BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

-------------- In the Matter of --------------)) PRINCEVILLE UTILITIES COMPANY, INC.)) For Approval of Rate Increase and Revised Rate) Schedules.))	Docket No. 95-0172
In the Matter of the Application of)) PRINCEVILLE UTILITIES COMPANY, INC.)) For Approval to Enter into Financing) Arrangements for Certain Improvements.))	Docket No. 95-0168 (CONSOLIDATED)

DIRECT TESTIMONY OF INTERVENOR

and

CERTIFICATE OF SERVICE

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DIRECT TESTIMONY OF INTERVENOR

PRINCEVILLE AT HANALEI COMMUNITY ASSOCIATION ("PCA") hereby submits its Direct Testimony of Andrea Crane to PRINCEVILLE UTILITIES COMPANY, INC., and the Consumer Advocate.

Dated: Lihue, Kauai, Hawaii, January 31, 1996.

Paul A. Lynch

for DAVID W. PROUDFOOT
Attorney for PRINCEVILLE AT HANALEI
COMMUNITY ASSOCIATION

STATE OF HAWAII

BEFORE THE

PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF PRINCEVILLE UTILITIES COMPANY, INC. FOR APPROVAL TO ENTER INTO FINANCING ARRANGEMENTS FOR CERTAIN CAPITAL IMPROVEMENTS	)))))	Docket No. 95-0168
IN THE MATTER OF THE APPLICATION OF PRINCEVILLE UTILITIES COMPANY, INC. FOR APPROVAL OF RATE INCREASE AND REVISED RATE SCHEDULES	))))	Docket No. 95-0172

DIRECT TESTIMONY OF

ANDREA C. CRANE

ON BEHALF OF

THE PRINCEVILLE AT HANALEI COMMUNITY ASSOCIATION

January 31, 1996

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I. STATEMENT OF QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Andrea C. Crane and my business address is 38C Grove Street, Ridgefield, Connecticut 06877.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am Vice President of The Columbia Group, Inc., a financial consulting firm that specializes in utility regulation. In this capacity, I analyze rate filings, prepare expert testimony, and participate in various financial studies.

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE IN THE UTILITY INDUSTRY.

A. Prior to my association with The Columbia Group, Inc., I held the position of Economic Policy and Analysis Staff Manager for GTE Service Corporation, from December 1987 to January 1989. From June 1982 to September 1987, I was employed by various Bell Atlantic subsidiaries. While at Bell Atlantic, I held assignments in the Product Management, Treasury, and Regulatory Departments.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY PROCEEDINGS?

A. Yes, since joining The Columbia Group, Inc., I have testified in approximately forty dockets in the states of Hawaii, Arizona, Connecticut, Delaware, Kansas, New Jersey, New York, Pennsylvania, and Rhode Island. These proceedings involved water, wastewater, gas, electric, telephone, solid waste, cable television, and navigation utilities. A list of dockets in which I have filed testimony is included as Appendix A.

Q. DO YOU HAVE ANY ADDITIONAL UTILITY EXPERIENCE?

A. Yes, I am the Vice Chairman of the Water Pollution Control Commission in Redding. Connecticut. I have served in that capacity since March, 1991. This Commission is charged with designing, constructing, and operating a sewer treatment facility for the Town of Redding.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I received a Master's degree in Business Administration, with a concentration in Finance, from Temple University in Philadelphia, Pennsylvania. My undergraduate degree is a B.A. in Chemistry from Temple University.

II. PURPOSE OF TESTIMONY AND SUMMARY OF CONCLUSIONS

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The Columbia Group, Inc. was engaged by The Princeville at Hanalei Community Association (PCA) to review the recent rate filings by The Princeville Utilities Company, Inc. (PUCI or Company) relating to its water and sewer operations, and certain financing arrangements. In developing my revenue requirement recommendation, I reviewed the prefiled testimony and exhibits of the Company, the responses to data requests propounded upon the Company by PCA, comments presented at the public hearing, and other relevant material.

Q. WHAT ARE YOUR CONCLUSIONS CONCERNING THE COMPANY'S PRO FORMA RATE BASE, NET OPERATING INCOME, AND REVENUE REQUIREMENT?

A. Based on my analysis, my conclusions and recommendations with regard to the Company's sewer operations are as follows:

1. The Company has a pro forma test year (ending June 30, 1996) sewer rate base of $826,116 (see Schedule 2-S).

2. The Company has pro forma test year (ending June 30, 1996) sewer net operating income at present rates of $70,805 (see Schedule 9-S).

3. Based on these determinations, a revenue requirement increase of $12,642 is appropriate. This is in contrast to the revenue requirement increase of $763,500 requested by the Company.

With regard to water operations, my conclusions and recommendations are as follows:

1. The Company has a pro forma test year (ending June 30, 1996) water rate base of $559,613 (see Schedule 2-W).

2. The Company's water operations generate pro forma test year (ending June 30, 1996) net operating income at present rates of $21,534 (see Schedule 7-W).

3. Based on these determinations, a revenue requirement increase of $36,776 for the Company's water operations is appropriate. This is in contrast to the revenue requirement increase of $369,169 requested by the Company.

4. PUCI's request for an electric rate adjustment surcharge relating to its well conversion program should be denied.

Furthermore, I have no objection to the financing arrangement between PUCI and Princeville Corporation proposed in Docket No. 95-0168. However, for ratemaking purposes the Company should only include in rate base those items necessary for the provision of safe and adequate utility service, and I have made several rate base adjustments to reflect elimination of plant that is proposed to be financed by Princeville Corporation. The Commission should also ensure that the cost of debt reflected in the financing arrangement is cost-based. Since I have adopted the Company's proposed overall rate of return of 10.0%, the cost of debt reflected in the financing arrangement has no impact on the current case. In the future, however, PUCI should justify any cost of debt claims included in its overall rate of return request.

III. BACKGROUND OF THE FILING

Q. PLEASE PROVIDE A BRIEF HISTORY OF THE COMPANY.

A. PUCI is a wholly owned subsidiary of Princeville Corporation (PC). PC and its predecessor companies began development of the area approximately 25 years ago. The wells and water storage facilities were developed by the Consolidated Oil and Gas Company (COG), a predecessor to PC. In 1975 the facilities were conveyed to Princeville Water Systems, Inc. (PWS).

The water distribution system and the wastewater treatment plant were financed by bonds issued by the Kauai County Public Improvement Corporation (KCPIC), a quasi-public entity. Debt service for the bonds were assessed to the owners of Phase I property for a period of about twelve years. It was envisioned that the water distribution system and the wastewater treatment plant would be taken over by the County of Kauai after the bond issuance was retired. However, in 1984 a dispute arose over PC's refusal to provide water sources to the County of Kauai along with the water distribution and wastewater treatment facility. As a result, the County announced that it would not take over the system. PC, through PUCI, was granted temporary authority to operate the water distribution and wastewater system by the State of Hawaii Public Utilities Commission in November, 1985. PUCI was granted a Certificate of Public Convenience and Necessity in July, 1988.

In the last base rate case, Docket No. 6859, PWS and PUCI obtained approval to merge. Thus, that case, which was resolved by Commission order in April, 1994, was the first case to establish rates based on a consolidated entity providing both water and sewer services. As a result, the previous PWS costs were combined with the PUCI costs, and all costs were redistributed between water and sewer utility services. A major issue in that case was rate design. The Company requested, and the Commission approved, the institution of usage based rates for residential water service. In developing rates, there was apparently disagreement among the parties regarding the percentage of total water used by each customer class. Following is the revenue requirement approved in that docket for both water and sewer operations:

	Sewer Utility	Water Utility
Total Operating Revenue	$ 711,872	$ 492,537
Operating Expenses:		
Electricity	$ 149,020	$ 0
Diesel	0	49,000
Wages/Benefits	229,377	10,206
Repair & Maint.	20,618	182,109
Professional Fees	53,772	68,390
Other Taxes	43,673	30,217
Misc. Operating Supp.	34,014	0
Office Expenses	4,145	3,674
Misc. Expenses	5,160	0
Insurance	14,615	1,260
Depreciation	77,179	51,854
Income Taxes	0	0
Net Operating Income	$ 80,299	$ 95,827
Rate Base	$ 802,931	$ 958,268
Return	10.00%	10.00%

Q. PLEASE SUMMARIZE THE COMPANY'S REQUEST IN THIS CASE.

A. PUCI is requesting a rate increase of $763,500, or 95%, for its sewer operations and a rate increase of $369,169 or 90%, for its water operations. Furthermore, PUCI is requesting that the majority of the increase be generated through increases in fixed or flat rate charges. For example, PUCI is requesting an increase in its flat residential sewer rate of over 100%, from $27.09 per month per unit to $54.97. It is proposing to increase its standby commercial rates from 126% for 1" meters to 1,217% for 6" meters. In addition, it is seeking an 84.4% increase in volumetric rates for commercial sewer users.

With regard to water, the Company is projecting the same standby fees as for sewer. Thus, the rate for a 5/8 inch meter would increase by over 200%, from $5.00 per month to $15.53 per month. Rates for other size meters would again range from a 126% increase to a 1,217% increase. The volumetric rate, however, is proposed to increase by less than 2%.

Q. WHAT ARE THE PRINCIPAL FACTORS CONTRIBUTING TO THE COMPANY'S REQUEST FOR RATE RELIEF?

A. As shown below, the most significant factor contributing to the rate request for sewer operations is the Company's claim for plant additions, particularly its claim for inclusion in rate base of two additional aeration basins and two additional clarifiers.

	Sewer Utility Docket No. 6859	Sewer Utility Proposed
Total Operating Revenue	$ 711,872	$ 1,563,367
Operating Expenses:		
Electricity	$ 149,020	$ 144,357
Diesel	0	0
Wages/Benefits	229,377	238,735
Repair & Maint.	20,618	64,959
Professional Fees	53,772	40,224
Other Taxes	43,673	100,077
Misc. Operating Supp.	34,014	64,840
Office Expenses	4,145	15,277
Misc. Expenses	5,160	10,695
Rate Case Expense	0	58,750
Insurance	14,615	20,929

Depreciation	77,179	278,462
Income Taxes	0	183,056
Net Operating Income	$ 80,299	$ 298,006
Rate Base	$ 802,931	$2,979,045
Return	10.00%	10.00%

Approximately 60% of PUCI's sewer rate increase claim relates to return (net operating income), depreciation expense, and taxes associated with the clarifier/aeration basis projects. Increases in repair and maintenance, operating supplies, office and miscellaneous expenses, and rate case costs are also contributing to the Company's claim for rate relief. Furthermore, PUCI has eliminated the imputation of $24,000 in revenue that it previously included relating to the use of effluent by PC for golf course irrigation.

With regard to water operations, approximately 38% of the requested increase is the result of plant additions, including return requirements, depreciation expense, and taxes. Other significant items include electricity for the well conversion program, wages and benefits, rate case expense, and insurance, as shown below:

	Water Utility Docket No. 6859	Water Utility Proposed
Total Operating Revenue	$ 492,537	$ 781,472
Operating Expenses:		
Electricity	$ 0	$ 109,198
Diesel	49,000	2,367
Wages/Benefits	10,206	79,368
Repair & Maint.	182,109	70,776
Professional Fees	68,390	29,239
Other Taxes	30,217	49,897
Misc. Operating Supp.	0	(3,621)
Office Expenses	3,674	16,163
Misc. Expenses	0	3,396
Rate Case Expense	0	58,750
Insurance	1,260	15,774
Depreciation	51,854	122,420
Income Taxes	0	80,200
Net Operating Income	$ 95,827	$ 147,546
Rate Base	$ 958,268	$1,474,914
Return	10.00%	10.00%

Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. The next section of my testimony addresses the Company's requested increase for its sewer operations. Specifically, I will outline recommended adjustments to the Company's rate base, pro forma revenue, and pro forma expense claims. I will then summarize the revenue requirement impact of my recommended adjustments and recommend an appropriate rate design to recover any revenue deficiency. Section V of my testimony addresses the same issues, i.e. rate base, revenue, and expense adjustments, with regard to the Company's water operations. After outlining specific adjustments, I will develop revenue requirement and rate design recommendations for PUCI's water utility. I will also address the Company's proposal for an electric rate adjustment surcharge in Section V of my testimony. Section VI will address the Company's proposed financing arrangement and Section VII will summarize all of my recommendations on behalf of PCA.

IV. SEWER OPERATIONS

A. Rate Base

Q. ARE YOU MAKING ANY ADJUSTMENTS TO THE COMPANY'S RATE BASE CLAIM?

A. Yes, I am making three adjustments relating to 1) the #3 and #4 aeration basin and clarifier projects, 2) updated in-service dates for other test year plant additions, and 3) cash working capital.

Q. PLEASE SUMMARIZE THE COMPANY'S RATE BASE CLAIM IN THIS CASE WITH REGARD TO THE #3 and #4 AERATION BASIN AND CLARIFIER PROJECTS.

A. The Company's rate base claim reflects plant in service of $2,078,832 relating to the addition of two aeration basins and two clarifiers. According to PUCI's application, "[t]he aeration basins and clarifiers act as a unit to (a) mix oxygen and biological organisms with sewage solids and (b) separate solids and liquids thereby creating a concentrated sludge, which is then digested biologically further in the process at the digestion tanks." (Application in Docket No. 95-0168, page 6) In addition to the costs for the actual aeration basins and clarifiers, the Company has included costs for five related projects in its rate base claim, as shown on Exhibit B of the application. PUCI is proposing to include these costs in rate base and recover them from current ratepayers.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. No, I do not. The Company's proposal is an attempt to force current ratepayers to finance construction of plant necessary to promote future growth of the development. Phase I property owners have already paid their fair share of the capital costs associated with the sewer treatment plant. These ratepayers were assessed costs relating to the debt service of the Kauai County Public Improvement Corporation bonds, which were issued by the KCPIC to finance a 1.5 mgd sewer treatment plant, as well as water distribution system costs.

When the bonds were issued, representations were apparently made to property owners that the 1.5 mgd capacity would be sufficient to meet the needs of the Phase I development. According to a May, 1995 update provided by Barrett Consulting Group, the Company's own engineering consultant, full occupancy of existing housing in Phase I would result in an estimated daily flow of 0.363 mgd. The Barrett Consulting Group update estimates that infiltration/inflow could raise the hydraulic flow to 0.549 mgd, still well below the 1.5 mgd rated capacity of the plant.

The Company claims that existing ratepayers should pay for plant expansion resulting from the two additional clarifiers and aeration basins, on the grounds that the existing plant is no longer capable of handling a usage of 1.5 mgd due to increased regulatory and environmental requirements. There are two reasons why the Company's claim must be rejected. First, PUCI has presented absolutely no evidence that the current plant is unable to handle the current load. According to the Company's response to PCA-IR-118, "[t]he current State discharge standard (11-57-05) is the same as the Federal standard with respect to BOD and TSS, that is 30 mg/l each, on an average monthly basis...The State has subsequently imposed stricter provisions for facilities that utilize effluent irrigation systems. The current State regulation requires continuous disinfection and total coliform concentrations of less than

23 organisms per 100 ml. for irrigation water." According to the response to PCA-IR-216, "[t]he existing plant is meeting a 15/15 standard, which is believed to be necessary in order to meet the fecal coliform standard required for irrigation water." Actual BOD/TSS readings were provided in response to PCA-SIR-109. As shown in that response, the Company has consistently met a standard of 15/15. In fact, with two exceptions, the BOD effluent was lower than 3.3 for each reading over the past three years, and generally under 2.0. With regard to TSS readings, the Company has also generally been at or less than 2.0. Furthermore, PUCI is "not aware of any citations issued for violating DOH regulations". (Response to PCA-SIR-137) The September, 1991 Barrett Report indicated that the plant has had "an excellent record of effluent quality." There is no indication that the plant's ability to meet environmental requirements has deteriorated since that time.

PUCI also claims that expansion is required because "peak hourly flows can cause short-term discharge violations", resulting in the 1.5 mgd being exceeded during peak periods. However, sewer treatment plants are generally rated based on average flows, and design criteria allow for hydraulic flows of 2 to 3 times average flows. Therefore, a 1.5 mgd plant is capable of periodic hydraulic flows of 3.0 - 4.5 mgd. There is no showing that the hydraulic flow capacity of the plant is being exceeded.

According to the 1991 Barrett Report, the two additional aeration basins and clarifiers were projected to be required "for ultimate development". In addition, the report recommended that these projects be undertaken when the plant reached 0.9 mgd. Based on effluent readings, the plant today is at 0.5 mgd, well below the level for which this expansion was projected. Perhaps even more significant is the Barrett Report's recommendation with regard to the allocation of these capital costs. On page 7-15 of the report, the capital costs associated with these projects are entirely allocated to Phase II development, with current Phase I ratepayers bearing none of the projected costs.

Finally, even if in fact the plant was found to be failing, which it is not, it would still be unfair and unreasonable to ask existing ratepayers to pay for plant expansion costs. Phase I ratepayers have already paid for treatment plant costs through bond assessments for the Kauai County Public Improvement Corporation debt. If a plant was constructed with these proceeds that cannot meet the representations that were made to homeowners at that time, then it is the Company, and not the ratepayers, who should be responsible for additional capital costs. It was the Company who warranted that the existing plant of 1.5 mgd would be sufficient, and it is the Company (or its predecessor) who controlled construction of the facility. It is therefore both unfair and unreasonable to now ask ratepayers to pay again for costs that were fully paid several years ago.

Q. WHAT DO YOU RECOMMEND?

A. I believe that fairness and good ratemaking practice require the Commission to eliminate the aeration basin and clarifier projects from the Company's revenue requirement. The record in this case is clear. First, the Company's current customers have already paid for their share of treatment capacity. Second, the current plant is operating at only one-third of its hydraulic capacity and is meeting DOH requirements for effluent. Third, the Company's own engineer recommended that these capital costs be assigned to Phase II customers and delayed until an average usage of 0.9 mgd was reached. Accordingly, at Schedule 3-S I have reflected an adjustment to remove the additional aeration basins and clarifiers, as well as other related projects, form PUCI's rate base claim.

Q. ARE YOU RECOMMENDING ANY OTHER ADJUSTMENTS TO THE COMPANY'S PLANT IN SERVICE CLAIM?

A. Yes, I am recommending adjustments to reflect delays in three projects, acceleration of one project, and elimination of one project. The Company developed its rate base claim based on a thirteen month average rate base. Therefore, it estimated the month in which certain plant additions would be made, reflected depreciation expense charges beginning in that month, and calculated monthly net plant balances over a thirteen month period.

The Company's rate base included the following additions:

1995 F250 4X4 Flatbed Truck	June, 1995
Effluent Pump #3, 75 hp	July, 1995
Drain Pump Station and Solids Building	September, 1995
Lab Equipment	January 1996
Equipment Shelter	March, 1996

These plant additions total approximately $460,000. As a result of the discovery process (Exhibit SIR-103), the Company indicated that three of these additions would be delayed. Specifically, the flatbed truck, the effluent pumps, and the drain pump station and solids handling project were given new projected in-service dates of December, 1995.[1] The lab equipment actually was completed earlier than projected, and went into service in November, 1995. The Company has indicated that its equipment shelter project has been deleted for the test year.

Since the timing of these projects has changed, it is necessary to adjust the Company's rate base to reflect the new in-service dates. I have reflected these adjustments at Schedule 4-S through Schedule 8-S. The total net rate base impact of these five adjustments is a reduction of $107,686.

Q. DO YOUR ADJUSTMENTS COMPROMISE THE COMPANY'S ABILITY TO PROVIDE SERVICE?

[1] We do not know if these additions actually went into service as of December, 1995.

A. No, they do not. As shown on PUCI Exhibit F-4, the Company's filing reflects total plant additions of $2,597,000 since December, 1994. I am recommending the elimination from rate base of $2,079,000 relating to the aeration basin and clarifier projects. However, I am not recommending any adjustment to the remaining $518,000 in plant additions, except to reflect any change in the timing of these projects as updated by the Company. The remaining $518,000 in plant additions reflected in the Company's application still represents a significant increase of about 53% in the Company's total plant since the December, 1993 balance reported in the Decision and Order in Docket No. 6859. Therefore, the Commission should be assured that PCA is providing adequate funds for necessary capital improvements and we are not jeopardizing the Company's welfare by our recommendations.

Q. HOW DID THE COMPANY DETERMINE ITS CASH WORKING CAPITAL CLAIM IN THIS CASE?

A. The Company utilized one-twelfth of its O&M claim as its cash working capital claim in this case.

Q. DO YOU HAVE ANY CONCERNS ABOUT THE USE OF THIS FORMULA METHOD?

A. Yes, I do. The purpose of a cash working capital allowance is to compensate a company for the timing difference between its cash inflows, or revenues, and its cash outflows, or operating expenses. It is generally acknowledged that the formula method is not as accurate as a lead/lag study methodology. A lead/lag study examines the timing and amount of both revenues and expenses. The actual amount and timing of cash flows dictate whether or not a company requires a cash working capital allowance. The purpose of a lead/lag study is not to compensate the Company for its expenses; that compensation is included in other aspects of the revenue requirements calculation. Therefore, only actual cash flows should be considered in examining the need for cash working capital.

The Company justifies its use of the formula method by stating that it was adopted in the Company's last base rate case. However, in the last case, the Commission expressed dissatisfaction with this methodology, stating

> The use of this 1/12 formula provides only a general estimation of a utility's working capital requirements and may not reflect the proper amount. However, we are not presented with an alternative approach to consider...The commission's acceptance of the 1/12 formula method in this docket is not be construed as commission approval of the formula method as a general methodology for deriving working cash. Due to Applicants' use of both a flat and consumption rate, we believe that the use of a lead-lag study would more accurately establish the amount of investors' funds used in sustaining utility operations from the time expenditures are made in providing services to the time revenues are received as payment for these services. Thus, we prefer the use of a detailed lead/lag study for calculating working cash and strongly urge Applicant to adopt it in all of their future rate cases.
>
> (Decision and Order 13197, page 11)

In spite of the Commission's order, the Company did not undertake a lead/lad study to support its cash working capital claim in this case.

Q. WHY DO YOU BELIEVE THAT THE USE OF THE FORMULA METHOD TO DETERMINE CASH WORKING CAPITAL IS PARTICULARLY INAPPROPRIATE FOR PUCI?

A. I believe this method may be especially inappropriate for PUCI because PUCI does not actually pay any of its bills directly. Instead, all payments are made by PC, and then directly charged or allocated to PUCI (see PCA-SIR-126). Therefore, the actual cash flows may not be represented accurately by the one-twelfth methodology. Unfortunately, the Company provided no data regarding the actual cash flows of PUCI.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Company's entire cash working capital claim be denied. In spite of the reservations raised by the Commission in the last case, no lead-lag study was undertaken. In addition, no information was provided regarding the actual flow of funds between PC and PUCI. As a result, the Company has not justified its claim and I recommend that it be denied. The elimination of the Company's cash working capital claim for sewer operations is shown in Schedule 2-S.

B. <u>Pro Forma Revenue</u>

Q. ARE YOU MAKING ANY ADJUSTMENTS TO THE COMPANY'S PRO FORMA REVENUE CLAIM?

A. Yes, I have imputed pro forma revenue relating to the sale of effluent to PC for golf course irrigation. All effluent from the wastewater treatment facility is used as irrigation water by PC. Base year effluent totalled 184,421,000 gallons as shown on the Company's response to PCA-IR-104.

In the Company's last base rate case, the parties agreed to an imputed payment of $24,000 from PC to PUCI as compensation for this effluent. It is my understanding that the $24,000 figure was a negotiated amount. In the current case, PUCI has eliminated this payment, arguing that it receives a benefit from the arrangement (by not otherwise having to dispose of effluent) and therefore no payment should be made.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No, I do not. While PUCI may benefit from the arrangement, PC benefits from the arrangement as well. The existence of a benefit to PUCI is no reason to deny PUCI adequate compensation for a valuable service that is being performed, i.e. golf course irrigation. If PC were required to purchase 184,421,000 gallons of water at the Company's current volumetric rate of $1.243, then PC would be paying $229,235 annually for irrigation water, in addition to standby fees. I believe that both parties benefit from the existing arrangement; PC by saving a significant amount on purchased water costs, and PUCI by saving on effluent disposal. However, there should be some financial recognition of the transaction. Accordingly, I recommend a revenue imputation to PUCI, as shown on Schedule 10-S.

Imputation of this revenue is even more critical in this case, since PC is an affiliated company. Transactions between affiliates require a closer degree of scrutiny than transactions between non-affiliated entities, as recognized by Hawaii statute. Therefore, the use of effluent by PC cannot be considered an arms-length transaction, nor can the provision of effluent free of charge be presumed to be reasonable.

Furthermore, the Company indicated in response to PCA-IR-216 that it is meeting a standard of 15/15 "which is believed to be necessary in order to meet the fecal coliform standard required for irrigation water." This response suggests that the Company may be required to meet more restrictive treatment requirements due to its use of water for irrigation.

Q. HOW DID YOU QUANTIFY AN APPROPRIATE ADJUSTMENT?

A. To quantify my adjustment, I used the base year level of effluent, priced out at the Company's incremental electric power cost of $0.3712. In determining a pro forma cost of water to PC, it is at least reasonable to reflect the cost of pumping the water itself. This results in a revenue adjustment of $68,457, which is significantly lower than the $229,235 under tariff rates, but higher than the Company's claim of $0. I believe that my recommendation results in a fair compromise in developing the Company's revenue requirement.

C. Pro Forma Operating Expenses

1. Rate Case Costs

Q. PLEASE SUMMARIZE THE COMPANY'S RATE CASE EXPENSE CLAIM IN THIS CASE.

A. The Company has included rate case expense of $58,750 for its sewer operations, and an identical amount for its water operations. This $58,750 claim is composed of two parts. First, the Company is claiming total rate case costs for this docket of $160,000. This includes the following:

G&A and Travel Expenses	$ 20,000
Accounting and Rate Design	60,000
Legal	60,000
Engineering	20,000
Total	$160,000

It then allocated these costs equally between water and sewer operations, and assumed a 2 year amortization, resulting in annual sewer costs for this docket of $40,000. In addition, the Company is seeking recovery of $37,500 in unamortized rate case costs relating to the Company's last base rate case.

Q. DO YOU BELIEVE THAT THE COMPANY'S CLAIM RELATING TO THE CURRENT DOCKET IS REASONABLE?

A. No, I do not. I believe that the Company's claim is excessive. PUCI has provided only two witnesses in this case, one of whom is an in-house witness. No formal bids were provided for the rate case services included in the revenue requirement. Furthermore, the Company's claim is significantly higher than rate case costs in other small water and sewer companies in which I have been involved. For example, in its current filing, East Honolulu Community Services, Inc. (EHCS) included a rate case claim of $100,000. That case involved six witnesses on behalf of EHCS, and considerable testimony regarding cost of equity and the need for capital improvements. The EHCS proceeding also involved the company's analysis of the testimony of three Consumer Advocate witnesses. In the current Lanai Water Company case, the company requested a rate case expense of $121,000, amortized over three years.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Company be permitted to reflect a rate case cost of $100,000 for the current docket, allocated equally between sewer and water operations. In addition, I have accepted the use of a two year amortization period. This results in annual rate case costs of $25,000, as shown on Schedule 11-S.

Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THE UNAMORTIZED COSTS FROM THE LAST CASE?

A. I recommend that the Company's claim be disallowed, for two reasons. First, there is nothing in the Commission's order that specifically addresses the amortization of rate case costs. In fact, it is my understanding that the revenue requirement in the last case was largely agreed upon among the parties. The Commission order indicates that "we accept the agreed upon revenue requirement". Nor are rate case costs specifically identified in the supporting exhibits to the Commission's order. Accordingly, it has not been demonstrated that the Commission specifically approved any amortization with regard to rate case costs in the last docket. Generally, requests for amortizations are denied by regulatory commissions unless there is a specific order approving the amortization, or an order approving deferred accounting treatment. To do otherwise would constitute retroactive ratemaking. Therefore, what the Company did or did not authorize in the last case is far from clear.

Second, even if the Commission had approved a two year amortization for the rate case costs incurred in the last case, there would still be no reason to include unamortized costs in the Company's prospective revenue requirement. PUCI argues that it only collected one year of the rate case amortization expense between the issuance of the Commission's order in the last case (in April, 1994) and PUCI's filing of this case in mid-1995. However, PUCI continues to charge rates today that resulted from the order in Docket No. 6859. To the extent that amortization of rate case costs were included in those rates, then cost recovery did not stop with the filing of a new rate case, but rather such recovery will continue until new rates are established. Therefore, a two year amortization authorized in the last case would end in April, 1996, well before the effective date of rates in this case and prior to the end of the test year. As a result, the expiration of this amortization clearly constitutes a known and measurable change which must be considered in developing prospective rates.

Accordingly, at Schedule 11-S I have eliminated this unamortized recovery from the Company's revenue requirement claim.

2. Water Expense Credit

Q. PLEASE DESCRIBE THE WATER EXPENSE INCURRED BY THE SEWER UTILITY.

A. The sewer utility "pays" the water utility for water used in the sewer operation as well as for potable water at the treatment facility. This cost is shown as an expense to the sewer utility and as an expense credit to the water utility. However, as shown on Exhibit E-7A, PUCI included an expense credit of $11,241 for the water utility, but an expense to the sewer utility of $22,372. Therefore, there is a basic inconsistency between the water revenue projected for the test year and the corresponding expense that gives rise to this revenue. This inconsistency was acknowledged by the Company in response to a data request, and it is my understanding that the Company will update its filing to correct this error.

Q. HOW HAVE YOU REFLECTED THIS EXPENSE CREDIT IN YOUR REVENUE REQUIREMENT RECOMMENDATION?

A. In developing my revenue requirement recommendation, I have reduced the sewer utility expense to $11,241, consistent with the water utility revenue projected for the test year. As a result, both the water and sewer utility reflect receipts and payments at present water rates. My adjustment is shown in Schedule 12-S.

3. Chemical Expense

Q. HOW DID THE COMPANY DEVELOP ITS CHEMICAL EXPENSE CLAIM?

A. PUCI developed its claim by increasing its base year expense by 7.5% annually, for a total of fifteen months. In support of this increase, the Company provided "documentation" in response to

PCA-SIR-127. This documentation consists of a memo discussing past increases in June, 1994 and January, 1995. However, it specifically states that there were no further increases foreseen for 1995.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Company's proposed chemical expense increase be disallowed. The Company's claim is not based on known and measurable changes. In fact the best information available as presented by the Company itself indicated no additional increases were projected. Furthermore, chemical prices can and do fluctuate depending on market conditions. Accordingly, the Company's attempt to project past increases out into the future is without merit and should be rejected. My adjustment is shown at Schedule 13-S.

4. Inflation Adjustments

Q. DID THE COMPANY APPLY GENERAL INFLATION ADJUSTMENTS TO ITS BASE YEAR COSTS?

A. The Company did apply inflation adjustments to its base year costs for many cost categories. I have reviewed these inflation adjustments and in most cases I recommend that they be disallowed.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. Inflation adjustments do not represent known and measurable changes to historic results. The Company has the ability to review its base year results and make known and measurable changes. The use of general inflation adjustments removes incentives for the Company to engage in cost containment. Even more significantly, they dilute the power of the Commission and other regulatory agencies to review utility operations and to establish reasonable rates based on prospective normal operating conditions. Blanket inflationary adjustments make it more difficult to identify and analyze specific expense items.

In spite of these reservations, I have accepted the Company's inflation adjustments relating to three areas: janitorial services, miscellaneous operating supplies, and uniforms. However, a review of the other cost categories to which an inflation adjustment has been applied indicates that the Company's proposed adjustments are particularly inappropriate.

For example, the Company developed an estimate for office supplies and rent, and then further applied an inflation adjustment on top of its itemized estimated costs. Office supplies and rent expenses constitute allocations from PC. Therefore, even if office supplies and rent expenses were impacted by inflation, it would still be inappropriate to first estimate costs allocated from PC, and then apply an additional inflation factor to those estimated costs. Similarly, the Company has applied the inflation adjustment to a host of repair and maintenance costs, including those relating to general maintenance, buildings, pumping stations, plant equipment, and sewer lines. Repair and maintenance costs can and do fluctuate from year to year, depending on the level of activity undertaken. These costs generally are not driven by inflation, and therefore the Company's inflation adjustment relating to these cost categories should also be denied.

Diesel fuel and gasoline are two other examples of costs that are impacted more by market conditions than by inflation, and yet these costs were also adjusted for inflation by PUCI. Water testing and analysis is another area to which the Company applied an inflation adjustment inappropriately. Professional fees, legal costs, and accounting fees were all subject to an inflation adjustment by PUCI. However, these costs are not driven by inflation, but rather are driven by the level of activity required and the extent to which the Company makes efficient choices with regard to professional services. Similarly, travel costs are driven by the level of travel required from year to year, as opposed to inflationary trends. Insurance costs are allocated to PUCI from PC. The level of these costs therefore, depends not only on the total costs incurred by PC, but also upon the number of entities to which these costs are allocated and the impact of changing allocation factors on PUCI's share. There are a host of increases to which PUCI has applied an inflation adjustment that are not necessarily impacted by inflationary trends.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Company's inflationary increases relating to offices supplies and rent, dues and subscriptions, repair and maintenance, vehicles usage, grounds maintenance, small tools and equipment, diesel fuel and gasoline, legal, water testing and analysis, professional and accounting fees, travel, and insurance be disallowed. I am not recommending expense adjustments relating to any specific known and measurable change made to the base year amounts for any of these items. My adjustment is shown at Schedule 14-S.

5. Depreciation Expense

Q. ARE YOU RECOMMENDING ANY ADJUSTMENT TO THE COMPANY'S DEPRECIATION EXPENSE CLAIM?

A. Yes, at Schedule 15-S I have reflected depreciation expense adjustments that correspond to the rate base adjustments discussed earlier. These adjustments include the elimination of depreciation expense on the aeration basin and clarifier projects that I have eliminated from rate base; elimination of five months of depreciation expense for the flatbed truck and effluent pump #3, whose in-service dates have been delayed until December, 1995; elimination of three months of depreciation expense for the drain pump station and solids building project, which has also been delayed until December, 1995; elimination of all depreciation expense for the equipment shelter which will not be built in the test year; and two additional months of depreciation expense relating to the lab equipment which was placed into service two months earlier than projected.

These adjustments do not reflect any changes to the Company's proposed depreciation rates for its sewer plant.

6. Income Taxes

Q. HAS THE COMPANY INCLUDED AN INCOME TAX EXPENSE IN ITS REVENUE REQUIREMENT?

A. Yes, in fact, 24% of the Company's total rate increase request relates to its alleged income tax liability.

Q. DOES THE COMPANY ACTUALLY INCUR AN INCOME TAX LIABILITY?

A. No, it does not. PUCI files its income taxes as part of a consolidated income tax group. Tax losses generated either by PUCI or by other group members can be used to offset any income tax liability. Therefore, PUCI is not expected to actually generate any income tax liability in the near future.

Q. HAVE YOU PREVIOUSLY TESTIFIED ON INCOME TAX ISSUES BEFORE THIS COMMISSION?

A. Yes, I testified in prior cases that the Commission should consider adoption of consolidated income tax adjustments. I believe that the consolidated income tax approach appropriately reflects the economic reality of the Company's income tax liability. The stand-alone methodology is at odds with the facts. The Company does not file its federal income tax return on a stand-alone basis, but rather it files as part of a consolidated income tax group. By filing a consolidated return, the Company can take advantage of tax losses generated by other group members. The tax loss benefits generated by one group member are used to offset the income of other consolidated group members, resulting in a reduction in the effective federal income tax expense. This tax savings should be allocated among the companies in the consolidated group. Establishing a revenue requirement based on a stand-alone income tax methodology overstates the Company's expense, resulting in a windfall to the Company and resulting in rates that are higher than necessary.

It is unreasonable to ask ratepayers to bear a rate increase when 24% of that increase relates to a tax liability that will not actually be incurred. I urge the Commission to once again examine the issue of income tax expense for ratemaking purposes.

Furthermore, if the Commission continues to utilize the stand-alone methodology, then it must recognize the net operating loss carry-forwards that are available to be utilized by utilities that have traditionally underperformed. To deny the existence of these tax loss carry-forwards is to once again require ratepayers to pay utility rates that are higher than necessary.

Q. DO YOU HAVE ANY COMMENTS RELATING TO THE SPECIFIC INCOME TAX CLAIMS MADE BY PUCI?

A. Yes, PUCI calculated its income tax liability on a stand-alone basis without consideration of any tax loss carry-forwards. In addition, PUCI failed to include any interest expense as an income tax deduction. While the sewer utility booked only $2,909 in interest charges in the base year, it is requesting financing approval in this docket which would significantly increase its interest charges prospectively. This factor, too, should be considered by the Commission.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that all income tax liability be eliminated from the Company's claim. The reality is that PUCI will incur no income tax liability in the near future, because it files a consolidated income tax return. On a stand-alone basis, the Company can take advantage of tax loss carry-forwards which it has ignored in its filing. Finally, the Company's income tax claim does not include any interest expense deduction. In summary, there are a host of reasons why the Company's claim does not accurately reflect its actual income tax liability. In addition, the Company itself agreed to eliminate income tax liability in its last base rate case. While this action does not have precedential value, it cannot be completely overlooked by the Commission.

Q. HOW DOES YOUR INCOME TAX RECOMMENDATION AFFECT THE COMPANY'S REVENUE MULTIPLIER?

A. As shown on Schedule 16-S, my income tax recommendation results in a revenue multiplier of 1.0682, reflecting only the PSC tax and public utility fee.

D. Revenue Requirement Summary

Q. WHAT IS THE RESULT OF THE ADJUSTMENTS THAT YOU ARE RECOMMENDING IN THIS CASE?

A. As shown on Schedule 17-S, my recommendations result in a total revenue requirement for sewer operations of $880,966. This necessitates a rate increase of $12,642 or 1.46% over pro forma revenue at present rates, as shown in Schedule 1-S.

E. Distribution of Revenue Requirement Recommendation

Q. PLEASE DISCUSS YOUR ANALYSIS OF THE COMPANY'S RATE DESIGN.

A. My analysis of the Company's rate design is shown at Schedule 18-S. I began by reviewing the base year water usage for the residential and commercial classes. I then adjusted the commercial usage by a factor of 1.3 which I understand was accepted in the Company's last case.

Q. WHY IS IT APPROPRIATE TO INCREASE THE COMMERCIAL USAGE BY A FACTOR OF 1.3?

A. It is appropriate for two reasons. First, it is generally recognized that more of the water utilized by commercial operations reaches the sewer system than the water used by residential consumers. This is because residential consumers utilize a proportionately greater share of water for landscape irrigation. There has been speculation in this case that anywhere from 55% to 100% of the residential water usage reaches the sewer system. In this case, I have conservatively assumed that 80% of residential water reaches the sewer system. In addition, it is also generally recognized that commercial waste is more difficult to treat than residential waste. In fact, for this reason many sewer utilities actually have strong waste rates that are charged to non-residential users based on waste composition. Furthermore, it is not necessarily only large industrial customers who generate excessive-strength waste. In fact, such common enterprises as hair salons and photography developers can also generate difficult-to- treat waste.

The assumption that 80% of the residential waste reaches the sewer system, and that on average commercial sewage is 5% stronger than residential sewage, results in a factor of 1.3125, which I have rounded to 1.3. As shown on Schedule 18-S, application of the factor of 1.3 generates a revenue requirement distribution of 60.71% to the residential class and 39.29% to the commercial class. Based on these allocations, the residential class is currently paying more than its fair share of the revenue requirement, or $578,291 at present rates vs. a distribution of the new revenue requirement of $486,707. The commercial class, however, is providing only $186,777 rather than its distributed total revenue allocation of $315,002. This over-allocation to the residential class is the result of the assumptions regarding residential water usage that were adopted in the last case. We now know that projections of residential water usage were overstated, resulting in overstated sewer charges as well. At Schedule 19-S I have distributed the residential revenue requirement to the test year customers, resulting in a flat rate charge of $22.80 month.

With regard to recovery of the rate increase from the commercial class, I have spread the increase evenly among all rate elements, i.e. the standby charges and the volumetric charge. This results in a volumetric charge of $4.604, which is significantly below the volumetric charge requested in the Company's application. In addition, the resulting standby charges are also a fraction of the charges requested by PUCI. The Company has not undertaken a cost of service study and does not know the extent to which different meter sizes generate the need for additional rate relief.

Accordingly, the wide variation of rate increases in standby charges (from 126% to 1,217%) being proposed by the Company remain unsupported, and therefore I am recommending the revenue deficiency be spread across all meter sizes uniformly.

V. <u>WATER OPERATIONS</u>

A. <u>Rate Base</u>

Q. ARE YOU MAKING ANY ADJUSTMENTS TO THE COMPANY'S RATE BASE CLAIM FOR ITS WATER UTILITY OPERATIONS?

A. Yes, I am making four adjustments relating to 1) plant transferred to PWS, 2) the airport water line, 3) updated in-service dates for test year plant additions, and 4) cash working capital.

Q. PLEASE DESCRIBE YOUR FIRST ADJUSTMENT.

A. The Company has included in its rate base claim $1,428,768 of plant that was transferred to the Company by PWS. $1,163,519 of this amount relates to land, water lines, a water reservoir, and wells developed in the early 1970s. As stated on PUCI Exhibit G-2, page 10, "[t]he Commission deferred the issue of whether the infrastructure owned by PWS (i.e., wells, reservoir, and transmission lines) should continue to be included in PUCI's rate base for PUCI's current rate case." PUCI argues that these assets should continue to be reflected in the Company's rate base. I disagree.

As acknowledged by the Company, this infrastructure was built to support the Princeville Development by Consolidated Oil and Gas, Inc. (COG), the predecessor to PC. There is a presumption that the cost of such water and sewer facilities built to support a real estate development is passed on to the purchasers of the lots in the development through the purchase price of the lots. This presumption was upheld by the Commission in Decision and Order No. 13304 regarding the Puhi Sewer & Water Co., Inc.

PUCI attempts to rebut the Commission's rebuttable presumption by first stating that it is unclear whether "the rate charged for service by PWS was ever non-compensatory." The Company's inability to demonstrate that rates were compensatory is certainly insufficient to rebut the presumption. However, it is clear that water was provided to the KCPIC system free of charge at least for a four year period. The Company goes on to argue that the KCPIC bond issuance demonstrated that property owners were aware that the costs of improvements were not included in the selling price of the lots. However, since the KCPIC bond issuance was limited to the water distribution system and sewer treatment facility, it is not unreasonable to assume that property owners believed that the water supply costs were in fact recovered through the selling price of the lots.

Perhaps even more significant is an examination of the "valuable consideration" paid by PWS to COG for the assets transferred. This consideration included a note of $774,222. However, since this note was never repaid and in fact was converted to contributed capital in June, 1995, the existence of the note does not demonstrate that PWS compensated COG for the assets transferred.

The Commission has recognized the difficulty in determining whether or not the cost of improvements are included in the selling price of lots. As stated by Mr. Loo at Exhibit G-2, lots are generally sold on the basis of what the market will bear, as opposed to a "cost plus" basis. It is this difficulty in determining the exact components of a purchase price that gave rise to the rebuttable presumption in Puhi. However, as referenced in Puhi, the Hawaii Intermediate Court of Appeals determined In Re Kaanapali Water Corp., 5 Haw. App. 71 (1984) that the reality of the marketplace is that the price of the lot sold or leased in a real estate development will in no instance be less than the price of the unimproved land plus the cost of improvements.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Company's rate base be reduced to reflect the elimination of the land, water lines, water reservoir, and water wells transferred to PWS by COG, consistent with the Puhi presumption. These plant items were placed into service between December, 1971 and December, 1972. My adjustment is shown at Schedule 3-W.

Q. PLEASE DISCUSS YOUR RECOMMENDED ADJUSTMENT RELATING TO THE AIRPORT WATER LINE.

A. The airport water line went into service in August, 1987 at a cost of approximately $180,000. This water line provides service to the airport, which I understand is owned by PC. Since the water line was placed into service, the Company has received revenues of only $30,544 (response to PCA-IR-142) from customers served by the line. As a result, the water line is not generating sufficient revenue to compensate the Company for its costs, resulting in other ratepayers subsidizing this capital addition.

Utilities have the responsibility to undertake prudent investments. To the extent that projected revenues are insufficient to justify a particular capital expansion, a contribution in aid of construction is generally required in order to prevent existing ratepayers for paying for uneconomic expansion of the utility system. Such a contribution was not sought by the Company with regard to the airport water line, resulting in the situation whereby existing ratepayers are bearing the vast majority of these costs.

I am particularly concerned about this arrangement because the principal customer of the airport water line is an affiliate of PUCI. Therefore, PUCI (or its predecessor PWS) may have had an additional incentive to make an uneconomic utility investment. Since this capital project was undertaken primarily for the benefit of an affiliate, PUCI had a special burden to demonstrate that it was prudent and necessary to the provision of safe and adequate utility service, and that existing ratepayers would not be harmed by these capital costs. PUCI has not met this burden. Nor did PWS meet this burden in any previous rate proceeding.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the airport water line be reflected as a contribution in aid of construction for ratemaking purposes and eliminated from the Company's rate base claim. This ratemaking treatment will protect ratepayers from paying for costs from which they do not benefit. My adjustment is shown in Schedule 4-W.

Q. DID THE COMPANY PROVIDE UPDATED INFORMATION REGARDING IN-SERVICE DATES FOR CERTAIN CAPITAL PROJECTS?

A. Yes, the Company has delayed the in-service date for the electric drive conversion program by five months, from July, 1995 to December, 1995. In addition, it has delayed the in-service date for the SCADA program by four months, from September, 1995 to January, 1996. While the company did not officially update its claim to reflect these new in-service dates, it did identify the new projected dates in response to PCA-SIR-103.

Given this new information, I have updated the Company's rate base claim to reflect the currently projected in-service dates. My adjustments are shown in Schedules 5-W and 6-W. I made similar adjustments relating to the Company's sewer operations, as discussed earlier in this testimony.

Q. PLEASE DISCUSS YOUR ADJUSTMENT RELATING TO THE COMPANY'S CASH WORKING CAPITAL CLAIM.

A. As shown on Schedule 2-W, I have eliminated the Company's cash working capital claim. As discussed in my testimony with regard to sewer operations, I am recommending this disallowance because the Company has not demonstrated that the formula method is representative of its cash flow requirements, particularly given the fact that all costs are actually paid by PC.

B. Pro Forma Revenue

Q HOW DID THE COMPANY PROJECT ITS PRO FORMA REVENUE CLAIM?

A. In spite of the extensive discussion contained in Mr. Reed's testimony with regard to rainfall, weather patterns, hurricanes, hotel occupancy, El Nino-Southern Oscillation episodes, trade winds, and NOAA data, a close reading of the Company's testimony demonstrates that no specific support or analysis was provided for its test year sales forecast. In addition, while PUCI vaguely discusses total sales, its testimony is silent on the issue of normalized consumption per customer and the annualization of test year sales based on customer growth. The anecdotal evidence provided in Mr. Reed's testimony does not justify the significant decreases in residential single-family, residential multi-family, and commercial sales being projected by PUCI.

In addition, PUCI states that the usage-based rates resulting from the last case impacted on elasticity of demand, resulting in residential sales that were lower than projected. However, he fails to recognize two significant reasons for sales being below forecasts in the last case: incorrect forecasts prepared by the Company in that docket and the presence of significant leaks in the Company's system which have now been fixed. It is my understanding that PCA's position in Docket No. 6859 was that the Company's residential sales forecast was overstated. We now know that PCA was correct. Thus, the Company's attempt to explain lower than projected residential sales as the result of demand elasticity is without merit.

Q. WHAT LEVEL OF SALES HAVE YOU REFLECTED IN YOUR REVENUE REQUIREMENT RECOMMENDATION?

A. I have reflected the actual base year sales for the residential single family, residential multi-family, and commercial classes. The Company has not shown why sales to these groups should decline by 8.8%, 1.9%, and 15.9% respectively, particularly when the Company is projecting growth in the number of customers served. The response to PCA-SIR-121 demonstrates that such growth has in fact occurred since the end of the base year. In addition, the Hawaii Visitors Bureau has reported that visitors to Kauai have increased in each month of 1995 over year earlier levels, except for January, 1995. The overall visitor count to Kauai was up 7.8% through October, 1995.

Given the growth in customers, I believe that my recommendation to utilize actual base year sales is conservative. The fact is that we simply do not have a meaningful history of residential water consumption, due to the fact that usage-based rates went into effect less than two years ago. Therefore, the use of actual base year sales applied to a larger customer base, does reflect a lower consumption (usage per customer) than the consumption experienced in the base year. Furthermore, a review of the actual usage in 1995 to date, which was provided in response to PCA-SIR-158, indicates that 1995 usage is generally above base year levels, again supporting my recommendation to use at least the actual level of base year sales, rather than the reduced sales level reflected in the Company's filing. My adjustment is shown in Schedule 8-W. In determining the net income impact of my adjustment, I have reduced the incremental revenue by the incremental power costs associated with production of additional water.

C. <u>Pro Forma Operating Expenses</u>

Q. PLEASE DISCUSS THE PRO FORMA OPERATING EXPENSE ADJUSTMENTS THAT YOU ARE RECOMMENDING TO THE COMPANY'S WATER UTILITY EXPENSE CLAIM.

A. Consistent with my discussion regarding sewer utility costs, I am recommending adjustments to the Company's water utility costs relating to rate case expense (Schedule 9-W) and chemicals (Schedule 10-W). My rationale for these adjustments was discussed in Section IV of my testimony.

In addition, I am recommending the elimination of the Company's inflation adjustments relating to office supplies and rent, dues and subscriptions, various repair and maintenance categories, vehicle usage, small tools and equipment, diesel fuel, gasoline, legal, water testing and analysis, accounting, travel, and insurance, as shown on Schedule 11-W. I have not rejected all base year adjustments to these cost categories, however. For example, I have accepted PUCI's increase in repair and maintenance costs associated with three specific repairs, as well as increases relating to fire hydrant painting. It is only the general inflation cost increases associated with these cost categories that I have eliminated from my revenue requirement recommendation.

At Schedule 11-W I have also reflected the elimination of certain cost increases projected for PVC and ductile iron pipe used in water line repair. PUCI reflected an inflation factor of 10.5% for these items, based on "opinion evidence of Mr. Reed's review of purchase orders, vendor responses to recent pipe price increases and the wholesale price index changes for nonferrous pipe, tube, and fittings." (Response to PCA-SIR-127) None of this "opinion evidence" was furnished by the Company and therefore I have eliminated this 10.5% increase.

I have also reflected the elimination of income tax liability for PUCI's water utility, for reasons previously discussed. In addition, it should be noted that the base year interest expense incurred by the water utility (and not reflected by the Company as an income tax deduction) was $56,776 (Exhibit E-8E), significantly greater than the $2,909 incurred by the sewer utility.

Q. ARE YOU RECOMMENDING ANY ADJUSTMENT TO THE COMPANY'S DEPRECIATION EXPENSE CLAIM?

A. Yes, at Schedule 12-W I have reflected depreciation expense adjustments that correspond to the rate base adjustments discussed earlier. These adjustments include the elimination of depreciation expense on plant transferred from PWS; elimination of depreciation expense on the airport water line; elimination of five months of depreciation expense for the electric drive conversion due to in-service delays; and elimination of four months of depreciation expense for the SCADA base station.

In addition, the depreciation expense associated with the electric drive conversion program has been revised to reflect a useful life of 240 months, rather than the 120 months reflected by the Company.

Q. WHY ARE YOU RECOMMENDING A USEFUL LIFE OF 240 MONTHS FOR THE ELECTRIC DRIVE CONVERSION PROGRAM?

A. This program involves the conversion of the Company's water pumps from diesel power to electric power. Therefore, this project is significantly more involved then simply replacing a motor or a pump. Rather it involves redesign of systems that will be necessary to provide electric power service long after any particular motor or pump has reached the end of its useful life.

In a sense, this particular project has components that have an infinite useful life, as presumably electric power will be the fuel of choice indefinitely. Therefore, the Company's proposal to use a ten year life, which it supports as having been adopted by the Commission for motors on electric pumps, clearly understates the magnitude of this project and its impact on operations well into the future.

Q. DID THE COMPANY REFLECT A DIFFERENT DEPRECIABLE LIFE FOR THIS PROJECT IN ITS LAST BASE RATE CASE?

A. Yes, I understand that in its last case, PUCI reflected a useful life of 26 years. The electric drive conversion project was subsequently eliminated from the Company's rate base claim.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Commission adopt a useful life of 240 months or 20 years for the Company's well conversion project. This useful life is reflected in Schedule 12-W. Depreciation rates are by definition somewhat subjective. However, in determining appropriate rates, regulatory agencies attempt to estimate the period over which ratepayers will receive benefits from a particular investment, and to recover the costs of that investment over the period in which benefits are received. Given the magnitude of the costs involved in converting from diesel to electric power, one would expect (and hope) that any resulting benefits would continue for a period of at least twenty years. It should also be noted that the existing diesel drive motors are "over 20 years old" (PUCI Exhibit G-2, page 4), providing further support for the use of a twenty year life for the conversion project.

D. <u>Electric Power Adjustment Surcharge</u>

Q. IS THE COMPANY REQUESTING AN ELECTRIC POWER ADJUSTMENT SURCHARGE FOR ITS WATER UTILITY?

A. Yes, it is. The Company is seeking this adjustment mechanism "[i]n conjunction with the conversion of its water source system from diesel power to electrical power." (Application in Docket No, 95-0172, page 4)

Q. DO YOU BELIEVE THE COMMISSION SHOULD ADOPT AN AUTOMATIC POWER COST ADJUSTMENT?

A. No, I do not. It was the Company, not the ratepayers, that made the decision to convert from diesel fuel to electric power. The Company was fully aware of the cost of electric power on the island of Kauai when it made this decision. In spite of this high cost, PUCI argues that the conversion is necessary to improve reliability; provide greater efficiency in operations; reduce manpower requirements; reduce the need for refueling; eliminate noise complaints; and reduce pollution. The Company's decision appears to have been driven, at least in part, by future demand requirements. PUCI argues that future diesel operations would have required two new large above-ground tanks and an improved access road.

The Company's claim includes approximately $250,000 in annual revenue requirements relating to return on investment, depreciation expenses and taxes, and electric power costs, which is 2/3rds of its rate increase request. In spite of these higher costs, I have included the Company's electric drive conversion program in my pro forma rate base. However, I do not believe that is reasonable or equitable to ask ratepayers to bear the entire risk of future electric rate increases, on top of paying significantly higher rates as a result of the Company's decision to convert to electric power. It should also be noted that PUCI did not reflect any salary or wage savings relating to the conversion program in its revenue requirement. It appears that such savings will flow to the benefit of PUCI, while at the same time ratepayers are being asked to bear the risk of higher electric rates.

It is the Company that made the decision to convert to electric power. It is also the Company that decides when additional rate relief is needed through the rate case process. One component of the Company's revenue requirement, i.e. electric power costs, should not be isolated for special ratemaking treatment by the Commission, particularly when it was the Company that made the decision to expose itself to the effects of increased electric power costs by undertaking the conversion program.

Therefore, I recommend that the Company's request for an automatic electric power surcharge be denied.

E. Revenue Requirement Summary

Q. WHAT IS THE RESULT OF THE ADJUSTMENTS WHICH YOU ARE RECOMMENDING IN THIS CASE TO THE COMPANY'S WATER UTILITY REVENUE REQUIREMENT?

A. As shown on Schedule 14-W, my recommendations result in a total revenue requirement for water operations of $479,867. This necessitates a rate increase of $36,776 or 8.30% over pro forma revenue at present rates, as shown in Schedule 1-W.

F. Distribution of Revenue Requirement Recommendation

Q. PLEASE DISCUSS YOUR ANALYSIS OF THE COMPANY'S RATE DESIGN.

A. After adopting a usage-based rate structure for residential water usage in the last case, the Company has now reversed itself and argues that the it needs protection from revenue fluctuations resulting from usage-based rates. Mr. Reed appears surprised by the results of the rate design implemented in the last case, testifying that "[o]ne conclusion I draw from the top chart is that the present rate design lowered the price of half of PUCI's water bills to single family residential customers." (PUCI Exhibit G-1, page 8) Mr. Reed's statement indicates that he does not completely understand how a rate design change is implemented. In fact, when converting from a flat rate to a usage-based system, it is expected that one half of the customers will experience rate decreases while others experience higher rates. This is because a flat-rate-based system is designed based on average customer usage, when in reality half the customers use more than the average and half use less. Furthermore, Mr. Reed criticizes the current rate design, arguing that it allows "snowbirds to avoid reimbursing PUCI for the cost it incurs in providing the water plant and its operating costs that are necessary to supply water service when it is demanded." However, it is not the snowbirds who are generally responsible for the demands placed on the system, but rather it is the commercial customers who frequently influence peak and average day demands. Since the Company has not undertaken a cost of service study, we do not know exactly which customer classes are responsible for the Company's costs. However, I do not believe that it is unreasonable to expect "snowbirds" to pay less for water than some other customers, such as the hotel.

The Company is proposing increases in its standby charges ranging from 126% to 1,217%. I believe that these increases are too dramatic to be implemented without a cost study to demonstrate the costs being generated by each meter size and customer class. Accordingly, I recommend that the entire revenue increase be applied to the volumetric charge. As shown on Schedule 15-W, this would result in a charge for water of $1.376 per 1,000 gallons.

At Schedule 16-W I have calculated the average monthly bill for each customer class under present and proposed rates, as follows:

	Current	Proposed	Increase
Residential R-1	$18.36	$19.79	7.80%
Residential R-2	152.94	165.61	8.29%
R-2 Per Unit		10.45	
Residential R-3	33.97	37.05	9.07%
Commercial	277.27	303.37	9.41%

As demonstrated above, my recommendations spread the increase fairly evenly among customer classes. In addition, my recommendation results in approximately one-fifth of the revenue requirement being recovered through fixed charges, as opposed to the Company's proposal to recover well over one-half of its revenue requirement through fixed charges.

Q. WHAT TYPES OF COSTS ARE GENERALLY INCLUDED BY REGULATORY COMMISSIONS IN A UTILITY'S FIXED CHARGES FOR SERVICE?

A. Regulatory commissions frequently limit fixed charges to direct customer-related costs, such as billing, meters and services, and customer service. Costs relating to serving either average day or peak capacity are generally excluded from fixed customer charges. Therefore, my recommendation to recover approximately 20% of the revenue requirement from fixed charges is entirely consistent with regulatory practices to limit fixed charges to specific customer-related costs. Perhaps more importantly, I believe that my recommendations provide a fair rate structure for the ratepayers of PUCI, and for the Company.

VI. PROPOSED FINANCING CONSIDERATIONS

Q. DO YOU HAVE ANY COMMENTS WITH REGARD TO THE COMPANY'S PROPOSED FINANCING ARRANGEMENT WITH ITS PARENT?

A. Yes, I do. PUCI is requesting approval of a financing arrangement with its parent company, PC, to borrow up to $3.9 million for capital improvements of the water and sewer systems. I have several comments regarding the proposed arrangement.

First, the terms of the loan include interest payments at two percent above the First Hawaiian Bank prime rate amortized over 15 years. I do not believe that PC should receive undue profits as a result of this financing arrangement. Since I do not know the terms under which PC borrows funds, at this time I am unable to determine whether a rate of 2% above prime is reasonable. I recommend that the Commission direct PC to provide information regarding the terms under which it can borrow funds. PC should also provide information regarding the administrative costs that it will incur to arrange the PUCI financing. I recommend that the interest rate included in the financing to PUCI be limited to all appropriate costs of PC, including some premium for the risk incurred in assuming increased debt.

Second, even if the terms of the financing arrangement are found to be reasonable, it does not follow that the investment being financed is appropriate for rate base inclusion. Therefore, the Commission should make it clear that approval of any financing arrangement does not imply approval of any specific capital projects in rate base. In this and all subsequent cases, PUCI should support any rate base claims with evidence that such investment is necessary to the provision of safe and adequate utility service.

With these caveats, I have no particular objection to the financing approval requested by the Company in Docket No. 95-0168.

VII. SUMMARY OF REVENUE REQUIREMENT RECOMMENDATIONS

Q. WHAT IS THE RESULT OF THE RECOMMENDATIONS CONTAINED IN THIS TESTIMONY?

A. My recommendations reduce the Company's revenue requirement increase for its sewer utility from $763,500 to $12,642, resulting in an average increase of approximately 1.46% on total revenue. My analysis indicates that the residential class is currently paying more than its distributed share of the revenue requirement based on water usage. Accordingly, I am recommending a reduction in the residential monthly rate from $27.09 to $22.80.

Allocation of the commercial class' revenue requirement results in a total revenue increase from that class of 68.65%. I am recommending that this increase be recovered through uniform percentage increases across all meter sizes, as well as through an increase in the volumetric rate applied to commercial customers from $2.730 per 1,000 gallons of water to $4.604. The rates developed as a result of my recommendation for both the residential and commercial classes are significantly below the rates being proposed by PUCI.

With regard to water utility service, I am recommending a rate increase of $36,776 or 8.30% over pro forma revenue at present rates. In addition, I recommend that this additional revenue be recovered from all customers through the volumetric charge, which would increase from $1.243 per 1,000 gallons to 1.376. I am also recommending that the Company's request for an automatic electric power surcharge be denied.

I am not opposed to the Company's proposed financing arrangement with PC. However, approval of this arrangement should not be construed as approval of the inclusion in rate base of any particular capital addition. Furthermore, terms of the financing arrangement should be limited to recovery of PC's appropriate costs.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

APPENDIX A

Company	Utility	State	Docket	Date	Topic	On Behalf Of:
Western Resources, Inc.	G	Kansas	193,503-U	1/96	Rev. Requirements	Citizens' Utility Ratepayer Board
Environmental Disposal Corporation	WW	New Jersey	WR94070319 (Remand Hearing)	11/95	Rev. Requirements	Division of the Ratepayer Advocate
Lanai Water Company	W	Hawaii	94-0366	10/95	Rev. Requirements	Division of Consumer Advocacy
Cablevision of New Jersey, Inc.	C	New Jersey	CTV01382-95N	8/95	Basic Service Rates (Oral Testimony)	Division of the Ratepayer Advocate
Cablevision of New Jersey, Inc.	C	New Jersey	CTV01381-95N	8/95	Basic Service Rates (Oral Testimony)	Division of the Ratepayer Advocate
Chesapeake Utilities Corporation	G	Delaware	95-73	7/95	Rev. Requirements	Office of the Public Advocate
East Honolulu Community Services, Inc.	WW	Hawaii	94-7718	6/95	Rev. Requirements	Division of Consumer Advocacy
Wilmington Suburban Water Corporation	W	Delaware	94-149	3/95	Rev. Requirements	Office of the Public Advocate
Environmental Disposal Corporation	WW	New Jersey	WR94070319	12/94	Rev. Requirements	Division of the Ratepayer Advocate
Roaring Creek Water Company	W	Pennsylvania	R-00943177	12/94	Rev. Requirements	Office of Consumer Advocate
Delmarva Power and Light Company	E	Delaware	94-84	11/94	Rev. Requirements	Office of the Public Advocate
Delmarva Power and Light Company	G	Delaware	94-22	8/94	Rev. Requirements	Office of the Public Advocate

Company	Utility	State	Docket	Date	Topic	On Behalf Of:
Empire District Electric Company	E	Kansas	190,360-U	8/94	Rev. Requirements	Citizens' Utility Ratepayer Board
Morris County Municipal Utility Authority	SW	New Jersey	MM10930027 ESW 1426-94	6/94	Rev. Requirements	Rate Counsel
US West Communications	T	Arizona	E-1051-93-183	3/94	Rev. Requirements	Residential Utility Consumer Office
Pawtucket Water Supply Board	W	Rhode Island	2158	3/94	Rev. Requirements	Division of Public Utilities & Carriers
Pollution Control Financing Authority of Camden County	SW	New Jersey	SR91111718J	2/94	Rev. Requirements	Rate Counsel
Roaring Creek Water Company	W	Pennsylvania	R-00932665	9/93	Rev. Requirements	Office of Consumer Advocate
Wilmington Suburban Water Company	W	Delaware	93-28	7/93	Rev. Requirements	Office of Public Advocate
Kent County Water Authority	W	Rhode Island	2098	7/93	Rev. Requirements	Division of Public Utilities & Carriers
Camden County Energy Recovery Associates, Inc.	SW	New Jersey	SR91111718J ESW1263-92	4/93	Rev. Requirements	Rate Counsel
Pollution Control Financing Authority of Camden County	SW	New Jersey	SR91111718J ESW1263-92	4/93	Rev. Requirements	Rate Counsel
Jamaica Water Supply Company	W	New York	92-W-0583	3/93	Rev. Requirements	County of Nassau Town of Hempstead
New Jersey-American Water Company	W/WW	New Jersey	WR92090908J PUCO7266-92S	2/93	Rev. Requirements	Rate Counsel
Passaic County Utilities Authority	SW	New Jersey	SR91121816J ESW0671-92N	9/92	Rev. Requirements	Rate Counsel
East Honolulu Community Services, Inc.	WW	Hawaii	7064	8/92	Rev. Requirements	Division of Consumer Advocacy
The Jersey Central Power and Light Company	E	New Jersey	PUC00661-92 ER91121820J	7/92	Rev. Requirements	Rate Counsel

Company	Utility	State	Docket	Date	Topic	On Behalf Of:
Mercer County Improvement Authority	SW	New Jersey	EWS11261-91S SR91111682J	5/92	Rev. Requirements	Rate Counsel
Garden State Water Company	W	New Jersey	WR9109-1483 PUC 09118-91S	2/92	Rev. Requirements	Rate Counsel
Elizabethtown Water Company	W	New Jersey	WR9108-1293J PUC 08057-91N	1/92	Rev. Requirements	Rate Counsel
New-Jersey American Water Company	W/WW	New Jersey	WR9108-1399J PUC 8246-91	12/91	Rev. Requirements	Rate Counsel
Pennsylvania-American Water Company	W	Pennsylvania	R-911909	10/91	Rev. Requirements	Office of Consumer Advocate
Mercer County Improvement Authority	SW	New Jersey	SR9004-0264J PUC 3389-90	10/90	Rev. Requirements	Rate Counsel
New York Telephone	T	New York	90-C-0191	7/90	Rev. Requirements Affiliated Interests	NY State Consumer Protection Board
Kent County Water Authority	W	Rhode Island	1952	6/90	Rev. Requirements Regulatory Policy	Division of Public Utilities & Carriers
Ellesor Transfer Station	SW	New Jersey	SO8712-1407 PUC 1768-88	11/89	Regulatory Policy	Rate Counsel
Interstate Navigation Co.	N	Rhode Island	D-89-7	7/89	Rev. Requirements Regulatory Policy	Division of Public Utilities & Carriers
Automated Modular Systems, Inc.	SW	New Jersey	PUC1769-88	5/89	Rev. Requirements Schedules	Rate Counsel
SNET Cellular, Inc.	T	Connecticut		2/89	Regulatory Policy	First Selectman Town of Redding

APPENDIX B

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Revenue Requirement Summary
Sewer Department

	Company Claim (A)	Recommended Adjustment	Recommended Position	
1. Average Rate Base	$2,979,045	($2,152,929)	$826,116	(B)
2. Required Return	10.00%	0.00%	10.00%	
3. Required Operating Income	$298,006	($215,366)	$82,640	
4. Pro Forma Operating Income	(233,689)	304,494	70,805	(C)
5. Income Deficiency	$531,695	($519,860)	$11,835	
6. Revenue Multiplier	1.4360	−0.3678	1.0682	(D)
7. Pro Forma Increase	$763,500	($750,858)	$12,642	
8. Present Rate Revenue			$868,324	(E)
9. Percent Increase			1.46%	

Sources:
(A) PUCI Exhibit F–2.
(B) Schedule 2–S.
(C) Schedule 9–S.
(D) Schedule 16–S.
(E) $799,867 per PUCI Exhibit F–2, plus pro forma revenue adjustment, per Schedule 10–S.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base Summary
Sewer Department

	Company Claim (A)	Recommended Adjustment		Recommended Positon
1. Original Cost of Property	$3,419,886	($2,309,140)	(B)	$1,110,747
2. Accumulated Depreciation	(507,829)	223,197	(B)	(284,631)
3. Net Plant In Service	$2,912,058	($2,085,942)		$826,116
4. Cash Working Capital	66,987	(66,987)	(C)	0
5. Total Rate Base Claim	$2,979,045	($2,152,929)		$826,116

Sources:
(A) PUCI Exhibits F-2 and F-3.
(B) Schedules 3-S, 4-S, 5-S, 6-S, 7-S, and 8-S.
(C) Testimony of Ms. Crane.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base - Aeration Clarifiers #3 & #4
and Related Projects
Sewer Department

	(A)
1. Plant in Service Claim	$2,078,832
2. Depreciation Reserve Claim	100,576
3. Net Plant in Service Adjustment	$1,978,256

Sources:
(A) PUCI Exhibit F-4, lines 35-39 and 41.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Sewer Department

	1995 F250 4X4 Flatbed Truck (A)	1995 F250 4X4 Flatbed Truck Acc. Dep. (B)	1995 F250 4X4 Flatbed Truck Net Plant
1. June '95	$0	$0	$0
2. July '95	0	0	0
3. Aug. 95	0	0	0
4. Sept. '95	0	0	0
5. Oct. '95	0	0	0
6. Nov. '95	0	0	0
7. Dec. '95	31,756	331	31,426
8. Jan. '96	31,756	662	31,095
9. Feb. '96	31,756	992	30,764
10. March '96	31,756	1,323	30,433
11. April '96	31,756	1,654	30,102
12. May '96	31,756	1,985	29,772
13. June '96	31,756	2,316	29,441
14. 13 Mo. Average	$17,100	$712	$16,387
15. Company Claim (A)	31,756	2,316	29,441
16. Recommended Adjustment	$14,657	$1,603	$13,054

Sources:
(A) PUCI Exhibit F–4.
(B) PUCI Exhibit F–5.

Schedule 5–S

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Sewer Department

	Effluent Pump #3 (A)	Effluent Pump #3 Acc. Dep. (B)	Effluent Pump #3 Net Plant
1. June '95	$0	$0	$0
2. July '95	0	0	0
3. Aug. 95	0	0	0
4. Sept. '95	0	0	0
5. Oct. '95	0	0	0
6. Nov. '95	0	0	0
7. Dec. '95	50,000	521	49,479
8. Jan. '96	50,000	1,042	48,958
9. Feb. '96	50,000	1,562	48,438
10. March '96	50,000	2,083	47,917
11. April '96	50,000	2,604	47,396
12. May '96	50,000	3,125	46,875
13. June '96	50,000	3,646	46,354
14. 13 Mo. Average	$26,923	$1,122	$25,801
15. Company Claim (C)	50,000	10,337	39,663
16. Recommended Adjustment	$23,077	$9,215	$13,862

Sources:
(A) PUCI Exhibit F–4.
(B) PUCI Exhibit F–5.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Sewer Department

	Drain Pump St. Solid Hand. Bldg. (A)	Drain Pump St. Solid Hand. Bldg. Acc. Dep. (B)	Drain Pump St. Solid Hand. Bldg. Net Plant
1. June '95	$0	$0	$0
2. July '95	0	0	0
3. Aug. 95	0	0	0
4. Sept. '95	0	0	0
5. Oct. '95	0	0	0
6. Nov. '95	0	0	0
7. Dec. '95	334,327	2,786	331,540
8. Jan. '96	334,327	5,572	328,754
9. Feb. '96	334,327	8,358	325,968
10. March '96	334,327	11,144	323,182
11. April '96	334,327	13,930	320,396
12. May '96	334,327	16,716	317,610
13. June '96	334,327	19,502	314,824
14. 13 Mo. Average	$180,022	$6,001	$174,021
15. Company Claim (C)	334,327	88,939	245,387
16. Recommended Adjustment	$154,305	$82,939	$71,366

Sources:
(A) PUCI Exhibit F-4.
(B) PUCI Exhibit F-5.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Sewer Department

	Lab Equipment BOD/TSS (A)	Lab Equipment BOD/TSS Acc. Dep. (B)	Lab Equipment BOD/TSS Net Plant
1. June '95	$0	$0	$0
2. July '95	0	0	0
3. Aug. 95	0	0	0
4. Sept. '95	0	0	0
5. Oct. '95	0	0	0
6. Nov. '95	8,500	142	8,358
7. Dec. '95	8,500	283	8,217
8. Jan. '96	8,500	425	8,075
9. Feb. '96	8,500	567	7,933
10. March '96	8,500	708	7,792
11. April '96	8,500	850	7,650
12. May '96	8,500	992	7,508
13. June '96	8,500	1,133	7,367
14. 13 Mo. Average	$5,231	$392	$4,838
15. Company Claim (C)	8,500	4,806	3,694
16. Recommended Adjustment	$3,269	$4,413	($1,144)

Sources:
(A) PUCI Exhibit F-4.
(B) PUCI Exhibit F-5.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Sewer Department

	(A)
1. Equipment Shelter	$35,000
2. Accumulated Depreciation	24,452
3. Net Rate Base Adjustment	$10,548

Sources:
(A) Exhibit F-4.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Pro Forma Operating Income Summary
Sewer Department

		Schedule No.
1. Company Claim	($233,689)	1–S
2. Sale of Effluent	64,086	10–S
3. Rate Case Amortization	33,750	11–S
4. Water Expense Recovery	11,131	12–S
5. Chemical Expense	2,665	13–S
6. Inflation Adjustments	6,947	14–S
7. Depreciation Expense	185,915	15–S
8. Net Income	$70,805	

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Sale of Effluent
Sewer Department

1. Test Year Effluent (000 gallons)		184,421	(A)
2. Incremental Electricity Costs/ 1,000 gallons		$0.3712	(B)
3. Gross Revenue Adjustment		$68,457	
4. Revenue Taxes @	6.39%	4,371	(C)
5. Net Revenue Adjustment		$64,086	
6. Income Taxes @	0.00%	0	
7. Net Income		$64,086	

Sources:
(A) Response to PCA–IR–104.
(B) PUCI Exhibit E–9A.
(C) Reflects PSC tax of 5.885% and public utility fee of 0.5%, per PUCI Exhibit G–1, page 15.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Case Expense
Sewer Department

1. Amortization Claim – Current Case		$40,000	(A)
2. Amortization Claim – Past Case		18,750	(B)
3. Total Company Claim		$58,750	
4. Recommended Rate Case Expense		25,000	(C)
5. Recommended Adjustment		$33,750	
6. Income Taxes @	0.00%	0	
7. Net Income		$33,750	

Sources:
(A) PUCI Exhibit F–8F, line 223.
(B) PUCI Exhibit F–8G, line 248.
(C) Based on two year amortization of $50,000.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Water Expense Recovery
Sewer Department

1. Expense Recovery Per Water Filing		$11,241	(A)
2. Water Expense Per Sewer Filing		22,372	(B)
3. Recommended Adjustment		$11,131	
4. Income Taxes @	0.00%	0	
5. Net Income		$11,131	

Sources:
(A) PUCI Exhibit E–7A.
(B) PUCI Exhibit F–7A.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Chemical Expense
Sewer Department

1. Test Year Expense		$30,667	(A)
2. Base Year Actual		28,003	
3. Recommended Adjustment		$2,665	
4. Income Taxes @	0.00%	0	
5. Net Income		$2,665	

Sources:
(A) PUCI Exhibit F-8D.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Inflation Adjustments
Sewer Department

1. Office Supplies and Rent		$547	(A)
2. Dues and Subscriptions		73	(B)
3. R&M – General		162	(B)
4. R&M – Buildings		46	(B)
5. R&M – Pumping Stations		919	(B)
6. R&M – Plant Equipment		1,117	(B)
7. R&M – Sewer Lines		123	(B)
8. Vehicles Usage		57	(B)
9. Grounds Maintenance		379	(B)
10. Small Tools and Equipment		173	(C)
11. Diesel Fuel		8	(C)
12. Gasoline		131	(C)
13. Legal		13	(D)
14. Water Testing and Analysis		266	(D)
15. Professional Fees		1,223	(D)
16. Accounting Fees		242	(D)
17. Travel		227	(E)
18. Educational Travel		157	(E)
19. Insurance		1,084	(E)
20. Total Inflation Adjustment		$6,947	
21. Income Taxes @	0.00%	0	
22. Net Income		$6,947	

Sources:
(A) PUCI Exhibit F-8B.
(B) PUCI Exhibit F-8C.
(C) PUCI Exhibit F-8D.
(D) PUCI Exhibit F-8E.
(E) PUCI Exhibit F-8F.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Depreciation Expense
Sewer Department

1. Depreciation Expense – Aeration Clarifier Projects		$172,416	(A)
2. Depreciation Expense – Flatbed Truck		1,654	(B)
3. Depreciation Expense – Effluent Pump #3		2,604	(B)
4. Depreciation Expense – Drain Pump Station		8,358	(C)
5. Depreciation Expense – Lab Equipment		(283)	(D)
6. Depreciation Expense – Equipment Shelter		1,167	(E)
7. Total Recommended Adjustment		$185,915	
8. Income Taxes @	0.00%	0	
9. Net Income		$185,915	

Sources:
(A) Reflects elimination of total depreciation expense on aeration clarifiers #3 and #4, per PUCI Exhibit F-5, as well as on other related projects.
(B) Reflects elimination of five months of depreciation expense, per PUCI Exhibit F-5.
(C) Reflects elimination of three months of depreciation expense, per PUCI Exhibit F-5.
(D) Reflects two additional months of depreciation expense, per PUCI Exhibit F-5.
(E) Reflects elimination of test year expense, per Exhibit F-5.

Princeville Utilities Company, Inc.

Test Year Ending December 31, 1995

Revenue Multiplier
Sewer Department

1. Revenue		1.00000	
2. PSC Tax		0.05885	(A)
3. Public Utility Fee		0.00500	(A)
4. State Taxable Income		0.93615	
5. State Income Taxes @	0.000%	0.00000	(B)
6. Federal Taxable Income		0.93615	
7. FIT @	0.00%	0.00000	(B)
8. Net Income		0.93615	
9. Revenue Multiplier		1.06820	

Sources:
(A) Reflects PSC tax of 5.885% and public utility fee of 0.5%, per PUCI Exhibit G–1, page 15.
(B) Testimony of Ms. Crane.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Pro Forma Income Statement
Sewer Department

	PUCI At Present Rates	Recommended Adjustments		Pro Forma Recommendation
	(A)			
1. Operating Revenue:	$799,867	$81,099	(B)	$880,966
Operating Costs:				
2. Electric Power	$144,357			$144,357
3. Wages & Benefits	283,735			283,735
4. Repair & Maintenance	64,959			64,959
5. Professional Fees	40,224			40,224
6. Taxes, Other Than Income	51,327	5,178	(C)	56,505
7. Operating Supplies	64,840	(13,795)	(D)	51,045
8. Miscellaneous Expense	10,695			10,695
9. Office Expense	15,277			15,277
10. Rate Case Expense & Amort.	58,750	(33,750)	(E)	25,000
11. Insurance	20,929			20,929
12. Inflation Adjustments		(6,947)	(F)	(6,947)
13. Depreciation	278,462	(185,915)	(G)	92,547
14. Operating Income Before Int. & Taxes	($233,688)	($235,230)		$82,641
15. Income Taxes	0	0		0
16. Net Operating Income	($233,688)	($235,230)		$82,641
17. Average Rate Base	$2,974,982			826,116
18. Rate of Return	-7.86%			10.00%

Sources:
(A) PUCI Exhibit F-2.
(B) Recommended increase per Schedule 1-S, plus pro forma revenue adjustment per Schedule 10-S.
(C) Total revenue adjustment per Line 1 times revenue tax rate of 6.385%.
(D) Schedules 12-S and 13-S.
(E) Schedule 11-S.
(F) Schedule 14-S.
(G) Schedule 15-S.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Distribution of Revenue Requirement
Sewer Department

	Base Year Water Usage (A)	Commercial Adjusted @ 1.30	Percent Dsitribution	Distributed Revenue Requirment	Present Rate Revenue
1. Residential Usage Single/Multi Family	158,126,001	158,126,001	60.71%	$486,707	$578,291
2. Commercial	78,723,714	102,340,828	39.29%	315,002	186,777
3. Effluent and Miscellaneous Charges				79,257	34,800
4. Total Revenue Requirement (B)				$880,966	$799,867

Sources:
(A) Response to PCA-SIR-164(b).
(B) Present rate revenue per Schedule 1-S, plus recommended increase.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Development of Proposed Rates
Sewer Department

Residential:

1. Total Residential Revenue Requirement	$486,707	(A)
2. Annual Customer Equivalents	1,779	(B)
3. Annual Sewer Charges	$273.60	
4. Monthly Rate	$22.80	

Commercial:

1. Total Revenue Requirement	$315,002	(A)
2. Revenue at Present Rates	$186,777	(A)
3. Required Increase	68.65%	

Meter Size	PUCI Present Rate	Recommended Proposed Rate	Percent Change
5/8"	$5.00	$8.43	68.65%
3/4"	6.25	10.54	68.65%
1"	10.00	16.87	68.65%
1 1/2"	20.00	33.73	68.65%
2"	27.50	46.38	68.65%
3"	56.25	94.87	68.65%
4"	118.75	200.27	68.65%
6"	181.25	305.68	68.65%
8"	312.50	527.04	68.65%
Usage (000 gals.)	$2.730	$4.604	68.65%

Sources:
(A) Schedule 18-W.
(B) PUCI Exhibit F-10.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Revenue Requirement Summary
Water Department

	Company Claim (A)	Recommended Adjustment	Recommended Position	
1. Average Rate Base	$1,474,914	($915,301)	$559,613	(B)
2. Required Return	10.00%	0.00%	10.00%	
3. Required Operating Income	$147,546	($91,585)	$55,961	
4. Pro Forma Operating Income	(117,852)	139,386	21,534	(C)
5. Income Deficiency	$265,398	($230,970)	$34,428	
6. Revenue Multiplier	1.3910	–0.3228	1.0682	(D)
7. Pro Forma Increase	$369,169	($332,393)	$36,776	
8. Present Rate Revenue			$443,090	(E)
9. Percent Increase			8.30%	

Sources:
(A) PUCI Exhibit E–2.
(B) Schedule 2–W.
(C) Schedule 7–W.
(D) Schedule 13–W.
(E) $412,303 per PUCI Exhibit E–2, plus pro forma revenue adjustment, per Schedule 8–W.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base Summary
Water Department

	Company Claim (A)	Recommended Adjustment		Recommended Positon
1. Original Cost of Property	$2,290,553	($1,628,485)	(B)	$662,068
2. Accumulated Depreciation	(851,581)	749,126	(B)	(102,455)
3. Net Plant In Service	$1,438,972	($879,359)		$559,613
4. Cash Working Capital	35,942	(35,942)	(C)	0
5. Total Rate Base Claim	$1,474,914	($915,301)		$559,613

Sources:
(A) PUCI Exhibits E-2 and E-5.
(B) Schedules 3-W, 4-W, 5-W, and 6-W.
(C) Testimony of Ms. Crane.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base - Transferred Water Plant
Water Department

1.	Original Cost of Transferred Plant	$1,163,519	(A)
2.	Depreciation Reserve Claim	604,401	(B)
3.	Net Plant in Service Adjustment	$559,118	

Sources:
(A) Response to PCA-SIR-106.
(B) PUCI Exhibit E-5.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Airport Water Line
Water Department

1. Original Cost of Airport Water Line	$179,930	(A)
2. Depreciation Reserve Claim	70,173	(A)
3. Net Plant in Service Adjustment	$109,757	

Sources:
(A) PUCI Exhibit E–5.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Water Department

	Conversion To Electric Drives (A)	Conversion To Electric Drives Acc. Dep. (B)	Conversion To Electric Drives Net Plant
1. June '95	$0	$0	$0
2. July '95	0	0	0
3. Aug. 95	0	0	0
4. Sept. '95	0	0	0
5. Oct. '95	0	0	0
6. Nov. '95	0	0	0
7. Dec. '95	602,995	2,512	600,482
8. Jan. '96	602,995	5,025	597,970
9. Feb. '96	602,995	7,537	595,457
10. March '96	602,995	10,050	592,945
11. April '96	602,995	12,562	590,432
12. May '96	602,995	15,075	587,920
13. June '96	602,995	17,587	585,407
14. 13 Mo. Average	$324,689	$5,411	$319,278
15. Company Claim (A)	602,995	76,534	526,461
16. Recommended Adjustment	$278,305	$71,122	$207,183

Sources:
(A) PUCI Exhibit E-5.
(B) Based on depreciable life of 240 months.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Base – Test Year Plant Additions
Water Department

	SCADA Base Station (A)	SCADA Base Station Acc. Dep. (B)	SCADA Base Station Net Plant
1. June '95	$0	$0	$0
2. July '95	0	0	0
3. Aug. 95	0	0	0
4. Sept. '95	0	0	0
5. Oct. '95	0	0	0
6. Nov. '95	0	0	0
7. Dec. '95	0	0	0
8. Jan. '96	12,500	208	12,292
9. Feb. '96	12,500	417	12,083
10. March '96	12,500	625	11,875
11. April '96	12,500	833	11,667
12. May '96	12,500	1,042	11,458
13. June '96	12,500	1,250	11,250
14. 13 Mo. Average	$5,769	$337	$5,433
15. Company Claim (C)	12,500	3,766	8,734
16. Recommended Adjustment	$6,731	$3,429	$3,301

Sources:
(A) PUCI Exhibit E–5.
(B) PUCI Exhibit E–6A.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Pro Forma Operating Income Summary
Water Department

		Schedule No.
1. Company Claim	($117,852)	1–W
2. Pro Forma Revenue	19,628	8–W
3. Rate Case Amortization	33,750	9–W
4. Chemical Expense	192	10–W
5. Inflation Adjustments	5,254	11–W
6. Depreciation Expense	80,562	12–W
7. Pro Forma Operating Income	$21,534	

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Pro Forma Revenue
Water Department

1. Company Claimed Consumption		251,405,059	(A)
2. Pro Forma Test Year Consumption		276,173,819	(A)
3. Recommended Adjustment		24,768,760	
4. Rate Per 1,000 gallons		$1.243	(B)
5. Gross Revenue Adjustment		$30,788	
6. Revenue Taxes @	6.39%	1,966	(C)
7. Incremental Cost – Electric Power		9,194	(D)
8. Net Revenue Adjustment		$19,628	
9. Income Taxes @	0.00%	0	
10. Net Income		$19,628	

Sources:
(A) PUCI Exhibit E–11, Rate Schedules R–1, R–2, and C.
(B) PUCI Exhibit E–14.
(C) Reflects PSC tax of 5.885% and public utility fee of 0.5%, per PUCI Exhibit G–1, page 15.
(D) Based on electric power costs per PUCI Exhibit E–9A.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Case Expense
Water Department

1. Amortization Claim – Current Case		$40,000	(A)
2. Amortization Claim – Past Case		18,750	(B)
3. Total Company Claim		$58,750	
4. Recommended Rate Case Expense		25,000	(C)
5. Recommended Adjustment		$33,750	
6. Income Taxes @	0.00%	0	
7. Net Income		$33,750	

Sources:
(A) PUCI Exhibit E–8D, line 153.
(B) PUCI Exhibit E–8D, line 188.
(C) Based on two year amortization of $50,000.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Chemical Expense
Water Department

		(A)
1. Company Claim		$2,209
2. Base Year Actual Expense		2,017
3. Recommended Adjustment		$192
4. Income Taxes @	0.00%	0
5. Net Income		$192

Sources:
(A) PUCI Exhibit E–8C.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Inflation Adjustments
Water Department

1. Office Supplies and Rent		$547	(A)
2. Dues and Subscriptions		19	(A)
3. R&M – General		887	(A)
4. R&M – Buildings		11	(B)
5. R&M – Plant Equipment		783	(B)
6. R&M – Water Lines		1029	(B)
7. Vehicles Usage		13	(B)
8. Small Tools and Equipment		103	(B)
9. Diesel Fuel		109	(B)
10. Gasoline		17	(B)
11. Legal		123	(C)
12. Water Testing and Analysis		460	(C)
13. Accounting Fees		329	(D)
14. Travel		94	(D)
15. Educational Travel		44	(D)
16. Insurance		684	(D)
17. Total Inflation Adjustment		$5,254	
18. Income Taxes @	0.00%	0	
19. Net Income		$5,254	

Sources:
(A) PUCI Exhibit E–8A.
(B) PUCI Exhibit E–8B.
(C) PUCI Exhibit E–8C.
(D) PUCI Exhibit E–8D.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Depreciation Expense
Water Department

1. Depreciation Expense – Transferred Plant		$28,020	(A)
2. Depreciation Expense – Airport Water Line		8,996	(B)
3. Depreciation Expense – Electric Drives		42,712	(C)
4. Depreciation Expense – SCADA Base Station		833	(D)
5. Total Recommended Adjustment		$80,562	
6. Income Taxes @	0.00%	0	
7. Net Income		$80,562	

Sources:
(A) Reflects elimination of total depreciation expense on transferred plant, per PUCI Exhibit E–6A.
(B) Reflects elimination of total depreciation expense on the Airport Water Line, per PUCI Exhibit E–6A.
(C) Reflects elimination of five months of depreciation expense, per PUCI Exhibit E–6A. Also reflects depreciation expense for the remaining seven months based on a 240 month useful life.
(D) Reflects elimination of four months of depreciation expense, per PUCI Exhibit E–6A.

Princeville Utilities Company, Inc.

Test Year Ending December 31, 1995

Revenue Multiplier
Water Department

1. Revenue		1.00000	
2. PSC Tax		0.05885	(A)
3. Public Utility Fee		0.00500	(A)
4. State Taxable Income		0.93615	
5. State Income Taxes @	0.000%	0.00000	(B)
6. Federal Taxable Income		0.93615	
7. FIT @	0.00%	0.00000	(B)
8. Net Income		0.93615	
9. Revenue Multiplier		1.06820	

Sources:
(A) Reflects PSC Tax of 5.885% and public utility fee of 0.5%, per PUCI Exhibit G-1, page 15.
(B) Testimony of Ms. Crane.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Pro Forma Income Statement
Water Department

	PUCI At Present Rates	Recommended Adjustments	Pro Forma Recommendation
	(A)		
1. Operating Revenue:	$412,303	$67,564 (B)	$479,867
Operating Costs:			
2. Electric Power	$109,198	$9,194 (C)	$118,392
3. Wages & Benefits	79,368		79,368
4. Repair & Maintenance	70,776		70,776
5. Professional Fees	29,239		29,239
6. Taxes, Other Than Income	26,326	4,314 (D)	30,640
7. Operating Supplies	(1,254)	(192) (E)	(1,446)
8. Miscellaneous Expense	3,396		3,396
9. Office Expense	16,163		16,163
10. Rate Case Expense & Amort.	58,750	(33,750) (F)	25,000
11. Insurance	15,774		15,774
12. Inflation Adjustments		(5,254) (G)	(5,254)
13. Depreciation	122,420	(80,562) (H)	41,858
14. Operating Income Before Int. & Taxes	($117,853)	$173,813	$55,960
15. Income Taxes	0		0
16. Net Operating Income	($117,853)		$55,960
17. Average Rate Base	$1,472,950		559,613
18. Rate of Return	–8.00%		10.00%

Sources:
(A) PUCI Exhibit E–2.
(B) Recommended increase per Schedule 1–W, plus pro forma revenue adjustment per Schedule 8–W.
(C) Schedule 8–W.
(D) Total revenue adjustment per Line 1 times revenue tax rate of 6.385%.
(E) Schedule 10–W.
(F) Schedule 9–W.
(G) Schedule 11–W.
(H) Schedule 12–W.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Present and Proposed Water Rates
Water Department

	Meter Size	Customer Months	Present Rate	Proposed Rate
1.	5/8"	7057	$5.00	$5.00
2.	3/4"	76	6.25	6.25
3.	1"	24	10.00	10.00
4.	1 1/2"	310	20.00	20.00
5.	2"	444	27.50	27.50
6.	3"	60	56.25	56.25
7.	4"	120	118.75	118.75
8.	6"	72	181.25	181.25
9.	8"	0	312.50	312.50
10.	Water Use (A)		$1.243	$1.376
11.	Pro Forma Increase (B)			$36,776
12.	Pro Forma Test Year Usage (C)			276,173,819
13.	Volumetric Increase / 1,000 gallons.			$0.133

Sources:
(A) Based on increase per Line 13.
(B) Schedule 1–W.
(C) Schedule 8–W.

Princeville Utilities Company, Inc.

Test Year Ending June 30, 1996

Rate Increase Impact
Water Department

	Meter Size	Schedule R-1 (A)	Schedule R-2 (B)	Schedule R-3 (C)	Schedule C (D)	Proposed Rates (E)
1.	5/8"	6211	252	366	228	$5.00
2.	3/4"	0	0	76	0	6.25
3.	1"	0	24	0	0	10.00
4.	1 1/2"	0	228	0	82	20.00
5.	2"	0	312	0	132	27.50
6.	3"	0	24	0	36	56.25
7.	4"	0	72	0	48	118.75
8.	6"	0	48	0	24	181.25
9.	8"	0	0	0	0	312.50
10.	Usage (F)	66,759,000	91,377,000	10,223,819	107,814,000	

Average Monthly Rate Per Meter:				
11. Current	$18.36	$152.94	$33.97	$277.27
12. Proposed	$19.79	$165.61	$37.05	$303.37
13. Per Unit (G)		$10.45		
14. Percent Increase	7.80%	8.29%	9.07%	9.41%

Total Revenue (Excluding Miscellaneous)				
15. Current	$114,036	$146,822	$15,013	$152,498
16. Proposed	$122,926	$158,990	$16,375	$166,855

Sources:
(A) PUCI Exhibit E-16.
(B) PUCI Exhibit E-17.
(C) PUCI Exhibit E-18.
(D) PUCI Exhibit E-19.
(E) Based on recommendation of Ms. Crane.
(F) Reflects base year usage per PUCI Exhibits E-11 and E-12 for rate schedules R-1, R-2, and C; rate schedule R-3 based on PUCI test year estimate.
(G) Based on 1,268 units, per the response to PCA-SIR-135(b).

CERTIFICATE OF SERVICE

I hereby certify that on January 31, 1996, I did serve the appropriate number of copies of the DIRECT TESTIMONY OF INTERVENOR on the following by depositing same with the United States Mail and/or hand delivering same, to their addresses as shown below:

DEPARTMENT OF COMMERCE AND
CONSUMER AFFAIRS (1 copy)
Division of Consumer Advocacy
P. O. Box 541
Honolulu, Hawaii 96809

MR. MICHAEL Y.M. LOO (1 copy)
Vice President
Princeville Utilities Company, Inc.
P. O. Box 3040
Princeville, Kauai, Hawaii 96722

ALAN M. OSHIMA, ESQ. (2 copies)
MICHAEL H. LAU, ESQ.
Oshima, Chun, Fong & Chung
Davies Pacific Center
841 Bishop Street, Suite 400
Honolulu, Hawaii 96813

Dated: Lihue, Kauai, Hawaii, January 31, 1996.

Paul A. Lynch

for DAVID W. PROUDFOOT
Attorney for PRINCEVILLE AT HANALEI
COMMUNITY ASSOCIATION