

Decision No. 88466 February 7, 1978

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's own motion into the operations, practices, service, equipment, facilities, rules, regulations and contracts relating to WATER CONSERVATION in existing and new residential, commercial, industrial, public authority, and agricultural classes of service.

Case No. 10114  
(Filed June 8, 1976)

(Additional Appearances are listed in Appendix C.)

SECOND INTERIM OPINION

On March 2, 1977, hearing was held at San Francisco before Examiner Boneysteele for the purpose of receiving further statements and evidence from interested parties and the staff's report and testimony thereon. Seven public witnesses testified as did one staff engineer. At the close of the hearing, the presiding examiner requested the staff to prepare and distribute to all appearances proposed findings of fact and ordering paragraphs.

On April 7, 1977 a letter (Exhibit E-17) was sent by the staff to all appearances in Case No. 10114 which read as follows:

"Please find enclosed a copy of the staff recommended ordering paragraphs for Case No. 10114. In accordance with Examiner Boneysteele's request, these are being forwarded to you for comment. Your views should be forwarded to the Commission no later than April 20."

On April 19, 1977 another letter (Exhibit E-18) was sent by the staff to all appearances which read:

"The following staff recommended revised paragraph 10. replaces the one sent to you with our letter dated April 7, 1977. Your views should be forwarded to the Commission no later than May 6."

"10. All Class A, B, and C water utilities which utilize flat rates, other than for temporary, irrigation, fire hydrant, private fire protection and street sprinkling service, shall:

"a. File a program for metering services within three months. The program should be placed in effect as soon as practicable without authorization by the Commission except where new tariffs resulting in rate increases are involved.

"b. Complete the metering program in a time interval consistent with the size of the project. Criteria for the order of metering should include elements to maximize reduction of water use within the shortest time period.

"c. Review the increase or decrease in earnings resulting from a change from flat to meter rates, where more than 10% of the residential and commercial customers on the system are converted to meters, every six months for two years."

Comments were received from the followings:

- California Water Association
- California Water Service Company
- The Campbell Water Company
- Hillcrest Water Co., Inc.
- Park Water Company
- Peerless Water Co.
- Pacific Gas and Electric Company
- San Jose Water Works
- Southwest Suburban Water
- Tahoe Paradise Water and Gas Co.
- Regional Water Quality Control Bd, San Francisco Bay Region
- Western Mobilehome Association

1/ California Water Association represented the following utilities in this proceeding as well as its general membership consisting of 86 public utility water company members:

- Angora Water Co.
- Azusa Valley Water Company
- California Cities Water Company
- County Water Company
- Del Este Water Company
- Dominguez Water Corporation
- Kavanaugh Vista Water Company
- Park Water Company
- Pomona Valley Water Company, Inc.
- Rossmoor Water Company
- San Gabriel Valley Water Company
- Southwest Water Co.
- Suburban Water Systems
- Water West Corporation
- Southern California Water Company

City of San Buenaventura  
Ny-Del Corporation  
Southern California Edison Company  
California Hotel and Motel Association

The comments ran the gamut from agreement (two) to anguished howls from some of the larger regulated water utilities that due process was being violated and that:

The staff's proposed ordering paragraphs have an economic, political and health significance far beyond the simple statements by which they are expressed. They raise issues of tremendous complexity and would require utilities to make studies and incur expenses of a magnitude which have not been adequately analyzed or articulated even assuming that such studies were within the capabilities of the designated respondents.

In addition, they would require utilities to make studies and reports of a type which are already being made by federal and State agencies at great expense, and would mandate a metering policy which is now being considered by the Legislature for application on a statewide basis.

Consequently, they requested that, before any of the ordering paragraphs to which they had taken exception were made effective, further hearings be held at which time the staff should be required to justify such proposals and the water industry be given an opportunity to be heard with respect thereto.

On July 11, 1977 a letter (Exhibit E-19) was sent to all appearances which said:

"The staff has reviewed the written comments received on its proposed ordering paragraphs, which had been distributed with our letters of April 7 and April 19. In addition, the staff met with representatives of the California Water Association on July 6 to further receive the association's views. As a result, the staff has revised proposed ordering paragraphs 5, 6 and 7 as well as its February 24 report, page 6-4, paragraph 16, and Table 10, Sheet 2 of 3, paragraph 2. These accompanying revisions should be inserted in your copies of the documents.

"These proposed ordering paragraphs will be presented by the staff at the scheduled hearings starting July 19, 1977."

Hearing was held at San Francisco before Administrative Law Judge Gillanders on July 19, 20, 21, and 22, 1977. Testimony and exhibits were presented by a manufacturer of plumbing fixtures, a staff engineer, a representative of the State Department of Health, the City Attorney of Sutter Creek, a witness from Pacific Gas and Electric Company's Electric Department called at the request of the presiding officer, and 10 witnesses from the regulated water utility industry.

Staff's Proposed Ordering Paragraphs

After being received into evidence and after cross-examination, the staff's proposed ordering paragraphs read:

1. The orders issued by Decision No. 86959 in Case No. 10114 be continued in force.
2. All respondent water utilities that include monetary penalty provisions in connection with the rationing plans required in Ordering Paragraph 5 of Decision No. 86959 shall place those collected monies in a special account for disposal only upon the orders of this Commission.
3. All Class A, B, and C water utilities shall cooperate with their local communities and, where circumstances warrant, draft ordinances for local authorities. These ordinances would typically require all new construction and future renovations or additions to existing buildings to utilize low-flow showerheads and water conserving fixtures and appliances. Such ordinances should also require pressure regulators on domestic services when necessary to reduce water pressure inside buildings to a maximum of 50 psi, where practicable. Recirculating hot water piping and heater systems also are to be adequately insulated. These ordinances should encourage the use of low water use plantings and well designed electric timer irrigation systems.

4. Where local conditions permit the use of reclaimed water for public non-consumptive purposes such as golf courses and highway median strips should be supported.

5. All Class A, B, and C water utilities that have not had their pumps tested within the past 12 months and which do not maintain records including an original pump test from which efficiencies can be computed, shall have all their pumps with horsepower ratings equal or greater than  $7\frac{1}{2}$  horsepower tested by their electric supplier utilities within the most expeditious schedule possible consistent with the capabilities of those utilities.

6. Those pumps found by calculation or pump test to be operating at overall plant efficiencies (wire to water) shown on Table 10, Sheet 2A, under the listing of "'low'..." which result from mechanical and/or electrical causes shall be overhauled as expeditiously as possible but no later than 12 months after determination of efficiency with priority given to those pieces of equipment having the largest load factors. Those utilities requiring pump tests and not supplied by Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall have their pumps tested by competent personnel. The expenses incurred for such testing and overhaul shall be included in the normal maintenance accounts subject to consideration at future rate proceedings. Where a company or district of a company has one or more pumps which have overall plant efficiencies which are in the "low" category and when the company does not believe it is economically justified to overhaul them, it shall submit an analysis as part of a request for an exemption from this order.

7. Reports on pump efficiencies and pump overhaul status should be presented as evidence during rate proceedings.

8. All Class A and B water utilities shall determine if water and energy can be significantly conserved by cost-effective capital investment and/or changes in operating procedure. The utilities shall provide progress reports of their studies indicating the estimated water and energy savings within six months and final reports within one year which shall include the estimated cost, construction schedules, and/or descriptions of new or revised operating procedures.

9. All Class A and B utilities shall report within six months on the feasibility of using alternate water sources such as reclaimed water for nonpotable usages. Class A utilities only shall study and report in writing as one of the alternatives the possibilities of undertaking joint utility-municipal sewage reclamation projects basing the analysis upon cost-benefit analyses. Those programs which appear cost-effective should be pursued.

10. All Class A, B, and C water utilities which utilize flat rates, other than for temporary, irrigation, fire hydrant, private fire protection, and street sprinkling service, shall:

- a. File a program for metering services within three months. The program should be placed in effect as soon as practicable without authorization by the Commission except where new tariffs resulting in rate increases are involved.
- b. Complete the metering program in a time interval consistent with the size of the project. Criteria for the order of metering should include elements to maximize reduction of water use within the shortest time period.
- c. Review the increase or decrease in earnings resulting from a change from flat to meter rates, where more than 10 percent of the residential and commercial customers on the system are converted to meters, every six months for two years.

11. All Class A, B, and C water utilities in rate proceedings shall move in the direction of uniform quantity rates, i.e., a single block after the lifeline block. Where that appears not practicable to the utility, a specific request for authority to deviate with justification should be provided in the application.

Although there was no specific objection to staff proposed Ordering Paragraph 1, each of the ordering paragraphs of Decision No. 86959 should be carefully reviewed, particularly provisions of Ordering Paragraph 11, permitting reimbursement for expenses and loss of revenue.

Positions of Parties

California Water Association and California Water Service Company oppose all staff recommended ordering paragraphs except 2 and 3. California Water Service Company introduced a suggested metering program as Exhibit No. 27.

The State Department of Health recommended that Ordering Paragraph 9 not be issued since, if implemented, it could result in situations where the risk to public health will be unacceptable. The Department claims it has the statutory responsibility for the development of statewide criteria that establishes the quality and reliability of treatment of reclaimed water for a variety of uses.

The city of Sutter Creek maintains that it has more than met the requirement<sup>2/</sup> to conserve water even though its domestic customers are on flat rates. It does not want all customers metered.

The position of the water industry is as follows:

"MR. LOWRY: I think our position has been stated in the Petition for Hearing filed May 6th, which I gather you have read.

"ALJ GILLANDERS: With great interest.

"MR. LOWRY: And I think that may be, with less vigor I have attempted to state the same position in my opening statement here, and it has been our effort to cause the witnesses which we have presented to provide an evidentiary basis for that position.

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<sup>2/</sup> Goal 25 percent reduction; actual reduction 48 percent. City is supplied by PG&E and PG&E instituted mandatory rationing.

"ALJ. GILLANDERS: Along those lines, what would be your recommendation to the Commission on how to conclude this Case No. 10114?

"MR. LOWRY: Yes. I could say that if I were writing an opinion, I would say --

"ALJ GILLANDERS: I was going to give you the opportunity to do it.

"MR. LOWRY: Well, I would be inclined to say that events which have occurred since our Interim Emergency Opinion of February 1977, the water utilities have undertaken a distribution of a water conservation kit of a type that met the criteria permitted by that decision, and that the water utilities have complied with that aspect of it; that the Commission staff then gave further consideration as to what other conservation techniques might be employed by water utilities in implementing the steps already mandated by the Commission, and that during the subsequent time the voluntary conservation program which the utilities were encouraged to foster has been so successful, in fact successful beyond the wildest expectations of many viewers of the scene, that it now appears that the urgency of the situation has been adequately responded to by the voluntary acts of the public users of water, encouraged by the conservation messages distributed by the water utilities, and that under the circumstances the problem is being adequately coped with on the short-term basis by the public's response to the Commission's mandated conservation message program; further, that the staff has recommended certain long-term approaches to the question of conservation, principally those which are somewhat typical incentives in terms of the metering program, and are somewhat expensive or relatively less cost-beneficial in terms of the pump testing program, and that considering all of those cost factors, we feel that good management will cause the utilities to undertake such pump testing as is reasonably necessary for the efficient operation of their systems.



"This is particularly true since the use of such programs is largely a function of good management, which is a subject which the Commission cannot compel or create, and that, therefore, it is a matter which the Commission must necessarily leave to the judgment of the utility managements, having in mind, of course, that the failure of the utilities to exercise good management practices may be reflected in the rates of return allowed in rate proceedings.

"Turn now to the question of metering. It appears that the water conservation program and the results thereof have been equally effective in flat rate areas as they have in metered areas, and it, therefore, appears that metering as such has not created relatively more water conservation in the times of the current emergency than have the unmetered customers been willing to themselves bring about.

"In many cases it appears, particularly in the case of the smaller utilities and those which by reason of age have relatively low rate bases, that the economic impact of a mandatory metering program on those companies would be so severe as to question the economic justification for it.

"Furthermore, those flat rate utilities which are in intense competition, not directly for customers but for their long-term existence, by reason of being adjacent to public agencies who do not themselves meter, present serious policy questions with respect to their future survival.

"Furthermore, it appears that while the Commission does have a duty to exercise its own regulatory powers independently of what unregulated people may be allowed to do under other jurisdictions, that nonetheless the Commission cannot ignore what appears to be a statewide policy, not one manifested by affirmative legislation, but by the failure of the Legislature so far to enact as a water conservation policy the ordering through legislation of a mandatory metering program.

"Under those circumstances, we would feel that the matter of compulsory metering should be deferred until the need therefor becomes more apparent.

"ALJ GILLANDERS: And you would recommended this investigation just be discontinued?

"MR. LOWRY: Or in the alternative, the matter taken off calendar, pending the need for further reopening.

"I would prefer the proceeding to be closed rather than be kept in limbo, because otherwise the thing never ends, and yet never comes to life."

#### Finding and Conclusion

We have considered the evidence presented by all parties, including the strong opposition of the water utilities to the staff proposed provisions for pump testing and meter installation programs. We find that these are vital measures for energy and water conservation and should be accepted. However, in lieu of staff recommendations on meter programs we find that a modification of the program proposed by California Water Service Company is more appropriate and is accepted. Mandatory metering requirements as proposed herein are justified for Class A and Class B utilities. Metering programs for Class C and Class D utilities should be developed with the staff's assistance in connection with individual filings. We also find that staff recommended Ordering Paragraphs 2 and 3, quoted on page 4, which received no objections from participants to the hearing, are necessary. The recommended conservation goals and practices have been implemented with two appendices. Appendix A is a new rule to be filed by all public utility water systems to implement the orders in this decision and the first interim decision in this case. Appendix B includes suggestions for discussion with local authorities for possible inclusion in local ordinances. We find that the recommendations of the Department of Health and the water utilities should be accepted on the remaining matters.

Ordering Paragraph 11 of Decision No. 86959 provided:

11. All respondent water utilities are hereby authorized to propose rates designed to recover any reasonable expenses or revenue losses incurred by complying with this order by means of an appropriate advice letter showing pursuant to General Order No. 96-A. The Commission may, in some instances, wish to examine estimates of revenue losses at a public hearing.

The following order terminates the above-quoted Ordering Paragraph 11, except as to the recovery of conservation kit and information program expenses. ✓

We conclude that Case No. 10114 should remain open in order to provide a vehicle for the continuing evaluation of water conservation programs of utilities under our jurisdiction.

SECOND INTERIM ORDER

IT IS ORDERED that:

1. All respondent water utilities that include monetary penalty provisions in connection with the rationing plans required in Ordering Paragraph 5 of Decision No. 86959 shall place that collected money in a special account for disposal only upon order of this Commission. ✓

2. All Class A, B, and C water utilities shall cooperate with their local communities and, where circumstances warrant, draft ordinances for local authorities. These ordinances would typically require all new construction and future renovations or additions to existing buildings to utilize low-flow shower heads and water conserving fixtures and appliances. Such ordinances should also require pressure regulators on domestic services when necessary to reduce water pressure inside buildings to a maximum of 50 psi, where practicable. Recirculating hot water piping and heater systems also are to be adequately insulated. These ordinances should encourage the use of low water use plantings and well designed electric timer irrigation systems. Appendix A attached to this order is a new rule entitled Water Conservation to be filed by all public utility water systems within ninety days after the effective date of this order. Appendix B contains some suggestions for discussion with local authorities for possible inclusion in local ordinances.

3. All Class A, B, and C water utilities that have not had their pumps tested within the past twelve months and which do not maintain records including an original pump test from which efficiencies can be computed, shall have all their pumps with horsepower ratings equal or greater than  $7\frac{1}{2}$  horsepower tested by their electric supplier utilities within the most expeditious schedule possible consistent with the capabilities of those utilities.

4. Reports on pump efficiencies and pump overhaul status shall be presented as evidence during rate proceedings.

5. After the effective date of this order, no Class A or Class B water utility shall provide flat-rate service to any new service connections in the following categories:

- a. Non-residential (excluding fire protection).
- b. Residential with service pipe larger than 1 inch.
- c. Residential with multi-family dwellings.
- d. Residential with lot larger than 10,000 sq.ft.

6. Except as limited by the following paragraph 7, all Class A and Class B water utilities which now provide flat-rate water service shall complete the following metering program on or before the indicated deadline:

<u>Category</u>	<u>Deadline</u>
a. All non-residential (excluding fire protection).	6/30/78
b. All residential with service pipe larger than 1 inch.	12/31/78
c. All residential with multi-family dwellings.	6/30/79
d. All residential with lot larger than 25,000 sq.ft.	12/31/79
e. All residential with lot larger than 16,000 sq.ft.	12/31/80
f. All residential with lot larger than 10,000 sq.ft.	12/31/81

7. Before the deadline for completion of each step of the foregoing metering program, each Class A and Class B water utility shall file in this proceeding a summary of any flat-rate services which cannot, for physical or other reasons, reasonably be metered within the prescribed time. The summary shall include an explanation for the inability to comply.

8. All Class A and Class B water utilities shall file with the Commission the results of studies of the probable cost-effectiveness of metering customers with lots between 6,001 and 10,000 sq.ft. and with lots of 6,000 sq.ft. or less within one hundred twenty days after the effective date of this order.

9. Ordering Paragraph 11 of Decision No. 86959 is hereby terminated except for the recovery of conservation kit and information program expenses.

10. Case No. 10114 shall remain open.

The effective date of this order shall be thirty days after the date hereof. ✓

Dated at San Francisco, California, this 7th day of FEBRUARY, 1978.

I dissent.  
William Surowski

Robert Batistich  
President

Virginia L. Sturgeon  
Richard D. Garber  
Walter J. Deibel  
Commissioners

APPENDIX A

Rule No. 20

WATER CONSERVATION

A. Purpose

The purpose of this rule is to ensure that water resources available to the utility are put to a reasonable beneficial use and that the benefits of the utility's water supply and service extend to the largest number of persons.

B. Waste of Water Discouraged

Refer to Rule 11 B.(3).

C. Use of Water-Saving Devices and Practices

Each customer of the utility is urged to install devices to reduce the quantity of water to flush toilets and to reduce the flow rate of showers. Each customer is further urged to adopt such other water usage and reusage practices and procedures as are feasible and reasonable.

D. Water-Saving Kits

The utility will make available, without initial cost to the customer, for use in each residence receiving water service from the utility, a water-saving kit containing the following:

- (1) A device or devices for reducing toilet flush water requirements;
- (2) A device or devices for reducing shower flow rates;
- (3) A dye tablet or tablets for determining if a toilet tank leaks;
- (4) Other devices from time to time approved by the utility;
- (5) Installation and other instructions and information pertinent to conservation of water.

APPENDIX B

Suggestions for Local Ordinances

Water-Saving Devices for New Buildings

(1) All interior plumbing in new buildings shall meet the following requirements:

- (a) Toilets shall not use more than  $3\frac{1}{2}$  gallons per flush, except that toilets and urinals with flush valves may be installed,
- (b) Shower heads shall contain flow-control inserts, valves, devices, or orifices that restrict flow to a maximum of approximately 3 gallons per minute,
- (c) Kitchen and lavatory faucets shall have aerators or laminar flow devices together with flow-control inserts, valves, devices, or orifices that restrict flow to a maximum of approximately 2 gallons per minute.

(2) All new parks, median strips, landscaped public areas, and landscaped areas surrounding condominiums, townhouses, apartments, and industrial parks shall have a well-balanced automatic irrigation system designed by a landscape architect or other competent person and shall be operated by electric time controller stations set for early morning irrigation. Landscaping covering clayey soils and slope areas shall be equipped with low output sprinkler heads permitting a slow water application rate. Prior to installing the irrigation system, the landscaped area shall be scarified and covered with a mixture of not less than four inches of topsoil (preferably native topsoil) in a quantity and type approved by the developer's landscape architect.



APPENDIX C

ADDITIONAL LIST OF APPEARANCES

March 2, 1977

Respondent: Donald L. Houck, for California Water Service Company.

Interested Parties: Russell J. Moss, Attorney at Law, Illinois, for Displacement Systems Corp.; Boris H. Lakusta and Jerome J. Suich, Attorneys at Law, for California Hotel & Motel Association, and Western Mobilehome Association; Evan Davies, Attorney at Law, Florida, for Water Save, Inc.; Thomas M. Gough, for General Can Co.; Harry W. Tracy, for California-Nevada Section American Water Works Association; Melvin M. Schwartz, for Department of Water Resources; J. Stanley Hughes, for Omniproducts of California, a Division of Key Marketing Corp.; and George E. Prengaman, for City of Los Angeles, Department of Water & Power.

Commission Staff: Thomas F. Grant, Attorney at Law.

July 19, 1977

Respondents: McButchen, Doyle, Brown & Enersen, by Crawford Green, Attorney at Law, for California Water Service Company, and William H. Edwards, Attorney at Law, for Pacific Gas and Electric Company.

Interested Parties: Myron J. Ament, for himself, and David P. Spath, for State Department of Health.

Commission staff: Eugene M. Lill.

July 20, 1977

Protestant: Michael H. Chisholm, City Attorney, for the City of Sutter Creek.