

1989-1990 ANNUAL REPORT

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RESOURCE MANAGEMENT IN THE 1990s

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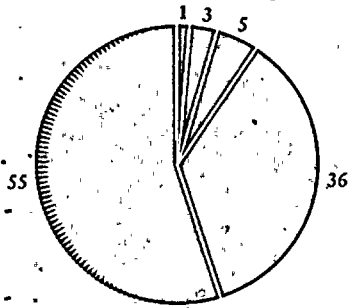
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INTRODUCTION

TO PROVIDE ADEQUATE AND RELIABLE SUPPLIES OF
WATER AND ELECTRICITY FOR THE CITY OF LOS ANGELES
THROUGH THE 1990s AND BEYOND, THE DEPARTMENT OF
WATER AND POWER MUST OPERATE EFFECTIVELY IN A
CLIMATE WHERE SENSITIVITY TO THE ENVIRONMENT
AND THE NEEDS OF ITS CUSTOMERS ARE PARAMOUNT.
THESE PRIORITIES REQUIRE EACH OF OUR EMPLOYEES TO
WORK WITH RENEWED DEDICATION AND CONCERN
FOR THE WORLD AROUND THEM.

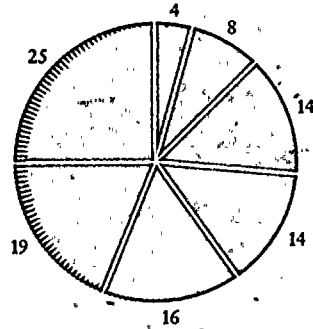
WATER AND-POWER DOLLAR

WATER REVENUE DOLLAR IN CENTS



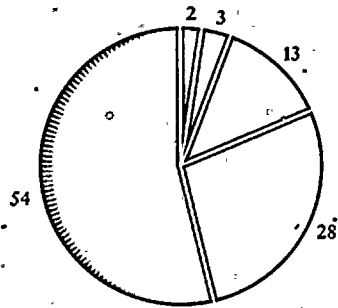
- 1 Fire hydrant rentals
- 3 Other
- 5 Governmental
- 36 Residential
- 55 Commercial and industrial

WATER EXPENDITURE DOLLAR IN CENTS



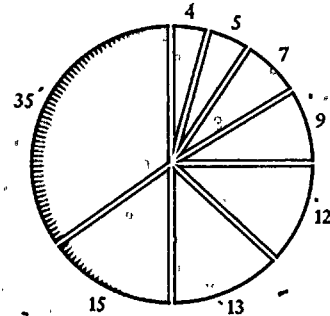
- 4 Payments to the City
- 8 Retirement Plan costs related to operations
- 14 Capital improvements
- 14 Debt service costs
- 16 Other operating expenses
- 19 Operating salaries and wages
- 25 Purchased water and energy

POWER REVENUE DOLLAR IN CENTS



- 2 Street lighting
- 3 Other
- 13 Industrial
- 28 Residential
- 54 Commercial

POWER EXPENDITURE DOLLAR IN CENTS



- 4 Retirement Plan costs related to operations
- 5 Payments to the City
- 7 Capital improvements
- 9 Debt service costs
- 12 Operating salaries and wages
- 13 Fuel
- 15 Other operating expenses
- 35 Purchased energy

COMPARATIVE HIGHLIGHTS

Year ended June 30	Water			Power		
	1990	1989	% Increase (Decrease)	1990	1989	% Increase (Decrease)
Service	Gallons in billions			Kilowatt hours in billions		
Sales	208.8	208.1	0.3%	21.8	21.9	(0.5%)
Customers—average number (thousands)	643.4	640.6	0.4%	1,344.6	1,325.3	1.5%
Financial	In millions			In millions		
Revenue ^(A)	\$ 354.6	\$ 306.7	15.6%	\$1,866.7	\$1,734.6	7.6%
Operating costs ^(B)	230.4	206.0	11.8%	1,455.9	1,301.2	11.9%
Net income	62.6	42.3	48.0%	156.5	193.4	(19.1%)
Payments to City of Los Angeles	15.0	12.9	16.3%	85.8	78.5	9.3%
Capital expenditures	113.1	118.1	(4.2%)	360.4	336.2	7.2%
Net utility plant	1,282.1	1,202.0	6.7%	3,744.8	3,523.9	6.3%
Capitalization—equity and long-term debt	1,319.4	1,250.3	5.5%	3,904.4	3,626.1	7.7%

(A) Includes other income—net

(B) Excluding depreciation expense

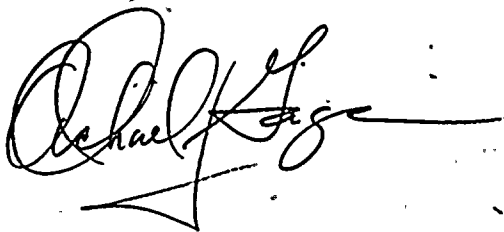
As it enters its 90th year of operation, the Los Angeles Department of Water and Power is proud to be part of the ongoing success story that is the City of Los Angeles. Access to adequate supplies of water and electricity were certainly key elements in this achievement.

Today the Department is entering a new era, characterized by new concerns over quality of life and the kind of environment we will leave our children and grandchildren. This year's DWP annual report takes a close look at the responsibilities these new concerns place on the men and women who manage this enterprise.

Three of us—Commissioners Nichols, Green and I—are new to the Board of Water and Power Commissioners this year. We are honored to serve with the two incumbent members, Commissioners Caruso and Echevarria, who have rendered distinguished service to this Department and the city for many years.

We are also pleased to be part of the larger DWP "family," the 11,000 employees who have made this the finest publicly owned utility in the nation. Their dedication and diligence are in the best tradition of the Department.

Finally, our thanks to the Mayor and Los Angeles City Council, as well as other city officials and their staffs, for their continuing support and especially through these last four difficult years of drought.

A handwritten signature in black ink, appearing to read "Michael Gage", with a long horizontal flourish extending to the right.

MICHAEL GAGE
President



MICHAEL GAGE
President



RICK J. CARUSO
Vice President



DOROTHY GREEN
Commissioner



ANGEL M. ECHEVARRIA
Commissioner



MARY D. NICHOLS
Commissioner

The year just past has been an eventful one for the Los Angeles Department of Water and Power. Thanks to a gratifying public response to conservation appeals, our Water System was able to meet demand in this fourth year of drought through voluntary water conservation. The Power System, impacted by lower hydroelectric production and periodic curtailments of natural gas, still managed to supply all the city's power needs with flying colors.

The Department made significant strides last year in affirmative action, employee safety and customer service. Our financial position remains strong, with DWP revenue bonds rated among the best in the public utility sector. Meanwhile, Los Angeles water and power customers continue to enjoy rates substantially below those prevailing in surrounding communities.

As a result of these achievements, we enter 1990-91 confident that we can continue to provide quality service to the nearly 3.5 million people of Los Angeles as we move toward the 21st century. We are indebted to the 11,000 employees of this Department, whose hard work and dedication have made these achievements possible.

Despite these positives, the road ahead signals a number of changes in the way we approach our business. Although the Department prides itself on its record as a responsible operator, new public concerns for the environment require that we increase our diligence in this area.

This means DWP employees and managers must be more sensitive to the world outside our operating sphere, to issues like global warming, recycling, resource conservation and the health effects of electric and magnetic fields.

We must also look more closely at the parameters that have guided our industry's planners for the last two decades. We need to be more receptive to ideas that fall outside

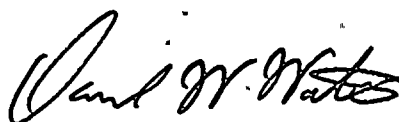
those boundaries, including greater reliance on alternative energy sources like solar and geothermal and expanding the concept of purchasing conservation.

In the area of water resources, we must give even more emphasis to conservation, and take a closer look at opportunities for reclaiming wastewater. Above all, we must recognize that these resources are finite.

As rapidly as the resource priorities are changing, the human side of our business is changing even more rapidly. The transformation in the work force of Southern California—more ethnically diverse, multilingual, younger—will require radical changes in the way we recruit, train and develop future employees.

We welcome the fresh ideas and spirit that the new members bring to the Board of Water and Power Commissioners, and we look forward to working with them to meet the challenges that lie ahead.

In June, 1990, Norman E. Nichols announced his retirement as General Manager and Chief Engineer after 33 years of dedicated service. Throughout his long and distinguished career, he demonstrated a keen understanding of the utility industry and was a major force in the development of electric transmission and generation throughout the West. His insight and strategic vision positioned the Department well for the future.



DANIEL W. WATERS
General Manager and Chief Engineer

The Los Angeles Department of Water and Power supplies water and electricity to the approximately 3.5 million residents of the nation's second largest city. As the largest municipally owned utility in the nation, DWP has more than 11,000 employees serving a 465-square-mile area ranging from the San Gabriel Mountains to the Pacific Ocean. It began municipal distribution of water in 1902 and electricity in 1916.

As a proprietary agency of the Los Angeles City government, the DWP receives no tax support. Its operations are financed entirely by the sale of water and electricity. Revenue bonds are its main source of external financing.

The DWP is administered by the Board of Water and Power Commissioners, whose five members are appointed by the Mayor and confirmed by the City Council for terms of five years. The Board establishes water and electric rates, subject to approval by the City Council.

DEPARTMENT OF WATER AND POWER

DANIEL W. WATERS
General Manager and Chief Engineer

ELDON A. COTTON
Assistant General Manager—Power

JAMES F. WICKSER
Assistant General Manager—Water

NORMAN L. BUEHRING
Assistant General Manager—External and Organizational Services

NORMAN J. POWERS
Chief Financial Officer

PRESERVING A DELICATE BALANCE

MANAGING THE RESOURCES THAT HAVE MADE LOS ANGELES ONE OF THE MOST PROSPEROUS AND ATTRACTIVE CITIES IN THE WORLD IS A CHALLENGE NEVER IMAGINED BY THE PIONEERS WHO SETTLED HERE 200 YEARS AGO. AS STEWARDS OF THE MOST VITAL OF THESE RESOURCES, THE DEPARTMENT OF WATER AND POWER TODAY FINDS ITSELF AT A CRITICAL CROSSROADS. ¶ AS THE CITY HAS MATURED INTO A MAJOR CENTER OF COMMERCE AND CULTURE ON THE PACIFIC RIM, ITS GROWING NEED FOR WATER AND ELECTRIC ENERGY HAS PLACED HEAVY DEMANDS ON THE RESOURCE BASE AND ECOSYSTEM OF THE SURROUNDING REGION. ¶ SOUTHERN CALIFORNIA'S WATER REQUIREMENTS SPAWNED MASSIVE AQUEDUCT SYSTEMS FROM THE SIERRA NEVADA AND THE SACRAMENTO DELTA. SUPPLEMENTED BY SUPPLIES FROM THE COLORADO RIVER AND LOCAL UNDERGROUND WELLS, THIS WATER BECAME OUR LIFE STREAM. ¶ MEANWHILE, THE CITY'S DEMAND FOR ELECTRICITY HAS REQUIRED US TO IMPORT POWER FROM THE PACIFIC NORTHWEST, UTAH, NEVADA AND ARIZONA. IN 1989, MORE THAN 5.5 MILLION TONS OF ARIZONA AND UTAH COAL WERE BURNED TO PROVIDE ELECTRICITY FOR THE PEOPLE OF LOS ANGELES. ¶ THE DWP HAS REDUCED IN-BASIN AIR EMISSIONS BY 90 PERCENT OVER THE LAST 20 YEARS, AND WILL CONTINUE TO IMPROVE AIR QUALITY IN THE FUTURE. ¶ BUT, MEETING THE NEEDS OF ITS CUSTOMERS AND PROTECTING THE NATURAL ENVIRONMENT HAS BECOME A GROWING CHALLENGE FOR THE MEN AND WOMEN WHO MANAGE THE NATION'S LARGEST PUBLICLY OWNED UTILITY. IT'S A BALANCING ACT WITH NOTHING LESS THAN OUR CITY'S WELL BEING AT STAKE. ¶ IN THE FOLLOWING PAGES, WE EXAMINE SEVERAL WAYS THE DWP, IN ITS 90TH YEAR OF OPERATION, MANAGES THE PRECIOUS HUMAN, ENVIRONMENTAL AND FINANCIAL RESOURCES THAT MAKE THIS ONE OF THE MOST VIBRANT CITIES IN THE WORLD.

DECAF
OR REGULAR?



Replacing an old refrigerator with a new high-efficiency model saves enough electricity in a year to brew more than 1,500 pots of coffee and toast 3,000 slices of bread.

TURNING THE CORNER ON ELECTRIC VEHICLES

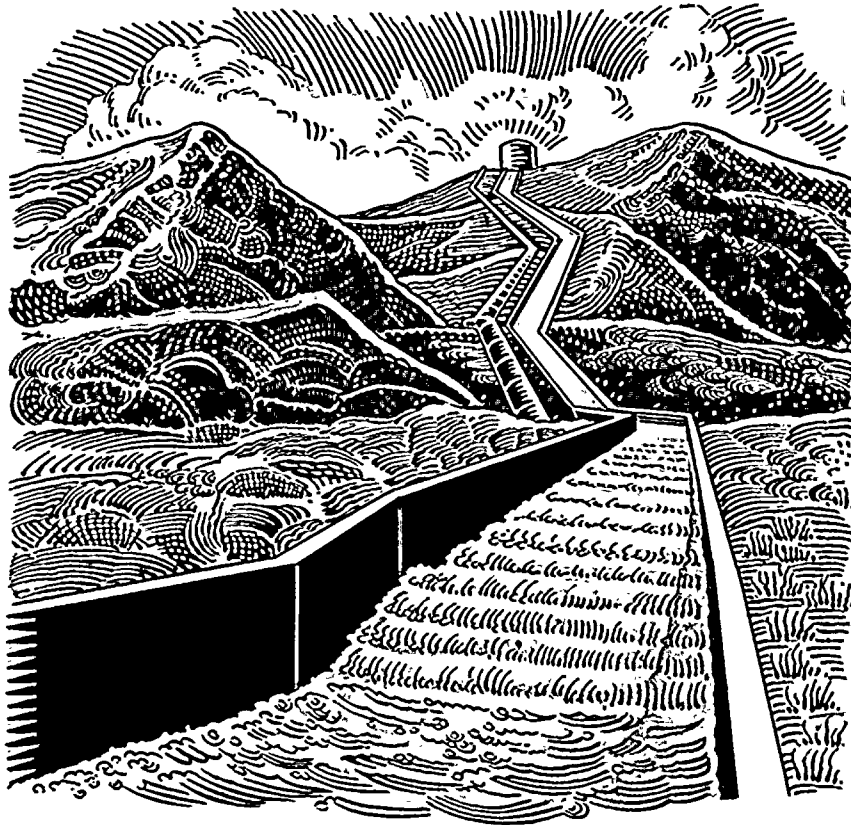
In the nearly 50 years since it was coined, the term "smog" has come to symbolize the darker side of life in Los Angeles. And, despite decades of rhetoric and good intentions, smog continues to blight the environment of this sunswept region. ¶ A corner in the war against air pollution may have been turned recently, however, when the South Coast Air Quality Management District (SCAQMD) issued a multiphase plan that included proposals to curb our reliance on gasoline-powered automobiles. ¶ Included in the plan was a call for increased use of electric vehicles in the Los Angeles Basin. The SCAQMD's target is to replace 70 percent of the gasoline vehicles in Southern California with electric (or other ultra-low-emission) vehicles by the year 2010—an ambitious schedule, supporters admit, but an achievable one. ¶ Fortunately, the Department of Water and Power—spurred by the Electric Vehicle Initiative fathered by Los Angeles City Councilman Marvin Braude—has already launched a major development program, in conjunction with Southern California Edison, that could hasten the arrival of electric vehicles in significant numbers by the year 2000. ¶ Over the next three years, the DWP will provide design and development funding of up to \$12 million to participants in the program. The resulting product will be production-ready vehicles with top speeds of 70 mph and an effective range of up to 150 miles. When they go into full-scale production in mid-1992, each vehicle will cost between \$20,000 and \$30,000. ¶ The plan is to have 10,000 electric automobiles, vans and trucks traveling the streets of Los Angeles by 1995, eliminating an estimated 1,350 tons of pollutants each year. Powering the vehicles will add only minimally to the city's electrical demand, since most will be recharged during off-peak hours. ¶ The best news for smog-sensitive commuters is that electric vehicles are 97 percent less polluting than conventional vehicles, even considering emissions from electric generating plants. ¶ Conventional wisdom has long held that Angelenos will be hard to wean from their dependence on gasoline. But the DWP and other supporters of the Electric Vehicle Initiative are betting that process will be easier than many "experts" think.

GETTING THE MOST FROM PEOPLE

With more than 11,000 employees, the DWP has one of the largest and most diverse work forces in Los Angeles. To make sure it is also one of the best in the industry, the Department aggressively pursues ways to help employees reach their full potential. ¶ Through employee development programs like "Investment in Excellence," the Department has involved several thousand people from throughout the organization in this process, with excellent results. ¶ Part of the ongoing effort to



ELECTRIC VEHICLES WILL FORM THE CORE OF A NEW FLEET OF
ALTERNATE-FUEL CARS AND VANS THAT IS EXPECTED TO MAKE UP
70 PERCENT OF THE TRAFFIC ON SOUTHERN CALIFORNIA STREETS AND
FREEWAYS BY THE YEAR 2010. THE DWP HAS BEEN A LEADER IN
THE DEVELOPMENT OF PRACTICAL AND ECONOMIC
ELECTRIC VEHICLES.



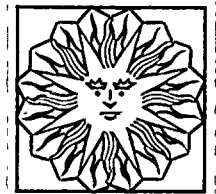
DWP EFFORTS TO ENCOURAGE ITS CUSTOMERS TO CONSERVE WATER
BROUGHT SIGNIFICANT RESULTS IN 1990, WHEN WATER USAGE IN
LOS ANGELES DROPPED AROUND 10 PERCENT. THE DEPARTMENT ALSO
STEPPED UP ITS DRIVE TO MAKE GREATER USE OF RECYCLED
WATER FOR IRRIGATION AND REPLENISHING UNDERGROUND
WATER TABLES.

maximize human resources focuses on DWP's top managers—the 285 men and women who must deal with rapid change in the utility industry and growing pressure on all industries to do more with less. One of the toughest changes they must manage is the work force itself—a blend of cultures, education, men and women, young and old, each with its own values and work style. ¶ For the past two years, these managers have been taking part in an innovative program aimed at strengthening their ability to share responsibility with staff as a means of promoting productivity, creativity and job satisfaction. Several factors distinguish DWP's management development program from most employee training activities. ¶ For one thing, it is peer directed. A subcommittee of middle managers, working with a representative of the Department's Human Resources Division, structures and designs the program, ensuring that their peers buy into the process. ¶ It is also competency-based, built around a core curriculum that zeroes in on the kind of training support managers need to become more effective leaders. ¶ The core course, covering nine days, addresses such topics as the changing work force, valuing diversity, interpersonal and group processes, conflict resolution and listening skills. The core curriculum is supplemented by presentations on significant issues and strategies by senior executives and support courses in such areas as information systems use and communication skills. ¶ Focus groups are another critical component, helping managers assess which ideas work for them and which do not and determining what techniques might be applied to get the most mileage from the training. ¶ A further benefit of the program is that it facilitates communication among managers from all divisions of the Department, fostering the feeling that they are part of a larger team working toward common goals. ¶ “I realize we all face the same challenges,” says Gloria Elgort, one of the participants. “I now have a better understanding of the power that goes with leadership and how important it is to delegate some of my decision-making responsibilities to the people who work with me.”

MAKING EVERY DROP COUNT

On April 1, 1990, the DWP received the official forecast of the snow runoff in the Sierra Nevada. The news was not encouraging: Los Angeles faced its fourth straight year of drought. Never since data collection began in 1935 had the city undergone so many consecutive years where the snowpack was less than 70 percent of normal. ¶ The prospect of yet another year of drought triggered an ambitious campaign to conserve the city's increasingly valuable water supply. A task force swung into action to come up with new programs that could be used in conjunction with existing ones to make a real impact on consumption. ¶ To spur residential conservation, the Department now offers

THE 1990 DROUGHT HOW BAD WAS IT?



Los Angeles got just seven inches of rain last year. The lowest annual total for the city was 4.08 inches in 1953. But it could be worse: The town of Bagdad, California once went for two years without a drop of precipitation.

I'LL WASH
YOU DRY

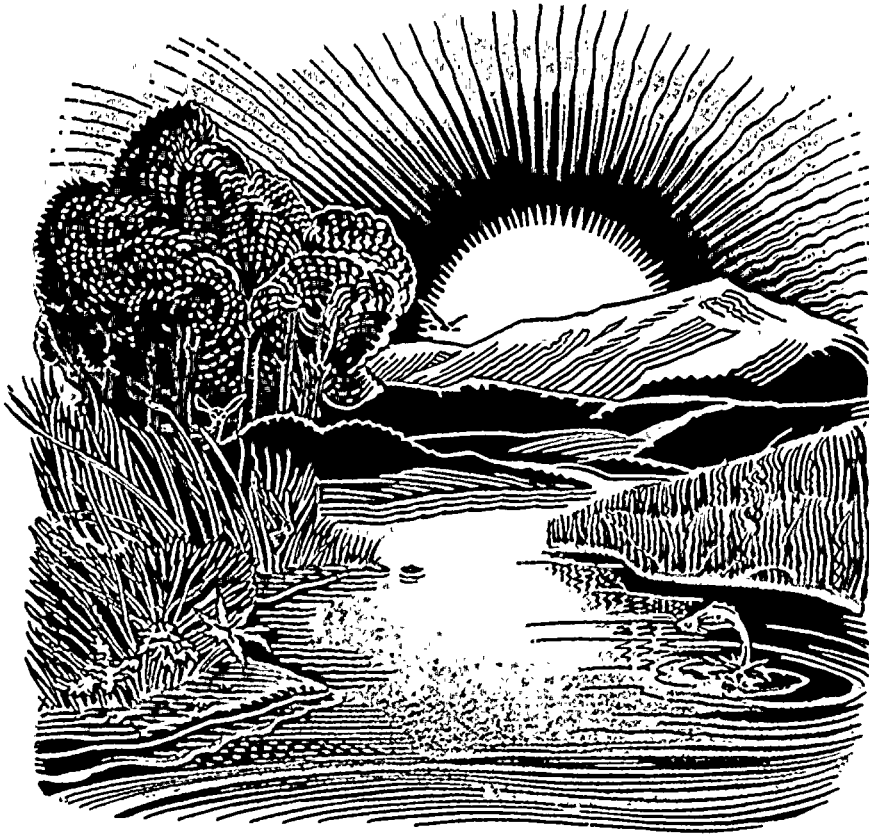


Air drying one dish-
washer load saves
enough electricity to run
a personal computer or
color television for
two hours.

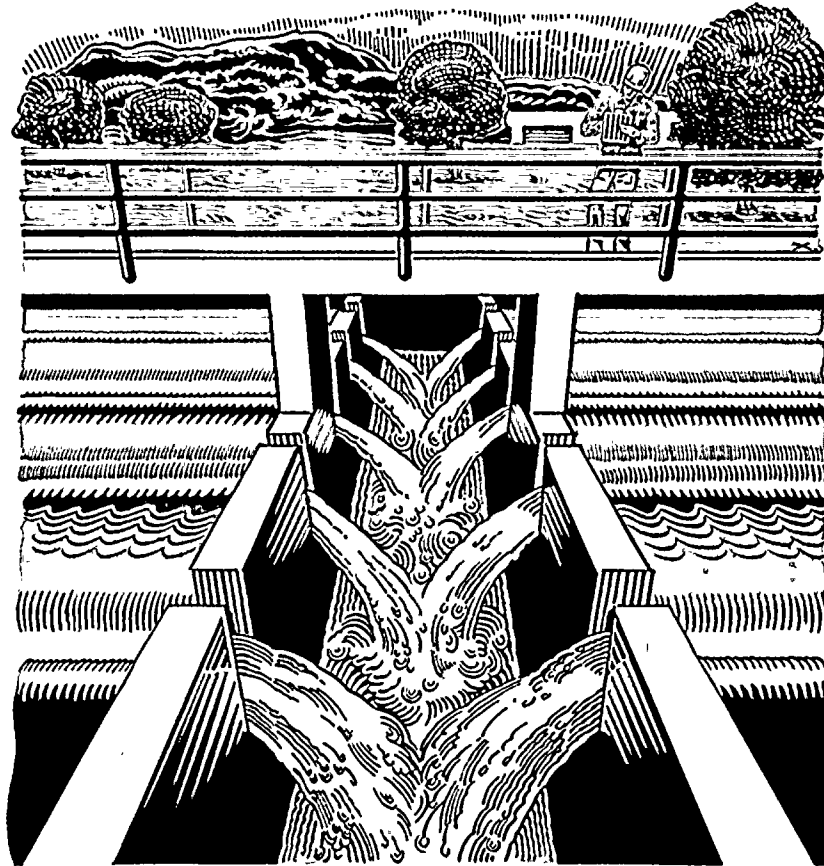
\$100 cash rebates for residential installations of ultra-low-flush toilets, home water surveys to boost efficiency, lawn-watering guides, conservation kits with low-flow shower heads and toilet-tank displacement bags, and low-interest loans for such water-saving devices as drip irrigation. More than 1.3 million low-flow shower heads have been distributed to our customers. ¶ Golf-course operators and other large-turf customers were trained on ways to irrigate more efficiently, while Water Conservation Advisory Committees are being set up for commercial and industrial users anxious to cut operating costs by reducing water consumption.

¶ Teams of "Drought Busters" trained in water conservation began touring the city in specially marked vehicles to spot waterwaste and convert wasters into savers. ¶ A \$2 million advertising campaign in major print and broadcast media, public information activities, a Conservation Hotline and a host of landscape water management efforts also contributed to a dramatic reduction in water use during the last three months of the 1989-90 fiscal year. ¶ "Our biggest challenge has been to create a water conservation program that gets results by changing people's habits, not their lifestyles," says George Martin, Director of Water Conservation. "We try to make people aware of the shortage, explain their stake in conservation and then support their efforts to cut back." ¶ As water supplies get tighter, the DWP also pushed ahead with plans to reclaim and recycle "used" water for irrigation, industry and recharging our underground reservoirs. It launched a two-year study at the Headworks Spreading Grounds near Griffith Park to assure that reclaimed water returned to the groundwater will always exceed health-based drinking water standards. ¶ Los Angeles moved closer to finalizing plans to use reclaimed water to irrigate 1,400 recreational acres in the Sepulveda Dam Basin, as well as supplying four large irrigation customers along the Ventura Freeway. ¶ "We have a strong commitment to make greater reuse of our water in the future," explains Steve Ott, Reclamation Coordinator. "There's real potential here, and we intend to take full advantage of it."

MANAGING A VITAL RESOURCE ¶ Probably no single natural asset is more important to the City of Los Angeles than the watershed of the Eastern Sierra Nevada. Without the mountain snowmelt that flows into Inyo and Mono Counties, the city we know could not exist. ¶ To protect this vital resource, which in normal years provides more than half the water supply for Los Angeles, the Department of Water and Power has an extensive watershed management program that allows for multiple uses of the 312,000-acres of city-owned land in the region. The Department's multiple use policy allows a variety of activities that are compatible with water quality protection. ¶ More than 240,000 acres of the city-owned



MULTIPLE USE AGREEMENTS ON DWP ACREAGE IN THE OWENS VALLEY
PERMIT FARMERS, CAMPERS, FISHERMEN AND HUNTERS TO SHARE
IN THE NATURAL BENEFITS OF THESE LANDS, WHILE PROTECTING
THE VITAL WATERSHED. MEANWHILE, A PLANT AND WILDLIFE
MONITORING PROGRAM ASSURES THE LONG-TERM SURVIVAL
OF THE ECOSYSTEM.



MAJOR INVESTMENTS IN A FILTRATION PLANT AND OTHER WATER
TREATMENT FACILITIES ASSURE CONTINUING HIGH QUALITY WATER
FOR DWP CUSTOMERS. STATE AND FEDERAL WATER QUALITY
REQUIREMENTS, WHICH ARE EXPECTED TO GET EVEN MORE
STRINGENT OVER THE NEXT DECADE, WILL REQUIRE FURTHER
INVESTMENT IN THE 1990s.

land are leased to ranchers for grazing cattle, with approximately 18,000 acres irrigated for pasture and alfalfa, which requires little use of fertilizers or pesticides.

¶ Land is also leased to government agencies and private parties for beneficial uses such as campgrounds, airports and scientific studies. While most DWP lands are open to the public for recreational use, camping is restricted to designated areas. ¶ A key feature of the DWP's management program is an ongoing inventory and monitoring of plant and wildlife in the area. Started in 1979, the inventory by a DWP team of botanists and wildlife biologists now includes more than 1,000 species of plants and animals carefully mapped across the 312,000-acre survey area. How and where these species thrive can indicate the condition and trend of the overall watershed. ¶ The DWP, working with the California Department of Fish and Game, has also developed a multitude of fish and wildlife programs on its lands. Under a cooperative agreement signed with Inyo County in 1985, some 18 enhancement/mitigation projects have been implemented in the Owens Valley.

¶ These projects range in scope from development of agricultural greenbelts to wildlife and waterfowl habitats and recreation, and are primarily aimed at beautifying the Valley and enhancing the local economy. ¶ As a member of the Inter-agency Committee on Owens Valley Land and Wildlife, the Department participates in a wide range of cooperative projects and programs to benefit the Owens Valley. ¶ How long do the DWP experts expect the Inyo/Mono watershed to provide its life-giving resource? "If we do our jobs," says one manager, "it will last forever."

QUALITY: THE NAME OF THE GAME

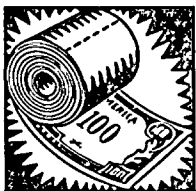
¶ The first thing Leonard Patton does when he begins his shift at the Los Angeles Aqueduct Filtration Plant control room is sit down at his computer and check all the critical functions at the state-of-the-art plant. ¶ For the next eight hours, he uses his computer system and telephone to monitor and direct nearly every phase of the operations designed to give the people of Los Angeles the best possible water. ¶ "I direct about 99 percent of the operations from the control room, which means I've got to pay attention every minute," says Patton. "It's a lot of responsibility, but I like the fact that we're turning out safe, clean water." ¶ The \$146 million Filtration Plant project, capable of treating 600 million gallons of water a day, is the cornerstone of the DWP's solid commitment to water quality. ¶ Water from the eastern Sierra—the city's primary source—travels as far as 338 miles along the Los Angeles Aqueduct before reaching the plant. Although the water is protected along the way to keep it free from contamination, the treatment process doesn't begin until the water enters the large filtration complex in Sylmar. ¶ With a flick of the wrist,

THE CHECK PLEASE



Declining a glass of water in a restaurant saves about eight ounces of water for drinking purposes, plus a gallon more to wash the glass.

THE \$100 SOLUTION



Flushing toilets is one of the biggest residential uses of water in Los Angeles. DWP rebates its customers \$100 for each standard toilet replaced with an ultra-low-flush model. The new toilets can cut water use for flushing by up to 75 percent.

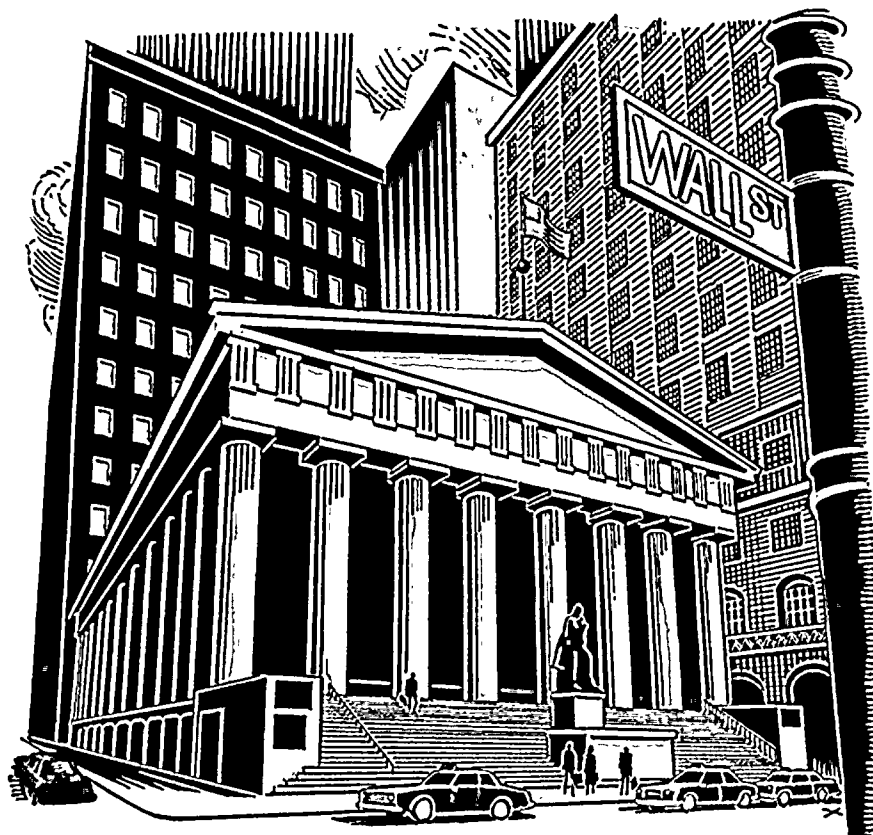
Patton and his fellow control room operators can tune in on the water's progress at any stage in the plant via computer and make necessary adjustments. ¶ They monitor the water through an elaborate treatment procedure that uses ozone gas as a primary disinfectant and then chlorine to provide lasting protection. Ozone is a powerful, quick-acting disinfectant that also improves taste, odor and color. ¶ Patton also tracks a variety of processes that reduce turbidity—a cloudy condition caused by fine, dust-like particles that might hinder disinfection. ¶ The complete run through the plant takes anywhere from 30 to 45 minutes, depending on the volume being processed, before the water is released to the DWP's distribution system. The process never stops. ¶ A few miles to the southeast, employees at the Department's North Hollywood Groundwater Treatment Facility also rely on advanced technology to ensure high quality in water from the underground basin of the San Fernando Valley. ¶ The tower uses an air stripping process to achieve sharp reductions in the levels of chemical contaminants like trichloroethylene in the water. The air evaporates the organic compounds, which are removed with carbon filters and properly disposed of. ¶ The two operations, along with well-trained and conscientious employees, make it possible for the DWP to supply water that is always better than all state and federal health-based requirements.

SETTING A GOOD EXAMPLE

Government is the potent, the omnipresent teacher," wrote Supreme Court Justice Louis Brandeis in 1928. "For good or for ill, it teaches the whole people by its example." ¶ In its efforts to encourage customers to save energy and water, the DWP has no more powerful resource at its disposal than its own record on conservation. ¶ For the past three years, the Department has promoted energy conservation through Cash Incentive Programs designed to encourage the installation of energy-efficient lighting and space conditioning systems. These allow more efficient use of existing generation sources and could help defer the need for additional generation capacity. ¶ Typical of the DWP's conservation emphasis is the planning for its new Anthony Office Building, now under construction in the San Fernando Valley. When completed in late 1991, the 315,000 square-foot structure will embody the latest in energy-saving technology, as well as a number of "user friendly" applications to make it a more productive workplace. ¶ For example, the building will be cooled using a thermal energy storage system that does most of its work during off-peak hours, using water that is chilled and stored overnight to cool the offices during daytime hours. Windows will be made of special glass that lets in maximum light with minimum heat. Lighting fixtures will be controlled automatically by detectors that measure natural light levels, turning the fixtures off when ambient light is sufficient. ¶ To conserve



USING DROUGHT - TOLERANT PLANTS IN LANDSCAPING HAS BECOME
POPULAR IN MANY WATER-SHORT AREAS OF THE SOUTHWESTERN U.S.
THE DWP PLANS TO INCORPORATE THIS TYPE OF LANDSCAPING AT
MANY OF ITS FACILITIES IN THE FUTURE, INCLUDING LOCAL
DISTRIBUTING STATIONS AND THE NEW ANTHONY OFFICE BUILDING.
THIS "XERISCAPE" LANDSCAPING CAN CUT WATER USE FOR IRRIGATION
BETWEEN 30 TO 60 PERCENT OVER THE LONG TERM.



MAINTAINING A SOLID DEBT RATING IS A MAJOR PRIORITY FOR THE DWP, WHICH FINANCES FUTURE GROWTH THROUGH REVENUE BONDS WHOSE INTEREST RATES ARE KEPT LOWER BECAUSE OF THE DEPARTMENT'S FINANCIAL STRENGTH. THIS HIGH RATING SAVES DWP RATEPAYERS MILLIONS OF DOLLARS A YEAR.

water, the 35-acre site will be landscaped with drought-resistant "native" plants, trees and groundcover—a concept known as "xeriscaping." Once these plants are established, they survive with virtually no irrigation other than rainfall. ¶ Workers at the Anthony Office Building will enjoy a number of other special benefits, including the most comprehensive child care facility of any public building in Los Angeles: up to 72 children will occupy the 7,000 square foot center. ¶ The building will conserve another critical resource—money. When it is complete, it will save the DWP more than \$1.5 million each year in rent on expensive downtown Los Angeles office space, while consolidating several key functions under one roof. ¶ Another example, so to speak, of setting a good example.

MASTERING THE MARKETS



Today's financial marketplace is a tough arena. Using computers and sophisticated communication links, traders can move millions of dollars across the globe with the flick of a finger. Complex financial products are packaged and marketed like designer jeans on exchanges that never close. ¶ To raise money for future construction programs, the Department of Water and Power must compete regularly in this fast-paced arena. In a single year, the DWP must manage (i.e., borrow, refinance or disburse) about \$3 billion, nearly as much money as the entire annual budget for the rest of the City of Los Angeles.

¶ This process requires a solid understanding of today's complicated financial markets, as well as the ability to manage risk. That DWP managers have mastered this process is reflected in the Department's high standing among financial analysts, who rate the DWP among the top credit risks of all public power agencies. ¶ This rating translates into lower costs of borrowing for the DWP and savings to Los Angeles ratepayers. Each tenth of a percentage point (0.001) in annual interest on the Department's \$2.2 billion in outstanding revenue bonds amounts to annual interest payments of \$2.2 million—about the cost of the DWP's new San Fernando Valley water aeration plant. ¶ Credit markets are monitored closely by DWP financial managers in an ongoing effort to lower borrowing costs, by refinancing higher-cost debt when interest rates decline. At the moment, the DWP is also exploring "hedging" strategies that could insulate it against sharp rate fluctuations, while still permitting it to capitalize on lower rates. ¶ A key element of DWP's financial management is keeping investment banks and analysts informed on Departmental activities that affect its financial strength and needs. Specialists from major U.S. financial centers are in frequent contact with DWP management, and make periodic visits to DWP for "on-the-spot" updates. ¶ These and other activities of the Finance and Accounting staff are designed to assure that its "owners," the ratepayers in Los Angeles, get the best return possible on their investment.

TIME OF YOUR LIGHT



Replacing a 100-watt incandescent light bulb with a fluorescent lamp saves enough power, in just the first hour of use, to run an electric clock for more than a month.

Extrême drought conditions persisted in the Southwestern U.S. for a fourth year during 1989-90, combining with prolonged warm weather in the Los Angeles Basin to put new strains on the city's water and electricity supply systems.

For the first time since it was completed in 1913, the Eastern Sierra watershed over the last two years has failed to provide at least half the water needs of the city, accounting for 47 percent of the city's needs in 1988-89 and only 30 percent in 1989-90. The 1989-90 flow was the lowest in 49 years.

Also contributing to the decline was a court-ordered cutoff of stream diversions to protect the ecosystem of Mono Lake, which normally provides up to 15 percent of the city's water.

The shortfall was made up through purchases of more expensive water from the Metropolitan Water District.

Low aqueduct water flow also affected electric power deliveries, with generation from aqueduct hydroelectric plants cut to 50 percent of normal. This deficit was made up through increased purchases of electricity from the Pacific Northwest, Arizona, Nevada and Utah.

Altogether, the DWP Water System supplied 208.9 billion gallons to some 643,400 customers, vs. 208.1 billion gallons for 640,572 customers in 1988-89. This represents a 0.72 percent drop in daily per capita water consumption from 181.2 gallons to 179.6 gallons for the 12 month period. But consumption during the last third of the fiscal year, following several months of a DWP-sponsored conservation campaign, was actually down by 10 percent.

Meanwhile, the Power System sold 21.8 thousand gigawatts (billion kilowatts) of electricity in 1989-90, vs. 21.4 thousand gigawatts the previous year. The System was serving 1,344,558 customers at the end of the 1989-90 fiscal year, up 1.5 percent from 1,325,282 customers on June 30, 1989.

In June 1990, Norman E. Nichols retired as General Manager and Chief Engineer after 33 years of service with the Department. Daniel W. Waters, Assistant General Manager—External and Organizational Services, was named general manager and chief engineer to replace him.

WATER SYSTEM HIGHLIGHTS

The city's water supply picture was clouded in 1989-90 by continued dry weather and adverse judicial decisions.

While water supplies appear adequate through the end of 1990, Mayor Bradley has called on customers to reduce water usage by 10 percent, to allow "banking" of supplies in case next year is also dry. Banking is achieved by increasing surface storage in Owens Valley reservoirs (chiefly Crowley Lake) and by reducing groundwater pumping from the San Fernando Valley.

With Phase I of the city's Emergency Water Conservation Ordinance in effect since April 1988, the Department initiated an array of programs to achieve the Mayor's goal. Largely voluntary, Phase I restricts uses such as hosing down driveways and requires recycling of water used in decorative fountains.

These and other voluntary efforts led to dramatic conservation efforts during the last quarter of the

fiscal year: a 12 percent reduction in April, 11 percent in May and 17 percent in June. The Department's goal is to instill a long-term conservation ethic.

Two court actions during the past year affected DWP water supplies from the Owens Valley and Mono Basin. An El Dorado County Superior Court, in June 1990, ordered the release of over 60,000 acre feet of water in four Mono Basin streams to re-establish fisheries that existed before the city began taking water from the Basin. Replacing the water from other sources will cost DWP customers about \$20 million a year.

The same court also began hearings to determine if an existing injunction prohibiting the city from taking water from the Mono Basin should continue. The injunction remains in effect until Mono Lake reaches 6,377 feet above sea level. As of June 30, 1990, the lake's level stood at 6,375 feet.

Following years of study and negotiation, the City of Los Angeles and Inyo County, in July 1989, agreed in principle on a long-term groundwater management plan for Owens Valley. The City and County are now jointly preparing an environmental impact report on the proposed plan. This milestone agreement, when finally approved, will resolve more than 18 years of controversy and litigation.

In August 1989, the city agreed to begin Phase III of a demonstration project aimed at controlling dust that rises around Owens Lake in high winds. The current \$2 million study includes construction of sprinklers to control the dust.

A severe storm in the Owens Valley on Aug. 8, 1989 caused flash flooding that caused about \$1.3 million in damage to a two-mile section of the Los Angeles Aqueduct near Olancha. DWP crews repaired the damage and returned the Aqueduct to full service within 11 days—four days ahead of schedule. Water service in Los Angeles was not affected.

Water quality, as well as supply, remained a high-priority item during the year. The Los Angeles Aqueduct Filtration Plant continued to discharge water with average turbidity more than five times better than current state standards.

Levels of trichloroethylene in the San Fernando Valley groundwater supply, meanwhile, were several times better than regulations allow. The Department began construction of a new demonstration plant to test a highly promising treatment process using ozone and hydrogen peroxide to remove organic chemicals from San Fernando Valley groundwater.

More than 435,000 feet of underground distribution lines in older parts of the city were lined with cement mortar as part of a long-term program to upgrade an aging infrastructure and further enhance water quality.

A major improvement project was launched at the North Hollywood Pumping Station to bring this facility up to seismic standards, increase groundwater utilization capability, improve water quality, reduce maintenance and generate hydroelectric power.

To position itself for the future, the System began developing a strategic plan, expected to be completed in mid-December. The plan will address the key issues of water supply, quality and customer service. The System also set up special task forces to deal with such priority concerns as drought planning, conservation and reclamation.

An across-the-board revenue increase of 6.5 percent went into effect April 1, 1990, six months beyond the planned implementation date. The average water bill in Los Angeles rose around \$1.25 per month in 1989-90 due to the revenue increase. Increased purchased water costs added another \$2.75.

In February 1990, Duane L. Georgeson retired as Assistant General Manager - Water, and was replaced by James F. Wickser, who had been Assistant Chief Engineer—Water.

WATER SYSTEM FACTS IN BRIEF

Year ended June 30	1990	1989
Use of Water		
Average Los Angeles population served	3,460,000	3,427,000
Average daily use per capita (gallons)	179.3	181.2
Water sales for fiscal year (billion gallons)	208.8	208.1
Maximum daily demand (million gallons)	835.7	833.1
Water Supply (in cubic feet per second)		
Local Supply (groundwater)	129.8	188.3
Los Angeles Aqueduct (Owens Valley/Mono Basin Supply)	284.4	417.5*
Metropolitan Water District (California and Colorado River Aqueducts)	545.5	352.3*
Gross Supply	959.7	958.1*
Diversion from local storage	00.0	2.0*
Net Supply to distribution systems	959.7	960.1*

*Adjusted year-end supply totals.

POWER SYSTEM HIGHLIGHTS

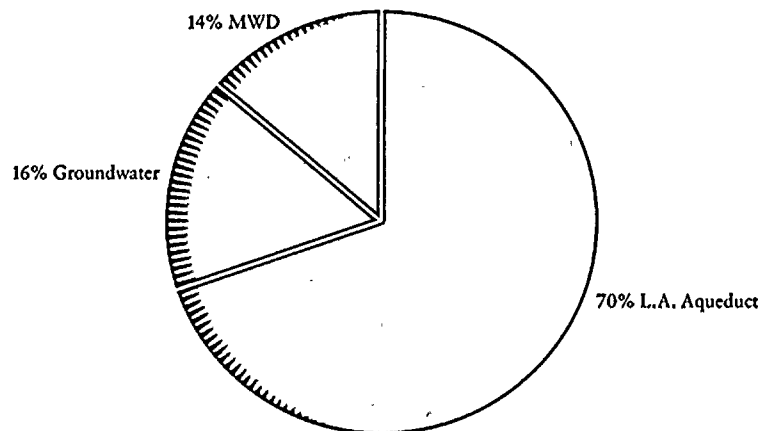
Increased emphasis on conservation, environmental protection and energy efficiency highlighted developments within the Power System during 1989-90. In addition, the System was called on to achieve higher performance levels, establishing new peak demand records on successive days during June 1990.

Responding to a continuing rise in demand and recognizing the constraints on development of new capacity, the Power System is placing increased emphasis on conservation efforts. In updating its Strategic Plan last year, the System incorporated several goals aimed at improving environmental performance.

Also, as part of the Department's management program for critical issues affecting operations, the Power System spearheaded the development of the initial action plan for the electric and magnetic fields (EMF) issue. The newly revised action plan will incorporate steps to address these issues over the next several years.

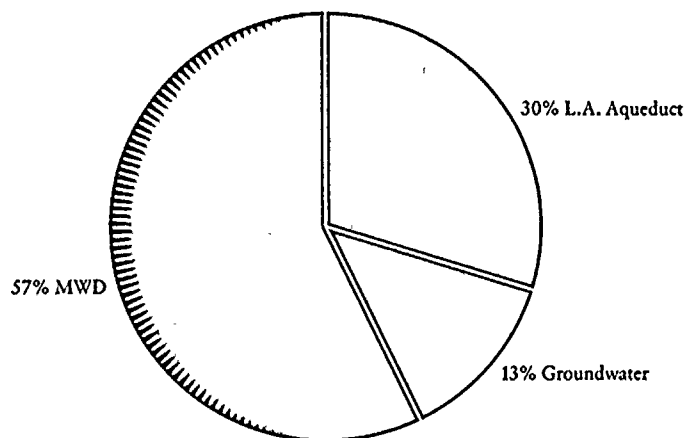
NORMAL YEAR SUPPLY

Based on Fiscal Years 1971-1990 Average

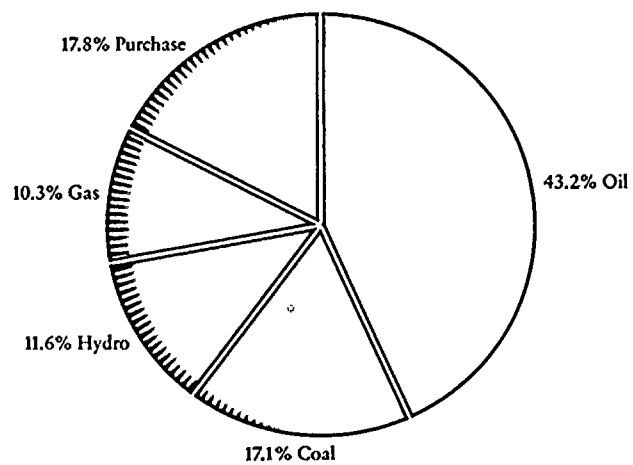


1990 SUPPLY

Based on Fiscal Year 1990 Average

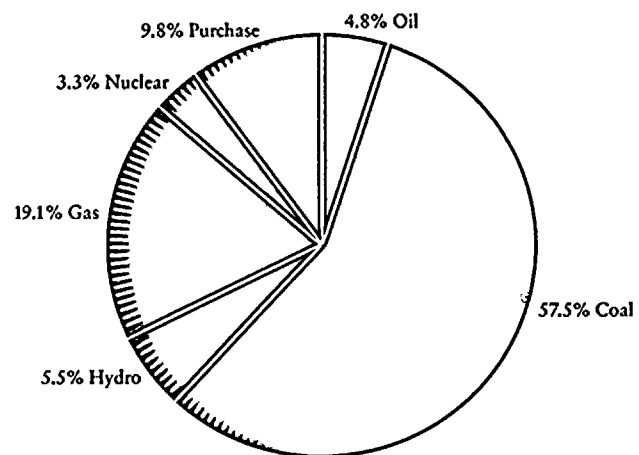


ENERGY MIX 1975



ENERGY MIX 1990

Data as of June 30, 1990



The Department's record in developing new generating capacity over the last decade has been notable for its environmental success, with the most recent DWP power projects incorporating latest emission control technology. For more than a decade, projects have been designed to avoid adverse environmental impacts, and unavoidable impacts have been mitigated. Sensitivity to ecological concerns will continue to be a hallmark of Power System activities during the 1990s.

Through public outreach efforts and internal programs, the Power System is pressing a number of energy efficiency and conservation programs:

- Major Account Group representatives work as partners with large customers to find efficient and environmentally positive ways to utilize electrical energy.

- Through literature distribution and public affairs programs, the Power System provided information on energy savings to all its customers in 1989-90, and continues to offer energy audits on request to homeowners, as well as commercial and industrial customers.

- The High-Efficiency Lighting Program continued to save commercial/industrial customers over \$5 million per year by encouraging conservation modifications to their existing lighting systems.

- The DWP's heat pump incentive program entered its fourth year, with some 14,000 units installed during 1989-90, bringing the total number installed since the program started to 36,500.

- In its program of repowering its Los Angeles Basin generating facilities, the System constantly seeks ways to decrease pollution and increase energy efficiency. Plans for repowering the Harbor Generating Station call for state-of-the-art controls that will reduce nitrous oxide (NOX) emissions from DWP facilities in the Basin by around 20 percent. The project will also use reclaimed water from a City wastewater treatment facility.

The Power System issued a request for proposals (RFP) for generating systems of up to 600 megawatts to come on-line between now and the year 2000. This RFP is designed to encourage development of smaller-scale alternatives, as well as conventional systems that will give the DWP greater diversity in generation resources.

In addition, the Power System has requested proposals for developing geothermal properties the DWP leased from the Federal government in the early 1980s. Initial development will begin in 1994, with power production expected to start in the late 1990s. Between 100 and 150 megawatts will be produced.

Air quality concerns and the prospect of tighter regulations have spurred efforts by the DWP to encourage development of efficient, cost-effective electric vehicles (see page 10). The Power System is also involved in an associated project aimed at developing electrified roadway technology, in which current carried by cables in the pavement recharges vehicle batteries.

In a joint venture with Southern California Edison, the DWP will fund construction and testing of a section of electrified roadway in the Playa Vista area. Testing could begin in late 1990.

Despite slight increases in electric demand in Los Angeles last year, the System was able to meet needs without purchasing additional capacity. This was possible because the DWP has invested in facilities that give Los Angeles access to power from areas of the Western United States and Canada. The Department estimates it will need approximately 1,700 megawatts of additional capacity by the year 2010.

All previous peak power demand records were exceeded on June 26 and 27, 1990, when downtown Los Angeles temperatures reached 112 and 109 degrees, respectively. The 5,137 megawatts delivered on the 26th and 5,312 megawatts on the 27th surpassed the previous high of 4,774 megawatts set in 1989.

DWP's overall power capacity on June 30, 1990, was 7,104 megawatts, 0.15 percent above the prior year.

POWER SYSTEM FACTS IN BRIEF

Year ended June 30	1990	1989
Power Use		
Residential customers	1,151,820	1,135,017
Commercial customers	170,755	168,031
Industrial customers	19,098	19,370
All others	2,885	2,864
Total customers—all classes	1,344,558	1,325,282
Sales to ultimate customers—kilowatt hours	21,321,441,000	21,460,324,000
Sales to other utilities—kW hours	442,449,000	437,311,000
Average annual kW-hours per residential customer	5,084	5,181
Net dependable capability, kilowatts	7,249,000	7,280,000*

*Includes purchased capacity; does not deduct short-term sales of excess capacity.

EXTERNAL AND ORGANIZATIONAL SERVICES

EOS made notable strides in improving the Department's performance in the areas of customer service, human resource management and community outreach during 1989-90.

In keeping with its commitment to improved customer service, the Telephone Service Center went to round-the-clock operation in March, allowing customers to call with questions or service problems at any time. The Department also geared up to offer Saturday service, from 8 a.m. to 3 p.m., to turn on water and electricity. The new program went into effect July 1.

The DWP continued its progress in furthering employment opportunities for women and minorities, particularly at management levels. Among the top 150 positions in the DWP, more than 40 percent are now held by minority and/or female employees.

The changing work force prompted expansion of the DWP's nationally recognized child care program. Plans were initiated to incorporate a child care center at the DWP's downtown headquarters building, and the Department's Anthony Office Building in Sun Valley will include facilities to care for 72 children. Some 2,000 employees—about 40 percent male—now benefit from DWP's child care services.

Wellness programs provided health information, as well as 1,800 blood pressure and cholesterol tests for employees. These tests avert potential health problems and contribute to employee productivity.

Approximately 200 employees took part in follow-up sessions for the Commercial Division's "Investment in Excellence" program, which emphasizes team-building as a means of strengthening performance and morale. More than 4,000 employees have participated in the seminar program.

DWP's strong emphasis on safety resulted in further reductions in the number of serious injuries and lost workdays during 1989. Serious injuries declined by 36 percent from the previous year, while lost workdays due to injury dropped 26 percent. The Department has achieved a 64 percent reduction in serious injuries over the last decade.

The continuing drought has increased the need for effective community outreach programs, and the Department responded with a number of initiatives in this area. A \$2 million water conservation advertising campaign in major print and broadcast media was one of the efforts undertaken.

DWP education programs, emphasizing conservation and water quality, reached 100,000 students and 3,000 teachers at all grade levels in some 400 DWP service area schools during 1989-1990.

New educational programs were conducted starting in January 1990 to teach elementary school children about electric safety, electric generation, air quality, water quality and water conservation. The programs featuring theatrical presentations of "Flash Batterypack and His Magic Machine," and "Alice in Waterland" were presented to an estimated 50,000 pupils. In addition, the Department's continuing year-round electric safety program was presented to an estimated 10,500 children.

Advances in computer technology helped DWP employees work smarter and faster during the year. The Department moved ahead in its program to provide user-friendly access to business and control systems information throughout the organization. The ultimate goal is to integrate stand-alone computers in the DWP system, including personal computers, into a single network.

A new records management system went on line during the year, making it easier for employees to catalog, store, access and use documents. As documents are transferred to microfilm, the need for storage space diminishes and storage costs are reduced.

Recycling activities took on increased importance in 1989-90. The Department disposes of much of its surplus metals, meters, paper, tires and batteries through dealers who ship the scrap to overseas manufacturers, where most of it is recycled. More than 11 million pounds of these salvageable materials, including 3,500 discarded transformers, were sold to recyclers by the DWP in 1989-90. Revenues from such sales are expected to exceed \$4 million in 1990.

To build a framework for the future, the Department has established an Issues Management Program, identifying the most critical issues it faces in the years ahead and is developing action plans to better understand and manage those issues. The four high-priority issues are air quality, water quality, electric and magnetic fields (EMF) and the changing work force.

1989—1990 FINANCIAL STATEMENTS

THE WATER SYSTEM

Statement of Income

Statement of Retained Income Reinvested

in the Business

Balance Sheet

Statement of Cash Flows

Notes to Financial Statements

THE POWER SYSTEM

Statement of Income

Statement of Retained Income Reinvested

in the Business

Balance Sheet

Statement of Cash Flows

Notes to Financial Statements

FINANCIAL REVIEW

Operations for fiscal year 1989-90 resulted in a decrease of .5 percent in sales of electric energy and a .3 percent increase in water sales.

Operating revenues of the Department's Water and Power Systems totaled more than \$2.2 billion, a gain of \$182 million over the previous fiscal year. The Power System accounted for \$134 million of the increase, primarily due to higher energy costs billed to customers. The Water System added \$48 million to the total, mostly from higher purchased water and energy costs billed to customers, the increase in sales mentioned above and the effect of the April 1990 revenue increase of 6.5 percent.

The operating revenue of the Water System increased by 16% from 1988-89 to a total of \$348 million. Net income amounted to \$63 million, or 48 percent above the \$42 million in the previous fiscal year.

A total of \$113 million was spent by the Water System on capital construction, most of which went toward the improvement of the water distribution and supply system, as well as water quality programs.

Higher Power System operating revenues, offset by increases in operating and debt expenses, resulted in net income of \$156 million, down 19 percent from prior year's total of \$193 million.

The Power System invested \$360 million in capital construction for the year. Major expenditures were additions and modifications to the electrical distribution, generation and transmission facilities.

Total assets of the Department at June 30, 1990, were approximately \$5.9 billion. Of this amount, \$4.4 billion was recorded in the Power System and the remainder in the Water System.

FINANCING ACTIVITIES

During the year, the Power System sold two issues of revenue bonds in the aggregate amount of \$250 million. The initial \$150 million revenue bonds were sold at the interest rate of 6.97 percent, while the subsequent \$100 million revenue bonds were sold at the interest rate of 7.17 percent.

Outstanding bonds, notes and revenue certificates at June 30, 1990, totaled \$1.94 billion for the Power System and \$380 million for the Water System. Both systems met their maturing payments on bonds and notes.

COSTS AND TRANSFERS

In accordance with its basic fiscal policy, the Department pays all costs of operation, debt service and part of the cost of capital improvements from current revenues. The remainder of the cost of capital improvements is met through sales of revenue bonds or notes and from contributions in aid of construction.

Besides meeting all costs of operation from current revenues, the Department paid \$101 million into the reserve fund of the City in support of general City government.

More than 85 percent of that amount came from the Power Revenue Fund. Operations of the Water and Power Systems are entirely self-supporting and no financial obligation or tax burden is placed on the citizens of Los Angeles.

REPORT OF MANAGEMENT

The management of the Department of Water and Power of the City of Los Angeles is responsible for the integrity of the financial statements and the other related financial data contained in this Annual Report. The financial statements and accompanying footnotes which follow were prepared by the Department in accordance with generally accepted accounting principles applied on a consistent basis. Where necessary, the financial information provided in this report include amounts based on the best estimates and judgments of management.

The Department maintains a system of internal accounting control that is delineated to provide reasonable assurance that assets are safeguarded from loss or unauthorized use and that the pecuniary records properly reflect the authorized transactions of the Department. This system is supported by written policies and procedures, organization structures that assign appropriate division of responsibility, the selection and training of qualified personnel and is augmented by programs of internal audits. Management recognizes that there are inherent limitations in the effectiveness of any internal control system based upon the recognition that the cost of such systems should not exceed the benefits to be derived. The Department believes that its system of internal accounting control appropriately balances this cost-benefit relationship.

The Department's financial statements have been audited by Price Waterhouse and Simpson & Simpson, Certified Public Accountants, in accordance with generally accepted auditing standards. Their audit included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Additionally, the independent accountants review the Department's quarterly financial information. A review is substantially less in scope than an audit in accordance with generally accepted auditing standards and, accordingly, the independent accountants do not express an opinion on the quarterly financial information. The independent accountants meet regularly with management to discuss their audit and their findings as to the integrity of the financial statements and the adequacy of the internal controls.

The Board of Water and Power Commissioners is responsible for reviewing the Department's financial reports and monitoring accounting practices. The Board, composed of commissioners who are not officers or employees of the Department, receives and reviews the reports submitted by the independent accountants.

WATER SYSTEM STATEMENT OF INCOME

(In Thousands)	Year ended June 30	1990	1989	1988
Operating Revenues				
Residential		\$125,470	\$110,069	\$ 94,525
Commercial and industrial		191,236	166,558	142,456
Other		31,450	23,621	20,051
Total operating revenues		<u>348,156</u>	<u>300,248</u>	<u>257,032</u>
Operating Expenses				
Purchased water		71,814	44,988	31,072
Purchased energy		12,962	12,991	11,613
Other operating expenses		105,725	109,627	95,443
Maintenance		39,849	38,424	34,243
Depreciation		35,270	32,814	30,584
Total operating expenses		<u>265,620</u>	<u>238,844</u>	<u>202,955</u>
Operating Income		82,536	61,404	54,077
Other Income and Expenses, Net		<u>6,428</u>	<u>6,477</u>	<u>2,685</u>
Income before debt expenses		<u>88,964</u>	<u>67,881</u>	<u>56,762</u>
Debt Expenses				
Interest on debt		28,578	27,556	23,749
Allowance for borrowed funds used during construction		(2,196)	(2,006)	(1,380)
Total debt expenses		<u>26,382</u>	<u>25,550</u>	<u>22,369</u>
Net Income		<u>\$ 62,582</u>	<u>\$ 42,331</u>	<u>\$ 34,393</u>

STATEMENT OF RETAINED INCOME REINVESTED IN THE BUSINESS

(In Thousands)	Year ended June 30	1990	1989	1988
Balance at beginning of year		\$493,979	\$464,500	\$442,526
Net income for the year		<u>62,582</u>	<u>42,331</u>	<u>34,393</u>
		556,561	506,831	476,919
Less—Payments to the reserve fund of the City		<u>15,012</u>	<u>12,852</u>	<u>12,419</u>
Balance at end of year		<u>\$541,549</u>	<u>\$493,979</u>	<u>\$464,500</u>

The accompanying notes are an integral part of these financial statements.

WATER SYSTEM BALANCE SHEET

(In Thousands)

June 30

1990

1989

Assets

Utility Plant, at original cost

Source of water supply

\$ 244,792 \$ 243,355

Pumping

56,229 53,499

Purification

146,754 139,947

Distribution

1,208,083 1,105,323

General

126,030 122,252

1,781,888 1,664,376

Less—Accumulated depreciation

577,678 542,259

1,204,210 1,122,117

Construction work in progress

77,879 79,947

Net utility plant

1,282,089 1,202,064

Current Assets

Cash and investments

71,878 89,091

Customer and other accounts receivable

58,384 54,166

Accrued unbilled revenue

21,605 29,056

Materials and supplies, at average cost

20,259 16,112

Prepayments and other current assets

9,574 11,539

Total current assets

181,700 199,964

Total utility plant and assets

\$1,463,789 \$1,402,028

Capitalization and Liabilities

Capitalization

Equity

Retained income reinvested in the business

\$ 541,549 \$ 493,979

Contributions in aid of construction

410,378 376,599

951,927 870,578

Long-term debt

367,477 379,724

Total capitalization

1,319,404 1,250,302

Current Liabilities

Long-term debt due within one year

12,460 20,180

Accrued interest

8,270 9,432

Accounts payable and accrued expenses

83,501 83,472

Customer deposits

40,154 38,642

Total current liabilities

144,385 151,726

Commitments and Contingencies

Total capitalization and liabilities

\$1,463,789 \$1,402,028

The accompanying notes are an integral part of these financial statements.

WATER SYSTEM STATEMENT OF CASH FLOWS

(In Thousands)	Year ended June 30	1990	1989	1988
Cash Flows From Operating Activities:				
Net income		\$ 62,582	\$ 42,331	\$ 34,393
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation		35,270	32,814	30,584
Allowance for borrowed funds used during construction		(2,196)	(2,006)	(1,380)
Changes in current assets and liabilities:				
Customer and other accounts receivable		(4,218)	606	(9,252)
Accrued unbilled revenue		7,451	(7,385)	3,983
Materials and supplies		(4,147)	(623)	(999)
Prepayments and other current assets		1,965	3,367	(65)
Accrued interest		(1,162)	1,680	1,287
Accounts payable and accrued expenses		29	13,928	97
Customer deposits		1,512	2,830	1,571
Net cash provided by operating activities		<u>97,086</u>	<u>87,542</u>	<u>60,219</u>
Cash Flows From Financing Activities:				
Sale of revenue bonds		—	49,500	84,626
Sale of advance refunding bonds		36,598	—	—
Contributions in aid of construction		33,779	18,770	31,878
Reduction of long-term debt		(19,967)	(20,054)	(19,327)
Amount deposited in escrow accounts and offset against advance refunding bonds		(36,598)	—	—
Payments to the reserve fund of the City		(15,012)	(12,852)	(12,419)
Net cash provided by (used in) financing activities		<u>(1,200)</u>	<u>35,364</u>	<u>84,758</u>
Cash Flows From Investing Activities:				
Expenditures for plant and equipment		<u>(113,099)</u>	<u>(118,144)</u>	<u>(97,784)</u>
Cash and Investments:				
Net increase (decrease)		(17,213)	4,762	47,193
Beginning of year		<u>89,091</u>	<u>84,329</u>	<u>37,136</u>
End of year		<u>\$ 71,878</u>	<u>\$ 89,091</u>	<u>\$ 84,329</u>
Supplemental disclosure of cash flow information:				
Cash paid during the year for interest		<u>\$ 36,799</u>	<u>\$ 32,223</u>	<u>\$ 28,820</u>

The accompanying notes are an integral part of these financial statements.

WATER SYSTEM NOTES TO FINANCIAL STATEMENTS

Note A—Summary of Significant Accounting Policies

The Department—The Department of Water and Power of the City of Los Angeles exists under and by virtue of the City Charter enacted in 1925 as a separate proprietary agency of the City. The Water System is responsible for the quality and distribution of water for sale in the City.

Financial statement presentation—The financial statements of the Water System are presented in conformity with generally accepted accounting principles. The financial statements are substantially in conformity with the uniform system of accounts prescribed by the California Public Utilities Commission except for the method of accounting for contributions in aid of construction described below. The Department is not subject to regulations of such commission.

Utility plant—The costs of additions to utility plant and replacements of retired units of property are capitalized. Costs include labor, materials and allocated indirect charges such as engineering, supervision, transportation and construction equipment, retirement plan contributions, and certain administrative and general expenses. The costs of repairs and minor replacements are charged to appropriate maintenance accounts. The original cost of property retired, plus removal cost, less salvage, is charged to accumulated depreciation.

Depreciation—Depreciation expense is computed by the straight-line method based on estimated service lives. Depreciation provision as a percentage of average depreciable utility plant in service was 2.5%, 2.5%, 2.4% for fiscal years 1990, 1989 and 1988, respectively.

Cash and investments—The Department's cash is deposited with the City Treasurer who invests the funds in securities under the City Treasurer's pooled investment program, whereby available funds of the City and its independent operating departments are invested on a combined basis. These investments are valued at cost, which approximates market.

Contributions in aid of construction—Under the provisions of the City Charter, amounts received from customers and others for constructing utility plant are combined with retained income reinvested in the business to represent equity for purposes of computing the Water System's borrowing limits. Accordingly, contributions in aid of construction are shown in the accompanying balance sheet as an equity account and are not offset against utility plant.

Revenues—Revenues consist of billings to customers for water consumption and include amounts resulting from a purchased water and energy cost adjustment formula designed to permit the full recovery of purchased water and energy costs. The Department projects these costs to establish the cost recovery component of customer billings and any difference between billed and actual costs, resulting in over- or under-recovery of purchased water and energy costs, is adjusted in subsequent billings.

The Water System recognizes purchased water and energy costs in the period incurred and accrues for estimated unbilled revenues for water sold but not billed at the end of a fiscal year.

The Water System's rates are established by a rate ordinance which is approved by the City Council. The Water System sells water to other Departments of the City at regular rates provided in the ordinance.

Debt expenses—Debt premium, discount and issue expenses are deferred and amortized to expense over the lives of the related issues.

Allowance for funds used during construction (AFUDC)—AFUDC represents the cost of borrowed funds used for the construction of utility plant. Capitalized AFUDC is shown as part of the cost of utility plant and as a reduction of debt expenses. The average AFUDC rates were 7.8%, 8.1% and 8.4% for fiscal years 1990, 1989 and 1988, respectively.

Note B—Long-Term Debt

Long-term debt outstanding at June 30, 1990, consisted of revenue bonds due serially in varying annual amounts through 2028. Interest rates, which vary among individual maturities, averaged approximately 7.2% and 7.4% at June 30, 1990 and 1989, respectively. The revenue bonds generally are callable ten years after issuance. Scheduled annual principal maturities during the five years succeeding June 30, 1990 are \$12 million, \$12 million, \$13 million, \$13 million and \$13 million, respectively.

In fiscal year 1990, the Water System sold advance refunding bonds totaling \$37 million, which decreased its aggregate debt service payments by \$10 million over the next 42 years and resulted in an economic gain (difference between the present values of the old and new debt service payments) of \$4 million. Until the bonds to be refunded are called, interest on the advance refunding bonds is payable from interest earned on securities of the United States government purchased out of the proceeds of the sales and held in escrow accounts with Security Pacific National Bank, Los Angeles and Citibank, N.A., New York. At June 30, 1990, \$122 million of these escrow accounts have been offset against the advance refunding bonds in the accompanying balance sheet (during fiscal year 1990 there were no refunded bonds redeemed). After the monies in the escrow accounts are applied to redeem the bonds to be called, principally through 1995, interest on the advance refunding bonds will be payable from Water System revenues.

Note C—Shared Operating Expenses

The Water System shares certain administrative functions with the Department's Power System. Generally, the costs of these functions are allocated on the basis of benefits provided to the Systems.

Operating expenses shared with the Power System were \$275 million, \$251 million and \$256 million for fiscal years 1990, 1989 and 1988, respectively, of which \$89 million, \$85 million and \$89 million were allocated to the Water System. The inter-fund transactions resulted in a net amount of \$17 million and \$22 million included in the Water System accounts receivable at June 30, 1990 and 1989, respectively.

Note D—Employee Benefits

Retirement, disability and death benefit insurance plan—The Department has a funded contributory retirement, disability and death benefit insurance plan covering substantially all of its employees. Plan benefits are generally based on years of service, age at retirement and the employees' highest 12 consecutive months of salary before retirement. The Department funds retirement plan costs on a level premium actuarial method as determined by the plan's independent actuary. For funding purposes, prior service costs relating to the plan are amortized generally over a 30-year period ending June 30, 2003. Total benefit plan costs for fiscal years 1990, 1989 and 1988 for the Water System include the following (amounts in millions):

	1990	1989	1988
Service cost	\$12	\$10	\$11
Interest cost	40	41	38
Actual return on plan assets	(41)	(61)	(10)
Net amortization and deferral	<u>14</u>	<u>39</u>	<u>(11)</u>
Net retirement plan cost	25	29	28
Disability and death benefit plan costs and administrative expenses	<u>5</u>	<u>5</u>	<u>4</u>
Total benefit plan costs	<u>\$30</u>	<u>\$34</u>	<u>\$32</u>

WATER SYSTEM NOTES TO FINANCIAL STATEMENTS

The following schedule reconciles the funded status of the plan with amounts reported in the financial statements (amounts in millions):

	June 30, 1990	June 30, 1989
Actuarial present value of benefit obligations:		
Vested benefits	\$484	\$481
Non-vested benefits	<u>—</u>	<u>1</u>
Accumulated benefit obligation	484	482
Projected future compensation level	<u>88</u>	<u>95</u>
Projected benefit obligation	572	577
Plan assets at fair value	<u>476</u>	<u>432</u>
Projected benefit obligation in excess of plan assets	96	145
Unrecognized net gain and effects of changes in assumptions	12	(26)
Unrecognized net obligation at July 1, 1987 being recognized over 15 years	<u>(86)</u>	<u>(94)</u>
Accrued pension liability	<u>\$ 22</u>	<u>\$ 25</u>

The discount rate used in determining the plan's projected benefit obligation increased from 7.75% in fiscal year 1989 to 8.0% in fiscal year 1990. The assumed rate of increase in future compensation levels was 6.0% in both years. The long-term rate of return on plan assets was 8.0% in both 1990 and 1989. Plan assets consists primarily of corporate and government bonds, common stocks, mortgage-backed securities and short-term investments.

Health care costs—In addition to the retirement plan, the Department provides certain health care benefits to active employees. The cost of providing such benefits to active employees amounted to \$8 million, \$7 million and \$6 million for fiscal years 1990, 1989 and 1988, respectively. The costs of providing these benefits are accounted for on the pay-as-you-go method.

Other post-employment benefits—Health care and life insurance are provided to retired employees and their dependents. The cost of providing such benefits to retired employees amounted to \$3 million, \$2 million and \$3 million for fiscal years 1990, 1989 and 1988, respectively. The costs of providing these benefits are accounted for on the pay-as-you-go method.

Note E—Commitments and Contingencies

Payments to the reserve fund of the City—Under the provisions of the City Charter, the Water System transfers funds at its discretion to the reserve fund of the City. Such payments are not in lieu of taxes and are recorded as distributions of retained income. The Department expects to make payments of \$17 million in fiscal year 1991 from the Water System to the reserve fund of the City.

Litigation—A number of claims and suits are pending against the Department for alleged damages to persons and property and for other alleged liabilities arising out of its operations. In the opinion of management, any ultimate liability which may arise from these actions will not materially affect the Water System's financial position as of June 30, 1990.

REPORT OF INDEPENDENT ACCOUNTANTS

August 27, 1990

To the Board of Water and Power Commissioners
Department of Water and Power
City of Los Angeles

In our opinion, the accompanying balance sheet and the related statements of income, retained income reinvested in the business and cash flows present fairly, in all material respects, the financial position of the Water System of the Department of Water and Power of the City of Los Angeles at June 30, 1990 and 1989, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 1990, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Department's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

Price Waterhouse
Simpson ; Simpson

POWER SYSTEM
STATEMENT OF INCOME

(In Thousands)	Year ended June 30	1990	1989	1988
Operating Revenues				
Residential		\$ 519,339	\$ 484,591	\$ 430,696
Commercial and industrial		1,251,296	1,162,027	1,085,557
Other		79,258	69,703	53,775
Total operating revenues		<u>1,849,893</u>	<u>1,716,321</u>	<u>1,570,028</u>
Operating Expenses				
Fuel for generation		247,592	253,576	228,499
Purchased power		647,585	534,462	470,957
Other operating expenses		392,202	364,394	339,219
Maintenance		168,481	148,742	153,062
Depreciation		139,031	136,954	124,004
Total operating expenses		<u>1,594,891</u>	<u>1,438,128</u>	<u>1,315,741</u>
Operating Income		255,002	278,193	254,287
Other Income and Expenses, Net		16,835	18,257	18,037
Income before debt expenses		<u>271,837</u>	<u>296,450</u>	<u>272,324</u>
Debt Expenses				
Interest on debt		118,128	110,289	102,437
Allowance for borrowed funds used during construction		(2,757)	(7,268)	(5,674)
Total debt expenses		<u>115,371</u>	<u>103,021</u>	<u>96,763</u>
Net Income		<u>\$ 156,466</u>	<u>\$ 193,429</u>	<u>\$ 175,561</u>

STATEMENT OF RETAINED INCOME REINVESTED IN THE BUSINESS

(In Thousands)	Year ended June 30	1990	1989	1988
Balance at beginning of year		\$1,900,628	\$1,785,701	\$1,680,322
Net income for the year		156,466	193,429	175,561
		<u>2,057,094</u>	<u>1,979,130</u>	<u>1,855,883</u>
Less—Payments to the reserve fund of the City		85,818	78,502	70,182
Balance at end of year		<u>\$1,971,276</u>	<u>\$1,900,628</u>	<u>\$1,785,701</u>

The accompanying notes are an integral part of these financial statements.

POWER SYSTEM BALANCE SHEET

(In Thousands)	June 30	1990	1989
Assets			
Utility Plant, at original cost			
Production	\$1,795,244	\$1,756,070	
Transmission	659,553	641,473	
Distribution	2,225,202	2,005,735	
General	374,715	320,030	
	<u>5,054,714</u>	<u>4,723,308</u>	
Less—Accumulated depreciation	1,574,733	1,458,485	
	<u>3,479,981</u>	<u>3,264,823</u>	
Construction work in progress	244,412	241,729	
Nuclear fuel, at amortized cost	20,401	17,385	
Net utility plant	<u>3,744,794</u>	<u>3,523,937</u>	
Current Assets			
Cash and investments	125,506	143,183	
Customer and other accounts receivable, less \$3,400 and \$2,400 allowance for losses	187,242	169,084	
Receivable from Intermountain Power Agency	64,556	49,573	
Accrued unbilled revenue	109,911	94,576	
Materials and supplies, at average cost	105,063	85,061	
Fuel inventory	59,338	60,721	
Prepayments and other current assets	15,521	27,663	
Total current assets	<u>667,137</u>	<u>629,861</u>	
Total utility plant and assets	<u>\$4,411,931</u>	<u>\$4,153,798</u>	
Capitalization and Liabilities			
Capitalization			
Equity			
Retained income reinvested in the business	\$1,971,276	\$1,900,628	
Contributions in aid of construction	135,213	123,041	
	<u>2,106,489</u>	<u>2,023,669</u>	
Long-term debt	1,797,950	1,602,469	
Total capitalization	<u>3,904,439</u>	<u>3,626,138</u>	
Current Liabilities			
Long-term debt due within one year	53,180	51,930	
Revenue certificates	90,000	90,000	
Accrued interest	33,069	36,526	
Accounts payable and accrued expenses	231,530	238,036	
Over-recovered energy costs	19,372	47,687	
Extension and other deposits	15,785	13,908	
Deferred credit—Intermountain Power Agency	64,556	49,573	
Total current liabilities	<u>507,492</u>	<u>527,660</u>	
Commitments and Contingencies			
Total capitalization and liabilities	<u>\$4,411,931</u>	<u>\$4,153,798</u>	

The accompanying notes are an integral part of these financial statements.

POWER SYSTEM STATEMENT OF CASH FLOWS

(In Thousands)	Year ended June 30	1990	1989	1988
Cash Flows From Operating Activities:				
Net income		\$ 156,466	\$ 193,429	\$ 175,561
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation		139,031	136,954	124,004
Amortization of nuclear fuel		3,258	7,527	7,516
Allowance for borrowed fund used during construction		(2,757)	(7,268)	(5,674)
Changes in current assets and liabilities:				
Customer and other accounts receivable		(18,158)	(25,774)	(3,023)
Receivable from Intermountain Power Agency		(14,983)	(49,573)	—
Accrued unbilled revenue		(15,335)	(5,794)	(4,247)
Materials and supplies		(20,002)	(10,398)	(11,654)
Fuel inventory		1,383	(4,598)	9,774
Deferred energy costs		—	—	8,928
Prepayments and other current assets		12,142	10,113	(7,509)
Accrued interest		(3,457)	5,878	4,191
Accounts payable and accrued expenses		(6,506)	25,656	(30,593)
Over-recovered energy costs		(28,315)	(9,865)	(15,644)
Extension and other deposits		1,877	(2,019)	(3,750)
Deferred credit—Intermountain Power Agency		14,983	49,573	—
Net cash provided by operating activities		<u>219,627</u>	<u>313,841</u>	<u>247,880</u>
Cash Flows From Financing Activities:				
Sale of revenue bonds		247,929	99,527	198,108
Sale of advance refunding bonds		85,216	—	—
Contributions in aid of construction		12,172	18,216	13,473
Reduction of long-term debt		(51,198)	(52,843)	(67,223)
Amount deposited in escrow accounts and offset against advance refunding bonds		(85,216)	—	—
Payments to the reserve fund of the City		(85,818)	(78,502)	(70,182)
Net cash provided by (used in) financing activities		<u>123,085</u>	<u>(13,602)</u>	<u>74,176</u>
Cash Flows From Investing Activities:				
Expenditures for plant and equipment		<u>(360,389)</u>	<u>(336,226)</u>	<u>(317,316)</u>
Cash and Investments:				
Net increase (decrease)		(17,677)	(35,987)	4,740
Beginning of year		<u>143,183</u>	<u>179,170</u>	<u>174,430</u>
End of year		<u>\$ 125,506</u>	<u>\$ 143,183</u>	<u>\$ 179,170</u>
Supplemental disclosure of cash flow information:				
Cash paid during the year for interest		<u>\$ 126,236</u>	<u>\$ 105,602</u>	<u>\$ 100,435</u>

The accompanying notes are an integral part of these financial statements.

POWER SYSTEM NOTES TO FINANCIAL STATEMENTS

Note A—Summary of Significant Accounting Policies

The Department—The Department of Water and Power of the City of Los Angeles exists under and by virtue of the City Charter enacted in 1925 as a separate proprietary agency of the City. The Power System is responsible for the generation, transmission and distribution of electric power for sale in the City.

Financial statement presentation—The financial statements of the Power System are presented in conformity with generally accepted accounting principles. The financial statements are substantially in conformity with the uniform system of accounts prescribed by the Federal Energy Regulatory Commission and the California Public Utilities Commission except for the method of accounting for contributions in aid of construction described below. The Department is not subject to regulations of such commissions.

Utility plant—The costs of additions to utility plant and replacements of retired units of property are capitalized. Costs include labor, materials and allocated indirect charges such as engineering, supervision, transportation and construction equipment, retirement plan contributions, and certain administrative and general expenses. The costs of repairs and minor replacements are charged to appropriate maintenance accounts. The original cost of property retired, plus removal cost, less salvage, is charged to accumulated depreciation.

Depreciation and decommissioning—Depreciation expense is computed by the straight-line method for all major projects completed after July 1, 1973 and for all office and shop structures, related furniture and equipment, and transportation and construction equipment. Depreciation for facilities completed prior to this date is computed by the 5% sinking fund method based on estimated service lives. Depreciation provision as a percentage of average depreciable utility plant in service was 3.1%, 3.2% and 3.2% for fiscal years 1990, 1989 and 1988, respectively.

Decommissioning of the Palo Verde Nuclear Generating Station, in which the Power System has an ownership interest, is projected to start sometime after 2022. Based upon a study performed by an independent engineering firm, the Department's share of the estimated decommissioning costs is \$44 million in 1989 dollars. Decommissioning costs are charged as part of depreciation expense over the life of the nuclear power plant.

A Nuclear Decommissioning Fund has been established and the Power System is setting aside funds for its share of the estimated future decommissioning costs.

Nuclear fuel—Nuclear fuel is amortized and charged to Fuel for Generation in the Statement of Income on the basis of actual thermal energy produced relative to total thermal energy expected to be produced over the life of the fuel. Under the provisions of the Nuclear Waste Policy Act of 1982, the federal government assumed responsibility for the future disposal of spent nuclear fuel.

POWER SYSTEM NOTES TO FINANCIAL STATEMENTS

Cash and investments—The Department's cash is deposited with the City Treasurer who invests the funds in securities under the City Treasurer's pooled investment program, whereby available funds of the City and its independent operating departments are invested on a combined basis. These investments are valued at cost, which approximates market. At June 30, 1990 and 1989, cash and investments include \$16 million and \$18 million, respectively, of restricted balances relating to bond redemption and interest funds, self-insurance fund and nuclear decommissioning fund.

Fuel inventory—Coal inventories are stated at average cost. Fuel oil inventories are stated at cost, using the last-in, first-out method.

Contributions in aid of construction—Under the provisions of the City Charter, amounts received from customers and others for constructing utility plant are combined with retained income reinvested in the business to represent equity for purposes of computing the Power System's borrowing limits. Accordingly, contributions in aid of construction are shown in the accompanying balance sheet as an equity account and are not offset against utility plant.

Revenues—Revenues consist of billings to customers for consumption of electric energy and include amounts resulting from an energy cost adjustment formula designed to permit the full recovery of energy costs. The Department projects these costs to establish the energy cost recovery component of customer billings and any difference between billed and actual energy costs, resulting in over- or under-recovery of energy costs, is adjusted in subsequent billings.

The Power System recognizes energy costs in the period incurred and accrues for estimated unbilled revenues for energy sold but not billed at the end of a fiscal year.

The Power System's rates are established by a rate ordinance which is approved by the City Council. The Power System sells electric energy to other Departments of the City at regular rates provided in the ordinance.

Debt expenses—Debt premium, discount and issue expenses are deferred and amortized to expenses over the lives of the related issues.

Allowance for funds used during construction (AFUDC)—AFUDC represents the cost of borrowed funds used for the construction of utility plant. Capitalized AFUDC is shown as part of the cost of utility plant and as a reduction of debt expenses. The average AFUDC rates were 7.7%, 7.6% and 7.9% for fiscal years 1990, 1989 and 1988, respectively.

Note B—Receivable and Deferred Credit—Intermountain Power Agency

As of July 1, 1988, an amendment to an Intermountain Power Agency (IPA) bond resolution provided for the use of surplus construction funds from the Intermountain Power Project. As a member participant of this project, the Department's share of such surplus funds totaled \$125 million through June 30, 1990, of which \$60 million was used as an offset against purchased power from IPA in fiscal year 1989. At June 30, 1990, the Department had a remaining receivable from IPA of \$65 million.

Note C—Jointly-Owned Utility Plant

The Power System has undivided interests in several electrical generating stations and transmission systems which are jointly-owned with other utilities. Each project participant is responsible for financing its share of construction and operating costs. The following schedule shows the Power System's investment in each jointly-owned utility plant as included in the balance sheet at June 30, 1990 (dollar amounts in millions):

Projects	Ownership Interest	Share of Capacity (megawatts)	Plant in Service		Work In Progress
			Cost	Accumulated Depreciation	
Palo Verde Nuclear Generating Station (Note H)	5.7%	217	\$489	\$ 42	\$ 8
Navajo Steam Generating Station	21.2%	477	180	77	6
Mohave Coal Generating Station	20.0%	316	86	31	6
Pacific Intertie DC Transmission System	40.0%	800	164	15	5
Other transmission systems	Various	—	72	16	1
			<u>\$991</u>	<u>\$181</u>	<u>\$26</u>

The Power System will incur certain minimum operating costs on the jointly-owned facilities, regardless of the amount of energy generated or the ability to take delivery of its share of energy generated. The proportionate share of these expenses is included in the appropriate categories of operating expenses.

Note D—Revenue Certificates

At June 30, 1990 and 1989, the average interest rate of revenue certificates payable was 5.7% and 6.4% with various maturities of up to 127 and 130 days, respectively. The Department has an unsecured standby line of credit of \$90 million which may be used if the certificates cannot be refinanced as they mature.

Note E—Long-Term Debt

Long-term debt outstanding at June 30, 1990, consisted of revenue bonds due serially in varying annual amounts through 2029. Interest rates, which vary among individual maturities, averaged approximately 6.8% at June 30, 1990 and 1989. The revenue bonds generally are callable ten years after issuance. Scheduled annual principal maturities during the five years succeeding June 30, 1990 are \$53 million, \$55 million, \$56 million, \$58 million and \$58 million, respectively.

In fiscal year 1990, the Power System sold advance refunding bonds totaling \$86 million, which decreased its aggregate debt service payments by \$19 million over the next 43 years and resulted in an economic gain (difference between the present values of the old and new debt service payments) of \$8 million. Until the bonds to be refunded are called, interest on the advance refunding bonds is payable from interest earned on securities of the United States government purchased out of the proceeds of the sales and held in escrow accounts with Security Pacific National Bank, Los Angeles and Citibank, N.A., New York. At June 30, 1990, \$134 million of these escrow accounts have been offset against the advance refunding bonds in the accompanying balance sheet (on September 1, 1990, \$37 million of the refunded bonds will be redeemed). After the monies in the escrow accounts are applied to redeem the bonds to be called, principally through 1995, interest on the advance refunding bonds will be payable from Power System revenues.

POWER SYSTEM NOTES TO FINANCIAL STATEMENTS

Note F—Shared Operating Expenses

The Power System shares certain administrative functions with the Department's Water System. Generally, the costs of these functions are allocated on the basis of benefits provided to the Systems.

Operating expenses shared with the Water System were \$275 million, \$251 million and \$256 million for fiscal years 1990, 1989 and 1988, respectively, of which \$186 million, \$166 million and \$167 million were allocated to the Power System. The inter-fund transactions resulted in a net amount of \$17 million and \$22 million included in the Power System accounts payable at June 30, 1990 and 1989, respectively.

Note G—Employee Benefits

Retirement, disability and death benefit insurance plan—The Department has a funded contributory retirement, disability and death benefit insurance plan covering substantially all of its employees. Plan benefits are generally based on years of service, age at retirement and the employees' highest 12 consecutive months of salary before retirement. The Department funds retirement plan costs on a level premium actuarial method as determined by the plan's independent actuary. For funding purposes, prior service costs relating to the plan are amortized generally over a 30-year period ending June 30, 2003. Total benefit plan costs for fiscal years 1990, 1989 and 1988 for the Power System include the following (amounts in millions):

	1990	1989	1988
Service cost	\$ 36	\$ 33	\$ 35
Interest cost	127	130	120
Actual return on plan assets	(130)	(194)	(31)
Net amortization and deferral	<u>43</u>	<u>122</u>	<u>(37)</u>
Net retirement plan cost	76	91	87
Disability and death benefit plan costs and administrative expenses	<u>13</u>	<u>13</u>	<u>12</u>
Total benefit plan costs	<u>\$ 89</u>	<u>\$104</u>	<u>\$ 99</u>

The following schedule reconciles the funded status of the plan with amounts reported in the financial statements (amounts in millions):

	June 30, 1990	June 30, 1989
Actuarial present value of benefit obligations:		
Vested benefits	\$ 1,532	\$ 1,527
Non-vested benefits	<u>1</u>	<u>1</u>
Accumulated benefit obligation	1,533	1,528
Projected future compensation level	<u>278</u>	<u>300</u>
Projected benefit obligation	1,811	1,828
Plan assets at fair value	<u>1,509</u>	<u>1,368</u>
Projected benefit obligation in excess of plan assets	302	460
Unrecognized net gain and effects of changes in assumptions	38	(83)
Unrecognized net obligation at July 1, 1987 being recognized over 15 years	<u>(277)</u>	<u>(299)</u>
Accrued pension liability	<u>\$ 63</u>	<u>\$ 78</u>

The discount rate used in determining the plan's projected benefit obligation increased from 7.75% in fiscal year 1989 to 8.0% in fiscal year 1990. The assumed rate of increase in future compensation levels was 6.0% in both years. The long-term rate of return on plan assets was 8.0% in both 1990 and 1989. Plan assets consist primarily of corporate and government bonds, common stocks, mortgage-backed securities and short-term investments.

Health care costs—In addition to the retirement plan, the Department provides certain health care benefits to active employees. The cost of providing such benefits to active employees amounted to \$24 million, \$21 million and \$19 million for fiscal years 1990, 1989 and 1988, respectively. The costs of providing these benefits are accounted for on the pay-as-you-go method.

Other post-employment benefits—Health care and life insurance are provided to retired employees and their dependents. The cost of providing such benefits to retired employees amounted to \$9 million, \$8 million and \$9 million for fiscal years 1990, 1989 and 1988, respectively. The costs of providing these benefits are accounted for on the pay-as-you-go method.

Note H—Commitments and Contingencies

Payments to the reserve fund of the City—Under the provisions of the City Charter, the Power System transfers funds at its discretion to the reserve fund of the City. Such payments are not in lieu of taxes and are recorded as distributions of retained income. The Department expects to make payments of \$92 million in fiscal year 1991 from the Power System to the reserve fund of the City.

POWER SYSTEM NOTES TO FINANCIAL STATEMENTS

Long-term purchased power and transmission contracts—The Department has entered into a number of energy and transmission service contracts which involve substantial commitments. These include an agreement with the Intermountain Power Agency, a Utah State Agency, for purchase of energy from the Intermountain Power Project (IPP) for which the Power System has served as the project manager and operating agent. The Department's total interest in IPP includes a 44.6% "take or pay" obligation and an excess power contract for 18.2% for a total of 62.8%. The Department also has two agreements with the Southern California Public Power Authority (SCPPA), a California Joint Powers Agency, for 67% of SCPPA's 5.9% entitlement to the energy generated at the Palo Verde Nuclear Generating Station and for 59.5% in the capacity of the Southern Transmission System, which transmits energy from IPP in Utah to Southern California. Significant data related to these agreements, which are scheduled to expire from 2022 to 2027, at June 30, 1990 are as follows:

	Total Bonds Outstanding (millions)	Department Share of Capacity (megawatts)
Palo Verde Nuclear Generating Station (through SCPPA)	\$1,046	151
Intermountain Power Project	5,017	1,004
Southern Transmission System (for IPP power through SCPPA)	1,017	1,142

All these agreements require the Power System to make certain minimum payments, which are based upon debt service requirements. While these payments are fixed charges (of approximately \$340 million in each of the next five years), the Department is also required to pay additional amounts (of approximately \$130 million in each of the next five years) for operating and maintenance costs related to actual deliveries of energy under these agreements. Total payments under these contracts were approximately \$530 million, \$440 million and \$320 million in fiscal years 1990, 1989 and 1988, respectively. These aggregate purchased power costs are recovered through the energy cost recovery component of customer billings.

The Department also has a contract through 2017 with the U.S. Department of Energy for the purchase of available energy generated at the Hoover Power Plant. The Department's share of capacity at Hoover is approximately 500 megawatts.

Nuclear Insurance—As a participant in the Palo Verde Nuclear Generating Station, the Department could be subject to assessment of retrospective insurance premium adjustments in the event of a nuclear incident at Palo Verde or at any other licensed reactor in the United States.

Litigation—A number of claims and suits are pending against the Department for alleged damages to persons and property and for other alleged liabilities arising out of its operations. In the opinion of management, any ultimate liability which may arise from these actions will not materially affect the Power System's financial position as of June 30, 1990.

REPORT OF INDEPENDENT ACCOUNTANTS

August 27, 1990 -

To the Board of Water and Power Commissioners
Department of Water and Power
City of Los Angeles

In our opinion, the accompanying balance sheet and the related statements of income, retained income reinvested in the business and cash flows present fairly, in all material respects, the financial position of the Power System of the Department of Water and Power of the City of Los Angeles at June 30, 1990 and 1989, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 1990, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Department's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

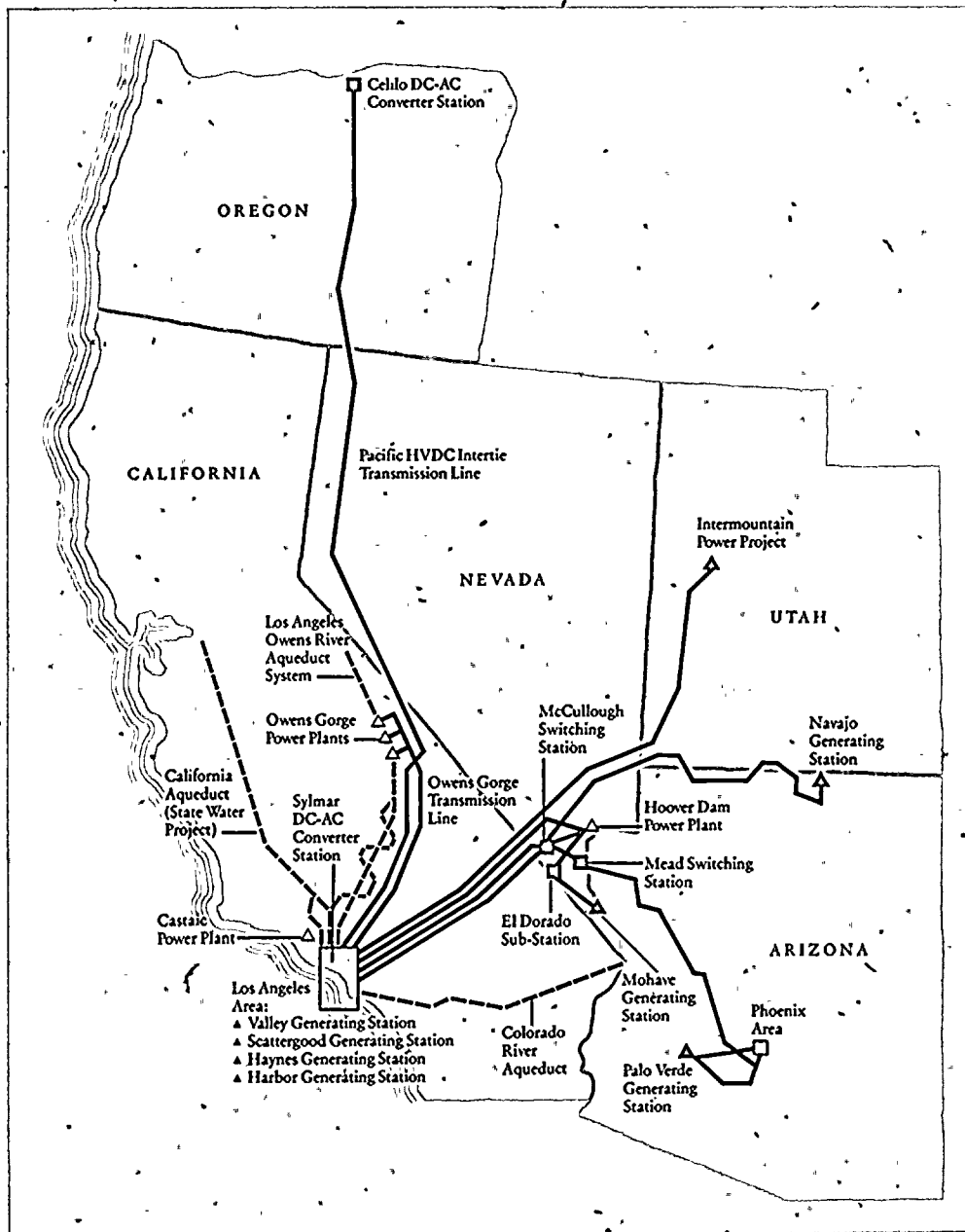
Price Waterhouse
Simpson & Simpson

WATER SYSTEM SELECTED FINANCIAL DATA AND STATISTICS

(\$ Millions)	1990	1989	1988	1987	1986
Statement of Income					
Operating revenues					
Residential	\$ 125.5	\$ 110.1	\$ 94.5	\$ 92.4	\$ 84.2
Commercial and industrial	191.2	166.5	142.4	135.2	122.9
Governmental and other	19.5	17.8	14.3	14.8	13.4
Fire hydrants	4.5	4.4	4.1	4.1	4.0
Miscellaneous	7.5	1.4	1.7	1.9	1.5
Total revenues	\$ 348.2	\$ 300.2	\$ 257.0	\$ 248.4	\$ 226.0
Operating income	82.5	61.4	54.1	69.9	69.4
As % of revenues	23.7%	20.5%	21.1%	28.1%	30.7%
Net income	\$ 62.6	\$ 42.3	\$ 34.4	\$ 44.6	\$ 61.8
Balance Sheet					
Net utility plant	\$1,282.1	\$1,202.1	\$1,114.7	\$1,046.1	\$ 988.8
Capital expenditures	113.1	118.1	97.8	91.7	102.0
Capitalization					
Equity	951.9	870.6	822.3	768.5	712.1
Long-term debt	367.5	379.7	350.2	285.6	305.0
Total capitalization	1,319.4	1,250.3	1,172.5	1,054.1	1,017.1
Debt as % of net utility plant ^(A)	28.7%	31.6%	30.2%	25.3%	28.0%
Interest on debt	28.6	27.6	23.7	22.0	23.2
Payments to City of L.A.	15.0	12.9	12.4	11.3	10.4
Operations					
Gallons sold (billions)	208.8	208.1	203.6	210.1	204.3
Customers—average number (thousands)	643.4	640.6	637.8	632.3	630.1
Average revenue per hundred cu. ft. sold (in cents)					
Residential	119.0	106.0	92.8	87.2	81.8
Commercial and industrial	124.2	107.9	93.6	87.5	81.7
Water supply (in cu. ft. per second—c.f.s.)					
Local supply	129.8	188.3	166.9	137.0	144.5
DWP Aqueduct	284.4	451.9	573.6	661.4	671.8
Metropolitan Water District	545.5	319.2	207.7	177.1	123.9
Gross supply	959.7	959.4	948.2	975.5	940.2
Diversion from (to) local storage	0	1.5	(0.3)	(1.7)	(6.6)
Net supply to distribution systems	959.7	960.9	947.9	973.8	933.6

(A) Excludes revenue notes and advance refunding revenue bonds.

WATER/POWER NETWORK



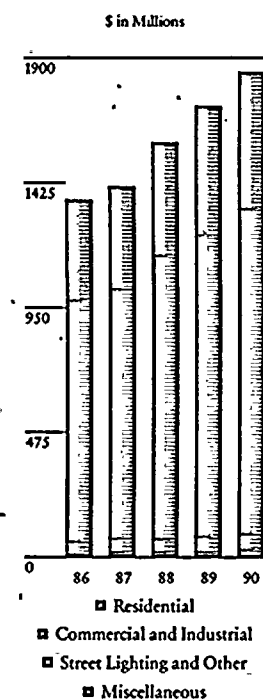
--- Water Supply — Power Supply

Generating facilities in other western states are playing larger roles in the City's power supply. Water, also imported from hundreds of miles away, is brought to L.A. by aqueduct to serve the needs of the nearly 3.5 million population.

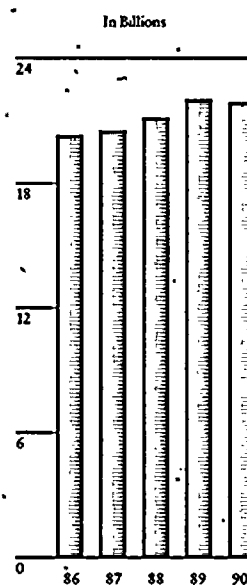
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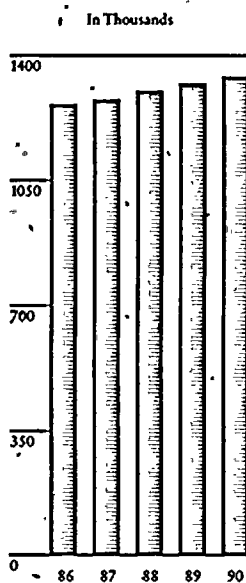
OPERATING REVENUES



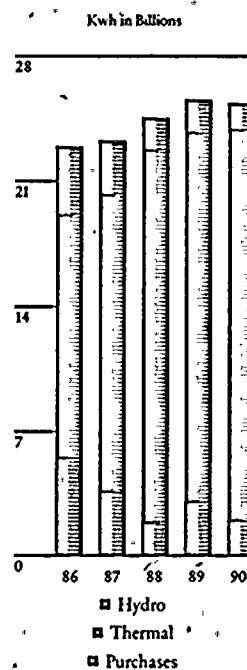
KILOWATT HOURS SOLD



AVERAGE NUMBER OF CUSTOMERS

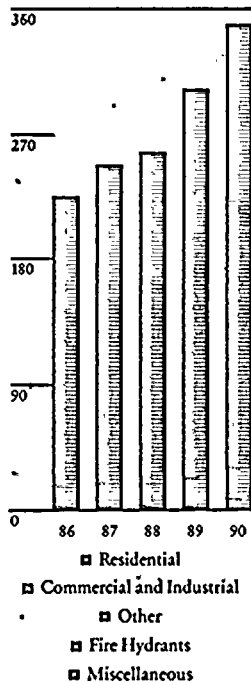


ENERGY PRODUCTION



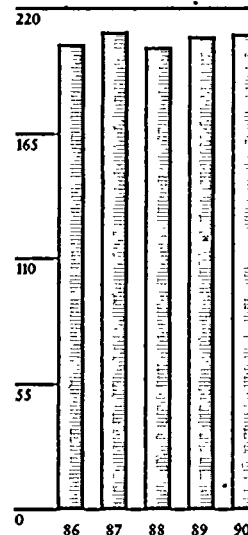
OPERATING REVENUES

\$ in Millions



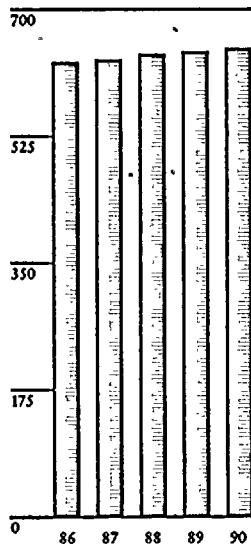
GALLONS SOLD

In Billions



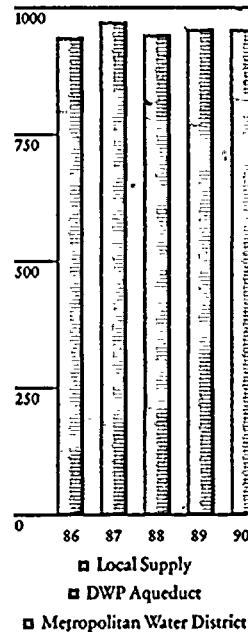
AVERAGE NUMBER OF CUSTOMERS

In Thousands



WATER SUPPLY

In Cu. Ft. per Second



POWER SYSTEM SELECTED FINANCIAL DATA AND STATISTICS

(\$ Millions)	1990	1989	1988	1987	1986
Statement of Income					
Operating revenues					
Residential	\$ 519.3	\$ 484.6	\$ 430.7	\$ 388.7	\$ 379.5
Commercial and industrial	1,251.3	1,162.0	1,085.5	963.1	932.2
Street lighting and other	54.5	53.5	39.7	38.2	37.9
Miscellaneous	24.8	16.2	14.1	13.4	8.5
Total revenues	\$1,849.9	\$1,716.3	\$1,570.0	\$1,403.4	\$1,358.1
Operating income	255.0	278.2	254.3	256.3	259.5
As % of revenues	13.8%	16.2%	16.2%	18.3%	19.1%
Net income	\$ 156.5	\$ 193.4	\$ 175.6	\$ 186.8	\$ 193.6
Balance Sheet					
Net utility plant	\$3,744.8	\$3,523.9	\$3,324.9	\$3,133.5	\$2,943.9
Capital expenditures	360.4	336.2	317.3	303.4	392.6
Capitalization					
Equity	2,106.5	2,023.7	1,890.5	1,771.7	1,646.1
Long-term debt	1,797.9	1,602.4	1,554.2	1,408.9	1,476.1
Total capitalization	3,904.4	3,626.1	3,444.7	3,180.6	3,122.2
Debt as % of net utility plant ^(A)	48.0%	45.5%	46.7%	44.5%	49.3%
Interest on debt	118.1	110.3	102.4	96.9	97.5
Payments to City of L.A.	85.8	78.5	70.2	67.9	64.4
Operations					
Kilowatt hours sold (billions)	21.8	21.9	21.1	20.5	20.3
Customers—average number (thousands)	1,344.6	1,325.3	1,304.6	1,275.9	1,262.0
Average revenue per kwh sold (in cents)					
Residential	8.9	8.2	7.7	7.1	6.9
Commercial and industrial	8.3	7.7	7.3	6.8	6.6
Energy production (billion kwh)					
Hydro	1.4	1.8	1.8	2.9	3.8
Thermal	22.0	20.8 ^(B)	21.0 ^(B)	16.7 ^(B)	13.8 ^(B)
Total generation	23.4	22.6	22.8	19.6	17.6
Purchases	1.9	2.9 ^(B)	1.7 ^(B)	3.5 ^(B)	5.3 ^(B)
Total production	25.3	25.5	24.5	23.1	22.9
Net system capability (thousand megawatts)					
Hydro	1.4	1.4	1.9	1.9	1.9
Oil and gas owned	3.1	3.1	3.1	3.3	3.3
Jointly owned and firm purchases	4.5	4.5	5.0	5.2	5.2
Jointly owned and firm purchases	2.9	2.8	2.3	2.4	2.1
Total	7.4	7.3	7.3	7.6	7.3

(A) Excludes revenue notes and advance refunding revenue bonds.

(B) Restated due to reclassification.