and then dispose of the bodies, the moral perspective of the novel is somewhat confused.

The strongest character is that of Mulholland, here portrayed as Angus MacAndrew, a great, hulking brute of a man with huge hands and a pitted face who speaks in a comic-opera Scottish burr. Although MacAndrew and the ranchers are eventually reconciled, his best scene involves a confrontation with the heroine who owns the lands at Haiwee that MacAndrew must have as a reservoir site for his aqueduct. When she refuses to negotiate, MacAndrew becomes apoplectic (something he does frequently throughout the book) and rises to waggle a massive finger under her nose. "As for ye, Miss," he thunders, "ye've had yere fair chance. From now on this is war. Sine it takes one year or ten, we'll have yon Haiwee. In the whilst; I'll dig my ditch to its very edge. When th' courts gie the final worrd, I'll droon ye under forty foot o' water. Come hell or high water, my city drinks. Come on, men!"[9]

These presentations contrast markedly with the two other fictional treatments of the controversy that appeared before the little civil war of the 1920s broke out. Peter B. Kyne used the

Owens Valley as the scene of his 1914 western adventure story *The Long Chance*. After three impressive opening chapters in which the author demonstrates how well he can write, the novel settles into a conventional potboiler that turns on a water scheme of bewildering complexity. The roguish hero McGraw is set against an eastern land speculator who is told by one of the valley's residents early on, "This country is mine and I love it, and I won't have it profaned by any growling, dyspeptic little squirt from a land where they have pie for breakfast." There is governmental corruption here, but it is located in the General Land Office in Sacramento. The villains are all private speculators. The city's project is mentioned, but only in passing, and then as a potentially beneficial alternative to the hero's plans to use the valley's water "to make thirty-two thousand acres of barren waste bloom and furnish clean, unsullied wealth for a few thousand poor, crushed devils that have been slaughtered and maimed under the Juggernaut of our Christian civilization."[10]

The city is similarly blameless in Mary Austin's novelization of the controversy, *The Ford*, published in 1917. Just as she fled the conflict in her own life, Austin backs away from it in her book. The valley she describes is imaginary, and the water project that would devastate it is proposed as an alternative to the Hetch Hetchy plan for San Francisco. In all other respects, the location of her story is clear. Long Valley here becomes Tierra Longa, Round Valley is Terra Rondo, the Hillside Water Company is the Hillside Ditch Company, and so forth. Eaton and Lippincott appear as minor characters, the one dressed all in black with an evil eye, and the other as an alcoholic engineer who has fallen prey to "that cult of Locality, by which so much is forgiven as long as it is done in the name of the Good of the Town." The Lippincott character sustains himself in his treachery with alcoholic delusions of being honored as "San Francisco's most public spirited citizen ... He had looted the wilderness; he had led a river captive. It was a tremendous thing to have done, a man's-size thing. The sort of thing a Man's Own Town expected of him, as a witness to its superiority over all other towns."[11]

But Lippincott is not the villain of Austin's piece, nor is the proposed water project the real threat to the valley's survival.

Austin's attention is focused instead upon the weaknesses of the ranchers themselves. Their true adversary is the local financier Timothy Rickart, who dominates Tierra Longa in the same way T. B. Rickey ruled Long Valley in the years Mary Austin lived in Owens Valley. The first half of the book is steeped in the sadness of her own life with Stafford W. Austin as she follows the tribulations of the Brent family, whose patriarch is perpetually unable to "get into" any profitable line of employment: "Things hovered, bright, irreducible promises that seemed about to fold their wings and rest upon the fortunes of the Brents, only to sail high over them at last and fix on the most unlikely quarters." Brent is no different from the other men of Tierra Longa, who stand in awe of Rickart's superior skill in business and pursue their own petty schemes of riches in hopes that they shall by some lucky stroke not "fall for him . . . but fall in with him." Their refusal to recognize their own best interests and work together, of course, plays directly into Rickart's plans. "These men of Tierra Longa plotted without knowledge and imagined childishly. They were as much the victims of their own limitations as they were likely to be of the machinations of Rickart . . . producers rather than players of the game."[12]

The hero of the story eventually gives up his own career to lead the ranchers in opposition to Rickart's scheme, but they refuse to follow him. As Austin observes, the ranchers knew that Rickart "was the enemy, no doubt, but he was also illusion, the satisfaction of that incurable desire of men to be played upon, to be handled." The hero's efforts, nevertheless, succeed in delaying the project long enough so that the city decides to go to Hetch Hetchy for its water supply instead. The ranchers then turn against the hero for besting Rickart. The whole book has built toward this bleak conclusion. But Austin's resolve again gives way, and she tacks on a last ten pages of unrelentingly gratuitous happy endings: after a considerable passage of time, the ranchers come round to join in erecting an irrigation project of their own; Rickart and the hero are reconciled and Rickart tells the hero where oil can be found; and his fortune now assured, the hero goes back to the valley to find his girlfriend waiting on the riverbank, where she has apparently been standing for several months in expectation of his eventual return.[13]

Austin and Kyne wrote at a time when relations between the city and the valley were at their best and it still seemed possible to imagine a future of prosperity for the valley. But in their novels, as in the later works of Chalfant, Mayo, Nordskog, and Putnam and Gragg, and the other books and films which have treated the controversy in passing, there is a common theme in the brutality and deception employed by the enemies of the Owens Valley.[14] This all-pervading popular perception of the Department of Water and Power as an unscrupulous agency whose word cannot be trusted has plagued Los Angeles' water programs to the present day. But in the 1930s, hostility toward the department posed more than a simple problem of public relations. It threatened as well to interfere with the department's ability to carry forward the new projects Mulholland had initiated to meet the water famine that he had convinced the city was looming.

The torrent of criticism of the department that had been unleashed by the collapse of the Saint Francis Dam was not stopped by Mulholland's departure. Instead, with Mulholland gone, the department was swept up in a divisive political controversy which persisted for the next dozen years. In the mayoralty election of 1929, the *Los Angeles Record*, which for years had condemned the city's water and power commissioners as "traitors to Los Angeles," threw its support to John C. Porter, who campaigned on a promise of strong support for public ownership and sweeping reform of the Department of Water and Power.[15] Upon taking office, Porter demanded the resignations of all the commissioners, declaring, "The public has lost confidence in the administration of these utilities and is demanding that politics be eliminated from the department and that conservative business methods be substituted throughout."[16]

Porter's objective was to bring the department back under municipal control. Having sought to insulate its administration from political influence when it was first created under the city charter, the Los Angeles voters now recognized that they had created within the department a distinct political entity whose influence was unchecked by the other agencies of local government. Mulholland had been a power unto himself and had not hesitated to oppose the commissioners or the mayor on questions involving his own policy. In 1923, the Public Service Commission

had begun appropriating funds to cover the political expenses of its various campaigns for municipal bond issues, a practice the state supreme court halted in 1927. Following the supreme court's action, the department employees had taken to marshaling their great numbers to provide the candidates and issues which their association supported with an immensely influential block of campaign workers and votes.[17]

Porter's efforts to dismantle what had come to be called the Water and Power Machine focused on E. F. Scattergood's administration of the power bureau. Despite the opposition of the local private utilities and successive defeats at the polls with his bond issues, Scattergood by 1928 had built his organization into the largest public utility in the nation, and he bid fair to replace Mulholland as the dominant figure in the politics of water and power in Los Angeles. To prevent this, Porter at first consolidated the power bureau under the general administration of Mulholland's successor at the water department. He then dismissed Scattergood's key political operatives when he discovered they were removing the political campaign files of the employees' association to prevent disclosure of their contents.[18] The attack on Scattergood was hailed by conservative business interests in Los Angeles as a step toward taking the city out of the public power business, and it was damned on the same score by the progressive supporters of municipal ownership. As a result, the department's employees joined with the progressives to form a Municipal Power and Light Defense League, which elected a new majority on the city council that was pledged to oppose Porter's policies. In the ensuing struggle, which raged throughout the successive administrations of Porter, Frank Shaw, and Fletcher Bowron, the department was repeatedly reorganized, appointees to the commission were regularly blocked, removed, and reappointed with stunning alacrity, key departmental personnel were dismissed to be replaced by cronies of whichever administration happened to be in power at the time, and Scattergood was variously removed, brought back, placed on contract, suspended, and ultimately bivouacked to Washington.[19]

Although criticism of Los Angeles' treatment of the Owens Valley certainly encouraged distrust of the department, concern

for the well-being of the valley residents played little part in the political opposition to the department within Los Angeles. On the contrary, Mayor Porter's efforts to restore "conservative business methods" to the administration of municipal water and power programs generated a concern that the city was in fact being too generous in its settlements with the valley. When the city first announced its intention to buy out the valley at the end of February 1929, the purchase price for the outstanding properties was estimated at $8 million.[20] By the time municipal bonds were approved to pay for these acquisitions on May 20, 1930, however, the estimated cost had risen to $12.5 million. And since the department was continuing to take farm lands out of production in order to maximize the yield of water into the aqueduct, the city had no expectation of being able to generate any income on much of the property it was acquiring, a point of vital concern to many of the more economy-minded members of the water and power commission and city council.

The confusion that infected the department as a result of Porter's attempts at reform ensnarled the process of negotiation with the valley's representatives. Special problems in Bishop brought further delay. Each of the five towns of the Owens Valley appointed two representatives to a Committee of Ten for purposes of negotiating the purchase prices of the town lots. In addition to naming its own delegates to the committee, B. E. Johnson and C. H. Rhudy, Bishop retained a consultant appraiser whose estimates of the worth of the Bishop properties differed drastically from the values attached to them by Los Angeles. To resolve the impasse, Johnson and Rhudy proposed that the value of the Bishop properties be calculated on the basis of the growth rates achieved by the counties of the South Coast since 1923. But since assessed valuation on the South Coast had expanded at a rate ten times greater than that experienced by Inyo County in this period, the suggestion was unacceptable to Los Angeles. Instead, Harlan Palmer, representing the water and power commission, persuaded the Committee of Ten to accept a schedule of purchase prices that would increase the appraised market values of the town properties in 1929 by 40 percent for Bishop, 34.5 percent for Laws, 30 percent for Big Pine, 25 percent for Inde-

pendence, and nothing for Lone Pine. Johnson's and Rhudy's objections were overridden, and Johnson responded by joining with a former state senator, Joe Riley, to organize a pool of thirty-one Bishop businessmen who demanded double the adjusted price Los Angeles was offering for their commercial parcels.[21]

Porter regarded this as an attempt to reap speculative profits at the City's expense, and he was so incensed that he immediately directed the department to advise all the land owners in the Owens Valley that "they will not require, in any particular, the services of legal advisors or land brokers in dealing with the city . . . I shall seriously question any land purchase transaction that may have been presented to the city through the medium of a third party, whether that third party be an individual broker, a so-called legal advisor, or a syndicate."[22] In trying to deny the valley residents their legitimate right to counsel, Porter was successful neither in speeding the purchasing program nor in quieting the fear of speculation. By the beginning of 1931, the members of the water and power committee of the city council were blocking the acquisition program on grounds that the prices the department had agreed to pay were excessive.[23] And these delays in turn encouraged many valley residents to throw in their lot with the Southern Sierras Power Company, which had brought suit to block operation of the city's wells and had also formed the Municipal Water Supply Company of California for the express purpose of buying up properties in the Owens Valley in speculative competition with Los Angeles.[24]

The need to achieve a speedy settlement with the valley residents was especially acute because the city's faltering acquisition program had by this time stirred renewed interest in the state legislature in the problems of the Owens Valley. The senate formed a special investigating committee to examine the water situation in Inyo and Mono counties in the spring of 1931, and its hearings provided Andrae Nordskog with the forum he had been seeking to present his charges against the city. On the basis of his research into Lippincott's activities with the Reclamation Service, Nordskog had developed an elaborate indictment of the aqueduct project, claiming variously that Lippincott was corrupt, Roosevelt had been misled, the project was a tool of the San Fernando land syndicate, and the taxpayers of Los Angeles were being robbed. He blanketed local, state, and federal authorities with demands for a formal investigation. Successive grand juries in Los Angeles, however, ignored his requests. The same appeal to Washington had brought a bemused response from the Secretary of the Interior, noting, "Upon consideration of your letter, it would appear that the events described occurred some 25 years ago, and that under present facts and conditions, there is nothing therein which would form a basis for action by this Department."[25] In Sacramento, however, Nordskog's testimony was so well received that extraordinary arrangements were made for it to be printed in the legislative record.[26]

In its report in May, the special investigating committee agreed that the prices Los Angeles was paying for the Owens Valley properties were fair. But it deplored the city's refusal to honor reparations claims or make any allowances for fixtures or business losses resulting from the devastation of the valley. Since the remaining claims for reparations amounted to less than $500,000, the committee urged Los Angeles to be generous. These problems aside, the committee's principal concern was with the future, and particularly with finding the means to assure that the hardships suffered by the Owens Valley would not be visited upon the Mono Basin as Los Angeles proceeded with its plans to extend the aqueduct there. To prevent a repetition of the Owens Valley conflict, the committee recommended adoption of legislation similar to the statutes in New York requiring that a municipality which seeks to extend its water system to a distant source of supply must first submit its plans to a state commission which would also receive and adjudicate all claims for damages arising from that development.[27]

The heritage of bitterness toward Mulholland's policies in the Owens Valley, however, ran deeper than the committee imagined. For in addition to the means for mediating disputes that the committee had called for, the legislature that year went a step further and enacted an outright prohibition against the draining of one region of the state for the sake of development in another. Water resources planning for California would henceforth pro-

ceed under the strictures of this fundamental guarantee that the water-rich rural areas of the state could never again be threatened with the loss of the water needed for their own future development.[28] This so-called County of Origin law thus became part of Mulholland's legacy. But for the Mono Basin, as for the Owens Valley, its protection came too late.

The Mono Extension

The threat of state intervention in the department's plans for tapping the water supply of the Mono Basin was the first new wrinkle in a process which had otherwise been conducted as an almost perfect carbon copy of Mulholland's development of the original aqueduct. Although Los Angeles began acquiring lands and water rights in the Mono Basin as early as 1912 and 1913 for eventual use in conjunction with its plans for power development in the gorge below Long Valley, no serious effort was committed to the project until Galen Dixon and the associated ditch companies of the Owens Valley threatened in 1919 to scotch the project with their own plans for the Fish Slough reservoir.[29] At this point, Mulholland turned to the Reclamation Service for the same assistance in preparing the detailed surveys for the Mono project that they had provided for the original aqueduct.

Considering the intense embarrassment its first involvement with Los Angeles had caused the Reclamation Service, it seems incredible that the responsible federal officials would have been willing to risk a second engagement. But Mulholland had maintained his close personal relationship with Arthur Powell Davis, who succeeded Newell as the head of the service, and on March 29, 1920, an agreement was struck. The device for federal involvement in the project was a cooperative contract whereby the service, in exchange for the reimbursement of costs by the city, promised to prepare detailed plans, surveys, and cost estimates for an extension of Los Angeles' aqueduct to the Mono Basin. Since Los Angeles was paying for the study, the bureau took the extraordinary position that this was a private matter between

two public agencies; the results of the work performed by the federal engineers were never published but were deemed instead to be the property of Los Angeles, which exercised exclusive control over their distribution.[30]

The report, which was prepared by Harold Conkling, appeared in both preliminary and final forms, which differed dramatically in content. Both focused on the prospects for development of Rush and Lee Vining Creeks in Mono County, which Conkling estimated were capable of delivering 142,000 acre-feet of water annually into the headwaters of the Owens River for diversion south to the aqueduct. The third major stream in the southern portion of the Mono Basin, Mill Creek, was dismissed from consideration because its flows were too small and the costs of tapping it through a six-mile tunnel would be too high to justify its development. Also, as in the Owens Valley, these initial plans did not address the possibilities of developing the upper portion of the basin because the waters there were already in use. The Southern Sierras Power Company and its subsidiary, the Cain Irrigation Company, controlled all the waters above the point of the proposed diversion, principally for power development. So the Mono extension, like the aqueduct before it, was planned initially to operate on the discharge from these preexisting activities without interfering with them in any way.[31]

As with the development of the aqueduct, the survey work of the Reclamation Service was conducted in the name of irrigation for the Owens Valley. In view of the fact that the city's only interest in the project in 1920 was for power development and augmentation of the aqueduct supply—interests which had nothing to do with the mandate of the Reclamation Service at that time—such a pretext was essential in order to invest the federal government's involvement with even a patina of legitimacy. The pretext was all the more important because the plan, though it would not interfere with the Southern Sierras Power Company plants, would take approximately three thousand acres of land presently irrigated in the Mono Basin out of production. These were marginal irrigation operations, however; and in Conkling's view the water could be better used in the Owens Valley.[32]

The harsh climate and rugged terrain of the Mono Basin does

not lend itself to agricultural development, and for this reason, federal officials had long recognized that applications filed for irrigation development on the public lands of Mono County would most likely be used instead for power development. Because the generation of hydroelectric power was considered a more desirable application of the basin's water supplies, the government had displayed a willingness since 1910 to overlook irregularities in the actual uses made under the permits it issued. Even so, development of the basin had been delayed by a long-running competition between the Southern Sierras and Cain Irrigation Company on the one hand and the California-Nevada Power Company and Rush Creek Mutual Ditch Company on the other.

The controversy over the rights of these companies to develop Rush and Lee Vining Creeks had been marked by incidents of fraud and bad faith by all parties. And the litigation of their conflicting claims had culminated in a judicial decree which gave the Cain and Southern Sierras companies the upper hand in a decision which appeared, at least to the state officials who reviewed it, to conflict not only with the facts in the case but also with the established principles of water law in California.[33] As a result, at the time Conkling made his studies, the Rush Creek company was scarcely operating at all, whereas the Cain company was growing nothing but native hay. Cain, moreover, was dumping as much as six acre-feet of water a year on each acre it had in production. And although the company attempted to justify this excessive usage as a means of controlling weeds, the practice seemed clearly intended simply as a method of protecting the company's water rights rather than for any real agricultural purpose.[34]

It was in explaining how this proposed power project for Los Angeles would be used to benefit agriculture in the Owens Valley that the Conkling study changed most dramatically between its preliminary and final versions. In his initial report, Conkling estimated there were 137,000 acres of potentially irrigable land in the area of Bishop and Independence, although only 46,000 acres were at that time irrigated. The additional supply from the Mono Basin, once the needs of the aqueduct were deducted, would be

enough to bring 60,000 acres into production. For the short term, Conkling proposed applying most of the benefits of this new system to the lands outside Bishop. Development of the Independence region could follow later, provided there was enough water available. "The importance of not jeopardizing the aqueduct supply is the paramount consideration in this," Conkling noted. If, however, the Bishop landowners balked at the installation of the drainage system Conkling considered essential for the efficient management of these lands, then development of Independence could begin immediately; Los Angeles owned most of the lands there, and the city, Conkling felt certain, would agree to anything.[35]

Conkling, of course, recognized that the project was intended principally for power development. He was acting too under the false impression that Los Angeles had already begun building its proposed plants in the gorge. He consequently included the Long Valley reservoir as the key regulating facility upon which the entire operation of his plan depended. But in trying to build an irrigation element into his proposal, he had to strain to make the numbers fit. Conkling estimated in his 1920 report that the project as a whole would cost $8 million to construct. He could assign only $1.6 million of this to the benefits of irrigation in the Owens Valley. The rest would consequently have to be borne entirely by Los Angeles for the power and additional water supplies it would be receiving. And even to justify the $1.6 million figure for the irrigation share of the project, Conkling had to make two heady assumptions that the landowners in Bishop would be able to bear the $100 per acre cost the new water supply would impose on them, and that they would somehow magically reduce their rate of water use to only two acre-feet per acre each year.[36]

It was no doubt useful to Mulholland to be able to tell the owners of the associated ditch companies that he was sponsoring surveys for expanded irrigation in the Owens Valley when he was trying to head off their plans for the Fish Slough reservoir and assuage their opposition to his right-of-way bill in the first half of 1920. But by the time Conkling's preliminary report was complete, the city's bill in Congress had been enacted and Mulholland had no real desire to improve the situation of his adversaries in Bishop.

So he commenced construction of the small dam at Long Valley to demonstrate his good faith with the Reclamation Service and meanwhile set to work preparing a new contract for the continuation of their work. On March 9, 1921, Conkling was sent back to his drawing board to come up with a new plan.

What he produced was much closer to the city's wishes, but it included some unsettling elements for Mulholland as well. In the final report Conkling submitted in September 1921 it was proposed that the agricultural lands of Bishop be bypassed almost entirely. Instead, the properties the city already owned in the vicinity of Independence were slated to receive the bulk of the benefits of irrigation water from the Mono extension. In exchange, the city proposed to turn over title to these lands to the federal government, free. And by avoiding the privately held lands of Bishop, Conkling explained, the risk of local resistance to the installation of a drainage system would be obviated.[37] In addition, Conkling revised his cost estimates for the project downward to $6 million while increasing the share attributed for irrigation to $2 million. And since all these costs would presumably have to be borne by the federal government as the new titleholder to the lands to be benefited, there would be no risk that any landowners would balk at the expense of the development or protest at having to get by on only two acre-feet of water per acre per year.[38]

Conkling, however, had by this time realized that the operation of the Long Valley reservoir for power generation at the reduced size the city proposed to build it would not be compatible with the delivery of irrigation water at the times in the growing season when it would be most needed. To safeguard agricultural development, his revised plan therefore called for the expansion of the Long Valley project and either the construction of the Fish Slough reservoir or the dedication of a portion of the storage capacity of the Long Valley reservoir for irrigation. None of these proposals, of course, was especially appealing to Mulholland.[39]

The illusion that the Reclamation Service's investigation for Los Angeles had anything to do with irrigation for the Owens Valley had never been particularly persuasive in any event. Conkling himself acknowledged in his preliminary report that development of the project for the sake of irrigation would have made no fiscal sense except for the much larger benefits in the form of hydroelectric power generation that would also accrue.[40] In August 1921, even before Conkling turned in his final report, the Mono Grand Jury demanded an investigation of the entire undertaking by the state engineer. Progress on the investigation, however, was delayed because the chief engineer of the Reclamation Service, Frank E. Weymouth, refused to make any portion of Conkling's work available to state authorities. On Los Angeles' sufferance, Weymouth eventually provided State Engineer W. F. McClure with a copy of the report; but though Weymouth granted this concession in May 1922, he sent McClure only the preliminary report of 1920. Access to the final report, with its far more favorable conclusions with respect to Los Angeles, was strictly prohibited.[41]

Even operating with this limited information, McClure's investigator, Sidney T. Harding, concluded, "This project is feasible, if at all, only because of the power possibilities involved . . . Its margin of attractiveness seems small . . . [and] entirely dependent on the willingness of the City of Los Angeles to carry the cost of diversion from Mono Basin for the value of the power which may be secured." Since Harding regarded the city as the only real beneficiary of the plan, he chided the Reclamation Service for its involvement, noting, "The City can be presumed to be able to finance the development without the aid of Federal interest-free funds."[42]

Any possibility that the service might have acted on Conkling's plan ended with Arthur Powell Davis' dismissal on June 20, 1923, in a sweeping attempt at reform of the federal reclamation program. Thoughts of expanded irrigation in the Owens Valley, if they had ever been seriously entertained, submerged in the hysteria that was simultaneously sweeping Mulholland's department. And Mulholland's steadfast refusal to give any further consideration to development of the Long Valley reservoir meant that the city's plans for power development had also to be set aside. The Mono extension was henceforth regarded first and foremost as a water supply project for the aqueduct.

The contract with the Reclamation Service had nonetheless

been far more than an idle exercise from the city's point of view. For in addition to Conkling's detailed surveys, Mulholland had secured a benefit of far greater value: the assurance that no further development could occur within the Mono Basin which might conflict with the city's eventual construction of the aqueduct extension. And the federal government continued to hold the basin in suspense, just as it had held the Owens Valley, for as long as Los Angeles took to get its plans in motion.

Obtaining this measure of protection was undoubtedly Mulholland's primary rationale for pursuing the contract with the Reclamation Service in the first place. The city had attempted in 1913 and again in 1915 to block proposed developments on Rush and Lee Vining Creeks, arguing that the power they could generate would be needed in Los Angeles. But the appeals of the public service commissioners had been flatly rejected. As the district engineer of the federal Forest Service commented at the time, "The protest was not taken seriously by either the State Water Commission nor [*sic*] the District Office since the City had never gone to the trouble of making applications or surveys of the various reservoir sites until after the [applicants] had filed the necessary plans and applications and also after [they] had been granted easements on the various reservoirs."[43]

As soon as the terms of the contract with the city had been agreed upon, and even before the contract was approved, Arthur Powell Davis began withdrawing from settlement the lands that would be covered by Conkling's investigations. When his superiors in the Department of the Interior noted that these same lands were involved in the city's right-of-way bill, which was then pending before the Congress and encountering "very strenuous" opposition from the power and irrigation interests it would affect, they demanded to know whether Davis' recommendations for withdrawals constituted an attempt to get around the amendments to the bill that Los Angeles had already accepted. If so, the Board of Appeals for the Department of the Interior observed, "It would seem to be contrary to the spirit, intent, and purpose of the bill mentioned and the agreement on the part of . . . the city." Davis responded cryptically, "While this withdrawal will prevent homestead and desert entries, etc., it will not embarrass the Secretary in granting any easement that seems desirable."[44] On this assurance, the withdrawals were approved on April 5, 1920, and then modified at Davis' request on April 19 to remove those lands which lacked potential for power development. A week later, however, Davis was back with a series of massive new withdrawals affecting the irrigable lands of the basin, and these were quickly approved on April 27.

Harding considered the suspension of the Mono Basin lands the most offensive aspect of the Reclamation Service's intervention on the city's behalf. But he recognized as well that it constituted the central purpose of Mulholland's appeal for federal assistance. Stung by criticism originating in the Owens Valley and elsewhere of Newell's and Davis' abuse of their power to withdraw lands in the public domain from settlement, Congress had restricted the Reclamation Service's authority in this regard. The authority to withdraw lands needed in conjunction with power development projects had been specifically denied to the service and assigned instead to the Federal Power Commission. But as Harding pointed out, if the city had followed the normal course of procedure, it would have had to submit a detailed application for power plant construction with the commission together with water rights filings with the appropriate state authorities. And all these proceedings would have been subject to public hearings.

The city's problem was that it had no definite plan for its project. In 1920, it simply wanted to prevent anyone else from interfering with whatever use Mulholland might eventually decide to make of the Mono Basin waters. By creating the pretext of an interest in irrigation and getting Davis to go along with him, Mulholland was able to avoid the necessity for public hearings and put off the time when he would have to make up his mind. "In this case," Harding observed,

> we have these rights more effectively preserved for the City of Los Angeles than they could be under any regular procedure by the withdrawal placed on them by the Reclamation Service in advance of their own investigation and without any opportunity for hearing on the part of any other interested parties. By the payment of $19,500 of the cost of the investigation, Los Angeles has secured a greater

> protection of its prospective rights than could have been given to it by the action of the only Federal Office [the Federal Power Commission] to which responsibility has been given by Congressional action.

On this basis, he concluded:

> There does not appear to be any justification for the action of the Reclamation Service in this instance . . . While the principle of cooperative investigation . . . is a useful one, its use where an individual interest contributes the entire cost and secures the use of privileges reserved only for the Government in its own undertaking is considered to be an abuse of such cooperative undertakings and outside the proper functions of the Reclamation Service.[45]

The private parties affected by Davis' withdrawals were quick to make their feelings known. Consaul and Heltman, the attorneys for Galen Dixon and the Owens Valley irrigators, bitterly protested the April 27 order and charged that Davis' action "for the purpose of aiding the city to engage in a quasi-private power scheme is wholly unwarranted, either in law or fairness."[46] Davis' superiors in the Department of the Interior were sympathetic to this complaint. The April 27 order was suspended within a week of its issuance, and further modifications were subsequently made in the withdrawals approved on April 5 in order to allow the private power companies to proceed with their projects.[47]

With Davis gone and Mulholland distracted by visions of a water famine, the Mono project, by the end of 1923, had entered a kind of limbo. But the lands of the Mono Basin remained in suspension. On January 8, 1924, the Mono Board of Supervisors asked that Davis' order of withdrawal be lifted. The First Assistant Secretary for the Department of the Interior E.C. Finney responded by denying that the newly renamed Bureau of Reclamation had been exploited by Los Angeles. Instead, Finney charged that the supervisors were motivated by a desire to keep all the Mono waters within their own basin rather than allowing them to be put to a higher use in the Owens Valley. Since the Conkling reports had demonstrated that an irrigation project for the Owens Valley would be "meritorious," Finney argued that the withdrawals should remain in force until the Bureau of Reclamation decided whether to proceed with the project. The supervisors, however, informed Finney that, rather than pursuing any alleged interest in irrigation, the city had already applied to the state for rights to appropriate all the waters of the Mono Basin for domestic use in Los Angeles. This revelation rocked the Department of the Interior. Finney conceded that the city's action "indicates the possibility both of the depletion of the possible water supply of the Owens Valley project and the loss of the cooperation of the city in the undertaking of the project, either of which would render its construction infeasible."[48]

Finney immediately dispatched a blistering letter to the Los Angeles Public Service Commission noting that its action "is wholly inconsistent with the purported project to reclaim arid land as pretended in [the Conkling] contract." Because the Mono supervisors were complaining that the withdrawal of their lands was retarding the county's growth, he demanded to know the city's true intentions.[49] Los Angeles refused at first to respond, and the question was held in abeyance for six months. When the city finally acted to mend its fences with the federal government, it went again to its friends in the Bureau of Reclamation and not to their superiors in the Department of the Interior. On July 10, W. B. Mathews, chief counsel for the municipal water department, wrote a long letter of apology to the bureau's chief engineer, F. E. Weymouth, in which he attributed Los Angeles' change of heart to the fear of an impending water shortage. "Being in the midst of an unusually dry season, and confronted with an unprecedented rate of increase in population, [we] became more than ever impressed with the necessity for making immediate provision for an augmented water supply to meet future requirements," Mathews explained. "It also appeared that the surplus and return waters from the proposed irrigation project would be insufficient for the City's domestic needs."[50] Mathews followed this up with a personal visit to Finney in September.

Weymouth had earlier intervened on Los Angeles' behalf when the private power companies sought to soften the restrictions on their operations imposed by Davis' withdrawals. And he came through for the city once again with a strong recommendation for the continuation of withdrawals in the Mono Basin. As soon as this recommendation had been accepted, Weymouth left

federal service in order to be rewarded, like Lippincott before him, with a well-paid position high on Mulholland's staff. For his kind assistance, Weymouth was placed in charge of the city's planning for the aqueduct to the Colorado, and when this project had been completed he moved on to become the first general manager and chief engineer of the Metropolitan Water District.[51]

Private citizens in Mono nevertheless continued to call for a restoration of the public lands in their county, and the question was reopened by the Department of the Interior in 1926 and again in 1928. Although Weymouth's successor as chief engineer of the Bureau of Reclamation consistently recommended a suspension of Davis' original order, the matter was always resolved in Los Angeles' favor. These disappointments prompted one basin resident to appeal directly to the president. "Please do not send an investigation committee here to investigate," he wrote with exasperation. "They are just as useless to this valley as an umbrella would be to a nine-eyed eel."[52]

The problem was particularly troubling to Elwood Mead, who had taken over as commissioner of the Bureau of Reclamation with a strong mandate for reform and a deep personal commitment to redressing the injustices of his predecessors to the interests of private development in the West. He ruminated in a memorandum to the secretary of the interior in 1928,

> The question arises, should the Interior Department continue this withdrawal when it has been definitely settled that no reclamation works are to be carried out? The only reason for so doing is the fact that there seems no question that the water of this region will soon be needed for domestic and industrial purposes in the City of Los Angeles, and its value for these purposes is far greater than for agriculture.[53]

Mead therefore set out to resolve the question by forcing Los Angeles to take action on its project under the threat that the withdrawn lands of the Mono Basin would otherwise be restored to entry.[54]

Mead could not have picked a more opportune time to bring pressure upon the city. So long as Mulholland remained in control, his continuing feud with Fred Eaton prevented the water

department from building the Long Valley reservoir, which would be the linchpin for any development of the Mono Basin. Even as late as 1928, when the California Department of Public Works was reporting that an extension of the aqueduct to the Mono Basin would be capable of delivering one-fourth of all the water the South Coast would need for the foreseeable future, Mulholland steadfastly refused to consider the construction of new storage facilities in the Owens Valley.[55] But with Mulholland gone in 1929 and Eaton's lands now in receivership, the way to Long Valley was open at last. Beginning in May 1929 and continuing through the end of 1930, Los Angeles began filing requests for a massive series of new withdrawals affecting 365,894 acres in Inyo and Mono counties in order to clear a path for the new project. Despite the opposition of the Bishop Chamber of Commerce, the new Secretary of the Interior, Ray Lyman Wilbur, invariably lent his assistance to securing the necessary executive orders to make these withdrawals. And his help in turn drew a special note of thanks from Los Angeles for having "conferred a lasting benefit upon the Department of Water and Power and the people of this City."[56]

Mead and Wilbur did not have to be persuaded of the value of the project. The real problem for the city government lay in explaining to its voters why they should provide funds for yet another new water supply project when they were already being asked to commit themselves to the expenditure of hundreds of millions of dollars for an aqueduct to the Colorado. After all, Mulholland himself, in attempting to secure congressional approval of the Boulder Canyon project, had denigrated the Mono extension, testifying, "It is not a promising prospect to go after that water."[57] In an excess of enthusiasm and a complete lack of appreciation for the mood of the electorate, the Department of Water and Power tried to pass $40 million worth of water and power bonds for this project and several others in 1929. But in the wake of the Saint Francis Dam disaster the people were in no mood to give the department their support, and the bonds fell well short of the two-thirds majority approval required.[58]

The following spring the department tried again, this time with a $38.8 million bond issue, to complete the purchase of the Owens Valley properties, buy out the interests of the Southern

Sierras Power Company, build the Mono extension with a reservoir at Long Valley, and expand the local distribution system. To put the issue across, the department fell back on Mulholland's tried and tested tactics of terror. The Mono extension was presented to the voters as a vitally important interim device to save Los Angeles from a water famine until the aqueduct to the Colorado could be completed. In its first attempt to pass the bonds in 1929, the department had predicted a disastrous water shortage within six years if the extension were not built.[59] Since that had not proved frightening enough, the *Los Angeles Times* now took to threatening a shortage within the next two years.[60]

The campaign for the 1930 bond issue presented a naked display of the power of the Water and Power Machine. The Chamber of Commerce and every other major commercial association lined up in support. The Department of Water and Power sent its employees as speakers "into every nook and cranny" of the city "to properly inform the public." The local railways and downtown merchants blanketed the city with brochures, posters, and advertisements promoting the bonds. Pepsodent was importuned into giving up its radio time on the "Amos 'n' Andy Show" so that a pitch for the bonds could be presented instead. Uniformed firemen and policemen patrolled the precincts on their off-duty hours, soliciting support for the bonds, passing out brochures, and making arrangements to transport voters to the polls.[61] On election day, the bonds passed by an overwhelming margin of almost eight to one.

After this victory, however, nothing went well for the project. Negotiations for the acquisition of private holdings needed for the new system in the Owens Valley and Mono Basin dragged on for more than four years. Although $7 million of the proceeds from the bond sales had been set aside for the purchase of water rights and lands controlled by the Southern Sierras Power Company, the deal was not completed until 1933. Relinquishment of the rights held by the Owens Valley associated ditch companies to the Fish Slough reservoir site similarly took until the middle of 1934 to accomplish.[62] Construction was further delayed by the peculiar problems posed by the terrain the project had to cross. To bring the Mono Basin waters down to the Owens River and

thence to the intake of the aqueduct, the department had to tunnel 11.3 miles through the craters of an extinct volcano—the first time such an endeavor had ever been attempted. Men experienced in hard-rock mining, however, were not so common in the 1930s as they had been when Mulholland built the first aqueduct. And with all the controversy aroused by charges of political manipulation in the management of the department, the project engineers could not bypass local civil service requirements as easily as Mulholland had done in order to attract the men they needed. Once the crews had finally been assembled, in 1934, their progress on the tunnel was slowed again by cave-ins and by the steam, hot water, and volcanic gases they encountered.[63]

Planning for the project, moreover, had been confused from the outset. The Mono extension had been conceived originally as a power project and then had been converted to a water supply system with subsidiary power benefits. When the bonds for its construction were approved in 1930, only $750,000 was provided for erecting Mulholland's 100-foot dam at Long Valley. Since this would be wholly inadequate for the department's purposes, the plans had to be changed to provide for a much larger reservoir behind a 167-foot dam, 50 feet of which were sunk beneath the level of the streambed. But the extra cost of this change could be covered only by deleting expenditures for other aspects of the project.

Thomas Means, in a series of preliminary studies of the project that he prepared for Mulholland in 1923 and 1924, had warned that the water supply available in the Mono Basin so far exceeded the capacity of the city's aqueduct that a second aqueduct, even larger than the first, would have to be built to carry the water to Los Angeles. The department achieved a marginal increase in the original aqueduct's capacity from 400 to 490 cubic feet per second even before the Mono extension was begun. But the design of an entirely new delivery system would take years to prepare, and the acquisition of the necessary rights-of-way would have further delayed its development. With the Boulder Canyon project only just beginning and the Great Depression deepening, the department was not anxious to try the patience of the voters with a proposal for yet a third aqueduct. And so, the problem

was simply put aside. This seemed reasonable so long as the city's water planners regarded the Mono extension as an interim device which would stave off a water famine until the completion of the Boulder Canyon project by bringing the original aqueduct's deliveries up to its designed capacity. The question of what should be done with the surplus waters of the Mono Basin could therefore be addressed at some later date.[64]

Delay and confusion further complicated the department's efforts to secure congressional approval of the undertaking. The city's right-of-way bill in 1920 had given the department access to the Mono Basin. But in the view of the Department of the Interior, that bill had been so heavily amended that it provided nothing more than "a sort of preference on the part of the City of Los Angeles to utilize any site it might desire."[65] This "sort of preference" was clearly an insufficient legal basis for the department to commit millions of public dollars. The withdrawals made on the city's behalf in 1929 and 1930 had been supported by the Department of the Interior in the expectation that Los Angeles would follow with legislation authorizing the outright sale of these lands to the city for use in connection with its project.[66] But the defeat of the water bonds in 1929 had stalled the department's new bill to accomplish this purpose. And by the time the city was able to renew pressure for its passage in 1931, the memory of the Owens Valley controversy had begun to haunt Los Angeles in the halls of Congress as well as the State Capitol.

The passage of the County of Origin law in Sacramento that year did not directly threaten the department's project because the lands it needed were almost entirely under federal jurisdiction and therefore would not be affected by any restrictions imposed by state statutes. But the Department of the Interior was also beginning to feel the pressure of public protest over its interference with the economic development of the Mono Basin. The Secretary of the Interior therefore withdrew his support of the city's bill. And although he would not oppose the legislation, he did join with the Secretary of Agriculture in calling for amendments to allow the lands which the city needed to be used for other purposes as well. "The taking over of the water [of the Owens Valley] by the City of Los Angeles has converted a prosperous community into a waste, and the landowners [of Mono] should be given consideration," the Department of the Interior noted.[67]

Congressman Phil Swing, coauthor of the Boulder Canyon legislation, was carrying the new right-of-way bill for the city. Since his district included Mono County, he readily agreed to amendments restricting the bill's effect to a codification of the withdrawals that had already been made. In this way, title to the lands would be denied to Los Angeles and the area affected would remain under federal jurisdiction. "I would not be in favor of withdrawal of it from entry if there was any reasonable hope of its being used for the settlement and development of a community," he told his colleagues when the legislation reached the House of Representatives. "The people in my district are unalterably opposed to either selling this or giving it to the City of Los Angeles. We want the title to remain in the United States for public purposes." What Swing did not tell his fellow congressmen was that although the Bishop Chamber of Commerce and the other communities of the Owens Valley had endorsed the bill in this form, the Mono County Board of Supervisors remained bitterly opposed to it.[68]

The city got its right-of-way on March 4, 1931, but the lands granted to it remained open to grazing, recreation, and mining development under federal authority.[69] The Department of Water and Power by this time was encountering extensive litigation from private developers along the line of the extension; to undercut this opposition, Los Angeles determined that it would need still more land. Two months after the right-of-way bill placed 370,000 acres of the public domain at Los Angeles' disposal, the city secured additional withdrawals of another 67,760 acres for a canal route from Mono Lake.[70] In 1932, the Rush Creek Mutual Ditch Company sought repeal of the city's right of way.[71] In 1933, Los Angeles obtained the withdrawal of another 212,000 acres near Owens Lake and filed additional applications for an enlargement of its planned reservoir at Grant Lake. At this point, the Federal Power Commission stepped in to oppose Los Angeles' Grant Lake applications on the grounds that the city should have first applied for a license from the commission. Los

Angeles responded by seeking a new and expanded authorization from Congress to eliminate the grounds for the Federal Power Commission's intervention. Meanwhile, work on the Mono extension commenced in 1934 under a special use permit from the federal Forest Service. This second right-of-way bill did not pass until 1936, and by that time the Federal Power Commission had dropped its opposition to the city's project. But Los Angeles continued to press for the bill's enactment because it included an authorization for the city to continue acquiring additional lands in Mono County for a payment of $1.25 an acre.[72]

The Department of Water and Power did not obtain the entirely free hand in the Mono Basin which it sought under the second right-of-way bill. The act did not codify the withdrawals made on the city's behalf in 1931 and 1933, and these lands consequently remained subject to recession to the federal government. In addition, all the sales of land to the city authorized by the act were made subject to the approval of the Secretary of the Interior. The secretary was empowered as well to impose whatever restrictions on the city's use of the lands seemed most appropriate. Although it had achieved an incomplete victory, Los Angeles nevertheless emerged from this extended struggle with the lands and water resources of the Mono Basin firmly in hand. In fact, city officials conceded in 1970, the efforts to secure a right-of-way for the Mono extension resulted in the placement under Los Angeles' control of 603,000 acres in Inyo and Mono counties which were of no practical use to the project's development.[73]

The department's fitful progress on the project had meanwhile created new problems from a wholly unexpected quarter. Long Valley is crossed by a thermal belt of hot springs, geysers, and fumaroles which emit water containing boron at levels ten to twenty times greater than that found in any other part of the watershed. Throughout the winter and summer months, gas bubbling up in the marshes along this belt produces immense concentrations of boron, which are then washed down into the Owens River with the spring thaws and autumn rains. The resulting discharges into the river system can reach four tons of boron a day. The spreading of water for irrigation in the Bishop region had removed the greater part of these natural contaminants. But

as Los Angeles steadily cut back on agriculture in the Owens Valley, these boron-charged waters began flowing directly into the aqueduct.[74] As Thomas Means observed, "The real trouble seems to have come in the dry years after irrigation ceased, at which time the volume of water in the aqueduct reservoirs was so low that the low flow of springs carrying boron became an appreciable part of the water going to San Fernando."[75] Boron had not posed any great threat to the particular crops grown in the Owens Valley. But in the San Fernando Valley, damage to the lemon, avocado, and walnut crops due to boron pollution in the aqueduct's water supply began showing up as early as 1928 and increased in the years following.[76]

The United States Department of Agriculture set up an experiment station at Rubidoux in 1929 to locate the source of the problem, and on March 3, 1931, government scientists began testing the aqueduct supply. By July of the following year they had identified Hot Creek and Hot Lake in Long Valley as the source of 90 percent of the boron, which by that time was entering the water supply of the upper San Fernando Valley at a rate of sixteen hundred pounds a day during the peak of the summer irrigation season. The Department of Agriculture immediately condemned Hot Creek and ordered the city to develop a means of disposing of its water elsewhere. At first, the Department of Water and Power attempted to spread the Hot Creek waters on nearby rocky plateaus which soon proved incapable of absorbing them. Alternative plans to convey the polluted waters to Round Valley or the Chidago Canyon were given up when the city's water officials determined that it would be too expensive to construct the necessary conveyance facilities, and then defend against the damage suits that would inevitably follow the commencement of dumping operations in those two locations.[77]

The boron concentrations did not interfere with domestic use of the aqueduct's water supply, and the problem as a whole would be resolved once the aqueduct extension was complete and the purer waters of the Mono Basin began to dilute the tainted discharges in the Long Valley reservoir. For the interim, the Department of Water and Power chose to do nothing more than increase water-spreading around Bishop and allow limited wast-

age into Owens Lake during the months of March and April. As the levels of boron in the San Fernando Valley's irrigation water continued to increase after 1932 and the damages claimed by orchardists in Los Angeles rose to more than a million dollars a year, the department took to denying that any problem existed at all. The tests for boron were unreliable, the department steadfastly maintained; the safe limits for boron concentration had not been fixed; and there might be other factors responsible for the sudden defoliation of the city's citrus crops. Rather than agree to participate in any further control efforts which might reduce the quantity of water moving through the aqueduct, the city assumed an angry defensive posture, charging that the local orchardists were simply being "egged on by prejudiced advisors."[78]

Only the resolutely supportive attitude of the local newspapers saved the department from what might have been the ultimate embarrassment resulting from the development of the Mono extension. Construction of the project was delayed so long that it did not go into operation until the new aqueduct to the Colorado River was also complete. No enterprising reporter bothered to point out, however, that the water famine which had driven Mulholland to devastate the Owens Valley and launch the Colorado and Mono projects never materialized. And by the time the Mono extension was finished at the end of 1940, the department had come round to regarding the project not as an interim stopgap for the Boulder Canyon development but as a substitute for it.

It is uncertain when the city's water planners discovered that they would not need the new water supply from the Colorado that the taxpayers of Los Angeles had paid to secure. Perhaps the realization dawned in 1936, for that was when J.B. Lippincott began proposing methods for disposing of the surplus waters from Boulder Canyon.[79] But the warnings that this would be so had been sounded long before. State Engineer W.F. McClure had commented as early as 1925 that, even if the Colorado River water was immediately available, "It would be good business to secure the supply from Owens Valley and Mono Lake Basin because of its superior quality and delivery by gravity."[80] The city's own Bureau of Municipal Research had similarly opposed the

Colorado project as unnecessary and expensive, arguing instead for a more intensive development of the water resources of the Owens Valley.[81] And in 1932, the economist W.C. Yeatman had produced a devastating analysis of the population projections used by the Metropolitan Water District and the Chamber of Commerce to promote the Boulder Canyon project. Whereas the proponents of the project estimated that the city's population would reach 4.2 million by 1960 and 5.1 million by 1970, Yeatman pointed out that these calculations were founded upon a set of assumptions so faulty that, if they were extended far enough, they would project the entire population of the United States eventually residing in the four counties of the South Coast. As an alternative, Yeatman predicted that the population of the city of Los Angeles would be only 1.9 million in 1960 and 2.1 million in 1970.[82]

Los Angeles in any event was not alone in discovering that it had no use for the Colorado water when it finally arrived. In its first five years of operations, the Metropolitan Water District could find customers for only 2 percent of the water it was capable of delivering. After the first ten years, this figure had risen to only 18 percent. And even as late as 1952, when the district had vastly expanded its service area in an effort to bring in new customers, its pumps drawing water from the Colorado were still operating only half the time.

In the years since, most of the charter members of the Metropolitan Water District have eventually come to rely on the system they have paid to build. But not Los Angeles. The alternative supply the city derives from the Mono Basin is of far superior quality to the waters of the Colorado. And because the Mono waters flow downhill to Los Angeles through the aqueduct, it is much less expensive than are the Colorado supplies, which must be pumped over intervening mountain ranges. As a result, the city has taken only 7 percent of all the water it has been entitled to receive from the Metropolitan Water District since 1941. The city's taxpayers, meanwhile, have paid out more than $335 million over the same period to develop this water supply they scarcely use.[83] Completion of the two projects Mulholland left unfinished thus fulfilled his fondest wish of assuring

Los Angeles an abundant water supply for the future. But the hysteria of his last years at the water department also left the city saddled with an immense debt for a water system it never needed.

Homes for the Homeless

The expectation that Los Angeles would soon receive more water from the Colorado than it could possibly consume prompted some hope in the Owens Valley that the city would use its excess supply to recharge the valley's groundwater basins and restore agriculture in the Bishop region. In this way, valley optimists argued, the city would be able to boost the value of its holdings in the Owens Valley and sell them off at a profit. Willie Arthur Chalfant did not share in this speculation. "If there is to be a coming back," he wrote in 1933, "it must be well into the years ahead, when those who have given Inyo their devotion are beyond its enjoyment."[84] And in Los Angeles, the idea of applying the surplus for the benefit of the Owens Valley was given no more consideration than it had received under similar circumstances in 1912.

In deciding what should be done with the Owens Valley properties, however, the city's officials faced a problem almost entirely without precedent under the United States federal system of government. The wholesale land and water acquisitions that followed the collapse of the Watterson banks had created an anomalous situation whereby one public entity, the city of Los Angeles, had become the virtual owner of another public entity, the county of Inyo. The modern history of relations between the city and the valley has consequently been shaped by Los Angeles' sometimes faltering attempts to come to terms with its responsibilities under this essentially colonial relationship.

Even as late as 1927, spokesmen for the Department of Water and Power were predicting "renewed prosperity" for the Owens Valley and promising support for a larger railroad line to carry the valley's produce south from Laws.[85] But once the ranchers' resistance had been broken, such promises were no longer necessary. And, as Los Angeles became the principal landowner in the valley, the focus of the city's concern shifted accordingly. "It is essential to determine the manner in which the Owens Valley region may be used in the best interest of the people who have paid for it," observed Clarence Dykstra for the department in 1928.[86]

Dykstra had served as a member of the board of commissioners overseeing Mulholland's work from 1923 to 1926. In his subsequent employment as director of personnel and efficiency for the Department of Water and Power, he had become intimately involved with the department's efforts to reach a settlement with the valley ranchers. Dykstra regarded the question posed by the city's ownership of valley lands as essentially "an agrarian problem." The solution for the city, in Dykstra's view, lay in determining which agricultural activities would least interfere with the city's use of the valley's water supply. "Whatever [the city] does in the valley cannot and must not jeopardize this supply," Dykstra acknowledged. "The central fact of water and its control dominates the situation." He suggested, therefore, that stock raising and dairy farming might be the best use for the city's lands.[87]

Having just won their war with the valley ranchers, the water and power commissioners had little desire to reestablish their former adversaries on the lands the city had bought. Dykstra's limited plans for "rehabilitating" valley agriculture consequently gave way to an alternative idea proposed by another member of the commission, W. P. Whitsett, who had just returned from a European tour flush with visions of converting the Owens Valley into "an American Switzerland . . . a vacation and tourist land supreme."[88] The announcement that the state of California intended to commence a substantial improvement of the highway north and south of Bishop in 1932 lent considerable strength to this plan for using the department's lands as "a great park and playground" governed exclusively by the city of Los Angeles.[89] But for the short term, the department could do no more to realize this objective than arrange a lease for the establishment of a duck-hunting refuge.[90]

The ability of the water and power commission to pursue any consistent program for development of the Owens Valley in the

early 1930s was undercut by the increasing pressure it encountered from the mayor's office to turn an immediate profit on its properties. By forcing the abandonment of once-productive farmlands in order to increase water deliveries to the aqueduct, the department was both reducing its revenues and increasing the share of Inyo County taxes it had to bear. Dykstra's plan for a limited agricultural program had the advantage over Whitsett's grandiose design in that Dykstra had always regarded "making the valley yield some revenue" as one of the central purposes of his proposal.[91] By leasing the lands back to the Owens Valley ranchers, the department realized it could shift the entire burden of taxation on these properties to the leaseholders. In addition, the rents paid by the lessees would satisfy the mayor's demand for income to the city, while the policy as a whole would quiet the state legislature's concern for the treatment the ranchers had received at Los Angeles' hands.

The essential problem for the city was one of devising a leasing program that would not allow agriculture to become so deeply entrenched that it would ever pose a threat to the operation of the aqueduct again. In the case of its duck-hunting refuge, the city had leased out sixty-four hundred acres at a return of less than one-third of 1 percent on the value of the land.[92] The terms offered to the Owens Valley ranchers were considerably less favorable. In addition to assuming all the taxes due on the property, the lessee paid an annual rent equivalent to 6 percent of the inflated price at which the city had purchased the land originally. Each lease could be canceled at any time by the city, and none were issued for terms longer than five years with no guarantee of renewal. Though these terms assured that no one would be able to secure financing for any substantial improvements, the leaseholder was permitted to apply up to 10 percent of his annual rent to repairs and maintenance of the property. Most important, the granting of a lease carried with it no assurance of a continued water supply. Los Angeles made the perils of such an agreement immediately clear when it abruptly canceled nearly all its leases in 1930 and diverted the entire flow of the Owens River to the San Fernando Valley during the peak of the irrigation season.[93]

One group of ranchers, however, did not suffer from the

city's policies of forced impermanence. The 811 Paiute Indians who remained in the Owens Valley in 1930 held their lands and water rights under federal grants with which Los Angeles had no power to interfere. Since 1902, a portion of the former military reserve at Camp Independence had been set aside for use of the Indian population. A few families owned their own lands outright under patents perfected before 1884. Others held patents which were kept in trust by the federal government until such time as they had demonstrated to the satisfaction of the federal authorities that they were "competent to manage their own affairs."[94] As a federal report in 1912 observed, those who preferred not to live on the reserved lands but who owned none of their own led "a precarious existence, depending almost entirely upon the goodness of their white neighbors or friends of their race for shelter."[95]

When the massive withdrawals made on Los Angeles' behalf were lifted in 1912 and the lands of the Owens Valley began to be reopened to settlement, the Department of the Interior set aside nearly 69,000 acres of land at widely scattered sites for the use of these homeless Indians.[96] The largest was a 67,164-acre tract on volcanic tablelands north of Bishop which the local Indian agent, C.E. Kelsey, believed was located atop an undiscovered artesian field.[97] The lands, however, were in fact worthless; and the federal government was slow in providing funds for the establishment of irrigated homesites on these new properties. As a result, the Indians continued to wander through the valley. "During the years of waiting for assistance from the Government," the Bureau of Indian Affairs reported in 1919, "they have pitched their tents and temporary huts wherever they were allowed to do so, in many cases on waste land and under such conditions as to render it impossible to maintain healthful conditions or to obtain subsistence from the land."[98]

Those who left the barren homesites cut themselves off from any prospect of government assistance. "The scattering bands of Indians in the State of California have for some time been considered as citizens and the responsibility for their care when indigent devolves upon local or state officials rather than upon this Service, just the same as if they were white persons in similar circumstances," an assistant secretary for the Department of the

Interior explained to a valley resident who had written to express concern for the destitute condition of the Paiutes.[99] As a result, the local Indian community had played no part in the conflict between their white neighbors and the city of Los Angeles. Similarly, they had not benefited from the generally high prices Los Angeles offered for the purchase of lands in the Owens Valley. Nineteen individual Indian homesites aggregating 1,336 acres were sold to the city for a total cost of $72,262. But the federal government set aside the proceeds from these sales to buy new homesites for the families involved. And when it discovered that only three families could be relocated within the valley, the others were encouraged to remove themselves to the Walker River Reservation in Nevada.[100]

The Department of the Interior, however, was powerless to sell the majority of the Indian lands set aside by executive orders and congressional appropriations, which could not be altered except by an act of Congress. This extreme action was in fact taken in the case of thirty acres at Manzanar which the city was particularly anxious to obtain.[101] But for the most part, Los Angeles' officials expressed indifference toward the Indian lands, and the prices they offered for them were in some cases only a fourth of what they were paying for similar lands owned by whites.[102]

The collapse of the valley's economy and the subsequent devastation of local agriculture afflicted the homeless Paiutes with particular severity. Many had drifted to the Bishop area, where the men had worked in the fields and the women found ready employment in the households around town.[103] With the opportunities for farm labor gone and the population of Bishop in sharp decline, these Indians were suddenly rendered destitute once again. Their plight prompted renewed concern at the federal level. At the end of May, 1932, the Secretary of the Interior sent a special representative, Louis C. Cramton, to study the condition of the Indians in the Owens Valley, "With only a few exceptions," Cramton reported,

> they have been identified with agriculture, some farming their own lands or leased lands, but more generally as laborers for whites. A few are very well advanced in capacity and industry, but many are lacking in initiative and unequal to responsibility. By destroying almost entirely their labor market, the City of Los Angeles has upset their world and done them very serious injury. They are now in serious situation, with a desolate present and an an uncertain future.[104]

Cramton's report went on to describe how the Indians were being excluded from the few opportunities for employment that remained in the valley by laborers imported from Los Angeles. He expressed concern as well for the impact the city's policies would have on the character of the Paiutes. "While their economic welfare has been jeopardized, their moral welfare is likewise endangered by lack of responsibility which seems to obtain in the city administration of this valley which it is turning back to desert after four score years of progress," Cramton observed. "An old school building now rented for dance hall purposes and other buildings rented to bootleggers and other undesirables are bringing very bad conditions for the Indians."

Cramton's view of the city's program seems to have been colored somewhat by the fact that he was dealing with A. J. Ford, the chief right-of-way and land agent for the Department of Water and Power. Cramton was frank in expressing his suspicion that Ford lied frequently to him about specific city policies. Ford similarly did not take well to Cramton's investigation and responded to the charges raised in the report with the assertion that: "In a perusal of the early history of the Owens Valley situation, it is obvious that the Indians were badly treated by the National Government, and had such agency used the proper vision and tolerance for an ignorant race then, the Owens Valley Indians would have been happy and contented on this date by being self-supporting and law-abiding."[105]

Part of Ford's irritation sprang from the fact that the city had been acutely conscious of the Indian problem well in advance of Cramton's arrival in the Owens Valley. The number of indigent families of all races in Inyo County had of course increased dramatically since the collapse of the Watterson banks. In the case of whites, the county had had to assume the full cost of their care through the payment of rents to the Department of Water

and Power for the use of the houses where these families lived. Los Angeles then prosecuted any family which Inyo County determined was not deserving of charity.[106] In the case of the Indians, however, the Department of Water and Power had, since the winter of 1931-32, begun appropriating its own funds to employ the Paiutes on maintenance crews for city-owned ranches, roads, streams, and ditches. In exchange for this work, the city provided the Indians with cash, provisions, clothing, and medical assistance.[107]

The need for a long-term solution to the problem was obvious to the city. The Indian lands were scattered throughout Los Angeles' holdings in the Owens Valley and disrupted the city's efforts to consolidate its control of the watershed. Those Indian lands which held water rights under federal law had to be supplied by the Department of Water and Power, even though this meant the loss of a significant quantity of water which might otherwise be going into the aqueduct.[108] And the deteriorating condition of the Paiutes posed a potential threat both to the peace of the valley and the operation of the aqueduct. As A. J. Ford observed in one of his reports in 1932:

> A large percentage of the Owens Valley Indians are living in shacks, tents, wickiups, and hovels that are generally too small for the number of occupants, unsanitary, in violation of the housing laws, impossible to properly heat in the winter, constituting not only a menace to the Indian, but to the entire population of Owens Valley, and particularly threatening contamination of local community water supplies and the municipal water supply for the City of Los Angeles . . . Execution of some plan to place the Owens Valley Indians upon a self-supporting basis at an early date is essential . . . Continued unemployment, and the consequent lack of funds, works toward crime and lawlessness . . . Furthermore, it is a fact that under their present environment they are not able to correct this condition on their own account, as it has been necessary to care for many of them under welfare plans during the past two winter seasons. A continuation of such procedures will tend to more firmly set the Indians against any move to establish them on a self-supporting basis.[109]

The solution Ford had in mind involved the complete elimination of the Indians from the Owens Valley and the delivery of their lands into the control of the city of Los Angeles. But his plan for moving the Paiutes to another agricultural community on the other side of the Sierra was acceptable neither to the federal government nor to the Indians. A similar attempt to relocate the Owens Valley Indians to the San Sebastian Reservation in 1863 had failed completely, and the Indians had fled the forced march to Fort Tejon and made their way back to the valley.[110] Ford recognized the acceptance of his plan would not come quickly. He therefore proposed that new homesites be temporarily established within the valley for those Indians who refused to leave. But he set an absolute limit of twenty years for the continued maintenance of the Paiutes in the area. He promised:

> The problem can be solved successfully to all concerned at the end of a twenty-year period through the assistance of education, natural elimination by death, and other eliminations due to the decision of some of the Indians to relocate voluntarily in other sections. If a program of education were inaugurated, it is felt that the middle-aged and younger Indians could be so educated over a twenty-year period that they would have voluntarily concluded that their interests could be best served by attaching themselves to another location where labor and water supply conditions were more favorable and permanent.[111]

The further development of Ford's program for coercive education ended with his dismissal in 1933 during one of the purges of departmental personnel that repeatedly beset the city's water program during the 1930s. Responsibility for Los Angeles' policy toward the Indians now passed to his former deputy, E. A. Porter, who had already dismissed the idea of a forced relocation of the Paiutes as impractical. "Many of the Indians have never been out of the Valley and all of them are attached to the local natural environment of the region," Porter had observed in an oblique dissent from one of Ford's reports in 1932.

> They know where and how to fish; many have summer camp grounds in the high mountains close by; others are more or less influenced by their native religion so closely

> connected with the local country. So while it may be possible to pick a group of Indians up bodily and transfer them to a new location, which would no doubt be to their advantage in the long run, it might prove to be a heartless move on the part of those responsible and probably an unsuccessful venture for those in charge.[112]

Under Porter's more sensitive direction, the Department of Water and Power gradually hammered out an agreement with the Department of the Interior for the maintenance of the Owens Valley Indians. Porter's plan called for the establishment of three new homesite areas on city-owned lands and the addition of 120 acres to the existing federal reservation at Camp Independence. In exchange for turning over its properties to the federal government to hold in trust for the Indians, Los Angeles obtained control of all the remaining Indian homesites. Although the city received 2,914 acres for the 1,392 acres it offered under this plan, the lands Los Angeles provided were far superior to the ones the Indians were being asked to give up. For example, only 103 acres of the Indian lands were prime quality, while 340 acres of the lands they received met this standard.

With these lands, the city provided first-class water rights to 6,046 acre-feet a year. The negotiations on this point nearly collapsed in 1937 when the city abruptly asserted that it would be unable to deliver the rights per se because its charter prohibited alienation of its water supply without a two-thirds vote by the electorate. But sufficient latitude was granted to the Secretary of the Interior under the congressional legislation authorizing this exchange to enable him to accept the city's guarantee that water in these amounts would be delivered in perpetuity. For its part, the federal government agreed to provide these new homesites with sewer systems, efficient irrigation, and adequate housing.

The plan was accepted by all the Owens Valley Indians except those residing on the Camp Independence Reservation. Those aspects of the exchange affecting their lands and water rights were consequently severed from the deed executed by the Department of the Interior on June 26, 1939. But a subsequent review of the land exchange conducted for the tribal councils of the Owens Valley and Mono region in 1976 confirmed the generosity of the

city's terms, and the Department of Water and Power continues today to hold open its offer to complete the exchange with the Camp Independence Indians on the same basis fixed in 1939.[113]

The land exchange of 1939 achieved a remarkable balance of the interests of the city and the Owens Valley Indians. The Paiutes obtained superior lands and a guaranteed water supply. In addition, as Porter noted in his final report on the exchange, the new consolidated homesites were closer to the existing towns of the Owens Valley, "where moral, school, health, labor, market etc. conditions can be better met." At the same time, the city was relieved of paying taxes on the lands it turned over to the Indians and received in exchange a large block of tax-exempt federal land. More important, the Department of Water and Power achieved a greater efficiency in the use of water within the valley for the support of the Indian lands. And the settlement as a whole represented, in Porter's view, a responsible "discharge of a possible moral duty on the part of the City in assisting the Indians." Completion of the land exchange, he concluded, "will at least place the Owens Valley Indians on a basis which will offer them the maximum of success under present and future more or less limited market and labor conditions in the Valley."[114]

The department in this period displayed a similar spirit of generosity in offering the use of its lands for the benefit of another displaced part of Creation. The Tule Elk once roamed the Central Valley and coastal regions of California in vast herds that numbered in the aggregate an estimated 500,000. Early settlements from 1800 to 1840 displaced the elk from their natural habitats, and after 1840, they were hunted for their hides and tallow. In only twenty years, the herds were all but eliminated. When the state government finally prohibited the killing of the elk in 1873, it was generally believed that none were left. One surviving pair, however, was found in the marshlands of the Buena Vista Basin, which were then part of the vast empire belonging to the Miller and Lux Land and Cattle Company. Henry Miller put the animals under his personal protection and offered a reward of five hundred dollars for anyone who dared to disturb them. By 1905, a herd of 145 elk had established itself at Buttonwillow, and by 1923 their numbers had increased to over 400. From 1923 to 1927, the

Miller and Lux lands began to be subdivided into 40- and 160-acre lots, and the Tule Elk seemed to be facing extinction once again. Efforts to transplant them to Yosemite National Park failed in 1927 when they were caged to cut down their damage to park forage and to reduce the hazard they appeared to present to park visitors. At this point, G. Walter Dow, a businessman in Lone Pine, took up the elk's cause and persuaded the Department of Water and Power in 1933 to bring the entire Yosemite herd to the Owens Valley. In 1934, a second herd of elk were brought to the valley from a refuge at Tupman where the animals had been fenced and nearly starved as a result.[115]

The Tule Elk flourished in the Owens Valley, and separate, smaller herds have subsequently been established at Tupman, Cache Creek, and San Luis Island. Their arrival in the valley, however, was vigorously opposed by the local cattlemen operating on rangelands leased from Los Angeles. For them, the introduction of the elk represented another hardship imposed by the Department of Water and Power on the profitability of their activities. The department's concern for preservation of the Tule Elk thus created a conflict between Whitsett's vision of the valley as an open parkland and Dykstra's plan for the limited restoration of valley agriculture. In 1943, the California Department of Fish and Game responded to the cattlemen's complaints about the damage the elk were doing to their fences and pasturelands, and for the first time in seventy years, hunting permits were issued to cull the Owens Valley herd. A total of forty-three bulls were killed in that first hunt, and four subsequent hunts organized by the state at roughly six-year intervals took an additional 400 elk. By 1969, the opportunity for slaughter had become so popular that the Department of Fish and Game held a lottery for the 80 available permits from among the eight thousand applications it had received. With the blessing of state authorities, the elk were tracked with helicopters and shot from jeeps. Many wounded animals were left to die on the range. At this point, conservationists and sportsmen rallied to put an end to this grotesque display.[116]

The ad hoc Committee for the Preservation of the Tule Elk first proposed that the entire southern end of the valley should be

fenced off for the exclusive use of the elk. But a wildlife specialist later retained by the Department of Water and Power pointed out that this would have led to overpopulation of the elk within a limited area, destruction of their habitat, and the possible loss of the entire herd in case of a single outbreak of disease. In 1970, the state legislature intervened by imposing a prohibition upon the taking of Tule Elk except when their population within the Owens Valley exceeded four hundred and their numbers statewide had risen above two thousand. Subsequent administrative practices adopted by the Department of Fish and Game in cooperation with the Department of Water and Power, the Bureau of Land Management, and the National Forest Service have limited the taking of Tule Elk to trained personnel and encouraged the movement of the elk population to other areas when their numbers become excessive.[117]

Resettlement

Dow's success in persuading Los Angeles to provide a home for the Tule Elk, and the generosity the city displayed in its negotiations with the Paiute Indians after 1932, encouraged other residents of the Owens Valley to hope that the Department of Water and Power might grant its favor to other efforts to rejuvenate the local economy. The energy and initiative for turning this hope into reality came from two relative newcomers to the valley, Ralph Merritt and Father John Crowley. Merritt was a gifted agricultural organizer who had served as president of the state's rice growers' association and later as president of the Sun Maid raisin growers' association in Fresno. Stricken with polio, he had come to the Owens Valley in the early 1930s to recover and had there taken up speculating in various silver and lead mines.[118] Crowley too arrived in the valley in 1933 in ill health, but unlike Merritt, he had been there before.

From 1919 to 1925, Crowley had served as the valley's first resident priest. Because there were only a handful of nominal Catholics in Inyo County when he began, his first parish had been expanded to include the communities of Bishop, Lone Pine,

Randsburg, and Barstow in Inyo, Kern, and San Bernardino counties—a thirty-thousand-square-mile area equal in size to his native Ireland. In a Model T Ford especially outfitted to provide him with sleeping quarters, Crowley had run the circuit among his scattered parishioners every month, logging 50,000 miles in little over one year. After eighteen months, the Barstow congregation had grown large enough to have its own pastor, and six months later a mining boom had the same effect on Randsburg. With his parish now reduced to only ten thousand square miles, Crowley was able to concentrate on construction. A new church in Bishop was completed in time for the celebration of Christmas 1921. The remains of an Episcopal church in Randsburg were trucked into Lone Pine and fitted out with a bell tower. The grading of the highway between Bishop and Lone Pine enabled Father Crowley to begin offering mass in both towns on the same day by the beginning of 1923. And soon thereafter he had a chapel under way at Keeler.[119]

Crowley's success in the erection of edifices prompted his superiors to bring him to Fresno in 1925, where he was named a monsignor and appointed chancellor of the Monterey-Fresno Archdiocese. Although he was removed from the valley during the denouement of its conflict with Los Angeles, he retained a lively interest in its affairs. And when the Watterson brothers went to jail, he joined with other prominent current and former residents of the Owens Valley in appealing for clemency on their behalf. "In all my experience with the Wattersons," he wrote to the chairman of the state crime commission,

> I never knew them to seek for personal gain at the cost of the inhabitants of the Valley who trusted them . . . On the contrary, they lived modestly, even frugally, and fought consistently for the people against the encroachments of the Los Angeles Water Board . . . It has never been proved that the money was used otherwise than for the protection of the farmers in Owens Valley and for the extension of the life of the industries which kept the Valley alive.

And though he did not condone the brothers' actions, he observed, "I can readily understand how the Wattersons could yield to the temptation of 'borrowing' money from their banks to keep the Valley alive while the City of Los Angeles browbeat and dragged through every court in the land, the poor and practically defenseless ranchers."[120]

Although his perception of the conflict had thus been shaped by his sympathy for the Watterson brothers, Crowley did not seek to renew the struggle with Los Angeles when he gave up his elevated title and administrative responsibilities in Fresno to return to the valley in 1933. Instead, he joined with Merritt in forming an independent organization, the Inyo Associates, to press for economic development in the valley through cooperation with the Department of Water and Power. This involvement in the commercial life of his parish Crowley regarded as a natural extension of his ministry. For, as one reporter later remarked, "He knew what every missionary knows; that it is easier to save a man's soul when he is prosperous and happy than when he is worried by adversity and embittered against the world and against God."[121]

Merritt's reputation for sharp practice, and rumors that the two men had been closely associated in Fresno, cast a shadow over their initial enterprise. Only $2,500 could be raised locally to launch the Inyo Associates, and the county supervisors refused to provide any support at all. All county officers were accordingly excluded from membership in the new organization.[122] The officials of the city water department were at first no more enthusiastic than the supervisors. "Father Crowley, we own Owens Valley. We propose to have no interference. There are no issues for discussion," Mulholland's successor, H. A. Van Norman, reportedly declared at his first meeting with the Inyo Associates. On another occasion, Crowley claimed to have locked Van Norman into a room until he agreed to the concessions the doughty father prayed him to grant.[123]

In time, however, Van Norman and his colleagues realized that Crowley posed no threat to their operations. Rather, the priest was in fact working tirelessly to lend form and substance to the department's own vague ideas on recreational development in the Owens Valley. To realize this dream, Crowley once again took to the highway, touting the valley's recreational opportunities wherever he could raise an audience, eating with friends and parishioners along the way, and sleeping by the roadside when no

lodging could be found. To pay his expenses, he organized street carnivals and community plays, sold off church properties, and rented out unneeded areas of the churches and rectories in his parish for use by undertakers, doctors, dentists, and even a gas station.[124]

The seemingly boundless energy he had once directed toward the construction of new church facilities he now focused upon fish. There are no native sport fish in the Owens Valley, only suckers, chubs, dace, and pupfish. But as early as 1876, packers began transplanting trout from the Kern River to Cottonwood Creek. In 1909, the California Fish and Game Commission began to plant golden trout intensively throughout the lakes and streams of the Sierra Nevada. And in 1917, the state constructed its Mount Whitney fish hatchery outside Independence. Local officials had been slow at first to recognize the potential economic benefits that might come from recreational fishing. When the Mount Whitney hatchery was built, the state Fish and Game Commission had to prod the Inyo supervisors not to be so shortsighted as to deny the new facility an adequate access road for tourists. Even after it had been pointed out to them that the hatchery would be "a showplace for Independence for all time," the supervisors put up only $500 for a road, and private citizens in Independence had to raise the other $1,850 needed to complete the improvement.[125]

Crowley, in contrast, saw the transplanted fish as an immediate source of income for the valley residents. To bring fishermen and tourists to the area, he hired a publicist and began staging promotional events. When a road was laid between Mount Whitney and Bad Water in Death Valley, linking what were at that time the highest and lowest points in the United States, Crowley organized an elaborate ceremony to mark its completion at which runners carried vials from one end of the road to the other for a "wedding of the waters." By 1940, when more than a million tourists visited the Owens Valley, Crowley had firmly established May 1, the opening of the trout fishing season, as a valleywide holiday. The schools were closed so that all could come see the indefatigable father bless the fishermen's flies and rods at an early morning mass for which collections were taken in a creel.[126]

The promotion of recreational development in the Owens Valley was only the first step in Father Crowley's far grander plan to restore ownership of the valley's lands to its residents. In this endeavor, he was aided immeasurably by the relentless pressure to show a profit on its acquisitions which the Department of Water and Power faced in this period from its economy-minded critics in Los Angeles. Support for continued city purchases in the Owens Valley ended with an abortive attempt by the department in 1936 to persuade the residents of Bishop to disincorporate their community. Disincorporation offered Los Angeles a way of reducing its tax assessments while at the same time further concentrating its control of the valley's affairs. In exchange, the department offered to buy up the commercial properties which the Bishop merchants had organized into a pool and held out for sale at an exorbitant price. On August 22, 1936, the citizens of Bishop rejected the proposition at a special election. "With God's help," Crowley declared, "we're going to persuade the City of Los Angeles to let us buy back our property and use our water on it and own our valley once again."[127]

It would have taken nothing less than divine intervention to persuade Los Angeles to give up the water-bearing lands it had gone through so much to obtain. But the town properties presented an entirely different matter. For the most part these lands carried with them no water rights, and they had been acquired by the city in a hasty, charitable gesture aimed at bringing a swift end to the controversy after the collapse of the Watterson banks. By 1938, the long struggle over municipal control of the city's water programs was entering its final phase with the election of Fletcher Bowron as mayor of Los Angeles. Having come to office as the reform candidate in a recall election, Bowron immediately set out to obtain the resignations of the entire board of water and power commissioners. In place of the policies of the past, he promised to bring efficiency, economy, and accountability to the operation of the department. And as part of this effort, he accepted an offer from the Inyo Associates to visit the Owens Valley with his newly appointed water and power commissioners for the purpose of discussing the resale of town properties owned by Los Angeles. On August 29, 1939, the first group of

town lots was offered for sale, and by February 1944 the Department of Water and Power had disposed of 637 parcels representing nearly 50 percent of all the town properties the city had acquired.[128]

The return of the town properties to private control proceeded without Father Crowley. In the early morning hours of March 17, 1940, while returning to Lone Pine from San Francisco, he struck a steer that had wandered onto the roadway. The impact hurled his car into the path of an oncoming lumber truck, and he was killed instantly. More than six hundred people attended his funeral mass, overflowing the chapel at Lone Pine. The entire Inyo County Board of Supervisors came to pay their last respects. Los Angeles was represented by Van Norman, the chairman of the water and power commission, and two city councilmen. Mayor Bowron sent flowers; so too did a group of grateful valley residents, who included a note reading, "These flowers were not bought from a florist. We picked them ourselves at our homes because it was Inyo water that made them grow."[129]

At the time of Crowley's death it seemed that the bitterness of a decade before had at last come to an end. The following year, Los Angeles completed the Long Valley project; and in recognition of all that Father Crowley had done to improve relations between the city and the valley, the Department of Water and Power chose to name the new reservoir for him. Willie Arthur Chalfant, who was by this time nearing the end of his own long life in the valley, was invited to speak at the dedication of Crowley Lake. He too saw in the city's gesture of good will the hope of better times to come. "It is a promise of the end of dissensions," he remarked, "and we welcome its implied pledge that hereafter city and eastern Sierra shall work hand in hand for upbuilding. We cannot but regret that this enterprise was not constructed long ago; there would have been less of history to forget."[130]

Crowley's death, however, left unresolved the problem posed by the agricultural lands still held by the Department of Water and Power. Unused, they represented either a potential for continued conflict or an opportunity for Los Angeles to demonstrate its commitment to the improvement of the valley. Crowley, Chalfant, and Merritt had regarded a limited restoration of valley

Japanese internment at Manzanar

agriculture as the ultimate objective of their efforts. And though the impetus for the development they dreamed of took hold much sooner then they had expected, it came about for reasons no one could have foreseen or desired.

In the wake of the Japanese attack on Pearl Harbor, the United States Army on March 7, 1942, formally advised the Department of Water and Power that it was taking over 4,725 acres of the city's holdings in the Owens Valley "for so long as the present emergency requires." Along with the land, the army assumed control of four wells, three creeks, and as much water as the army determined would be necessary to support an agricultural community in the valley composed of Japanese-Americans who were being removed from coastal areas under the president's Executive Order 9066.[131] The area selected for this installation was the site of George Chaffey's stillborn water colony at Manzanar, where the drainage system and concrete conduits Chaffey had so carefully constructed still waited to be put to use.

The announcement at first stirred great consternation in the valley. Surveyors for the Army Corps of Engineers had appeared there a week before the announcement, circulating rumors that a hundred thousand Japanese internees were on the way. Strident opposition was expressed in several communities, and the town of Independence formed a militia to protect its citizens from these Americans it presumed were disloyal. Despite the impression created by popular fiction that every Western ranch house had its Chinese cook, Orientals were almost wholly unknown in the Owens Valley at this time.[132] And although the relocation of the Japanese-Americans was prompted by America's entry into World War II, it marked as well the fulfillment of a stridently racist campaign conducted for two decades by the publisher of the *Sacramento Bee*, V.S. McClatchey, to exclude Asian-Americans from any role in the economic life of California.

The principal engine of McClatchey's exclusionary program was the California Joint Immigration Committee, composed of the state attorney general and representatives of the American Legion, the California Federation of Labor, the Grange, and the Grand President of the Native Sons of the Golden West. Although the Joint Immigration Committee also condemned the granting

of citizenship to Negroes after the Civil War as a "grave mistake," the principal object of McClatchey's vitriol was the Asian community, which he argued was incapable, for cultural reasons, of ever functioning as a loyal component of American society.[133] The seeds of hatred sown by McClatchey soon blossomed in the weeks after Pearl Harbor into hysterical reports that Japanese-American employees of the Department of Water and Power were plotting to poison the city's water supply. As a result, fourteen employees of the water department and ten members of the Los Angeles police force were summarily dismissed. And Owens Valley residents suddenly began recalling earlier visits by Oriental tourists who had been seen painting and photographing elements of the aqueduct delivery system.[134]

In contrast to this atmosphere of hostility and mistrust, responsible leaders in the Owens Valley regarded the establishment of the Manzanar relocation camp as a great boon to the community which could bring about an abrupt reversal of the valley's declining economic condition. "Let's Look at this New Development with a Long Range View," the *Inyo Independent* proposed in a special edition announcing the project. The publisher of the *Independent*, George Savage, had been included in the planning for the camp from its very inception, along with Ralph Merritt, Bob Brown, and Douglas Joseph of the Inyo Associates. In their view, the establishment of the camp afforded the Owens Valley a chance "to play a part in history in the making." More important, it offered "an opportunity to permit a part of our land and natural resources to be used for defense production, possibly of foodstuffs and other needs." Through the opening of the camp, Savage pointed out, the valley would gain "a large reservoir of labor" at no cost to county government. The army had asked Savage and his colleagues to develop a program for the activity of the camp that would be beneficial to the valley, and in this context, Savage proposed that the internees should be employed in building a broad-gauge railroad north from Owenyo, upgrading the county roads, and improving the valley's forest lands for postwar recreational use. The establishment of the camp was a matter of national defense, Savage emphasized, "one that cannot be displaced by local feeling or political reaction." The task for the Owens Valley, he therefore argued, was to make certain that the work performed at the relocation center would be "of permanent value in results attained."[135]

The opening of Manzanar did indeed bring the prosperity Savage and his colleagues promised. Safeway, J.C. Penney, and Sprouse-Reitz opened branch stores to handle the increased commercial trade from the camp, and Savage himself began publishing the *Manzanar Daily Free Press* for as long as the relocation center was in operation.[136] Within only two weeks of the announcement of the army's plans, Savage reported approvingly of the envy expressed by residents of Mono County at Inyo's good fortune. The *Bridgeport Chronicle Union* in Mono County observed editorially, "The chances of any of these Japanese doing misdeeds or costing the county extra money is negligible, and the amount of revenue it will bring to the businessmen and merchants should be astounding. We are only sorry that the heavy snows in the winter months and other terrain conditions prevent having one of these camps in this county."[137]

Local resentment of the camp, however, could not be entirely eradicated. Plans to employ the internees in maintaining the Haiwee Reservoir were dropped when local residents expressed their fear at any proposal to let the Japanese-Americans out of the camp. Similarly, a request by twenty-two Lone Pine businessmen to allow the residents of the camp to shop in their stores was stopped by a counterpetition drive which garnered five hundred signatures. "We ought to take those Yellow-tails right down to the edge of the Pacific and say to 'em: 'Okay boys, over there's Tokyo. Start walkin','" commented one Lone Pine barber. Inyo county officials also rejected a proposal to bring the schools set up within the camp under the aegis of the local school district, even though this action would have substantially increased revenues to the county schools. "We don't need any Jap money," declared one county supervisor. Another pontificated, "A Jap's a Jap, and by God I wouldn't trust one of 'em further'n I could throw a bull by the tail."[138]

On June 1, 1942, responsibility for the operation of the internment camps was shifted from the army to the newly created War Relocation Authority. Ralph Merritt was appointed director of

the Manzanar facility, and he used the monthly meetings of the Inyo Associates to report on conditions within the camp, dispel rumors, and emphasize its value as a "war asset" to Inyo County.[139] Despite Merritt's best efforts, points of conflict continued to arise. Guards and other employees of the camp frequently encountered the same hostility that local residents directed against the internees. The fact that ham and bacon were being provided to the camps at a time when other Americans faced strict rationing of these foodstuffs sparked particular resentment, and in time it became an article of faith within California that all food shortages were due to the generosity of the War Relocation Authority. "It makes one's blood boil, and some of us feel like taking a tommy gun and cleaning that lot out," complained one impassioned resident of Huntington Park.[140]

The *Los Angeles Examiner* fanned the fires of reaction by reporting that the residents of Manzanar would be paid more for their work in the relocation center than the base pay for army recruits. The *Examiner* failed in its report to take account of the money deducted from the internees' wages for food and rent. But the pay scales for the internees were nonetheless adjusted downward, and even after army base pay had been increased from twenty-one to fifty dollars per month, the residents of Manzanar were never paid more than nineteen dollars a month for their labors. Even more damaging was the work of Congressman Martin Dies and his House Un-American Activities Committee, which persistently issued sensational reports of Japanese army officers lurking in the relocation centers and food caches buried in the desert outside Manzanar for the use of invading paratroopers.[141]

The worst fears of the valley residents seemed to be coming true on the night of December 6, 1942, when a major disturbance broke out within the Manzanar camp grounds. Similar conflicts had occurred at other camps, but the Manzanar incident marked the first occasion on which military police guarding the camp opened fire on the internees. Two men were killed. Although the disturbance was sparked by a labor dispute involving divisions deep within the Japanese-American community, the *Inyo Register* was quick to report falsely that it had come about as the result of a celebration of the anniversary of the bombing of Pearl Harbor. Dissident elements within the Manzanar community were promptly moved to other camps, and Merritt was able to restore order to the center on December 18 by persuading the military police to withdraw. But even with the armed guards gone, the incident had shattered the vitality of the community. The internees kept to their barracks; no work crews reported for assignment; no children were allowed to play outdoors; no lights were turned on at night. On Christmas Eve, Merritt and his wife gathered the orphans of the camp to go caroling. As they wound their way through the dusty streets of Manzanar, other children came out to join in the singing, and one by one, the lights came on again.[142]

The endurance of the internees, and their abiding faith in a nation that had disowned them, was the hallmark of life within the Manzanar community. When they first arrived, they had been told that the area was populated with poisonous snakes and thieves, and that United States warplanes would bomb the camp if Japan invaded California.[143] What they found was dust. "The desert was bad enough. The mushroom barracks made it worse. The constant cyclonic storms loaded with sand and dust made it worst," observed one internee. All accounts of Manzanar agree that dust was the central fact of life. "Nothing is more permanent about Manzanar than the dust which has lodged on its tar-papered barracks," noted one contemporary account of the camp. In their haste to open the facility, the army engineers had used bulldozers to scrape away all the existing surface vegetation and topsoil. As a result, an internee recalled, "We slept in the dust; we breathed the dust; and we ate the dust. Such abominable existence one could not forget, no matter how much we tried to be patient, understand the situation, and take it bravely."[144]

Despite these hardships, the residents of Manzanar fashioned a community which at its peak numbered 10,026 people. They established their own system of local government, their own police and fire departments, and their own shops, offices, farms, medical services, schools, parks, museums, libraries, and concerts. And it was in working the land that they fulfilled the promise that George Chaffey had first seen in this part of the Owens Valley. When they began in March 1942, only a few apple and

pear trees still stood as gaunt reminders of Chaffey's ambition. They planted 325 acres in vegetables and 115 in alfalfa and meadow hay. By the end of 1943, twenty-two miles of lined irrigation ditches were in operation. The camp farm that year produced eighteen hundred tons of vegetables with a wholesale value of $110,000, and the camp as a whole contributed $900,000 to the local economy. That January, the United States Supreme Court ruled against the detention of loyal citizens, and the War Relocation Authority announced plans to close its camps within the year. At the end of June 1944, when the Manzanar population had already declined to 5,567, the remaining internees kept 368 acres in production, and their gross sales that year exceeded $309,000.[145]

The Department of Water and Power had not opposed the army's appropriation of its land and water as a matter of wartime necessity. By the same token, the department had not been criticized by those residents of the valley who feared the arrival of the Japanese. With the closing of the camp now in prospect, however, Los Angeles' officials focused their attention on making a profit from the arrangement. The federal government had originally placed $30,166.67 on account for use of the Manzanar property, and by mid-1944 Los Angeles had drawn a total of $27,500 in rents. At this point the city began demanding more, estimating that the combined value of its land and water merited rental payments totaling $44,000 a year. The federal authorities wisely retained Thomas Means to prepare an independent accounting. The key point at issue involved the water used for domestic purposes in the camp: the city at this time was asking ten times what the War Relocation Authority regarded as a fair price for this water. Means attacked Los Angeles' contentions, pointing out that the water involved was for the most part surplus to the city's needs, and very little of it ever reached the aqueduct in any event. "It does not seem that water in a mountain stream at some distance above the aqueduct can be considered domestic water," Means argued. "The stream is unregulated, varies greatly in flow, freezes in winter, is subject to contamination, and is not safe for human consumption unless it is treated." Since the federal government was providing this treatment at its own expense through a $147,000 sewage plant it had installed at Manzanar, Means concluded that the city was entitled to no more than $25,000 a year in overall rents.[146]

Of far greater importance from the department's point of view was the question of the ultimate disposition of the camp after the last internees had left. Manzanar had been the first of the detention camps to open, and it was one of the last to close. The resettlement rate of internees from Manzanar was only half that of other camps. Although none of the residents of Manzanar wished to remain, they were reluctant to enter a greater society which still regarded them with hostility. In Utah, the American Federation of Labor was campaigning to prohibit the issuance of business licenses to former inmates of the internment camps. In Colorado, the *Denver Post* advocated denying them the right to own land. Arizona forbade shopkeepers from selling any commodity to Japanese-Americans without first filing a declaration of intent with the governor's office and publishing an announcement in the press a day in advance. And in California, the racist tirades of the American Legion and the Native Sons of the Golden West were agumented by ad hoc groups such as No Japs Incorporated of San Diego, the Home Front Commanders of Sacramento, and the Pacific Coast Japanese Problem League in Los Angeles.[147]

So long as the internees remained at Manzanar and continued to work the land, their success created a troubling reminder of what might have been in the Owens Valley. Proposals were already being put forward by valley leaders in the middle of 1944 to keep the camp open after the war to provide veterans' housing or a home for senior citizens. Los Angeles would have no part of these plans. As soon as the last resident of Manzanar departed on November 21, 1945, and the land returned to the city's possession, the fields were torn up once again, the sewage treatment plant dismantled, and the barracks cut up and trucked away for use as extensions to the hotels in Lone Pine. Merritt remained long enough to supervise the destruction of the camp, then moved to Los Angeles, where he worked at establishing a rapid transit system.[148]

In the absence of any definite program for the management

of its lands in the Owens Valley, Los Angeles had drifted for ten years toward a policy of allowing its properties to be used as a haven for the displaced. Its generosity toward the Paiutes, the Tule Elk, and the residents of the valley towns had done much to dispel the bitterness of Mulholland's legacy in the valley. But these acts had posed no threat to the supply of water entering the aqueduct. The opening of the Manzanar relocation center, by contrast, had brought the city to the brink of reestablishing the very conditions of intensive agricultural development which it had fought a war to eliminate. A more definite policy was clearly needed to assure that henceforth Los Angeles' lands in the Owens Valley would remain in large part closed to resettlement.

CHAPTER EIGHT

The Ties That Bind

In his last annual message to Congress, Theodore Roosevelt reflected upon the changes occurring in American life as a result of the growth of giant corporations, national labor organizations, and the new urban metropolises. "The chief breakdown is in dealing with the new relations that arise from the mutualism, the interdependence of our time," he wrote. "Every new social relation begets a new type of wrong-doing—of sin to use an old-fashioned word—and many years always elapse before society is able to turn this sin into crime which can be effectively punished."[1]

In the case of the Owens Valley, the evolution of legal and social principles which Roosevelt predicted began almost immediately. The amendment to the state constitution in 1928 affirming the public interest in water and the enactment of the County of Origin statute three years later brought an end to the system of law under which Los Angeles had first entered the valley. Water in California no longer belonged to anyone with the money and the political muscle to take and defend it. And water development would henceforward proceed within the context of an adjudicative process whereby the needs of all would be balanced. These protections assure that nothing like the exploitation of the Owens Valley can ever occur again; and their adoption proved to be of critical importance in securing the state's participation in the construction of the Central Valley Project.[2] But because the rights of Los Angeles secured in the Owens Valley predate these

fundamental changes in the law of water for California, their provisions have not been applied retroactively to protect the valley itself. As a result, the Owens Valley has become an island in time and law where the principles of another age still apply.

The completion of the Mono extension and the new aqueduct to the Colorado provided Los Angeles with a water supply far greater than it could ever absorb. After World War II, therefore, the concerns of the Department of Water and Power shifted from planning for the construction of new projects to the formulation of management strategies designed to achieve the greatest possible efficiency in the use of the water resources at its disposal. In pursuit of this objective, the department has sought to ward off interference with the administration of its land and water rights in the Owens Valley. But the Department of the Interior's insistence on a settlement program for the Paiutes, Father Crowley's campaign for resale of the town properties, and the army's establishment of the Manzanar relocation center had already demonstrated that the city could not truly operate in isolation. The modern relationship between Los Angeles and the Owens Valley has consequently been shaped by the city's continuing struggle to preserve its independence of action from the growing mutualism and interdependence which characterize water development in the rest of California today.

By the time the closure of the Manzanar facility had been announced, Los Angeles was already facing a far more serious threat of interference with its management of the aqueduct. The problem originated in the spring of 1937, when an unusually wet winter poured more water into the Owens River than the aqueduct was capable of carrying south to Los Angeles. Because the Long Valley reservoir had not yet been constructed, the city had no place to store the excess water. And because the orchardists of the San Fernando Valley were complaining mightily of the damage the boron-charged waters of Long Valley were doing to their crops, the department determined to waste the excess into Owens Lake.

The lake, however, had been dry since 1924 as a result of the city's diversion of its natural inflows to the aqueduct. And in the intervening years, the Natural Soda Products Company had secured the necessary permits from the state to establish a new plant in the dry lake bed. Control of the company had by this time passed to Stanley Pedder, formerly the principal customer for the soda products manufactured by the Watterson brothers at the lake. Pedder had prospered since acquiring the company in 1932, and in 1935 he began sinking wells and installing new pumps and other equipment to improve the efficiency of his operation and double the capacity of his processing plant. But even before the new plant could open, Los Angeles began releasing 50,000 acre-feet of water into the lake, inundating Pedder's facilities to a depth of three to four feet and destroying the commercial value of the chemical brine his company extracted from the lake bed.[3]

The city continued dumping water into the lake for the next five months, and the following year it added another 221,000 acre-feet to Pedder's problems. In December 1937 Pedder filed suit to recover his damages and enjoin the city from continuing its depredations against his commercial operations. The trial court in Inyo awarded the Natural Soda Products Company $154,000, and Los Angeles promptly appealed to the state supreme court. But by the time the supreme court rendered its judgment in November 1943, Pedder had persuaded the State Lands Commission to join his suit for the recovery of royalties the state had lost from the destruction of his works.[4]

Los Angeles at first contended that the company's suit should be dismissed because Pedder had not acted promptly in filing his claim against the city. The supreme court rejected this argument, pointing out that Pedder had been unable even to secure access to his facilities to begin totting up his losses until after the waters had subsided in October. The heart of Los Angeles' defense subsequently came to depend upon a savagely ironic interpretation of its duties under the constitutional amendment of 1928, which had been adopted in part to protect other communities from the fate of the Owens Valley. Los Angeles' attorneys now read its provisions as compelling the city to take the action it had, even though this meant the destruction of one of the valley's last surviving major industries. Because the constitutional amendment requires water to be conserved for its highest beneficial uses, and

because Los Angeles contended that it had no ability to store or use the excess water itself, the city argued that it was obligated to allow the water to flow on to its natural resting place, the bed of Owens Lake.

The supreme court was neither amused nor persuaded. "It is generally recognized that one who makes substantial expenditures in reliance on long-continued diversion of water by another has the right to have the diversion continued if his investment would otherwise be destroyed," the court pointed out. The evidence in the case, moreover, amply established to the court's satisfaction that Los Angeles "could easily have found an outlet for the surplus water instead of causing it to flow into the lake." And the constitutional provisions upon which the city relied "have never been construed as requiring a particular disposition of surplus water, least of all a disposition harmful to the recipient." On the contrary, the court concluded, these constitutional provisions actually prohibit the city from disposing of the surplus in a way that would be destructive to other natural resources.[5]

This loss had a far greater significance for Los Angeles than the monetary damages awarded to Pedder and the State Lands Commission. For the court's decision now compelled the Department of Water and Power to include flood control within the Owens Valley as one of its functional considerations in the operation of the aqueduct. And this requirement in turn restricted the amount of water that could be brought down from the Mono Basin during periods of high runoff in the Owens River watershed. The necessity to provide sufficient storage facilities to capture excess runoff at flood times thus created a fundamental conflict with the city's desire to keep its reservoirs full at all times for use in the event of a drought.[6]

Pedder went still further by suggesting that the city should be compelled to apply any water it could not use to the restoration of valley agriculture.[7] The result was the enactment in 1945 of a new state statute prohibiting Los Angeles from wasting the water it derives from the Owens and Mono basins in any way.[8] Although the city subsequently secured from the courts a limited right to waste excess waters into Owens Lake under specified conditions, these restrictions resulting from the Natural Soda

Products case represented the most severe limitations imposed on Los Angeles' operation of the aqueduct since President Theodore Roosevelt's amendment to the right-of-way bill of 1906 prohibited the city from selling aqueduct water outside its borders.[9]

For the residents of the Owens Valley, the case presented an ominous warning that the era of good feelings and mutual prosperity predicted by Chalfant and Crowley had not truly been taken to heart by the officials of the Department of Water and Power. Even admitting all of the city's protestations of constitutional good faith and concern for the orchardists of the San Fernando Valley, the willful destruction of Pedder's plant was an act of breathtaking arrogance which suggested that at best Los Angeles' officials regarded valley industry with an indifference verging on contempt. At worst, the city's action suggested a determination to prevent an economic resurgence of any kind in the Owens Valley.

Further evidence that the city's attitude had changed since Father Crowley's death came within a few months of the supreme court's decision in the Natural Soda Products case. Ever since the first sale of town lots in 1939, Los Angeles had given preference to leaseholders in the sale of its properties in the Owens Valley. In this way, the dislocation of families and businesses resulting from the sales was kept to a minimum, and those who improved the properties they rented were assured that they would have the opportunity to benefit from their investments. Such a policy, moreover, was consistent with the position adopted by the water and power commission only a year after the destruction of Pedder's plant that "the existing spirit of good will and cooperation . . . [should] be in all proper ways promoted and fostered and, particularly, by such aid and encouragement to . . . settlement and development as the City of Los Angeles can afford through the disposal of its lands . . . on terms that, while safeguarding the interests of [the] City, will assure settlers and developers of permanency in their respective tenures and investments."[10]

In the wake of the supreme court's decision, however, the city abruptly reversed this policy at the beginning of 1944 and announced that henceforth all lands offered for sale would go to the

highest bidder in a sealed bid competition. When the valley leaseholders protested, the city responded by increasing the rents on all its properties in the Owens Valley, effective January 1, 1945. Both the change in sales procedures and the increase in rents could be seen as part of the continuing pressure upon the department to turn a profit on its properties in the valley. But the timing and method chosen by the department once again signaled either complete disregard for the effect of its actions on the valley residents or a purposeful cruelty. For the announcement of the rent increases came at a time when federally enforced rent controls were in effect across the country, and the notices of the increase were mailed to arrive during Christmas week 1944.[11]

The city's action drew an immediate response from the state legislature. The state senator representing Inyo County, Charles Brown, rushed legislation through that required the city to give its leaseholders first option on the valley properties it offered for sale. The act additionally prohibited Los Angeles from charging more in rent for any property than the value of the use to which it was put by the leaseholder. The city retaliated in March 1945 by announcing a virtual halt to all its land sales in the valley. Under Brown's legislation, sales by sealed bid would still be permitted where the purchaser was a public agency or where the property involved was unoccupied and run down. In all other instances, the city declared, its charter prohibited compliance with this new statute, and no sales would therefore be possible.

Brown's legislation did reinforce its provisions with a declaration of statewide interest in the exercise of the state's police power, which is the conventional method by which the legislature signals its intent to void a conflicting provision in a city charter. And the Los Angeles city charter itself permitted a suspension of the requirement for sealed bids whenever such an action would be "compatible with the city's interests." But the city attorney ruled that the goodwill of the residents of the Owens Valley was not a sufficiently valuable consideration to justify waiving the requirement. Coming as it did after more than six hundred town lots had already been sold, the city's sudden discovery of the charter restrictions carried a gratuitously punitive air. But the decision held, and a deadlock was created. Although many lots

which met the requirements of both the charter and the Brown act continued to be put up for sale through 1967, Crowley's program for returning the communities of the Owens Valley to the possession of their residents came to a complete halt thereafter, and no properties were offered for sale by the city again until 1979.[12]

The uproar Los Angeles had fomented in the Owens Valley created problems for the city in Washington as well as in Sacramento. Progress on Los Angeles' power plants in the Owens Gorge had been delayed by wartime shortages of labor and materiel. To aid in the war effort, moreover, the Department of Water and Power had converted its machine shops to the production of airplane parts, batteries, switchboards, and gasoline tanks. But America's entry into the war had also brought a massive influx of skilled workers to Southern California; and with peace restored, they could now be employed in construction of the power plants which had once been the principal purpose of the Mono extension. The state supreme court's decision in the Natural Soda Products case lent a special urgency to this effort because the power plants would provide the regulating capacity the city needed to comply with the court's prohibition on dumping.[13] And in order to prevent any additional conflicts with existing uses of the land and resources of the area, Los Angeles in October 1944 exercised its authority under the right-of-way bills of 1931 and 1936 to apply for control of an additional 23,851 acres of the public domain in Mono County.

The application stirred immediate resistance. In Sacramento, Charles Brown, as chairman of the Senate Committee on Local Governmental Agencies, launched an investigation of the city's relations with the valley, focusing particularly on the 1936 act, which gave Los Angeles the power to acquire lands in the Mono Basin at $1.25 an acre. In Washington, meanwhile, California's Congressman Clair Engle and Nevada's Senator Patrick A. McCarran introduced legislation to repeal the 1931 and 1936 acts altogether. The point at issue was not the desirability of the project but whether Los Angeles in fact needed to hold title to the lands it had requested. Brown, Engle, and McCarran contended that it did not and that the permits and licenses customarily

issued by federal agencies for the use of public lands would be ample for the city's purposes. In this opinion, they were joined by the County Supervisors Association of California, the California Cattleman's Association, Mono County District Attorney Walter Evans, and the head of the Bishop Chamber of Commerce, Roy Boothe. Brown dismissed the city's argument that it needed title to the lands to prevent later claims from being filed as piling speculation upon speculation. "It does not appear to this committee," he concluded, "that the city needs the fee title to any of the land which it has selected for any of the purposes which it has indicated."[14]

Faced with this opposition, the Department of the Interior determined to hold Los Angeles' applications in abeyance until the fate of the Engle and McCarran bills was decided. A total of five thousand acres of the land Los Angeles proposed to purchase under the 1936 act lay within the Inyo National Forest, and that portion of the city's application was rejected out of hand by the Secretary of Agriculture. There were concerns as well that acceptance of the city's request would interfere with the use of these lands for grazing, recreation, and residential development which had already been authorized under permits issued by the responsible federal agencies. And Brown's committee pointed out that three commercial sites lying within the town of Lee Vining, which Los Angeles later dropped from its application, had a higher assessed valuation than the city would have to pay for the entire 23,851 acres it proposed to buy.[15]

The controversy ultimately centered on distrust of Los Angeles. "The thing that we fear mostly," the Mono district attorney testified, "is the fact that we will go through the very disheartening and heartbreaking conditions and happenings that the people in Inyo County have gone through."[16] Similarly, Roy Boothe, speaking for the Bishop merchants, expressed concern that acceptance of the city's applications would further undermine the Owens Valley economy and destroy what seemed at the time to be a promising prospect for a substantial boom in second-home development throughout the eastern Sierra.[17]

To assuage these fears, the city promised that no one currently residing on the lands affected by its applications would be moved and that their lease payments or permit fees would remain the same. Moreover, the city's representatives pointed out, its leases were extended for five years, whereas the existing federal permits had to be renewed annually. The all-important difference in Brown's view, however, lay in the fact that the federal government always renewed its permits as long as the fees were paid, whereas the city would give no assurance that such a policy would be maintained. Brown, therefore, focused on Los Angeles' "conflicting proprietary interest in the very lands which it undertakes to administer in the public interest." And he argued forcefully that the history of the city's actions in the Owens Valley "furnishes no basis for expectation that it could and would in Mono County consistently pursue the policy which it now announces."[18]

On May 12, 1947, Brown succeeded in persuading his colleagues in the state senate to endorse Engle's efforts to repeal the 1931 and 1936 acts. One month later, the State Lands Commission asked the Department of the Interior to suspend further consideration of the city's applications and then filed its own application for control of all the public lands within one mile of the meander line of Mono Lake.[19] The newspapers in Los Angeles had by this time taken to attacking Congressman Engle as a "cow-county prophet . . . gazing into a somewhat dusty crystal ball."[20] The *Los Angeles Times* made its contribution to public misunderstanding by blaming the opposition to the city's applications on an unidentified band of private speculators who were allegedly plotting to establish a chemical industry on the shores of Mono Lake. Unless the city were allowed to proceed, the *Times* warned, water shortages would soon occur in Los Angeles and groundwater pumping in Burbank and Glendale would have to be stopped.[21] The conflict, of course, had nothing to do with the city's water supply, and even the Department of Water and Power by this time was acknowledging that there was enough water available to support eight million people, double the current population of the entire metropolitan area.[22] Nevertheless, the city's champion in Congress, Norris Poulson, denounced all suggestions that Los Angeles' water supply was more than sufficient as "asinine."[23]

What the city's officials found particularly irksome was the fact that rural legislators like Engle and Brown could exercise so much influence even though they represented very small constituencies. In this age before the one-man-one-vote rule, the entire county of Los Angeles sent only one state senator to Sacramento, and that single seat was held by Jack Tenney, whose influence in the legislature was diminished by his enthusiasm for charging his fellow senators with communist sympathies.[24] The *Los Angeles Daily News* angrily pointed out that the three senators who voted against the resolution endorsing Engle's bills represented more people than the thirty legislators whose votes passed it. And the Department of Water and Power threatened to retaliate for the passage of Brown's resolution by ordering an immediate halt in the sale of any properties it still offered in the Owens Valley.[25]

The beginning of 1948 brought a brief attempt at compromise. The Department of Water and Power had already agreed to the repeal of the 1936 act if the lands it had requested in 1944 were delivered into its control.[26] Congressmen Poulson of Los Angeles and Carl Hinshaw of Pasadena introduced legislation to this effect, claiming the support of Brown's committee and Inyo and Mono counties. But the effort collapsed amid a flurry of charges and countercharges that Poulson had reneged on the terms of the compromise and was trying to rush much more through Congress than the local county representatives had agreed to. And with that, the controversy ended in stalemate. The stakes were simply too high for the city to persist in trying to secure what amounted to a marginal degree of protection for its interests. The 1936 act consequently remained intact, albeit little used, and the city went ahead with its power plants without the lands it had sought.[27]

For half a century, individual officials and agencies in Washington had provided Los Angeles with the essential support it required to secure an abundant municipal water supply. But the battle over the Engle and McCarran bills demonstrated that the city's ability to rely upon federal assistance was now at an end. George Savage, the new owner of the Chalfant newspapers, had warned of this coming change. In a guest editorial in the *Times* at the end of the war, he had argued that Los Angeles could no

longer afford to ignore the concerns of the Owens Valley. "If it does," he wrote, "it need not be surprised if the rest of the State reacts in support of Inyo; further publicity will result, and Washington will lend an ear." The city's successive defeats in the courts, the state legislature, and the Congress proved the accuracy of Savage's prediction. The need to achieve an accommodation through the development of a consistent policy for the valley's development was greater now than ever before. Further strife, as Savage pointed out, could only lead to "more and more legislative control."[28]

The Department of Water and Power was in a better position in 1948 to fix a new policy toward the Owens Valley than it had been at any time in the two decades since Mulholland's fall. For the long-running attempts to break the so-called Water and Power Machine and bring the department's activities under tighter municipal control had effectively ended in 1944 with a general strike by the employees of the Bureau of Power and Light.[29] After suffering repeated disruptions of its policies and programs, the department had emerged from the controversy stronger than ever. And in 1947 it had secured a far greater measure of political independence through the promotion of a successful charter amendment that relieved it of ever having to obtain the voters' approval of another bond issue. Thenceforward it could be able to finance new projects from its own revenues.

"We can't always be certain that we will have a two-thirds vote to carry the bonds . . . We can't afford an uncertainty," the new general manager, Samuel B. Morris, pointed out at a kickoff rally for the department's employees who would be working to pass the charter amendment. His deputy, Charles Garman, enthused, "Many of us have wished that there was some way to finance ourselves. Gentlemen, this is it! This is the answer we have been looking for for a long time. If it goes over, we will have the time to make the Department grow and less time to worry about financing."[30] Fewer than four-fifths of the voters who went to the polls that year bothered to cast a ballot on the department's proposition. But those who did approved the measure by a margin of two to one.[31] "It just proves again," commented the chairman of the department's political action committee, "that

the All-American employee department team does not specialize in failures."[32]

The Water and Power Machine had not been broken. Its multiple victories, capped by passage of the charter amendment of 1947, simply obviated any need for its continued operation. The resistance to municipal ownership of the city's water and power resources had been vanquished. The department had succeeded in establishing a unified management system in defiance of the policies of the Board of Water and Power Commissioners.[33] The board's authority would hereafter be limited to the broadest oversight of general policies; no further interference in the day-to-day management of the department's affairs would be attempted. The end of the controversy thus signaled more than a victory for the principle of public ownership. More important, it reaffirmed the essential autonomy which the founders of the Department of Water and Power at the turn of the century had regarded as the primary requirement for its successful operation. The charter amendment of 1947 perfected the department's insulation from political influence. "The task of the great creators was finished," Vincent Ostrom noted approvingly in a scholarly study of the department published in 1953 under the aegis of the foundation named for one of Los Angeles' most prominent progressive reformers, John Randolph Haynes.[34]

Ostrom's book was the second of two laudatory histories of Los Angeles' water programs that appeared at the beginning of the 1950s. Three years earlier, Remi Nadeau had produced *The Water Seekers*, which emphasized the multiple benefits the aqueduct had brought not only to Los Angeles but also to the Owens Valley. For the first time since 1920, the department seemed to be putting the controversies of the past behind it. The rent increase of Christmas 1945 and all the setbacks that had flowed from it now appeared in retrospect as an aberration, a last gasp of assertiveness by an economy-minded Board of Water and Power Commissioners. Any clumsiness in the handling of the department's relations with the Owens Valley since the end of World War II could be laid to the fact that the department had then been headed by a new general manager who had been brought in from outside the departmental ranks and so was less well attuned

to the sensitivities peculiar to the city's relations with the valley. But now, with its autonomy restored, the department by 1950 could look forward to setting about the task of restoring calm to its dealings with the Owens Valley.

The Modern Relationship, 1950-1970

"The policy of Los Angeles has been and is admittedly against the development of Inyo and Mono counties," Clair Engle asserted in 1948, "because the basis of their philosophy . . . has been that one more person in Inyo County is one more problem."[35] The head of the city's water program, H. A. Van Norman, acknowledged the essential truth of Engle's observation in testimony before Senator Brown's committee in California: "If we start in and dedicate a lot of water into the Owens Valley for general farming purposes and build up the towns and build up the communities on the expectation that there is a permanent plan, then we are going to have more senate investigating committees some time in the future when we have to take the water away."[36]

Van Norman's remarks affirmed the perception Lippincott, Means, and the Watterson brothers had all shared from the first, that Los Angeles and the Owens Valley were essentially adversaries in competition for a limited resource. The city's interest in the protection of its own water supply therefore dictated opposition to the further growth and development of the valley. But if restraint was the logical objective of any plan Los Angeles might formulate for the future of the valley, it was not a plan itself. The events of the past two decades had shown that inaction could be as dangerous to the city's interest as too forthright a policy of opposition to valley development. Simply leaving the lands idle invited interference. With the end of the controversy in Los Angeles over the management of the Department of Water and Power, the pressure to show a profit on the city's lands in the valley diminished. A far greater need clearly existed to develop some method for assuaging the concerns of an increasingly res-

tive valley population whose protests could now be heard in Washington as well as Sacramento. The avoidance of controversy therefore became an objective for city planning in the valley that was second in importance only to the necessary resistance to development.

The pattern of land ownership within the Owens and Mono basins created a further restraint upon the city's freedom of action. Privately held lands, where the opportunities for development would be most likely to occur, constituted only 3 percent of the 2.4 million acres lying within the two basins, according to a survey by the state Department of Water Resources in 1960. In contrast, the city of Los Angeles owned 12 percent of the overall land area outright and controlled another 27 percent under federal land withdrawals made for the protection of its water supply. State lands, including the beds of Owens and Mono lakes, amounted to another 5 percent. But 52 percent of the total land area, lying principally within the Inyo National Forest, fell under the jurisdiction of federal agencies whose acquiescence in the city's programs could no longer simply be taken for granted.[37] The Inyo Forest supervisor pointed out in 1965 that fully 60 percent of Los Angeles' water supply originated within his domain. Accommodation with federal land management programs consequently became another essential element in the city's policy toward the two basins. And as a result, Los Angeles after 1950 dropped its earlier opposition to the issuance of permits for domestic and commercial use of these federal lands.[38]

The limits of the city's new spirit of cooperation were first defined with respect to its approach to valley agriculture. In 1945, Los Angeles negotiated an agreement with the local cattlemen which for the first time made some formal provision for the delivery of water to irrigate grazing lands under five-year leases that would be renewable without competitive bidding. Two types of leases were offered. Approximately 85 percent of the lands the city leased for agricultural purposes were made available without water at rates as low as six cents per acre. On the remainder, the value of an individual lease varied according to the water supplied and the value of the commodity grown. Although the leases ran for five-year terms, the determination as to whether any

water would actually be delivered was made annually, depending upon the amount the city had available after the needs of the aqueduct had been met. The amount of irrigated acreage consequently fluctuated widely from as much as 30,000 acres in some wet years to as little as 3,000 acres in dry periods.[39]

This uncertainty, combined with the five-year limit on any single lease, made any investment in crop production "exceedingly precarious," according to a study for the University of California in 1964. Dairying, orchards, and a wide range of water-dependent crops were thus effectively excluded from valley agriculture. "The net effect of city leasing policies," the university researchers observed, "is to place a premium on lack of development by making long-range capital investment in crop production too risky."[40] As a result, even the irrigated acreage within the valley was turned over for the most part to grazing, with some small areas set aside for the production of alfalfa, oats, barley, hay, and other livestock fodder. In 1963, for example, when an abundant seasonal water supply allowed 30,700 acres to be irrigated, fully 28,000 acres were left as pasture.[41] The days when Inyo exported its fruits and vegetables to the markets of Los Angeles were gone, never to return.

The city's leasing program thus effectively restored valley agriculture to the primitive conditions of a century before. The publications of the Department of Water and Power have subsequently sought to foster the impression that this is the natural order of things, and that no brighter prospect of agricultural prosperity ever beckoned.[42] There is a significant difference, however, between cattle ranching then and now in the Owens Valley. For the limitations imposed by the city's leasing policy have severely diminished the likelihood that livestock can be raised as anything other than a supplemental source of income or as part of a larger corporate enterprise. Those who initially rushed to secure the city's leases soon had reason to regret their haste. After steadily expanding the amount of irrigated acreage from 1950 to 1959, the department began cutting back on valley water deliveries when a series of dry winters set in. In 1961, the area of irrigated agriculture in the Mono Basin dropped from a high of 2,100 acres to nothing at all, while in the Owens Basin,

irrigated acreage was diminished by half. Since the leases themselves could not be sold, it became customary for a faltering farmer to sell his livestock at a price inflated to reflect the value of his lease. As a result, possession of the vast proportion of the city's leased agricultural lands gradually passed to a handful of agricultural corporations, and the proportion of valley residents actually employed in agriculture dwindled to less than 2 percent of the total work force by 1970.[43]

For purposes of restricting the economic growth of the Owens and Mono basins, these developments could scarcely have been more favorable. Most of the city's lands were now committed to agriculture, thereby insulating the Department of Water and Power in large measure from any external pressure to convert these lands to more productive uses. And the dependence of the lessees upon the department's readiness to provide water from year to year created an influential constituency whose members would be more likely to favor accommodation for the sake of their annual balance sheets than to risk loss of the city's goodwill in the interest of pressing for long-range improvements in the valley's overall economic condition.

Most important, the department's agricultural leasing policies effectively restricted any prospects for new commercial or residential growth to the existing town boundaries. Within the towns, Los Angeles' ability to effect its will was more limited than on the agricultural lands it controlled. The city, after all, had sold off many of its holdings here and continued to do so throughout this period. Nevertheless, it became popular in some local quarters to blame the failure to attract new industry upon the city's opposition. "Whenever we propose any development of the valley, it is blocked by the Department of Water and Power," complained one county official in 1964. Critics of the city pointed especially at the department's refusal to make water and power available for aircraft, sugar beet, and ski lift manufacturing plants which expressed an interest in locating new facilities in the valley. In their defense, departmental officials argued that water rights could still be purchased in some parts of the valley and that power supplies could be obtained from the Southern California Edison Company, which in 1964 succeeded to the interests of the

older power companies that had formerly served the communities of the Owens and Mono basins.[44]

Certainly the department did nothing to encourage economic development in the valley. The reluctance Van Norman had expressed in 1945 about making any long-term commitments for the delivery of water and power in the Owens Valley became all-important in fixing the department's attitude. As a result, industrial developers interested in opening new plants in areas of the valley not served by the Southern California Edison Company were advised that power would not be available on anything other than a stand-by or temporary basis. Further obstacles to development were erected by the department's insistence that any new industrial installation in the valley must be prepared to accept the costs of providing its own water treatment facilities. And in Bishop, fully one-fourth of the town's total land area and one-third of its taxable lands were kept as vacant lots let for the grazing of horses and sheep.[45]

During the period of drift and indecision in the city's land management programs from 1930 to 1950, Inyo County's population grew by 78 percent; and the population of Bishop nearly doubled from 1940 to 1950. With the resurgence of departmental authority after 1950, however, the rate of population growth in Inyo came to a complete halt which endured throughout the next decade. Mono's population, meanwhile, remained virtually fixed from 1930 to 1960.[46]

But the department was not actively conspiring to strangle the economic vitality of the valley. Los Angeles had no more of a plan or program for the future of the Owens Valley than Mulholland had ever had. Mulholland's successors were content with the status quo, and they simply responded to events and proposals originating in the valley in accordance with their own interest in protecting the city's water resources. Whatever influence Los Angeles exercised over the development of the valley towns derived in part from the acquiescence of local officials. A report for the Izaak Walton League in 1971 decried the fact that "up to the moment, there exists no public agency or planning institution capable of formulating a comprehensive, multiple-purpose, resource use master plan." The consequence, in the

author's view, was the assignment of local responsibility to "single-purpose, absentee decision-making in the allocation of water."[47] The city of Bishop, for example, as late as 1966, did not impose any zoning restrictions of its own, leaving land use regulation generally to the Department of Water and Power.[48] Similarly, the formulation of a general plan for Inyo in 1968 was prompted by the county's belated recognition that it would not be able to obtain federal and state subventions without one.[49]

In some instances, the city's interests impelled Los Angeles to provide assistance to the valley towns in correcting problems which local officials were unable or unwilling to confront. This was especially true in the case of the valley's neglected water and sewage systems. By the late 1960s, only 80 percent of Bishop was served by the local municipal water utility, and only 50 percent of the community's area received sewer service. Less than 30 percent of Lone Pine was served by sewers, and Big Pine had no sewer system at all. And as the county general plan noted in 1968, the steady deterioration of the generally outmoded local systems and septic tanks posed a growing threat not only to the water resources of all the valley communities but also to the aqueduct supply.[50]

Los Angeles has actively sought to improve these conditions, and the Department of Water and Power today provides water to Big Pine and Lone Pine and water and sewer services to Independence. In addition, when the city acquired the Bishop power distribution system at the end of World War II, it began rewiring homes throughout the community at its own expense, with the result that service was restored to many people who had stopped using their appliances because the voltage was so poor.[51]

The limits of the city's control over economic development in the Owens Valley is indicated by the fact that even though the department's policies did not change after 1960, the rate of growth in Inyo and Mono counties certainly did. In the next decade the population of Inyo County increased by a third and Mono County's numbers nearly tripled. Increased tourist traffic to the recreational resources of the eastern Sierra was the principal spur driving this new growth. State officials had already identified this potential for economic development and had predicted in

1958, "It appears evident that the Mono-Inyo area is on the threshold of substantial additional growth in the development and use of this recreational resource."[52] By 1963, recreational use of the Inyo National Forest had increased 34 percent over the levels of ten years before, and fishing at Crowley Lake was up 123 percent. Assuming that this contemporary popular enthusiasm for summertime travel and recreation would continue unabated, state agencies began projecting a sevenfold increase in the demand for water recreation facilities over the next thirty years.[53]

Some local officials expressed misgivings about the valley's increasing dependence upon "a two-month economy based mostly on recreation."[54] But in the absence of an alternative, it became increasingly popular to imagine that tourism offered a better potential for prosperity than agriculture or more conventional industrial development ever had.[55] As a result, services to tourists came to constitute a steadily increasing component of the activities of the civilian work force, retail sales tax revenues assumed a disproportionately large part of the burden of municipal financing, and an estimated 85 to 90 percent of the Bishop economy shifted to reliance on the tourist industry.[56] The influx of visitors, in turn, enhanced the popularity of the region as a site for the construction of vacation or retirement homes. And older residents consequently became a disproportionately large component of the local population when compared with statewide averages, whereas the number of children in the valley dwindled.[57]

The median income in Inyo and Mono counties, however, continued to lag behind the statewide mean. The valley's labor force consequently declined as unemployment rose.[58] The increasing vulnerability of the local economy to a shift in tourist travel habits had produced a marked disparity by the mid-1960s among the projections various population experts made for the future growth of the area. Thus, while the state Department of Water Resources and Department of Finance, the telephone company, and the county's own planners persisted in predicting a near doubling of the Inyo County population by 1990, the Los Angeles Chamber of Commerce and the University of California Center for Planning and Development Research projected mini-

mal expansion or a decline.[59] And in 1968, the Inyo general plan observed that the valley's economy was in a state of "relative stagnation."[60]

The Department of Water and Power generally encouraged the development of the local tourist industry as part of its historic but undefined dream of converting the Owens Valley into a playland for the swelling population of the South Coast. Glossy departmental brochures touted the area's recreational attractions, and city officials exercised their authority wherever possible to protect the scenic resources of the valley. Billboards, for example, were prohibited on city-owned lands along the local highways. The department's commercial leases for town properties similarly reserved to Los Angeles the power to restrict the size, type, and placement of signs. And in some cases, the department even refused to grant leases within the towns for uses which it considered incompatible with the surrounding environment.[61]

There were limits, of course, to how much the department was willing to do. It made some of its lands available for local parks at low lease rates and opened Crowley Lake to anglers. But the work of planting more than two hundred thousand fish in the lake each year was handled by the state Department of Fish and Game and the city's Department of Parks and Recreation. And apart from investing an estimated $500,000 a year in advertising Crowley Lake to fishermen, the department committed little of its own financial resources to the improvement of recreational opportunities in the valley.[62] A state survey of the area's water recreation facilities in 1964, for example, found that Los Angeles provided only 6 of the 48 boat launches and 150 of the 2,950 feet of public beaches available in the valley, even though the city's lakes and reservoirs made up more than a quarter of the total water surface area in the region.[63]

The growing enthusiasm of the local residents for tourism as a basis for their economy inevitably generated pressure on the department to do more. The fact that Los Angeles had opened 75 percent of its lands in the valley for public access but not for camping was criticized as an "empty gesture" in the absence of any plan to attract and sustain game and water fowl which might entice daytime visitors into traipsing away from the roadsides.[64] The city's practice of allowing its agricultural lessees to burn or

spray cottonwoods and willows along stream banks as a way of increasing their grazing area was similarly attacked because the resulting breakdown of the banks contributed to erosion and thereby interfered with the spawning beds of brown trout.[65] And the diversion of water below Crowley Dam into the city's power plants was condemned as a direct assault on the local fish population. Because these diversions dried up a fifteen-mile stretch of the riverbed containing a trout fishery worth an estimated $400,000, representatives of the Bishop Chamber of Commerce charged, "The complete destruction of fish population in this stretch of matchless fishing waters established a new low in the principles of conservation of natural resources . . . [which] will be long remembered."[66]

Crowley Lake, as the valley's principal recreational resource, was open for fishing only ninety days out of the year, and camping and water contact sports were at all times prohibited. When the state legislature in 1960 for the first time officially designated recreation and fish and wildlife enhancement as beneficial uses of water under the terms of the state constitution, the valley residents promptly applied to Sacramento for assistance in expanding its recreational facilities and resolving the problems of the fisheries. A study was duly ordered in the 1961-62 fiscal year, and the state Department of Water Resources soon after announced the discovery of an "urgent need for additional reservoirs for recreational purposes."[67] Aubrey Lyon, president of the local chapter of the Izaak Walton League, meanwhile began pressing for the construction of a network of warm water ponds and lakes which would serve to enhance the fish habitat and improve the quality of grazing lands along the sloughs in the upper part of the valley.[68] A reconnaissance study for the Department of Water Resources in 1960 identified sixteen potential sites within the valley for the installation of new recreational reservoirs, as well as five existing lakes which could be expanded to provide additional storage for recreational purposes and the maintenance of downstream flows.[69] The state subsequently filed for water rights on all these sites, which were to be held in trust until funds could be found to develop the proposed projects.[70]

Although the state water planners hoped to begin with a series of small reservoirs, Inyo County urged the Department of

Water Resources to focus instead on the largest of the proposed reservoir sites at Fish Slough. Any of these projects would have increased the loss of water from the valley due to evaporation. So each would have constituted exactly the kind of long-term dedication of part of the valley's overall water supply which the Department of Water and Power resisted most. As the largest of the proposed projects, the Fish Slough plan was particularly troubling to the department in this respect. The prospect of evaporative losses, however, would require the state officials to secure the approval of all the downstream owners of water rights before any progress could be made on their plans.[71] Thus the stage was set for a replay of Mulholland's original confrontation over the Fish Slough reservoir project in the early 1920s. The denouement was precisely the same. The state's detailed studies revealed that Mulholland's initial suspicions had been correct. The rock foundation for the dam site at Fish Slough was too badly fractured to be sealed, and the eastern rim of the reservoir was unstable. In addition, the reservoir would lie astride a fault line in one of the two most active earthquake zones in California, thereby posing an unacceptable risk to anyone downstream. The project was abandoned.[72]

Following the rejection of the Fish Slough reservoir project, the state's water rights filings remained in trust, but the plans for their use were for the most part set aside. Aubrey Lyon succeeded in obtaining $50,000 from the California Wildlife Conservation Board for the implementation of his plan. But further progress on his project was halted by the city's refusal to provide the lands needed for his ponds. The construction of the Pleasant Valley Dam at the foot of the Owens River Gorge, however, helped mitigate the effect on the downstream fisheries of the city's diversions by preventing extreme fluctuations in the flow of water out of the power plants. At Lyon's insistence, the city included a spawning channel for the trout in this new project. The department further agreed to limit its releases from the Mono Tunnel to a maximum of four hundred cubic feet per second. And in 1970, Los Angeles joined in forming an interagency committee composed of representatives from the city, Inyo and Mono counties, and the state and federal forestry and wildlife agencies which has been entrusted with overseeing the development of programs and policies for the enhancement of the area's fish and wildlife resources.[73]

Recreational development was not the only area in which Inyo County sought to establish a greater measure of control over its own economic growth. Equally important was another controversy which raged throughout this period over the issue of taxation. Since the adoption of the constitutional amendment of 1914 authorizing the assessment of the city's lands in the Owens Valley, Los Angeles had become the largest individual taxpayer in Inyo County. In 1955, the county began splitting its assessment rolls in order to levy a separate assessment on the city's water rights, thereby more than doubling the city's tax debt on the lands affected. Although the power to tax water rights was an established principle of California law by this time, the state Board of Equalization found that the methods employed by the county assessor had been improper, and the state supreme court upheld this decision.[74] But once the necessary adjustments had been made in its assessment procedures, the county after 1958 persisted in levying a separate tax on the city's right to export water, contending generally that a portion of the value of the exported commodity should be returned to its place of origin.

Los Angeles invariably protested its new assessments each year to the Board of Equalization. The time consumed in hearings before the board and the annual uncertainty over the rate which state officials would actually approve became disruptive for the ongoing programs of the county departments.[75] And the board further complicated matters by ruling that the county's right to fix these assessments applied only at the actual point at which the waters were diverted into the aqueduct. This meant that the greater part of the revenues derived from the new assessments were concentrated in a single school district. The problem might have been resolved by consolidating all the county's school districts, but that approach was never seriously considered by Inyo's officials. Clearly, a compromise was needed.

Under the 1914 constitutional amendment, both Los Angeles' lands and its water rights were taxable if they had been taxed at the time they were acquired. Accordingly, 44,673 acres of the 246,876 owned by the city were exempt from taxation because they had not been subject to property taxes when they were

acquired by purchase or exchange from various public agencies such as the federal Forest Service and the Bureau of Indian Affairs.[76] Under the terms of the amendment, moreover, improvements added to the land after its acquisition were also not taxable unless they replaced or substituted for improvements that had previously been taxed. But the heart of the problem involved the fixing of a value for the city's water rights. Should the value of the water right, for example, be determined on the basis of what the water would be worth in Inyo or Mono county, or on the basis of its value in Los Angeles? The city argued, of course, that the water had no value without the means of transporting it.[77]

The resolution of this problem was of vital importance to many people outside Inyo and Los Angeles. The East Bay Municipal Utility District, for example, maintained its principal reservoirs in the mountain counties of Amador and Calaveras. The city of San Francisco similarly held extensive water rights in rural Tuolumne County. And the question of the value of improvements had a special significance for San Francisco, which had built its airport on reclaimed swamp lands in neighboring San Mateo County with a sure and certain confidence that this new facility would continue to be taxed as if it were a swamp.[78]

The prolonged negotiations over a settlement between Inyo and Los Angeles were marked by charges of bad faith on both sides. The effort was made all the more difficult by the fact that any formula for future assessments agreed upon by the two sides would have to meet the tests of constitutionality imposed by the Board of Equalization. Eventually, rumors began to circulate that the city was planning to line up San Francisco and the East Bay Municipal Utility District in support of an outright repeal of the constitutional amendment of 1914.[79] Out of this threat blossomed the formula for compromise. A new constitutional amendment was drawn up establishing the basis for assessment on the tax rolls of a selected year, but allowing the assessment to rise in future years in accordance with the per capita increase in property values that obtained throughout the state. Since assessed valuation in California as a whole was growing much faster than property values in the Owens Valley, the proposal on its face looked like a good bet for Inyo. But by tying future increases to

the per capita increase in statewide property values, the county was in fact gambling that land values throughout the state would increase at a much faster rate than the growth in population. To sweeten the deal, the base year for Inyo and Mono was fixed as 1966 because the allocation of water rights values by the Board of Equalization that year had been especially favorable to the two counties. And Los Angeles further acceeded to the insertion of special provisions assuring that the city's new power plants in the gorge would be included under the act's provisions. On these terms, the compromise was accepted by all concerned and the Board of Equalization gave its blessing to the arrangement.[80]

Although most of the proposed amendment's complex provisions dealt with the problems between Los Angeles and Inyo, no mention of this controversy was made in the ballot pamphlet presented to the voters when the issue came up in the general election of 1968. The amendment had been carried in the state legislature by San Francisco's Senator George Moscone, and the arguments pro and con that appeared in the ballot pamphlet were drafted entirely by legislators from San Francisco and San Mateo who were concerned with the amendment's effect on the airport.[81] Although the Commonwealth Club of San Francisco opposed the proposal and the California Taxpayers Association chose to remain neutral, the amendment won the support of the *Sacramento Bee*, the *San Francisco Chronicle*, the State Chamber of Commerce, and the Property Owners Association of California.[82] The *Los Angeles Times* pronounced the formula "a fair and reasonable way to resolve the yearly assessment fights" and urged its passage.[83] But on election day, Los Angeles' voters rejected the proposed constitutional amendment, as did the voters in forty-one of California's fifty-eight counties, including San Mateo and every one of the rural counties that would be affected by its provisions except Inyo. Only the vote in San Francisco saved the compromise; the measure was approved there by 75,335 votes, barely enough to boost it to success by a margin of 54,815 votes out of more than 6,000,000 ballots cast statewide.[84]

The negotiated settlement of the tax controversy confirmed the uneasy alliance that had formed between the city and the valley in the quarter-century since the end of World War II. So long as Los Angeles did not seek to alter or expand its land and

water holdings, the city's interest in preserving the quality and quantity of the water supply entering the aqueduct was accepted as a central element of and an unavoidable constraint upon any plans the individual communities of the valley might make for their future. And there were many in the valley who regarded these constraints as beneficial. The report prepared for the Izaak Walton League in 1971, for example, criticized specific aspects of Los Angeles' programs for fish and wildlife enhancement but ended by proposing a policy for the future of the valley which differed in no significant way from that which the city was already pursuing. This report, moreover, applauded the city's role in suppressing growth and development in the region, noting with ridiculous hyperbole that the Owens Valley as a result was the only area of California that had not been changed by the postwar boom in population.[85] In a similar vein, the chairman of the Eastern Sierra Nevada Task Force of the Sierra Club told a visiting reporter, "We recognize that Los Angeles is probably the savior of the valley."[86]

These remarks reveal the danger in confusing effects with motivation. By the logic of this Sierra Club spokesman, so might Genghis Khan be admired today as an early advocate of open space preservation for his work in obliterating the cities of Central Asia. The conservationists' accolades for Los Angeles ignored the essential fact that the city's interest was not in the preservation of the environment in any general sense but in the protection of its water resources. And as events in the 1970s would reveal, the Department of Water and Power was ready to risk injury to the valley environment for the sake of the further development of that resource.

The Second Aqueduct

Although the city had resolutely followed through on nearly all the programs and policies Mulholland had initiated, one aspect of his legacy remained unfulfilled. And that was perhaps the most important of all. Mulholland had seen the operation of his aqueduct as a process dependent ultimately upon the management of the Owens Valley groundwater basin for storage

in wet years and as a supplemental source of supply in periods of drought. This vision had informed his original tolerance toward the development of valley agriculture, and it had later inspired his war with the valley at a time when he believed the city's need demanded complete control of the valley's most productive pumping fields.

In the years immediately following his victory in the valley and fall from power, the Department of Water and Power continued to sink new wells and intensify its pumping rates in accordance with his design. In just four years, from the beginning of the 1929 water year through 1932, Los Angeles extracted an estimated 336,000 acre-feet from the groundwater reservoirs around Bishop and Independence. And by 1931, the city's wells in the valley were producing fully 30 percent of the total aqueduct supply.[87] The department's bond issue of 1930, which provided funds to complete the acquisition of the valley, was endorsed by the *Los Angeles Times* in part on the grounds that: "Unchallenged control of these underground water resources requires the ownership by the city of all lands and water rights of every nature within the confines of the valley."[88] So compelling had been Mulholland's arguments for reliance upon this groundwater supply that some city officials actually opposed the plan for tapping the Colorado on the basis that it would be more economical for the city to draw whatever additional water it needed by pumping the Owens Valley to a depth of 500 feet.[89]

After 1932, however, the department all but stopped pumping in the valley. With precipitation levels returning to normal, and the Mono and Colorado projects already under way, the additional water which pumping could provide scarcely seemed worth the expense of defending against the litigation which the further lowering of the valley's groundwater table inevitably produced. Groundwater extractions in the thirty years from 1933 to 1963 consequently dropped to an annual average of only ten cubic feet per second.[90] By 1935, the natural artesian wells first observed by the United States Geological Survey in 1906 were flowing freely once again.[91] And on August 26, 1940, Los Angeles voluntarily gave up the right to continue pumping water for export from a 98-square-mile area southwest of Bishop.

This remarkable action seemed at the time to offer a means of

achieving speedy settlement of the extensive litigation that had been prompted by the operation of the city's wells on lands formerly owned by the Hillside Water Company. A group of downstream well owners had taken up a suit originally filed by the company in order to protect those water rights first adjudicated as a result of the ranchers' seizure of the Southern Sierras Power Company reservoir in 1921. The Inyo superior court granted the ranchers' request for an injunction, but the state supreme court overturned this judgment, determining instead that the ranchers were entitled to damages. Rather than go to the trouble of calculating the value of these claims, the Department of Water and Power simply stipulated its acceptance of the original court-ordered prohibition on further pumping for export.[92]

In 1946, Los Angeles for the first time achieved full utilization of the total capacity of its aqueduct to the Owens Valley. Since the department by this time had access to a supply from the Colorado which it could not use and rights to approximately three times as much water from the Mono Basin as the aqueduct was capable of carrying, further development of the Owens Valley groundwater reservoirs appeared superfluous.[93] Feasibility studies for the construction of the second aqueduct that would be needed to make use of the Mono water were dismissed that year as uneconomical.[94] Critics of the department's policies continued to call for more extensive use of the valley's groundwater storage capacity. But the department's efforts in this regard were limited to the periodic spreading of small amounts of excess water. By 1948, Los Angeles maintained only 110 wells in the valley with a combined pumping capacity of three hundred cubic feet per second. And even these facilities, the department asserted, would not be needed except in the unlikely event of a drought lasting more than thirteen years.[95]

This indifference toward the development of the Owens Valley groundwater basin was a natural reflection of the altered circumstances in which the city found itself after World War II. Los Angeles was at last nearing the limit of its growth. And in the absence of any new area for expansion like the San Fernando Valley, there could be no expectation that the city would ever be able to use all the water it had secured. By 1955, the city's rate of

population growth had dropped to half that of the South Coast metropolitan region as a whole. Neighboring communities were meanwhile doubling and tripling in size on the Colorado water Los Angeles did not use.[96] These conditions created an inevitable tension between the city's interests and those of its fellow members on the board of the Metropolitan Water District. By the mid-1950s Los Angeles had paid 62 percent of the taxes supporting the district's operations for less than 9 percent of the water the district delivered.[97] And although the department did its best to mask these costs in its annual reports, an independent management study conducted in 1948 by the Board of Water and Power Commissioners estimated that the actual costs of water delivery to the people of Los Angeles were 50 percent higher than the department reported because of the city's subsidy of the Metropolitan Water District. The department blithely responded to this criticism with the observation that an interested taxpayer could find these costs by consulting the separate reports prepared by the district itself.[98]

The inherent conflict between the city's water independence and the district's growing need for additional supplies came to a head in the late 1950s when the state Department of Water Resources sought to secure the district's participation in the proposed development of the State Water Project. The state statute creating the district prohibited Los Angeles from exercising more than 50 percent of the votes on the district board regardless of how much money the city contributed to the district's support. But even with only half the votes, Los Angeles dominated district policy through a unit rule that required each city to cast its votes on the board as a block. The city's delegation to the district board was therefore able to lead the district in forceful opposition to any participation in the state project.[99]

Whereas the Metropolitan Water District's campaign against the State Water Project was fought on a broad range of issues, the conflict within the board focused ultimately on the system for funding the additional supplies offered by the state. Since the new water from Northern California would be even more expensive than the water the district drew from the Colorado, Los Angeles had no desire to find itself in the position once again of

having to pay the major part of the costs of developing a resource it could not use. Without the State Water Project, the department reported, the cost of the original aqueduct to the Colorado would be paid off by 1965 and the price of district deliveries would thereafter drop off sharply. The department therefore proposed that the financing of the Colorado project should be separated from the financing of the State Water Project by shifting the tax burden for future water imports from the district property owners to the actual water consumers. In this way, Los Angeles would have paid very little for the development of the State Water Project. But even the city's own delegates to the district board recognized that this proposal would have bankrupted the district and crippled the State Water Project. With their position within the board becoming increasingly isolated, Los Angeles' delegation abruptly switched to support of the new project in the closing days of the campaign for passage of the bonds to implement the state's plan in 1960.[100]

The conflict within the board over the State Water Project revealed new limitations on Los Angeles' ability to assure that its interests would prevail in the policies of the district it had created. And because votes on the district board are distributed in accordance with the assessed valuation of each of its member agencies, the city could look forward only to a further diminution of its influence as the other communities of the South Coast continued to outstrip its rate of economic growth. The conflict arose, moreover, in the midst of a succession of dry years which had forced the department to restrict irrigation in the Owens Valley and renew its pumping operations there. Even with the aqueduct running at capacity, the city in 1959 was drawing 16 percent of its water supply from the Metropolitan Water District.[101] And although this was still less than a fifth of the total amount of water the city was entitled to receive from the district, the approval of the State Water Project assured that any supplemental supplies the department might require from the district to meet similar temporary shortages in the future would be more, rather than less expensive.

In addition, Arizona's longstanding suit to secure a greater portion of the Colorado's flows for itself was by this time pending before the United States Supreme Court. The possibility that

Arizona might succeed, thereby reducing the district's diversions from the Colorado, created a further risk that the more costly supplies from the state would constitute an even greater proportion of any water the district had available in the future.[102] For all these reasons, it suddenly appeared advisable for the city to reestablish its independence from the district by examining once again the prospects for a more intensive development of its own water resources.

In 1959, detailed studies were ordered for the construction of the second aqueduct Thomas Means had recommended nearly forty years before. When the preliminary results of these investigations suggested that such a project would be feasible, the department began comparing the costs of this new development with the expenses associated with obtaining additional supplies from the Metropolitan Water District, saltwater conversion, or the reclamation of waste water. Satisfied that more intensive development of the Mono Basin and increased pumping in the Owens Valley offered the best prospect for obtaining upward of two hundred cubic feet per second of additional, high-quality water at the lowest price, the Board of Water and Power Commissioners in July 1963 authorized engineering to begin on the so-called second barrel of Mulholland's aqueduct to the Owens Valley.[103]

Los Angeles' problems with the Metropolitan Water District would probably not of themselves have constituted a sufficient basis for undertaking what was expected to be a $91-million project. But there were additional reasons for the department to make haste. The state was growing impatient with the city's failure to make use of its extensive water rights in the Mono Basin. A routine application by the department for an extension of time for the use of these rights brought a stern warning from the state Water Rights Board in 1959. If Los Angeles did not demonstrate its intention to make full use of these rights promptly, the board advised, the city could lose them altogether. Submission of the preliminary plans for the second aqueduct in June 1960 satisfied the board's demand for diligence, and the extension the city had requested was granted.[104] But Los Angeles by this time was facing additional pressure from the legislature.

The state Department of Water Resources had reported in

1956 that Los Angeles was exporting only 320,000 of the 590,000 acre-feet of water annually available in the Owens Valley. This revelation prompted the legislature in 1959 to direct the Department of Water Resources to prepare a detailed investigation of how the water Los Angeles left behind could be more efficiently applied to the economic development of the valley.[105] Far from quieting these concerns, the announcement of the city's plans to build a second aqueduct encouraged the legislature to redouble its efforts. Noting that Los Angeles' intention to export "practically the entire water supply of this area" had made the residents of Inyo and Mono counties "gravely apprehensive," the legislature ordered still more studies along these lines in 1964 and 1966.[106]

Residents of the valley initially insisted that the state should reserve to their use all the water beyond the 320,000 acre-feet which Los Angeles was already taking. The director of the Department of Water Resources, however, argued that such an action would be "premature" in the absence of any detailed plans or demonstrated ability on the part of the valley residents to raise the necessary capital to make use of this water. The state therefore limited its filings on the valley's behalf to those sites which seemed to offer the best potential for recreational development.[107] After 1960, the state's efforts focused increasingly on aid for the valley's newfound enthusiasm for tourism. And in this context, the prospects for development of the valley's groundwater basin came to assume nearly as much importance as the surface flows Los Angeles was not using.

Valley residents had long complained that the city's spreading of excess water to comply with the Natural Soda Products case decree was turning potentially irrigable land north of Big Pine into swamps. To alleviate the problem, they sought permission to pump the city's lands, arguing that the water thus derived could be used to support additional agricultural development. Los Angeles, however, had refused these requests out of a concern that, if its groundwater pumping rights were once used for this purpose, the ranchers might insist on continuing the practice.[108]

Aubrey Lyon introduced a further refinement to this appeal

in connection with his efforts to establish a chain of warm-water fisheries in the valley. Lyon proposed that the water for his fisheries could be drawn from the lands outside Bishop which the city had agreed never to pump for export. As Lyon pointed out in 1961:

> There is no enjoinment for pumping for use on the land. Therefore, if leases could be executed to the [federal] Fish and Wildlife Service and they should pump for development of the project, the actual consumptive use would be less than half of the amount pumped and would flow by gravity into the [city's] water-gathering facilities lower in the basin. In this manner the city would be gaining water which otherwise they may not touch, and actually at no expense to them.[109]

The state agreed that development of the groundwater basin offered the least costly method of achieving its recreational objectives in the valley.[110] And although the elaborate plans for recreational and fish and wildlife development were eventually sidetracked, the kernel of Lyon's idea would re-emerge years later as an essential element in Los Angeles' plans for the operation of the second aqueduct.

The reports prepared by the Department of Water Resources in the early 1960s signaled the state's readiness to intervene in the valley's development if Los Angeles did not hasten its own plans for the second aqueduct. But in terms of illuminating any problems created by the city's use of the valley's water resources or measuring the potential effect of the second aqueduct on the valley's development, the reports were singularly ineffectual. The problem in large part lay with the legislature. The principal sponsor of the bills ordering the preparation of these reports was Inyo's new state senator, William Symons, Jr., whose father had played so central a role in bringing on the conflict of the 1920s. When directing the Department of Water Resources to conduct a new study, Symons relied on the parliamentary device of a resolution passed only by his colleagues in the senate. Such resolutions are nonbinding to the extent that they do not carry the force of law; but more important, they provided no funding for the work they asked to have done. And since the deadlines

Symons specified for his reports were usually quite short, the Department of Water Resources conducted little research of its own but relied instead upon whatever data the Department of Water and Power provided. After complaining of the legislature's failure to provide financial support for the first two studies, the state water resources director proposed in 1965 that $200,000 be appropriated for a serious two-year investigation.[111] When this suggestion was ignored, the last of Symons' three reports was simply turned over to Los Angeles to prepare.[112]

As compilations of already available information, the reports were certainly no less than accurate. But the limitations imposed on their preparation just as certainly restricted the state's ability to recommend any solution to the valley's problems or even to perceive what problems might exist. Thus, the last report, prepared by the Department of Water and Power, simply passed over the key quesiton of how much water the valley might require for its future development with this sweeping observation: "There is no indication that these needs are not being fully met or will not continue to be fully met in the future."[113] And though the state Water Rights Board in a separate investigation noted that the development of the second aqueduct would almost certainly "influence the amount of local lands which have been previously irrigated . . . and possibly reduce the amount of lands which may have been subirrigated in the past," the board similarly concluded that in the absence of any data other than Los Angeles' it could not evaluate the potential effect of these changes.[114]

If the impact of the second aqueduct upon life in the valley evaded prediction in Sacramento, it was apparent that the principal effect of the state's efforts had been to encourage Los Angeles to make haste with its new project. The first bonds for the second aqueduct were issued in October 1963, and construction began the following August. Thanks to the charter revision of 1947, the Department of Water and Power did not have to appeal for taxpayer support of its endeavor. But the department also chose to make a further departure from tradition. Rather than raising funds for the new aqueduct in one lump sum, as Mulholland had always done, the department decided to issue new bonds only as revenues were needed. The financing of the second aqueduct,

moreover, was rolled into the overall capital requirements of the city's total water program. This kind of step-by-step financing when used by federal water agencies had produced inevitable construction delays and cost overruns, and the system worked no better for Los Angeles.

The department described the consequences of this decision in its final report on the second aqueduct:

> As the construction of the aqueduct progressed, some rather drastic changes in the national economy invalidated some of the basic assumptions on which the financial studies had been made. Accelerated inflation caused greater increases in the cost of operating and maintaining the Water System than had been forecast, and interest rates on borrowed money rose to levels unprecedented in recent years . . . [As a result] the largest borrowings for Second Aqueduct construction were made at the peak of high interest rates. The resulting higher debt service, together with the escalating inflation, required earlier and larger increases in water rates than had been forecast. The unanticipated delays experienced in design and construction which resulted in a later completion date, also contributed to the changes in rate planning.

The project was completed within its assigned budget. But because of the higher costs of debt service, the department was forced to boost its rates by nearly 63 percent, instead of the 26-percent increase originally projected to pay for the second aqueduct.[115]

The finished project was approximately half the size of the original aqueduct. Operating together, the aqueducts were expected to increase the volume of the city's exports to an annual average of 666 cubic feet per second. In its initial studies, the department had considered building the second aqueduct with capacities ranging from 150 to 250 cubic feet per second; but it settled on a long-term average of 210 as a compromise which would enable the city to exercise most of its rights in the Owens and Mono basins while still leaving some water for maintenance of the lands it leased in the area. Additional exports from the Mono Basin, however, were expected to provide only 50 of the

210 cubic feet per second needed to keep the new aqueduct full. The balance, more than three-fourths of the total capacity of the project, would be made up by pumping in the Owens Valley and by reductions in the amount of water spread or applied to irrigation within the Owens River watershed.[116] How these increased efficiencies would be achieved consequently became the crucial question, not only for the operation of the second aqueduct but also for the future of the Owens Valley.

In light of the uproar that followed, the most remarkable thing about the second aqueduct may be that it did not stir more opposition in the Owens Valley during the initial stages of planning and development. One reason for this is that no one in the city or the valley could foresee what the ultimate impact of the project upon the valley would be. This was the very point on which the state reports were least informative, and their shortcomings thus assumed a critical importance. The boards of supervisors in Inyo and Mono counties did retain independent consultants in 1964 to assess the probable effects of the second aqueduct; but their report for the most part simply resifted the information already available in the state studies, without raising any new specifics that might cause alarm.[117] In addition, the department's financing plans were not all that changed while the second aqueduct was under construction. As with the first aqueduct, many of the most important aspects of its operation were decided after the project was under way. The cloak of obscurity with which Mulholland had successfully draped the first aqueduct during all the critical decisions on its authorization reappeared to serve as well again.

Groundwater pumping, for example, was an essential part of the department's plans for the operation of the second aqueduct from the very beginning, as a way of both meeting local needs and reducing water losses due to evapotranspiration by lowering the water table in marshy areas of the valley where native grasses and other water-dependent plants flourished. But as construction progressed and the projections of local demand for water were refined, the size of the department's proposed pumping program increased drastically.

When the city first announced its intention to build the second aqueduct in 1963, it estimated that its groundwater pumping program in the valley could be held to a long-term average of 89 cubic feet per second. In 1966, the Department of Water and Power raised this estimate to 100 cubic feet per second. By the time the project was completed in 1970, the figure had increased again to 140 cubic feet per second. And in 1972, Los Angeles announced that its average demand on the valley's groundwater basin would be 180 cubic feet per second—even though the city that year was in fact pumping at a rate of 200 cubic feet per second.[118] From the perspective of the valley residents, this sudden revelation of so massive a rate of groundwater extraction conjured fears of a process of devastation that could end in transforming much of the area from scrub rangeland into a northern extension of the Mojave Desert. "Instead of fighting for a ranch," one longtime valley resident observed, "we're now fighting for the survival of the plant and animal communities."[119]

Another reason the department's plans for the second aqueduct did not stir earlier opposition can be found in the twenty years of comparative calm which the department had succeeded in bringing to its relations with the Owens Valley from 1950 to 1970. While the fabric of comity was certainly strained at points, examples of successful cooperation abounded. Those who had lived all their lives in the valley made up a steadily decreasing component of the overall population, and even they were separated by two generations from the violent confrontations of a half-century before. The memory of the early conflict had consequently been obscured as the published record of those events became more distorted. And the identification of the Department of Water and Power as the valley's savior by the Sierra Club's local spokesman defined the basis for a greater measure of confidence in a future of mutual benefits than had existed at any time since the second decade of the twentieth century. If the city and the valley had experienced no serious conflicts since 1950, it was because there was little on which they disagreed. Decades of pacific coexistence had produced a sense of mutual objectives and a shared vision of the valley's future. When Los Angeles in 1971 produced an outline of its objectives for the long-term management of city-owned land and water resources in Inyo and

Mono counties, for example, it fixed recreation as the mainspring of the local economy and enunciated a policy of resistance to any significant future increases in population in either county. And Inyo, for its part, found nothing objectionable in this.[120]

Far from threatening to disrupt amicable relations with the valley, the advent of the second aqueduct was seen by the city's water planners as the beginning of a new era of even greater and more specific cooperation with the valley's interests. For throughout all the changes that had been made in the department's plans for financing and managing the second aqueduct, 666 cubic feet per second had remained fixed as an unalterable constant for the combined operation of the first and second aqueducts. Barring the construction of yet a third aqueduct, this set an absolute upper limit on the city's exports from the Owens and Mono watersheds, which meant in turn that the department for the first time would be able to contemplate making the kind of long-term commitments for water use within the valley that the city had regarded as anathema since the end of World War II. Los Angeles was not, of course, prepared simply to assign to the valley residents all its water rights above this limit of 666 second-feet. But at least the opening of the second aqueduct offered the prospect that access to the water the city left behind would henceforth be negotiable.

Valley agriculture was again the first to sample the nature of these new opportunities. In order to achieve the efficiencies required to keep the second aqueduct full, the department proposed to cut back the amount of valley land which it provided with irrigation water to approximately 15,000 acres. Although this was only half the area the city had irrigated since 1945, the department promised to supply these lands on a more continuing basis than had been its earlier practice. This offer was attractive to the valley's cattle ranchers because in the past they had never known from one year to the next how much water they would actually receive. And, at the time the city was preparing its detailed plans for the second aqueduct, the ranchers were recovering from a succession of three dry years in which the irrigated area of the valley had been reduced to only 4,880 acres. The special consultants which Inyo and Mono counties retained to

review the department's plans in 1964 concurred with the city's assurances that by concentrating more reliable water deliveries on the better quality lands in the valley, overall production would not be reduced. And the city followed through on its promise to support the improvement of local agricultural practices by initiating a series of studies in cooperation with the University of California aimed at helping the ranchers make the most efficient use of the water available through the installation of sprinklers and other water-saving devices.[121] With this model of successful cooperation behind them, the city's water officials in 1971 looked forward to providing similar assistance in the form of increased water deliveries to support recreational and fish and wildlife enhancement projects throughout the valley.[122]

From the point of view of the valley, however, there was an all-important catch in the city's offers of assistance. The city made it clear that any water applied to new uses within the valley would be drawn for the most part from increased pumping of the valley's groundwater reservoirs. Aubrey Lyon's idea of substituting groundwater for local uses and thereby enhancing the flows south to Los Angeles had become a key article of faith for the operation of the second aqueduct. The department admitted that the drastic increases in its proposed pumping program were due in part to its own failure to achieve the efficiencies expected in its diversions to the new aqueduct, resulting most noticeably from the city's decision not to line the canal to Tinemaha as originally planned. But it contended, nonetheless, that by far the greater part of the water obtained from the increases in the pumping program would be applied to local uses that had not been considered when construction of the second aqueduct began.[123]

The dilemma this policy posed for the valley was acute. The city was clearly prepared to share its water rights more fully, but only by exercising them more intensively. Any improvement in the valley's condition that might result from the new applications of water would be accomplished at the expense of the valley's groundwater reservoirs. For those most concerned with the long-term effects of increased pumping on the valley's environment, the problem recalled a syndrome identified with the nation's in-

volvement in Vietnam: in effect, the city seemed to be taking the position that it could save the valley only by destroying it. "Those bastards 'bout picked the valley to bones by now, so now they're goin' after the marrow," remarked one longtime valley resident with a pungency Willie Arthur Chalfant himself might have envied.[124]

At the time the city began building the second aqueduct in the fall of 1964, Inyo County proposed the adoption of a formal agreement with Los Angeles to assure that operation of the new project would not interfere with development of the recreational projects the county considered most promising. In addition, Inyo called for an expansion of the department's plans for irrigated agriculture in order to provide 20,000 acres with a firm supply of water; an absolute limit on groundwater pumping to 50,000 acre-feet per year; and a restoration of any federal lands which were currently withdrawn on the city's behalf but not actually needed for the operation of the city's water program. As work on the project progressed and local fears regarding its potential effects grew, the county's position stiffened, with the result that by the fall of 1971, Inyo was demanding a plan for the operation of the second aqueduct that would not only guarantee preservation of the valley's environment but would also provide for its progressive enhancement through the steady expansion of irrigated agriculture and a positive program to induce the spread of native vegetation. To bolster this appeal, the county called on the state Secretary for Resources Norman B. "Ike" Livermore to intercede in the valley's negotiations with Los Angeles.[125]

At first, the prospects for settlement appeared promising. Los Angeles by this time had agreed to expand the area it would serve with irrigation water to 18,840 acres. And the department was well embarked upon the development of a comprehensive statement of its long-term objectives for management of the valley's land and water resources when Livermore convened his first meeting on June 11, 1971. The department's efforts to solicit opinions on the contents of this plan from other interest groups in the valley, moreover, drew a positively sunny response from Bishop's Mayor Betty Denton in which she expressed no disagreement with the city's current policies and applauded the department's willingness to "dream of a distant future."[126]

But a preliminary briefing on its plan that the department submitted at a meeting in Sacramento on November 10 prompted concern. The county was essentially asking for the same clear statement of Los Angeles' intentions that Sylvester Smith, Mary Austin, and the Watterson brothers had, one by one, demanded in vain throughout all the major confrontations of the past. Now that the city was at last prepared to make such a statement, the county was not satisfied with its contents. Los Angeles affirmed its commitment to supply water for irrigation, recreation, and fish and wildlife enhancement in the valley, and it further promised not to interfere with the area's natural stream courses. Rather than set an annual limit on groundwater extractions, it proposed to limit its pumping to the "safe yield" of the basin so that no more water would be removed on a long-term basis than was naturally flowing into these underground reservoirs. But the city's proposal also asserted the department's "primary responsibility . . . to preserve the integrity of the City's water rights and insure a full supply to the First and Second Aqueducts." On this basis, the city rejected any proposal to "arbitrarily restrict or cut back the aqueduct flow or groundwater production." And, on the vital question of building a third aqueduct sometime in the future, the city seemed to hedge its bets, noting simply that the environmental impact of that project "could most likely be of a magnitude to make such a proposal impractical for social and political reasons."[127]

Following the November meeting, further progress on a negotiated settlement slowed while the county representatives went back to consult with their constituents and the city set about expanding the scope of its plan to incorporate the interests of the various federal agencies involved in Inyo and Mono counties. To address this new range of concerns, the department proposed splitting its treatment of water and land use issues and delaying the development of an overall plan to the middle of 1973. Livermore was worried by the decision to bifurcate and slow the preparation of an overall plan. Though he appreciated the city's desire to solicit wider "input," he urged the department's representatives to recognize the need for "interface" between its statement of land and water use objectives.[128]

Livermore's expressions of anxiety were unavailing. As the

months passed, the city and county representatives shifted from a stance of wary accommodation to one of open defiance. Los Angeles announced the latest increases in its pumping program. And on August 30, 1972, the Inyo supervisors formally rejected the department's preliminary briefing, demanding instead an annual limit on groundwater pumping that would be backed up by monthly monitoring of the city's wells, the establishment of guarantees for the minimum and maximum flows in the Owens River in order to prevent erosion, and an outright prohibition on construction of a third aqueduct. In addition, the county renewed its appeal for a program of active enhancement of the valley's environment. And perhaps most troubling of all from the city's perspective, Inyo flatly rejected Los Angeles' most basic contention that it already possessed sufficient water rights to keep the first and second aqueducts full. As an alternative to the city's program, the Inyo supervisors revived the compromise first suggested by Congressman Smith in 1906, proposing that the needs of the valley should take precedence in the implementation of any long-term management plan and that Los Angeles' rights should extend only to water left over after those needs had been met.[129] Three months later, the breach was made complete. On November 15, 1972, Inyo County filed suit under the California Environmental Quality Act of 1970 contending that the city should be required to assess the environmental effects of its pumping program before any further extractions from the valley's groundwater basin were permitted.

The Battle Renewed

The filing of Inyo's suit was the first shot fired in what has become the second war of the Owens Valley. Unlike the conflict of the 1920s, this battle has been fought more with legal briefs than with guns and dynamite. But its potential impact, not only upon relations between the city and the valley but also upon the independence of Los Angeles' water programs and the entire system of water law in California, may ultimately prove to be even greater than the contest Mulholland fought to his bitter victory.

Los Angeles initially responded to the county's action with disbelief that the operation of its project could be bound by the strictures of a law which had not even been imagined when work began on the second aqueduct, and which still had not taken effect by the time the new system was placed in service.[130] But the city had not reckoned with the attention this new conflict with the Owens Valley would prompt in the Third District Court of Appeal in Sacramento. During the early phases of the county's litigation, the superior court indicated its sympathy with the city's argument and refused to grant Inyo's request for an immediate injunction on the pumping program. But when Inyo filed a routine appeal of this denial of an injunction, the court of appeal took the extraordinary action of recasting the county's petition as a petition for mandamus, and on that basis the appeals court assumed original jurisdiction in the case for itself. The following June, the court of appeal ruled that although construction of the second aqueduct did not fall under the provisions of the environmental quality act, its operation and especially the department's greatly expanded pumping program did. The city was therefore ordered to prepare an environmental impact report on this ongoing program.[131]

State law requires that an environmental impact report must consider the alternatives to the action or project under study. In the draft report the city released on August 29, 1974, however, all three of the alternatives discussed would have involved some lowering of the valley's groundwater table and the consequent degradation of the landscape in the areas affected to "semidesert scrubland." And though the department addressed the possibility of taking no action whatsoever, it warned that this would result in the elimination of all water deliveries to its agricultural lessees.[132]

Inyo once again sought an injunction to force the withdrawal of what it argued was an inadequate response to the court's demand for an environmental assessment. The city responded by making good its threat against the valley's cattle ranchers. On Friday, September 20, 1974, the Department of Water and Power mailed notices that it was cutting off all water deliveries to its agricultural and recreational lessees on the following Monday, September 23. To fulfill this order, the *Los Angeles Times* re-

ported, city workers had to dynamite irrigation valves which had been rusted open since completion of the original aqueduct sixty years before. In a public statement, the city engineer responsible for aqueduct operations denied that this was intended as a punitive measure and described it instead as "educational."[133]

Within a week, the superior court ordered Los Angeles to restore its water deliveries in the valley. The Department of Water and Power voluntarily withdrew its draft report, which had barely been out a month, and promised to prepare a more systematic study that would include consideration of a reduction in the city's exports from the valley.

While the city and county were wrangling over the problem of how to prepare a proper assessment of the environmental effects of the department's pumping program, the pumping continued. Neither the superior court nor the district court of appeal had granted Inyo's request to stop the wells. When the court of appeal ordered Los Angeles to prepare an environmental impact report, however, it did restrict the pumping program to 89 cubic feet per second—the rate at the time the environmental quality act had taken effect. Three months later, Los Angeles was able to persuade the superior court to raise this limit to 221 cubic feet per second. Five days after publication of the department's draft report, the court of appeal again assumed jurisdiction and once more ordered an immediate return to the pumping rate it had previously fixed at 89 cubic feet per second. Inyo agreed to permit the city to extract a greater quantity of water from the valley's groundwater basin that winter, once the city had withdrawn its draft report and promised to include participation by Inyo's citizens and elected officials in preparing its new study. But by May 1975, Los Angeles had again succeeded in obtaining a higher pumping rate of 178 cubic feet per second from the superior court.

It was evident by this time that the department had become entangled in a new field of environmental law which was then evolving rapidly in the courts. And although the city's water officials might not have been able to predict the full extent of their obligations under the new statute as the court would define them, there could be no doubt that the operation of the second

aqueduct would come under a greater intensity of scrutiny than they had ever encountered before. As the incident of the water shutoff revealed, they were not responding well to this unexpected pressure. In the preparation of its revised and expanded report, the department maintained that since the court had required an assessment of the environmental effects of groundwater pumping but not of the second aqueduct, the city's only obligation was to examine that portion of its groundwater pumping program intended to serve local needs within the valley that had not been anticipated when the second aqueduct was begun in 1963. Any pumping of water for export would therefore not be considered. When Inyo's representatives objected to this interpretation of the court order, the department responded that its position was supported by the California attorney general. The sole effect of this assertion was that it prompted the attorney general's office to issue a vigorous denunciation of the city's "grudging, miserly reading" of the court's mandate.[134]

The new report was consequently mired in controversy even before it appeared. The Inyo County Grand Jury in 1976 damned it as a "subterfuge." Local residents who attended the department's public meetings complained that their concerns were not being considered. Officials of the Naval Weapons Center at nearby China Lake expressed a fear to the local air pollution control district that increased dust storms resulting from the loss of vegetation in the valley would injure human health and force the eventual closure of their facility. In response, city officials argued that there was no medical evidence proving that more dust would pose an identifiable risk to the breathing of valley residents. And the department in its environmental impact report confidently predicted that any plants that died as a result of the lowering of the valley's groundwater table would soon be replaced by other species. "The DWP has not been too honest about this," protested a local botanist who had originally been retained by the city as one of its consultants for the report. "The likelihood is that when the alkali scrubs die, those sections of the valley will become barren."[135]

At the time this report was being prepared, it was unclear whether the identification of an environmental risk created any

obligation upon the city to avoid it. The department took the position that the report was only an informational document, and that its duties under the environmental quality act would be fulfilled simply by preparing the report and having it certified by the Board of Water and Power Commissioners. The department therefore published its new three-volume study in May 1976, and the commissioners announced their intention to certify it within a month. Appeals from Inyo's representatives to the mayor and city attorney of Los Angeles for delay and more careful consideration were ignored. On July 15, the water and power commissioners certified the environmental impact report and authorized the department to commence full pumping operations. Six days later, the court of appeal opened oral argument on Inyo's contention that the law required not just an environmental impact report but an adequate report.

On August 17, Los Angeles lost again when the court announced that it would review the adequacy of the department's report. In the meantime, the city's pumping program would be cut back to an average of 149 cubic feet per second. Even as the court acted, however, it was apparent that California was entering the preliminary stages of the worst drought in its history. When the customarily rainy winter months brought no relief, mandatory rationing went into effect in cities throughout the northern half of the state. At the beginning of 1977, deliveries from the State Water Project to the Metropolitan Water District were cut off so that agriculture in the Central Valley could continue to flourish. And in Los Angeles, where the drought was much less severe, the prospect suddenly loomed that the city might at last have to start drawing water from the Colorado supply it had paid hundreds of millions of dollars to secure.

Rather than pay higher prices for lower quality water from the Colorado, the department petitioned the court of appeal in February 1977, for permission to begin pumping in the Owens Valley at a rate of 315 cubic feet per second for the duration of the drought. Once again the city attempted to enlist the valley cattlemen in support of this appeal for relief by warning them that their irrigation supplies would be cut off if the county did not relent in its opposition. But these threats ran directly counter to the court's order the previous August, which had directed Los

Angeles to continue making its customary deliveries in the valley despite the reduction in pumping.[136] In a preliminary memorandum of March 24, 1977, the court indicated that it would be disinclined to grant the department's request for increased pumping in the absence of any effort by the city to implement an effective water conservation program during the drought. The irrigation season began on April 1 with no indication whether the department would in fact deliver water to the valley ranchers. Finally, on April 15, faced with a new appeal by the county and the risk of a contempt order from the court, the department announced that it would supply irrigation water at half the normal rate. On April 25, however, the court of appeal ordered the city to increase its deliveries to three-fourths the normal rate.

The burden of the extended litigation was by this time beginning to tell upon Los Angeles. Not only had its independence from the Metropolitan Water District not been increased, the city was now more dependent than ever upon the district's Colorado supplies as a result of the controversy the second aqueduct had stirred. The department had invested three years in the preparation of an environmental impact report which appeared to be in danger of total rejection by the court of appeal. City officials had meanwhile taken to warring among themselves. The chairperson of the water and power commission, along with various members of the staff of the mayor's office and the Department of Water and Power, were privately blaming the city's long succession of defeats in the court of appeal on a lack of diligence by the city attorney in pursuing their case.[137] The *Los Angeles Times* began calling upon the city to accept a longstanding offer from the state Department of Water Resources to intervene in the conflict and prepare an independent evaluation of the environmental effects of the department's pumping program.[138] And as a result of the court's March memorandum concerning water conservation, Los Angeles for the first time in its history was faced with the threat of interference, not only with its water resources in the Owens Valley, but also in the management of its own water system.

The court's call for an effective water conservation program was a particularly bitter blow because, even without the drought, the efficiencies the department had achieved in its operation of

the municipal water system gave Los Angeles one of the lowest per capita rates of water consumption in the South Coast.[139] Despite the fact that the city had paid more for less water than any other member of the Metropolitan Water District, none of them faced the prospect of mandatory rationing. And most galling of all, the towns of the Owens Valley, according to figures published by the Department of Water and Power but hotly contested by valley officials, maintained water consumption rates which were in some instances eight times greater than those of Los Angeles.[140]

Nevertheless, in an effort to demonstrate its good faith and win the favor of the court of appeal, the Los Angeles City Council on May 12 unanimously approved an ordinance instituting mandatory water rationing. For the Sunday edition before the ordinance was to take effect, the *Times* retained Remi Nadeau to prepare the lead article of a special section devoted to water conservation. Nadeau's hortatory histories of the Department of Water and Power had done much to quiet criticism of the city's treatment of the valley since the 1950s. And he now likened the prospect of a reduction in water use in Los Angeles to Arnold Toynbee's theories of the collapse of human civilization: "It is true that nearly 40 percent of Los Angeles' water goes for 'outside uses' such as lawns, gardens, swimming pools, and public parks . . . but such amenities are at the heart of Los Angeles' way of life. Indeed, such deprivation would constitute . . . a cultural decline in the Toynbeean sense."[141] The very next morning, the court of appeal threw out Los Angeles' environmental impact report, denouncing the department's "egregious" and "wishful" misreading of its mandate.[142]

The *Times* was outraged and urged the city to file an immediate appeal with the state supreme court.[143] But the rejection of the environmental impact report had not affected the department's request for an increase in its pumping rate, and the department by this time had secured the necessary permission to retain special legal counsel, as Inyo County had done the year before. On June 29, only two days after the court's ruling, Los Angeles renewed its petition for a pumping rate of 315 cubic feet per second. San Diego and the Metropolitan Water District joined in this appeal with briefs describing the hardships that

would be visited upon the district's other customers if Los Angeles were compelled to exercise still more of its entitlement to water from the Colorado.[144] On July 1, the mandatory water rationing program went into effect. Two weeks later, the Department of Water and Power announced, mirabile dictu, that the conservation program had effectively reduced the city's water use by 15 percent.[145] This was apparently all the court needed to hear. After one last round of oral argument, the court of appeal on July 22 authorized a doubling of the city's pumping rate to 315 cubic feet per second until March of the following year. The *Times*, which had given little space to news reports of the department's successive defeats, ran the announcement of this victory as a front-page banner headline. City water officials, who only a week before had been warning of increased water charges to pay for the more expensive supplies from the Colorado, jubilantly predicted a 10-percent reduction in charges to city water users as a result of the court's decision.[146]

In a sense, the county's suit had always been pointed toward the state supreme court. Fully a third of the brief it had filed against the pumping program in 1976 was devoted to an extended appeal to apply the principles of the County of Origin statute as a reasonable basis for settlement of the valley's claim. So radical a change in the efficacy of the city's water rights would almost inevitably have wound up in the supreme court's docket on appeal by one side or the other in the litigation. And indeed, there were many who believed this was the best course for the valley's representatives to pursue. "The case is certain to be appealed to the environment-minded state Supreme Court, where observers believe Inyo County stands a good chance of winning," enthused *New West* magazine in early 1977. "The end of the most bitter war in the state's history is now in sight."[147]

But when the case at last was brought before the supreme court, it was Los Angeles that filed the action and Inyo that opposed it. Flushed with its initial victory in securing a temporary increase in the pumping rate, the city now sought to overturn all the previous actions of the Third District Court of Appeal. In the absence of an adequate environmental impact report from the city, however, Inyo's attorneys feared they would not be able to make a sufficient showing of the alternatives available to Los

Angeles if its pumping program were permanently restricted. And without such a showing, in turn, the county might have had a hard time demonstrating that the city's demands on the valley's water supply were in fact unreasonable. Rather than risk losing everything it had achieved in five years of expensive litigation, Inyo chose to set aside the larger questions posed by its suit and concentrate, for the time being at least, on the procedural problems involved in obtaining a precise and comprehensive assessment of the environmental effects of the city's project.

On October 6, the supreme court rejected Los Angeles' appeal without comment. The valley's special legal counsel gamely described this action as the county's "greatest judicial victory of 1977."[148] And in an article prepared for the *Los Angeles Times* two weeks later, the Inyo district attorney made it clear that, instead of a fundamental shift in the legal principles governing the relationship of the city and the valley, the county was now prepared to negotiate a compromise in the form of a long-term management plan for the operation of the second aqueduct. "Neither party should press its theoretical position too far," he wrote. "Rather we should be working to determine the exact amount of groundwater pumping that is best for the Owens Valley while still providing maximum benefit to water users in Los Angeles."[149]

The county's legal representatives later explained that the decision to avoid the supreme court was based in part on concern that the process of judicial review would delay an ultimate settlement of the controversy for months or possibly years.[150] But in the three years since the high court refused to intervene, a formula for compromise has continued to elude the parties to the dispute. In May 1978, Inyo and the Department of Water and Power entered into an agreement with the Department of Water Resources for a joint study of the valley's environment in the hope that this effort might in turn establish the basis for a long-term management plan. But as the study progressed, the contending parties continued to wrangle over definitions, with the result that the state fell far behind the schedule for its contribution to the first phase of this project. And there is no assurance that the city and the county will agree to go on to a second phase.[151]

In the meantime, Los Angeles' third attempt at an acceptable environmental impact report has not met with much more favor than did its predecessors. The draft version published in August 1978 was vigorously denounced by the country's scientific consultants, and six of the state agencies that reviewed it have similarly found fault with the city's latest effort. But the dispute over the adequacy of the city's environmental assessment had by this time become only a subsidiary element in a much larger debate in which more fundamental questions involving the city's independence of action are at stake. Neither side, consequently, can afford to give much ground on the issue of the report itself. Acceptance of Inyo's demands for a wider-ranging report, for example, would pose the danger for Los Angeles that a still greater part of the city's water programs could be brought under court review. And indeed, California's secretary for resources has joined the county in calling for yet another study that would embrace all the water-collecting activities of the Department of Water and Power. Inyo, alternatively, must continue to insist on a still more refined scientific analysis for fear that adoption of Los Angeles' environmental impact report might bring an abrupt end to the court-ordered limitations on the city's pumping program.[152]

There are grave risks for the county in continued stalemate as well. The cost of sustaining the legal and scientific consultants required for its litigation has created a severe strain on the county's limited finances. But an effort to force Los Angeles to pay more than $85,000 of the county's attorney fees was turned back by the Third District Court of Appeal in 1978. And in rejecting Inyo's contention that the city had acted in bad faith by preparing an inadequate environmental impact report, the court based its decision in part on the very point that the county's opposition was impelled not so much by the report's limitations as by its own interest in prolonging the injunctive restrictions on the city's pumping program.[153] "Does this represent a victory for either side?" Inyo's District Attorney L. H. "Buck" Gibbons pondered at the end of 1978. "I think that victory, if we ever achieve it, will come when the city and county recognize our obligations and work together to solve our mutual problems."[154]

This elaborate end game, however, is being played out in an

atmosphere of mutual hostility that is deeper now than at any time since the 1920s. The renewal of conflict has brought the establishment of a new valley newspaper, the *Inyo County News-Letter*, which has taken up reporting on the valley's tribulations in the vigorous tradition of Chalfant and Glasscock. Acts of defiance and intimidation have been committed by both sides. In the spring of 1976, for example, the department delayed filling a recreational lake which is used heavily by valley residents during the summer. Late one night in May, the gates controlling flows into the lake were cut open with blowtorches.[155] That fall, part of the aqueduct itself was blown up; and a huge arrow with a stick of dynamite attached was fired into the William Mulholland Memorial Fountain in Los Angeles.[156] In the months that followed, vandalism against city-owned equipment and facilities in the Owens Valley increased, and valley residents took to hissing whenever an official Department of Water and Power vehicle passed by, with the result that many department officials by the late 1970s were traveling in unmarked cars.[157]

As the pattern of amicable relations that had formed since 1950 began to disintegrate, issues once considered settled began to arise again. Local agitation for restrictions on the Tule Elk herds and for increases in taxes the city pays on its valley lands, for example, has been renewed. And when the department began inserting new clauses in its leases for commercial properties emphasizing the point that no lessee has a right to renewal after his lease runs out, the town merchants began pressing for a more liberal leasing policy and a restoration of the city's sales program.

In some instances, the city and the valley have still been able to find the grounds for accommodation. The department responded to the demands of the town merchants, for example, by offering the possibility of 15- or 20-year leases, regardless of the provisions of the city charter, if the merchants would agree in turn to modifications in the state statute requiring lessees to receive a right of first refusal when their properties were put up for sale. The amendments the department at first proposed, however, would have voided not only the restriction on sales but also the so-called Brown Act's prohibition on excessive rental charges without offering any assurance that leases longer than five years would ever be granted. A compromise was eventually achieved in 1979 through the adoption of an amendment to the Brown Act which simply permits a lessee to waive his right to first refusal. In exchange for taking his chances in a public auction of the property, the department proposed to offer such a lessee the opportunity of obtaining a longer term on his lease. And with this agreement in place, the department's sales of town properties have been renewed.[158]

But in other areas of dispute, negotiation and compromise have been replaced by the thrust and counterthrust of unyielding adversaries. The passage of the Jarvis-Gann tax-cutting initiative in 1978 cut so deeply into the county's revenues as to upset the assumptions on which Inyo's acceptance of the constitutional amendment of 1968 had been based. The county responded by reverting to a split roll of assessments, boosting the taxes on the city's lands by $540,000 while levying no corresponding increase on the other local property owners. Los Angeles retaliated by passing these increased taxes along to its lessees through a 24-percent increase in the rents charged on the city's agricultural leases. This move has in turn prompted the county supervisors to press for the immediate adoption of a rent control ordinance for Inyo.[159]

Two new issues have become the focus for even more widespread public concern. In the early 1970s, Los Angeles began installing water meters on many of its commercial properties in the valley. In the summer and fall of 1978, however, the city announced it was investing a quarter of a million dollars for the installation of water meters throughout the Owens Valley. City officials regard the meters as water-saving devices, and from their point of view, it seemed only just that the residents of the valley should be forced to practice the same diligence at conservation that Inyo insisted should be inflicted upon Los Angeles during the drought of 1976-77. But the number of homes affected is so small that even the department's own reports estimate that the water saved by metering will amount to only three-tenths of 1 percent of the aqueduct's supply. Nevertheless, department spokesmen confidently have predicted that the metering program would save the city upward of $40,000 a year by 1982.

Since the city charges valley residents the same prices for their own water that residential users in Los Angeles pay 250 miles away, the metering program has increased the water bills for some parts of Inyo by 2,000 percent. Inyo immediately appealed for a review of this rate structure by the Public Utilities Commission—an apparently hopeless gesture because the commission under its constitutional mandate has never exercised authority over the rates charged by municipal utilities on the theory that such agencies are controlled by their electorates. Inyo County, of course, presented a special case in that its residents have no vote in the municipality whose utility was perpetrating the program they opposed. But the Public Utilities Commission nevertheless declared itself powerless to intervene. When the county took its case to the state supreme court, however, the court came to the startling conclusion that whereas the commission had been correct in determining that the constitution gave it no specific authority to upset the city's rate structure, there was nothing to prevent the legislature from assigning it this authority. The judiciary thus passed the problem on to the legislative branch, and Inyo County has subsequently set about trying to raise support there for a bill that would make just such an unprecedented expansion of the commission's jurisdiction.[160]

The county has also begun laying the groundwork for an equally unprecedented assertion of its own authority. Frustrated after nearly ten years of trying to achieve a permanent restriction on the city's groundwater pumping, the board of supervisors drafted an ordinance arrogating to a commission of its own creation the power to regulate groundwater extractions within the Owens Valley basin. When the supervisors placed this proposal on the November 1980 ballot for countywide approval, Los Angeles immediately brought legal action to prevent a vote from being taken, alleging that the form of submission was technically invalid and that the county should be required to prepare an environmental impact report of its own on the proposed ordinance before the measure could take effect. But the city did not prevail, and on November 4, 1980, the citizens of Inyo endorsed the new ordinance by a margin of more than three to one. The measure is certain to be taken next to the courts, where Los Angeles is likely

to find numerous powerful allies rallying to support its efforts to overturn this new county law. For if the ordinance is allowed to stand, it would establish a precedent for local action which might ultimately upset more than a century of customs and practices in the exercise of water rights throughout California.[161]

The conflicts over the city's water rate schedule and the county's groundwater pumping ordinance have momentous implications for a host of interests far removed from the Owens Valley. And the specter of Mulholland's war has been revived to stalk the city in other ways as well. In Sacramento, for example, debates in the late 1970s over the proposed construction of the Peripheral Canal to increase deliveries from the State Water Project were studded with repeated references to Southern California's water imperialism and the rape of the Owens Valley. And in the San Joaquin Valley, Los Angeles' plans to build the nation's largest nuclear power plant were overwhelmingly rejected in 1976 by the voters of Kern County, where the plant would have been located. "They raped the Owens Valley and bled Inyo County dry. Now it's Kern County's turn?" thundered the *Bakersfield Californian* in an editorial just before the votes were cast. "Mountains make safe neighbors . . . Our water is for agriculture. Los Angeles shall not drill one well . . . Let LADWP go where sea water abounds. Stick it up in El Segundo!"[162]

A new threat to the operation of the second aqueduct has also arisen in Mono County, where the city's increased diversions have substantially reduced the level of Mono Lake. The lake is a saline remnant of a vast inland sea that covered an estimated 316 square miles of the Mono Basin and neighboring Aurora Valley more than thirteen thousand years ago. Since the retreat of the glaciers, the lake has dwindled in size to approximately 85 square miles, and its level has subsequently fluctuated continuously by as much as a hundred feet. Because the modern lake lacks any natural outlet, its waters have become concentrated with carbonates, sulphates, and chlorides. Detailed analyses conducted by the United States Geological Survey at the turn of the century, however, revealed that it was not as rich a source of natural soda deposits as Owens Lake, to the south. And given Mono's harsh climate and remote location, the federal surveyors concluded, "It

is doubtful whether this lake can be developed commercially."[163]

Early explorers dubbed Mono Lake the Dead Sea of the West. But its ancient waters in fact support myriads of infusoria, flies, and brine shrimp. The abundance of these tiny creatures has made the lake an attractive breeding area and stopover for thousands of gulls, grebes, phalaropes, snowy plovers, avocets, and other migratory shorebirds. Until quite recently, Negit Island in Mono Lake supported the second largest rookery for California gulls in the world. But the level of the lake began to decline steadily at the rate of one foot per year when the Mono extension went into operation in 1941. Since the advent of the second aqueduct, the rate of decline has increased to 1.6 feet per year. It is not known whether the brine shrimp endemic to Mono Lake can survive the increasing salinity that will come with further reductions in the lake's volume. But as the lake level declines, the rookery itself became endangered by the formation of land bridges to the mainland which give predators access to the gulls' nests.[164]

The resistance of the Owens Valley to the operation of the second aqueduct sprang from the unexpected increase in groundwater pumping that the Department of Water and Power discovered would be needed to operate its new project. In the case of Mono Lake, however, there was never any question that construction of the second aqueduct would result in a substantial reduction of the lake level. Thomas Means' original plans for the second aqueduct assumed that the diversions from the Mono Basin would be substantially greater than they are today. The various state reports prepared during the early 1960s on the water supply of the Owens and Mono basins predicted that the department's diversions into the second aqueduct would reduce the flows into Mono Lake by 40 percent. And the department itself estimates that the lake will continue to decline over the next fifty to one hundred years until it stabilizes at approximately one-third of its size before the diversions began.[165]

When the Mono extension and the second aqueduct were first conceived in the 1920s, there was no reason to expect that there would be any more resistance to the reduction of Mono Lake than there had been to the elimination of Owens Lake. The

department's efforts to reduce opposition were therefore limited to the negotiation of agreements and the payment of damages to those persons owning littoral rights along the lake's shoreline. In 1974, when the city sought and received a permanent license from the State Water Resources Control Board authorizing the diversion of up to 167,000 acre-feet annually from the creeks feeding the lake, only the Sierra Club's Toiyabe chapter in Nevada and the eastern Sierra expressed any formal concern about the effect these diversions would have on the lake. And the only alternatives the club's representative could propose involved either a further reduction of water use by the residents of the Owens Valley or a greater reliance upon the augmented supplies of the State Water Project once the proposed Peripheral Canal was built. Since the construction of the Peripheral Canal posed serious environmental questions of its own, while the proposal for drying up Inyo County was not likely to gain favor with the people there, the club soon dropped this position and reverted to calling for an extension of the boundaries of Yosemite National Park to include Mono Lake.[166]

But as Inyo County's litigation gained success, and concerns for the environmental effects of the second aqueduct spread, a campaign to save Mono Lake blossomed in its own right. Apart from the fact that both are aimed at limiting the operation of the second aqueduct, the efforts in Inyo and Mono counties could hardly be more dissimilar. The residents of the Owens Valley went to court because they thought their own lands were threatened. The campaign to save Mono Lake, in contrast, drew its original support from an Audubon Society chapter in far-off Santa Monica, which had a greater concern for the future of the lake than local county officials initially exhibited. Inyo's litigation is practically a model of the complexity of modern environmentalism. It is a conflict waged between government agencies, sustained by public funds, attended by battalions of consultants and expert witnesses, and aimed ultimately at achieving an enforceable regulatory compromise. The campaign to save Mono Lake, at least in its formative stages, was almost a throwback to the loose-leaf appeals of the early environmental movement. Underfunded, loosely organized, it was an effort sustained prin-

cipally by the dedication of a small band of bird-watchers and graduate students who were activated by nothing more complex than their deep affection for a place few Californians will ever see. But because the effort in Mono taps that love of wild places that has always been the basic wellspring of conservationist sentiment, the campaign soon overshadowed the conflict in Inyo County in terms of popular attention and support.

By the late 1970s, bills were being introduced in the state legislature to halt Los Angeles' exports from the Mono Basin. Editorials and opinion columns began to appear in newspapers around Northern California condemning the city's "drive to slake its insatiable thirst." Other environmental groups such as Friends of the Earth and the Natural Resources Defense Council soon joined the Sierra Club in rallying to the cause. Suits were filed and petitions drafted charging a violation of the public trust and urging the Department of the Interior to exercise its authority to protect the public lands of Mono County. And at the end of 1978, the Resources Agency of California assembled a special task force to draw up a plan for the preservation of the natural resources of the Mono Basin.[167]

In its formative stages, the campaign to save Mono Lake seemed to be fighting little more than a holding action intended to slow the rate of the city's water exports until a more detailed plan for the preservation of the lake could be worked out.[168] The Department of Water and Power refused these appeals, however, and the mayor of Los Angeles professed himself powerless to intervene.[169] When a land bridge to Negit Island first formed in the fall of 1978, the lake's defenders threw their support behind an effort by the California National Guard to blast a temporary channel between the rookery and the mainland. State and federal taxes paid for this elaborate exercise, and Los Angeles contributed a boat. But when the charges were detonated, the birds took off and the soil and rock that made up the bridge settled back into pretty much their original configuration. A second attempt in April 1979 was no more successful. By the summer of 1979, all the adult breeding gulls on Negit Island had left the scene of battle. Many of the birds have since resettled on other islands in the lake, but only 12,500 gulls nested there in 1979 as compared

to 46,700 in 1978. Nevertheless, a fence has been erected to keep predators off the Negit Island breeding grounds which the birds no longer use.[170]

With the publication of the state task force report at the end of 1979, the campaign's objectives gained new definition. After reviewing nineteen possible alternatives, the task force fastened upon a plan calling for an immediate reduction in the city's exports from Mono Basin from a hundred thousand to fifteen thousand acre-feet of water a year. To make up for this loss of approximately 17 percent of Los Angeles' current water supply, the committee proposed that the city should step up its production of reclaimed wastewater and perpetuate the water conservation efforts it had initiated during the drought. Recognizing that the city might not be able to implement these recommendations immediately, the task force suggested that the state and federal governments should help to bear the cost of additional supplies from the State Water Project to cover the city's losses in the first five years.[171]

Although the Department of Water and Power participated in the formation of the state task force, it did not, needless to say, endorse these conclusions. With more than a little justice, department officals felt they were being ill treated by the state and federal agency representatives who held five of the seven voting positions on the task force. The department, after all, had spent $100 million to build the second aqueduct under a threat that the state would otherwise condemn its water rights in the Mono Basin. And now it was being condemned by the state for exercising those same rights to operate its new project.

The suggestion that the city should give up the water it had spent so much to secure met with no more cordial reception in the other official quarters of Los Angeles. The city council voted unanimously to oppose any attempt to implement the recommendations of the task force report. This position was endorsed as well by the California Farm Bureau Federation and the Kern County Water Agency, which recognized that a successful effort to compel the city to forego the exercise of its rights in the Mono Basin would not only reduce the amount of water available for Central Valley agriculture from the State Water Project, but

would also establish yet another precedent with dangerous portent for the entire system of water rights in California.[172]

Despite its shortcomings, the task force report has at least succeeded in helping reduce the argument to its essential elements. For unlike all the battles of the past, the controversy over the second aqueduct has little to do with any question of the city's need for water. The years when Los Angeles required a superabundance of water to serve an ever-expanding population have passed; the city's population growth has in fact stabilized since 1970. The second aqueduct was developed simply as a management device to enable the department to make use of the water rights it had already acquired and to assure that it would be able to continue providing its customers with the highest quality water available at the lowest possible price. And despite the intense opposition that the operation of the project has engendered in Inyo and Mono counties, the second aqueduct has succeeded in achieving these objectives. By the mid-1970s, deliveries from the Metropolitan Water District, which cost Los Angeles nearly twice as much as the water from its own aqueducts, had dwindled to less than 3 percent of the city's overall supply.[173]

The city therefore regards the prospect of continued resistance to the second aqueduct as fundamentally a problem of economics. Any reduction in the project's flows means not only less water but also less power generated within the municipal system. These losses can only be made up by purchases from other sources. The *Los Angeles Times* has generally cooperated with the department line, portraying the opposition of the Owens Valley as the reflection of little more than a misguided concern for plants over the needs of the people of Los Angeles. And as soon as it became apparent what direction the state task force would take, the department was quick to begin mailing out thousands of brochures warning that a cessation of its diversions from Mono Lake would increase the bills of the city's rate-payers by a billion dollars over the next twenty-five or thirty years.[174]

The state task force itself estimates that implementation of its recommendations would cost $250 million, but contends that 80 percent of these costs could be recovered in the form of reduced energy use if the people of Los Angeles would cut back 15 percent of the water they pass through their water heaters.[175] The Department of Water and Power does not, however, share the state's beamish confidence in the efficacy of water conservation and in the accuracy of these projections. Department officials argue that the actual cost of the state plan would run closer to $2 billion and that it would be unfair to expect the city to absorb these costs unless the state accepts the burden of providing Los Angeles with water and power to replace the supplies it is asking the city to forego. In addition, the department has portrayed the state program as a demand for uniform reductions in water usage by all the city's customers, which would fall hardest on the inner city poor, who already use far less water than suburban homeowners and who can least afford the increased rates the department is certain would follow.[176] This appeal has been successful in prompting endorsements of the department's position from organizations representing low-income families throughout Los Angeles.[177] And though the department does not deny that continued operation of the second aqueduct will have significant environmental effects, it refuses to concede either the immediacy or the irreversibility of these problems.[178] In the meantime, the pumps are still running in the Owens Valley and the city's exports from the Mono Basin continue unabated.

Nevertheless, as the city celebrates the two-hundredth anniversary of its founding in 1981, it faces a host of new threats to its water supply that are as severe as any in its history. The ability of the Department of Water and Power to continue to meet the needs of Los Angeles is not in jeopardy. What is at stake instead is the freedom the city has enjoyed to draw upon the supplies at its disposal in whatever manner it considers most efficient from the point of view of its citizens. The supreme court's decision in the dispute over water rates in the Owens Valley, and Inyo's continuing demands for a wider consideration of alternatives to the city's pumping program in connection with its environmental suit create the possibility for outside interference with the management of the city's water program on an order never before attempted. In addition, Inyo's suggestion that the principles of the County of Origin statute should be applied to work a fundamental shift in the relationship between the city and the valley

remains to be addressed by any court. The adoption and successful enforcement of Inyo's new groundwater pumping ordinance however, would go a long way toward achieving just such a change in the county's ability to deal forcefully with the Department of Water and Power. As the Inyo district attorney has observed, "It is not just the water. This ordinance will allow us to control our destiny. We will be making the decisions that will affect the future; they will not be made 300 miles away in Los Angeles."[179]

Of all these challenges to the department's authority, none is perhaps more threatening than the controversy over Mono Lake because it is the least refined, the least tractable, and the least likely to admit any possibility of compromise. The state task force report has clearly failed to define a mutually acceptable resolution to this conflict; but it is difficult to imagine any way that the concerns of the defenders of Mono Lake can be served without a substantial reduction in the city's exports from the Mono Basin. There is danger in this prospect for Inyo County as well. Its interests, after all, are not the same as Mono's, and any success in reducing Los Angeles' diversions from the lake is certain to increase the determination of the Department of Water and Power to stand firm in the Owens Valley. But for the successors of William Mulholland, the real stuff of nightmares must consist in the thought that a significant part of the work of three-quarters of a century might be undone for the sake of some tiny shrimp and a flock of birds.

Conclusion

It is a truism that Los Angeles today would not exist without the panoply of reservoirs and cross-country conduits that make up the modern water system of California. What is perhaps not so self-evident, however, is that the reverse may also be true. The early and overwhelming success of Los Angeles' aqueduct to the Owens Valley provided a forceful demonstration of the efficacy of public water development. And in inspiring officials at the state level to press for the construction of still larger delivery systems to benefit California as a whole, the example of the city's aqueduct established a tradition for water development in California that is altogether different from the other areas of the West which developed under the aegis of the federal Bureau of Reclamation. Los Angeles' approach to water development was muscular, competitive, self-reliant; and these same virtues were reflected as well in the later construction of the Colorado Aqueduct and California's State Water Project. In contrast to the bureau's programs, which depend upon massive subsidies, these projects sprang from local initiatives and were designed to be self-funding. Even the Central Valley project, which gave the bureau its first major inroad into California, was initially conceived as a state project and would, no doubt, have been developed as such if the intervention of the Great Depression had not temporarily stripped the state of its ability to fund the undertaking.

San Francisco, of course, also paid for the Hetch Hetchy project by itself. But Los Angeles' example was the more influential because it was the more immediately successful. San Francisco's new system was not even completed until after the Central Valley and Colorado projects had been begun. San Francisco's project has commanded more scholarly attention than Los Ange-