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LINDA ✓
ART ✓
UCAN WANTS MIKE & THE COUNCIL TO CONSIDER THESE COMMENTS (ESPECIALLY ON #1) LINDA?
JEFF

Date: April 25, 1994

TO: Commissioner Mike Lindberg

FROM: Joe Keating & Tom O'Keefe

Re: Water/Sewer Bill Relief Program

Dear Mike:

We are clearly in favor of providing low income relief for water and sewer bills. We agree that the two pronged approach of providing assistance to reduce demand coupled with bill reduction is the best approach. Here are some specific recommendations which if implemented would enhance the program:

1. Releave all participants from their storm water charge and have all participants disconnect their rainspouts from the sewers and install inexpensive splash blocks. The majority of the participants are being overcharged currently. This adds another $48 of savings annually for the participants and reduces the pressure on the sewer system.

2. Have the Utility companies provide the conservation kits including shower heads.

3. Include citizen volunteers in the home inspection program. Neighbors helping neighbors.

4. Include monthly billing for participants.

5. Spread cost to all ratepayers (commercial & residential). The increased cost to commercial customers would not be great and shouldn't increase pressure for them to pass on the the additional cost.

6. Eliminate the late payment fee for participants and reduce the the reconnection charge. Whereever possible reduce administrative charges.

7. Include the ratepayer checkoff contribution provision in the billing system.

8. Have lower fees for the first 1000 cubic feet of water and higher thereafter. In other words be more aggressive with the block pricing mode than is currently being considered.

9. Be creative with the education campaign and include such things as the attached sign to be put above toilets.

10. Encourage participants to help payback the community by volunteering time to help in community projects. Neighbors helping neighbors.

We can expand on the above suggestions and stand ready to help.

Thanks,

Joe & Tom

Analysis of Assistance Options for Low Income Households' Water and Sewerage Utility Costs

prepared by the
Bureaus of
Environmental Services
and Water Works

January, 1994

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Within the Bureaus of Environmental Services and Water Works, particular effort and contribution to this project came from a number of the staff, as noted below:

Principal Investigators
- Jim Burke
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Steering Committee
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- Mary Pat Gardner
- Charles Garver
- Dave Gooley
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- Steve Mapes
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- Judi Ranton
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I. INTRODUCTION

As costs for providing water and sewer service to Portland's residents continue to rise, the City Council has expressed concern about the "affordability" of municipal utility services. With both water and sewer charges based on the amount of water used, the immediate focus of concern is on households with low incomes and high water use.

Responding to a directive from the Commissioner-in-Charge and the City Council, the Bureaus of Environmental Services and Water Works recently completed a two-phase study of factors contributing to high water and sewer charges in low income households and what is or might be done to mitigate this problem. There were two specific objectives of this research:

- To conduct a pilot study of selected customers identified as "high use/low income" to determine the causes of their high usage and to formulate and test different mitigation strategies.

- To develop a policy framework and alternative program options which could support the development of a broadly-based strategy to address low income customers' ability to afford city utility bills.

This report describes the bureaus' activities and reviews options for future action. The report is presented in five sections. Aside from these introductory remarks, Section I presents a summary of the report and offers a brief recap of the utility costs problems facing low income households. Section II describes the intended beneficiaries of low income assistance, including our estimates of the number of households affected and a profile of typical utility use and costs. In Section III are the results of the pilot program to assess causes of high utility bills for low income households and a survey of existing resources. This section also includes the results of a survey of other cities, describing their approaches to this issue. Next, Section IV outlines a policy framework for considering the issue of broadly-based assistance. This section also presents criteria for evaluating program options and measures a number of possible alternatives against these criteria. It describes program opportunities for Council consideration that could go forward in the next fiscal year. Finally, Section V presents an assistance strategy -- the steps that can be taken immediately to improve or implement assistance.

Summary

The findings of this study include:

- Analysis of customer account data indicates there are approximately 5,000 water/sewer customers characterized as "low income/high water use" based on criteria presented in Section II.

- A pilot program to collect information about assistance needs, targeted at selected low income/high water use households, had unusually high response from participants. The results suggest that lifestyle is the primary contributor to high water use in low income households. However, there was evidence that repair of plumbing leaks would reduce consumption and, consequently, water and sewer charges.

- Customer accounts analyzed in the pilot study have about the same degree of credit problems affecting water and sewer bills as the general customer population.

- There are a number of resources presently available in the community which might assist qualifying households to affect lower water and sewer charges, but the coordination of services is minimal.

- Criteria which recognize the City's long-standing reliance on cost of service pricing practices can be used to screen program alternatives. Several options are available that meet the criteria and which could be used to mitigate utility costs for low income households.

- Of 22 major cities nationwide and 7 communities elsewhere in Oregon surveyed in this study, 9 have implemented some type of financial assistance for low income or senior citizen customers. When queried about the rationale and benefit of their programs, most stated that the programs were consistent with community values. Among the cities with programs, the general consensus was that they met political and social objectives, although most of them had minimal impact upon utility costs.

- There are opportunities to proceed with programs in FY 1995 which take advantage of existing community and agency service systems and incur minimal added cost. While these ventures move forward, both agencies can continue to gather information and improve resources to assess and meet long term needs.

Affordability

The cost of municipal utility services is a concern to many households in the community. Yearly Council action to adjust rates for water and sewer charges is only one source of change in utility costs affecting Portland's households. Recent changes in the pricing of sewer services has exacerbated the ability to afford utility services for many customers with limited incomes.

Beginning in July, 1993, the Bureau of Environmental Services shifted pricing for residential sewer services from a monthly flat rate charge (based on a class average) to one based on individual household water consumption during the winter months. Separate rates for low-income senior and disabled customers, based on average usage for their customer classes, were discontinued. This change in pricing structure enhanced equity between customers in the distribution of sewer charges. Sixty percent of City sewer customers' use is below the class average, the basis for flat rate charges, resulting in reduced sewer utility costs for these customers (exclusive of annual rate adjustments). It also meant increased bills for residential customers with above-average consumption.

At the same time, the Water Bureau has observed continuing decreases in retail water sales. This is most likely attributed to the sustained effect of changes made in response to conservation and the drought experience of 1992. However, operating requirements are generally fixed in the near term: the numbers of meters to read, bills to process or reservoirs and pipelines to maintain are unchanged despite reduced water consumption. The result is pressure to adjust rates upward to maintain constant levels of service. The alternative is to cut services.

This study reflects an effort by the two bureaus to come to grips with increasing costs for service, particularly as they impact customers with limited ability to pay. The Bureaus agreed to the following strategy to segment activity into two phases:

- In the first phase the bureaus conducted a pilot program to gather basic data on the nature of water use within a sample drawn from low income/high water use customers. Other objectives included identification of resources already existing in the community that could be brought to bear to solve the problems of high water and sewer bills in low income households. The effort was designated Phase I.

- The Phase II segment considered a broad range of program options suitable for mitigating high utility charges for low income households. This research included a survey of other jurisdictions, formulation of a policy framework and criteria to assess the desirability of alternatives, and the characterization of program options.

II. UNDERSTANDING THE PROBLEM

Identifying the Target Population

Significant work to identify customer households most likely affected by high utility charges began in fall, 1993. Accurately estimating the number of low income customers with high utility bills turned out to be a challenging task.

Households participating in the federally-sponsored Low Income Energy Assistance Program (LIEAP) are presumed to be potential candidates for a low income assistance program tied to City utility services. LIEAP provides direct support for qualifying applicants to pay seasonal heating bills. Enrollment begins in October and runs through the remainder of the "heating" season. Approximately 13,000 households participated in the 1992-93 season. The means test qualification for the LIEAP program is 125 percent of the federally poverty level (FPL) income guidlelines for the community. This amount varies by household size. For a Portland family of four, the 1993 allowance was just under $18,000.

Other standards may be better suited for ongoing utility-costs assistance, such as one derived from median household income data. This measure tends to focus on a family's relative economic condition in the community, rather than an absolute level like the FPL guideline. For this study, a means test threshold of $27,000 is used. This is 66 percent of the 1993 median household income for a Portland family of four, $40,700. These data are provided annually for Portland families by the federal Department of Housing and Urban Development (HUD). The HUD data characterize "low" income as 50 percent of median income, and "moderate" income as 80 percent of median. The qualification threshold used here is about half way between the two.

Critical to determining the potential population that might be served by low income assistance programs is the proportion of customers living in single family versus multi-family dwellings. City utility bills for most multi-family dwellings are paid by landlords. Tenants in multi-family housing are minimally impacted by the recent change in sewer rates because rates are based on the usage level of the entire facility, averaged over the number of units. Presumably, assistance programs would, at least initially, target single family residences where the residents paid the utility bill, whether renter or owner occupied.

Available data provide scant information regarding the distribution of housing among low income residents, i.e., whether they live in single family or multi-family dwellings. By factoring information taken from census data, estimates indicate there are about 36,000 households within our low income threshold. That suggests many of these low income families occupy rental housing. However, rough estimates derived from housing counts

suggest that an many as 10,000 to 12,000 of these families reside in single-family dwellings, both renter and owner-occupied. These are the people low income assistance programs would serve.

A survey of targeted accounts by the Water Bureau resulted in comparable statistics. The focus of this effort was "high use" single family residential accounts, both renter and owner occupied. Recall that sewer charges are based on the lesser of actual use in any quarter or the customer's "winter average" use. The latter normally excludes consumption for outdoor watering, so it is representative of the domestic discharge to the sewer system. City-wide, the winter average residential water consumption is slightly more than 18 hundred cubic feet (Ccf) per quarter. A level representing 150 percent of this amount, 28 Ccf, was set as the benchmark to denote "high water use households." Review of current Water Bureau billing data resulted in a tally of approximately 15,200 households at or exceeding this level of wintertime water use. The typical combined *monthly* water and sewer bill for a household at the 28 Ccf per quarter consumption is $35 (including stormwater charges).

The bureaus drew a statistical sample of these customers and conducted a telephone survey. The survey instrument and tabulation are included in Appendix A. A number of questions were posed to the 1,006 customers who participated (a 6.6 percent sample), including an inquiry about household income. From the information obtained by the survey, an estimated one-third of the customers in the high use group, about 5,000, also have household incomes at or below the $27,000 income threshold.

Among the other questions asked in this survey was the respondents' perception of their own level of water use. Although participants were selected because of their high water use, only 18 percent of the respondents viewed their own usage as "high." The majority felt their use was "average" while about one-quarter of the respondents thought their usage was at a "low" level.

Finally, statistics gathered from the Oregon Department of Energy profile the average costs of all utility services for a "typical" household. For Portland, the representative case is an older 1,550 square foot single family dwelling. It has neither new appliances nor weatherization. This residence is occupied by a family of four. Their average monthly utility spending is as follows:

Heating, oil furnace	$51.25
Electricity	48.75
Sewer	*17.42*
Water	*9.34*
Garbage	17.60
Telephone	25.00
Total	**$169.36**

Water and sewer charges are 16 percent of total utility costs. Based on current income estimates for Portland, utility expenses amount to about 7.25 percent of median household

income. For the typical Portland household, water and sewer costs are *less than 1.5 percent* of their income.

In summary:

- the eligibility threshold for incomes at 66 percent of median income is $27,000 per year for a family of four, and for usage at 150 percent of average, a monthly water consumption of 28 Ccf;

- between five and six percent of the total residential customer accounts, or about 6,000 to 7,500 households, are estimated to meet the primary screening criteria -- 1) within the $27,000 income threshold, 2) usage high enough to result in disproportionately high bills, and 3) occupying a single family residence; and ,

- the typical or median city household pays combined water and sewer utility expenses of about $27 per month.

III. PHASE I: EXPERIENCE HERE AND ELSEWHERE

Testing a Pilot Program

To better understand how to develop programs to reduce the costs of water and sewer services for the target population, the Bureaus formulated a pilot program to collect information about the affected households and their water usage. The investigative hypothesis behind the pilot program was that the most likely reasons for high water use were one or more of several factors:

- the existence of in-ground leaks between the water meter and the house (also referred to as property-side leaks);
- leaking plumbing fixtures in the house; and,
- lifestyle habits and conditions.

To test this hypothesis, the Water Bureau arranged site visits to households believed to meet both the conditions of high use and low income. Identifying these customers proved to be a problematic undertaking. LIEAP agencies do not disclose participant lists. To secure addresses of potential participants, information already on hand within city agencies was used.

Two sources were selected. First was a list provided by the Energy Office of all participants in the City's Block-by Block Weatherization Program for the past four years. The qualification criteria for this program included a means test comparable to the LIEAP program. The second of the sources were participants from the now-discontinued "Low Income Senior Citizen Sewer Rate" program. This was a program that Environmental Services had in place in the past, which was superseded by the current practice of billing on metered use. Here too, participant eligibility criteria included a means test.

By matching these data with the list of 15,200 high use households, the bureau selected 458 customer accounts for further study. This study group was eventually reduced to 390 accounts after review for duplicates, closed accounts, or disqualification because of no longer meeting the criteria. The two hundred accounts with the highest usage levels were selected as site visit candidates. Further action on the remaining 190 accounts was withheld, pending findings from contact with the first group.

Commissioner Lindberg then sent a letter to these two hundred households (see Appendix B). It provided a brief explanation of the pilot program, sought their

participation, offered a site visit at no cost, and included postpaid return mailer to confirm their request of a site visit. Of the 200 letters sent, 61 responses for a follow-up site visit were returned to the Water Bureau. This represented an unusually high 30 percent response rate. Of these, 44 households were visited by Water Bureau Inspectors. For the remaining 17, several acknowledged that they had recently had leaks repaired and were no longer interested. The others were contacted three or more times by Water Bureau Customer Services staff but did not agree to a time for a visit.

The site visit consisted of discussing recent usage levels with the customer, inquiring about the customer's knowledge of any leaking fixtures in the house, offering (usually accepted) a "conservation kit" that explains ways to reduce water usage and includes pamphlets on do-it-yourself repair of leaky fixtures, and performing a "still meter" check to determine the possibility of a leaking water line between the meter and the dwelling. Approximately 45 minutes was spent by staff in contacting each customer and arranging for the visit. Inspectors usually completed the visit in 15 to 25 minutes.

The customers contacted appeared to universally appreciate the attention by the City to assist them in reducing usage. A small number, only five accounts, had evidence of leaks between the meter and the dwelling. At 16 of the sites, leaking plumbing fixtures were identified as a possible contributor to high usage levels. Of the remaining half of the sites visited, high water use levels were attributed to acknowledged or observed lifestyles (e.g., a large number of people residing at the house). A table summarizing the information obtained at each site is included as Appendix C.

Finally, for each of the 200 accounts contacted regarding a site visit, staff reviewed their credit and payment history to determine whether there was evidence of difficulty in paying utility bills. The pattern of performance was similar to the overall customer base. Seventy-two, or 36 percent, had some "credit" entry in their account records. Most of these were a "1st Notice" of payment delinquency. A smaller proportion had received "2nd Notice" or "Urgent Notice" contact prior to cessation of service. Several had contacted the Water Bureau Collections Department and made payment arrangements for delinquent account balances, enabling them to continue to receive service. In summary, based on the study the payment behavior of low income/high water use customers is nearly the same as the general water/sewer customer population.

Available Resources

The City already has a number of programs which could be used to provide assistance to low-income households in solving some of problems which result in high utility bills. Also, local social services agencies have joined with the private utilities in the League of Utilities and Social Service Agencies (LUSSA). This organization meets regularly and acts as an informal clearinghouse of information specific to addressing the impact of utility costs upon low income households. There are several resources within the community to provide assistance.

- Water Bureau conservation programs, including interior fixture retrofit, education programs and participation in neighborhood fairs, to increase awareness and understanding of the causes and consequences of high water use.

- The Portland Development Commission (PDC) has provided funding to eligible applicants for emergency plumbing repairs. This could finance the repair, for instance, of a broken water line between the meter and the dwelling, or serious leaks in inside fixtures.

- For renters, the Bureau of Buildings will respond to requests for inspection of code violations attributed to failed or leaking plumbing fixtures, enforcing property owner action to correct the problems.

- Social service agencies have provided "crisis funds" for households needing one-time or short-term assistance to meet payment obligations for utility services. This program has been discontinued for water and sewer bills because of insufficient funding.

- The Water Bureau Credit Department routinely makes water and sewer bill payment extension or extended payment arrangements for customers when they are unable to make timely payment of current accounts. About 8,000 customers use this avenue each year.

- Routine customer notification by the Water Bureau of evidence of property-side leaks observed during the regular meter reading and billing process.

- Local social service assistance programs, such as the Gatekeepers program directed toward elderly clients, can provide assistance in recognizing abnormal usage and help in remedying the problems.

Each of these offers some degree of support to impacted households. They provide information, remedying the problem or provide funds or financing strategies to address immediate needs.

Phase I Conclusions

The patterns evident from the information gathered in the Phase I pilot study disprove at least one of the hypotheses regarding the causes of high water use: property-side leaks seem to be only a minor factor. Of the other two potential causes, lifestyle choice is a far stronger factor contributing to high water use than leaky plumbing fixtures. Many of the customers contacted acknowledged they used large amounts of water incidental to their lifestyle. In these instances, there are limited opportunities for structural changes (i.e., water line or fixture repairs) that will significantly reduce ongoing expenses.

Despite this, it appears there is a bona fide need to continue to provide resources to address emergencies.

- The PDC programs have a demonstrated record of success in this area and can finance emergency repairs.

- More work could be done to acquaint renters of their options to bring pressure to bear on landlords to correct building code violations. However, caution is offered that this may result in some tenant/landlord conflicts in which the City could be perceived as partially responsible.

- The City could support crisis funding options, in effect replacing a support resource that has been withdrawn due to lack of funds.

- Continue efforts underway by both Bureaus, including payment alternatives and conservation assistance, as well as seeking out other assistance resources in the community (e.g., Gatekeepers).

The Experience of Other Communities

One of the key objectives of this study was to research the efforts of other communities. The practice of providing assistance in meeting city utility costs is a relatively recent practice. By considering what other communities are doing, Portland may improve the way services are delivered to its own customers.

Twenty-two different U.S. cities were contacted to survey their water or sewer assistance efforts. Four cities had water assistance programs directed at either senior/disabled citizen or low income customers. Another three had programs which addressed combined charges for water and sewer. The predominant source of funding was rates, and these assistance programs provided either a percentage or flat rate discount to charges. A means test qualification was often, but not always, a component of senior/disabled citizen programs.

Most of the cities contacted make payment arrangements with customers in arrears. Five had some kind of crisis assistance. These crisis funds were usually administered by social service agencies and funded with voluntary contributions.

Among the seven Oregon communities contacted, two had programs in place to provide for assistance with sewer charges. Funding in both cases is from rates, with eligibility limited to senior or disabled citizens, but not always low income. Assistance takes the form of both percentage and a flat rate discount. Additionally, one city has just begun a rate-funded crisis program to aid in the payment of water and sewer bills.

The survey results are summarized in Table 1. Of those cities outside Oregon providing assistance, follow-up contact was made to query them regarding specific details of their programs. Details of findings for cities with programs are presented in Appendix D.

Table 1: Summary, Survey of Selected Cities Rates Assistance Programs

City	Assistance Program	Eligibility	Type of Assistance	Funding Source	Comments
Austin	none	n/a	n/a	n/a	Hardship plan from voluntary funds
Boston	water only	All senior and disabled	Discount	Water Rates	Program offers 25 percent discount on water bill for all senior and disabled customers
Buffalo	water only	Senior citizens	Discount	Water Rates	Qualified senior citizen customers receive 36 percent discount off water bill
Charlotte	none	n/a	n/a	n/a	Crisis fund financed by General Fund
Cincinnati	none	n/a	n/a	n/a	
Denver	none	n/a	n/a	n/a	
Fresno	none	n/a	n/a	n/a	
Kansas City	none	n/a	n/a	n/a	
Los Angeles	both water and sewer	Low income, senior and disabled	Discount	Rates	Water: Low Income - $5 to $10 monthly discount based on occupancy; Senior/Disabled - $10 monthly discount Sewer: Low Income/Senior/Disabled - bill is discounted to 85 percent of actual charges
Louisville	none	n/a	n/a	n/a	will make payment arrangements
Miami	none	n/a	n/a	n/a	
New York City	none	n/a	n/a	n/a	
Oakland	water only	Low income	Discount	Rates	Eligible customers receive 50 percent discount on service charge and 50 percent discount on use allowance of 1.34 Ccf per person per month
Philadelphia	both water and sewer	Seniors	Discount	Grants (from rates)	Low Income Seniors: discount of 25 percent off water and sewer bills; Low Income: payment arrangements program which includes subsidy
Sacramento	none	n/a	n/a	n/a	

Table 1: Summary, Survey of Selected Cities Rates Assistance Programs (contd)

City	Assistance Program	Eligibility	Type of Assistance	Funding Source	Comments
Salt Lake City	none	n/a	n/a	n/a	Hardship program administered by Red Cross, funded by voluntary contributions
San Diego	none	n/a	n/a	n/a	
Seattle	both water and sewer	Low income, senior and disabled	Discount	Rates	Qualified households receive 40 percent discount on City utility services, including water, sewer and garbage bills; administered by Department of Housing and Human Services
San Francisco	none	n/a	n/a	n/a	All residential sewer accounts receive first 6 Ccf on bi-monthly bill at no charge
St. Paul	none	n/a	n/a	n/a	
Toledo	water only	Low income seniors	Discount	Rates	First 20 Ccf per quarter discounted 20 percent
Tucson	none	n/a	n/a	n/a	Crisis assistance available through social service agencies
Bend	sewer only	Senior or disabled	Discount	Rates	50 percent discount on sewer bill
Corvallis	none	n/a	n/a	n/a	
Eugene	none	n/a	n/a	n/a	
Gresham	none	n/a	n/a	n/a	$20,000 water and sewer crisis funds from rates beginning November, 1993
Salem	sewer only	Senior or disabled	Credit to charges	Rates	Qualified customers receive $6.35 credit on bi-monthly sewer bill
Washington County	none	n/a	n/a	n/a	Unified Sewerage Agency provides sewer service to unincorporated Washington County
Vancouver	none	n/a	n/a	na/	

IV. A POLICY FRAMEWORK FOR THE FUTURE - PHASE II

Programs to address the needs of low income households identified in the preceding sections are separated into two categories: those that can be implemented now and those planned for the future. This section describes a framework for considering options. It focuses primarily on longer-term strategies. The screening criteria and program options characterize different approaches to low income customers' needs. Because of the policy implications and fiscal consequences, they warrant thoughtful and careful deliberation. Some of these program options could be undertaken right away, but most require a long-term commitment to development and implementation.

Utility Rate Structure

Typically, municipal water and sewer utilities are established as self-supporting enterprises. User fees and charges are set to fully recover the costs of operating and capital programs. For nearly two decades, Portland's water and sewer utilities have shared a common rate setting methodology: *cost of service*. This is the approach required for sewer utilities that have received Federal grants, like Portland, and is the water industry pricing standard. Cost of service rate making dictates that users of water and sewer services should pay the cost of providing the service according to the amount they use. Under this approach, ratepayers are charged the same for the same levels of service.

Although Portland's policies for utility rate-setting follow cost of service principles, pricing structures for sewer and drainage service have historically differed from water service. Until July, 1993 sanitary sewer charges for residential customers were based on the average winter time water use for four distinct customers classes: single family, multi-family, low income senior and disabled citizens. Now, each residential account pays according to its own usage activity, reviewed annually based upon water use during the winter months.

This change reaffirmed Portland's commitment to cost of service rate-making methodology. The system enhances the correlation between a customer's use of the sewer system and their bill. The result is improved equity in sewer charges, which was the primary objective of the change in billing practices.

However, the combination of rising sewer and water costs and implementation of metered billing for the residential customers has raised new concerns regarding the impact upon low income households. In its last biennial rate study, the Bureau of Environmental Services recommended that the issue of low income assistance for municipal utility costs be given priority consideration for study. The City Council concurred.

A key issue regarding selection of a low income assistance program is consistency with cost of service rate-making principles and practices. Apportioning costs and recovering charges on a cost of service basis is an "industry standard" practice in both water and wastewater finance. Major modifications to existing rate-making policy could expose the City to significant liabilities, including customer perceptions of reduced equity and possible legal challenges. Further, given both utilities' reliance on private capital markets for financing capital improvements, any changes to rate-making policies must be evaluated in light of their potential impact to bond ratings and the cost of borrowing.

It is possible to structure an assistance program for low income households that is consistent with cost of service principles. There are opportunities which complement cost of service in the context of the fiscal and operational objectives of the City's water and sewer utilities:

- **Maintain fiscal stability.** Both bureaus seek to maintain fiscal stability over the long term. Addressing concerns over rate impact to low income households could aid in maintaining stability in financial management activities.

- **Reduce late payments and collection costs.** Low income assistance programs have the potential of reducing problems associated with payment delinquencies and the costs of pursuing collections.

- **Improve customer relations.** Maintaining good customer relations is key to achieving many goals within Water Works and Environmental Services, including conservation and pollution prevention activities. Low income assistance programs could help improve customer relations and ultimately support other bureau objectives.

- **Support City goals for economic development and neighborhood viability.** Water and sewer services play a major role in supporting economic development and neighborhood viability. Low income assistance programs could enhance that role for the two bureaus, increasing their contribution to broader City policies and objectives.

Each of these are strategic elements inherent to cost of service pricing principles. How well any assistance program measures up against these operational objectives is a key indicator of its acceptability. To accomplish the goal of developing an assistance strategy which is consistent with the underlying utility structure foundation, the Phase II study targeted four objectives:

1. To identify criteria to evaluate current and proposed options;

2. To formulate a set of assistance options which range from passive contact with customers to aggressive financial assistance programs;

3. To match the set of assistance options with the evaluation criteria and describe how each option "fits" with the criteria; and,

4. To review and analyze implementation issues for each option should the Council decide to proceed with one or more of these programs.

The results of this effort are described in the remainder of this section.

Basis for Evaluating Assistance Options

The choice of assistance options will have particular legal, operational, and financial implications. These evaluation criteria represent factors for both City officials and the Bureaus to consider before implementing any assistance option.

Cost: If the funding for low income assistance is provided by the utilities, then reducing charges to one group of ratepayers will require increasing charges to others. There is potential for breaching cost of service principles. Minimizing this shift in burden between ratepayers is the desired outcome. From this perspective, options having external funding sources (i.e., not derived from utility rates) are more desirable.

Legal Authority: Implementation of an otherwise desirable assistance option may be delayed if legal authority is lacking. Options for which legal authority already exists or is easily obtained are preferred. The Water Bureau Charter provisions are more restrictive than those applying to either Bureau of Environmental Services funds or the City, generally.

Benefit: An assistance option is more effective and better understood if it effectively targets intended beneficiaries and the benefits are meaningful.

Ease of Administration: An assistance program which is difficult to administer will require more staff time, have higher costs, and may discourage some eligible participants. Conducting means testing is a potential program requirement which could be especially onerous for either bureau to provide.

Impact on Wise Use of Water/Conservation: An assistance program that reduces bills by reducing water use at peak periods complements the Water Bureau's conservation efforts.

Equity: Low income programs will be better accepted if the program funding is equitable -- that one class is not being given preferential treatment at the expense of others.

Consistency with Existing Policy: Inconsistencies expose the entire rate structure to legal challenge. They also invite groups other than low income customers to seek separate treatment. This can raise costs for all customers.

The study group considered an additional criteria: any proposed assistance plan should work well with the others, in the event final action included a combination of several options. Each program satisfied this criteria.

A particular assistance option may not perform well on all of the above criteria, and the weights given to each criterion may be subjective. Nevertheless, all the options presented are evaluated with the above criteria in mind. Further, if utility rates are restructured as a result of funding a program, it requires clearly defined objectives which address the policy basis for treating one customer group differently from others.

There is a notable issue all low income assistance options share with respect to benefit. Typically, residents of multi-family dwellings are not participants. They do not receive water/sewer bills directly. Instead, water and sewer service charges are billed to the landlord and are reflected in rents. These residents will not have experienced significant change in costs from the implementation of metered billing because they do not receive individual billings. There is no presumption any program offering assistance to low income households will be necessary to accommodate renters in multi-family housing units. This may be a circumstance that warrants review at some time in the future.

Assistance Options

Eleven options for assistance to low income households are described below. Section V addresses the more aggressive use of existing programs, as well as improved coordination and better consolidation of services already available. These options range from programs that the bureaus could implement with relative ease and minimal funding to programs which embody major policy considerations and substantial funding. For the most part, they represent new programs. Three can be implemented in the near-term, while the others are longer term strategies.

Each option is briefly discussed in concept, accompanied by a rough estimate of the annual costs for implementation. A cautionary remark about cost estimating is necessary:

- Options involving new programs (e.g., technical assistance or training, Budget Billing) have cost estimates based on the "start-up" costs for the activity. For example, an estimate of contract amounts to provide certain services.

- When an option is primarily a rate relief mechanism (e.g., lifeline rates, discount rates) the costs estimate *the revenues that would be foregone from sales* if the program were in effect, as well as cash outlay required at implementation.

Also included in these cost estimates is the incremental rate impact were these programs funded from utility rates.[1]

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[1] Based on the current interaction of rates and revenue requirements for both bureaus, we assume an approximate rate impact of .20 percentage points (i.e. two-tenths of one percent) increase on an average residential water and sewer bill for each $100,000 of additional program expenditure.

Included with each option is a brief listing of the apparent "pros" and "cons" of each option. Table 2, which follows the description of the programs, presents a summary of each option measured against the evaluation criteria.

A. Targeted Conservation Assistance

Cost *$100,000*
Rate Impact . . . . . *0.2 percent*
Time Frame . . . . . *near term*

These are programs targeted at reducing water and sewer costs use in low income households. Cost of service principles and rate structure can be retained or even enhanced. Existing conservation programs would be intensified and specifically marketed through existing low income assistance mechanisms (e.g., the League of Utilities and Social Service Agencies (LUSSA), PDC, Multnomah County). The leak detection/repair activity which was developed in the Phase I study would be enhanced and continued.

A key element of this approach is to aggressively seek out and take advantage of existing assistance programs and provide referrals. The bureaus could establish on-going programs to perform site audits to identify conservation opportunities. It would be desirable to be able to subsidize the repair of faulty fixtures. Over the longer term, this program could be expanded to include comprehensive resource audits in conjunction with the Portland Energy Office.

The level of funding would enable direct contact with an estimated 800 to 1,000 customers per year. This includes contact and follow-up with all customers identified as having potentially serious property-side leaks, which number about 200 per year.

Pro:

- The Water Bureau already does a good deal of this type of work in conjunction with its conservation programs;
- Because these programs could be used by any customer, there is no cross-subsidization between different classes of users involved in this type of effort;

Con:

- This level of activity may not be perceived as aggressive or proactive enough;
- These programs can be inherently limiting, addressing a narrow segment of the population. Some customers are insensitive to a conservation ethic, and others cannot afford to correct problems. Those who do respond may not necessarily those most in need of financial assistance.

B. Budget Billing

Cost *$70,000*
Rate Impact . . . . . *less than 0.2 percent*
Time Frame . . . . . *longer term*

Budget billing has already been considered and approved for implementation by City Council.[2] It includes continuing the reading of water meters every quarter, but sending participants a billing each month. When re-programming to the billing system is completed, all customers will be offered an option to switch from quarterly to this monthly billing option. Meter reading will continue on a quarterly basis. In effect, one-third of the quarterly bill is paid each month, plus a small service charge. This option makes utility costs more manageable by increasing the frequency of bills and reducing the large accumulation of charges in a single payment.

Cost estimates reflect the expense of one-time account change costs and ongoing staff expense for enrollment in the program. Potentially, all low income households receiving utility bills could participate in this program.

Pro:

- It is consistent with conservation objectives by increasing the frequency of price signals;
- Because Budget Billing is "self-selected" there are few added costs other than initial set up costs;
- This approach addresses problems where a large bill is evident in an "unbudgeted" setting;
- This program is open to anyone wanting to participate, thus avoiding any means testing or cross-subsidization;

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[2] In April, 1993 the Water Bureau presented a report to City Council in response to an earlier query about changing the billing system to better accommodate "affordability" issues. Thirteen different program options and modifications were considered. Among them, Budget Billing was the preferred and recommended option. The Council approved of the proposed plan and directed staff to proceed with its implementation.

Since that time, there have been a number of unexpected delays in the implementation of Budget Billing. The primary reason for this is reordered priorities for modifications required of the existing Customer Billing Information System (CBIS). Plans are still in effect to move forward with Budget Billing as soon as practical.

Both Equal Monthly Payment and a full scale Monthly Billing programs were considered in the April, 1993 study. There inclusion here is to enable review of these options in the context of a more broadly-based array of programs targeted specifically at the low-income/high use customer.

Con:

- Budget Billing does not reduce the amount due or paid, only the timing payments;
- This program requires modification to the existing Customer Billing Information System (CBIS).

C. Equal Monthly Payment Program

Cost . . . . . *$10,000 - $20,000*
Rate Impact . . . . . *minimal*
Time Frame . . . . . *longer term*

This option divides an estimate of total annual charges into 11 equal monthly payments with the twelfth payment reserved for adjustment of balance differences. Unlike budget billing, there is no seasonal variation in charges. This feature can contradict summer season conservation efforts. Water and sewer costs become a fixed amount of monthly household expenses, based upon annually adjusted consumption data. Perhaps those who benefit most using equal payment plans are those with water use increasing significantly during the summer months.

Costs estimated for this option are for added modifications to the Budget Billing process, assuming it is already in effect. All low income households could participate in this program, or participation could be open to any interested customer.

Pro:

- Allows customers to budget at a "target" spending level;
- The program can be open to all if it is self-selecting, eliminating the need for means testing;
- This program does not involve cross-subsidization between customer groups;

Con:

- Does not enhance conservation objectives or programs;
- The single, annual "adjustment payment" may create payment problems for some if their usage increases significantly over the course of a year;
- This program requires modification to CBIS.

D. Monthly Billing

Cost *$300,000*
Rate Impact . . . . . *0.6 percent*
Time Frame . . . . . *near term*

Like Budget Billing or Equal Monthly Payments, this approach addresses the difficulty some households have in paying a billing for which charges are accumulated for a three month period. If a means test which incorporated utility charges as a percent of household income were used, the number of customers that would be eligible for monthly billing would be limited. (Without such a limitation, using existing billing and meter reading systems, the costs of shifting to monthly billing for all customers would be prohibitive.)

For qualified customers, monthly billing would involve a monthly reading of their water meter and billing. This would require added staffing for both meter reading and customer services. No direct charges to the customer for this service are envisioned under this option. However, participation is limited to "qualified" customers, estimated at between 4,000 and 5,000 (based on the Phase I means test standard).

Pro:

- This program provides the customer frequent information on their level of water usage;
- It makes the budgeting of expenses of water and sewer services consistent with other utility services in the community;
- Qualification and self-selection place the responsibility for managing utility costs on the customer as well as the utility;

Con:

- Added costs are required to implement Monthly Billing as a result of increased staffing requirements;
- Can cause a cross-subsidization between ratepayers;
- Requires a means test which may be difficult and costly to administer.

E. Contract with Community Agencies for Workshops

Cost *$100,000*
Rate Impact . . . . . *0.2 percent*
Time Frame . . . . . *near term*

Several community agencies (e.g, Community Energy Projects and YMCA) currently contract with the city to offer energy workshops. If targeted at low income water and sewer customers, they might include information on how to read bills, how to control water and sewer usage, conservation information, or do-it-yourself fixture repair information.

At a funding level of $100,000 per year and conducting monthly workshops, targeted participation is 2,500 customers over a year-long program schedule. This option would primarily assist in marketing existing programs aimed at making water/sewer costs more manageable through wise use of water.

Pro:

- Workshops attract participants who are interested in the program objectives;
- Contracting diversifies the knowledge-base into the community;
- Can be targeted at specific geographic locale or market segment;

Con:

- These programs may have a narrow audience;
- May solve only a minor segment of the problem, and be more "future related" in addressing fixture upgrades;
- No assurance of realizing contact and change within the "low income" customer group.

F. Crisis Fund

Cost . . . . . *$25,000 - $50,000*
Rate Impact . . . . . *minimal*
Time Frame . . . . . *near term*

Under this option, a fund is established by the City and administered by local social service agencies for households faced with emergency water shut-offs. All administration for the program would be coordinated through LUSSA to ensure adherence with existing policies and procedures followed for other emergency utility funds.

Pro:

- This program has already been in operation once and could continue with existing standards;
- It is targeted at most critical needs;
- It has minimal costs, is completely discretionary for continuance, and involves no commitment of City staff;

Con:

- The level of funding is arbitrary and not necessarily tied to any objective standard of "need";
- May not comply with Charter provisions affecting either or both of the agencies if funded from either enterprise fund.

G. Deferred Payment Program

Cost *$100,000*
Rate Impact . . . . . *0.2 percent*
Time Frame . . . . . *longer term*

A deferred payment program could be developed to allow households to defer water/sewer bills, creating an offsetting lien against their property. Deferred amounts would become due and payable at the time the property changed ownership. This program would be similar to existing state programs for deferring property tax and improvement district assessments for qualifying senior citizens.

Costs do not include any rate adjustment to compensate for the reduction in cash flows at the onset of participation in the program. For example, if 12,000 households chose to participate, about $1.2 million in revenues to both agencies would be deferred. This would require a rate adjustment to balance cash flows. However, annual operating costs are small, since the expense of the program are the opportunity costs on the funds, administrative charges and additional participants in future years.

Pro:

- This is direct offset to the utility bills;
- The bulk of the administrative burden is shifted to other agencies, most notably the state and county;

Con:

- Does not provide any benefit to renters;
- It is not necessarily targeted at low income households;
- LUSSA representatives advised that this type of program is not likely to be well received by low income customers;
- May require action by Oregon Legislature for implementation.

H. Lifeline Rates

Cost *$600,000*
Rate Impact . . . . . *1.2 percent*
Time Frame . . . . . *longer term*

Financial assistance for sewer and water bills could be provided by establishing lifeline rates for qualified low income households. Lifeline rates would provide a predetermined water allowance each month at no charge or a reduced rate. The allowance would be based upon the number of people in the household. Any usage above the allowance would be billed at existing rates. A program such as this could be structured to meet the requirements of the desired level of assistance or funding, or combined with discounted rates as discussed below.

Depending on how it is structured and combined with the overall rate structure, lifeline rates may or may not be compatible with conservation objectives. To achieve consistency with conservation strategies requires development of lifeline rates with this as an objective.

For example, if half (or 4 Ccf per month) of the average water usage for qualified households was provided at no cost other than the service charge, monthly bills would be reduced by about $10. For the bulk of the customers, this amounts to a 20 to 30 percent reduction. This is the level characterized in the cost estimates and would involve about 12,000 households using our means test benchmark.

Pro:

- Lifeline rates provide direct assistance on the city utility bill;
- All qualified users are treated the same;
- It is a recognized approached within the utilities industry;
- Can be constructed to minimize variance from cost to serve principles;

Con:

- Requires cross-subsidization if funded from rates;
- Requires means testing or becomes very costly;
- This program requires modification to CBIS.

I. Discounted Rates

Cost *$1,000,000*
Rate Impact . . . . . *2 percent*
Time Frame . . . . . *longer term*

This option could either be used as an alternative to or combined with lifeline rates. With it, all water usage for qualified households would be discounted a specific percentage (e.g., 10 percent). A discount proportion could be fixed or vary on a sliding scale based on household income. The program could be structured to varying objectives or funding availability.

To extend the program to eligible households at a level of 10 percent discount will reduce revenues by an estimated $1 million yearly. Presumably, these funds would have to be made up by rate increases to remaining customers.

Pro:

- Simple and provides direct assistance;

Con:

- Treats users differently, depending on how much they use;
- Conflicts with cost to serve principles and conservation objectives;
- Difficult to limit costs;
- Requires a means test for qualification;
- This program requires modification to CBIS.

J. Bill Cap

Cost *$1,800,000*
Rate Impact . . . . . *3.6 percent*
Time Frame . . . . . *longer term*

Providing financial assistance to low income households could be accomplished by establishing a cap on the amount of monthly water and sewer bills. The cap could be based upon a predetermined standard for monthly water consumption. Any amounts above the cap would be paid from other sources.

For example, for single family residences in the targeted income group, capping utility costs at the "average" usage levels would charge none of these households more than $30 per month. On a yearly basis, this would result in an estimated reduction in revenue of approximately $1.8 million.

Pro:

- Simple and provides direct assistance to participants;

Con:

- Treats users differently;
- Conflicts with cost to serve principles and conservation objectives;
- Difficult to limit costs;
- Requires a means test;
- This program requires modification to CBIS.

K. Resume Low-Income Senior Citizen Rates

Cost *$300,000*
Rate Impact . . . . . *0.6 percent*
Time Frame . . . . . *longer term*

Financial assistance for one segment of the targeted low income population could be achieved by resuming charging qualified senior citizen households based on average water use, treating them as a separate residential class. This rate would be a flat monthly charge for water and sewer service. There are an estimated 6,000 households eligible for the program.

Shifting from a consumption based to flat rate will increase charges for all households using less than the class average. As a result, more than half the eligible households would have an economic disincentive in participating. This characteristic also raises questions about

a "class average" if half the class opts not to participate. Even so, this approach is often viewed as desirable by participants because they can plan for expenditures and unusual, periodic consumption patterns do not affect their charges.

Pro:

- A portion of the target population is familiar with this type of program and supported it in the past;
- It is simple, and can be structured to produce minimal conflict with cost to serve principles;

Con:

- Compliance with means test standard in the past was often difficult to assure;
- Many would view this as "backtracking" from an equity standpoint;
- This program requires modification to CBIS;
- The majority of "eligible" customers receive lower charges under existing metered billing arrangements.

Table 2: Summary, Low Income Assistance Options Versus Evaluation Criteria

ASSISTANCE OPTION	COST	LEGAL AUTHORITY	BENEFIT	EASE OF ADMINISTRATION	PROMOTES WISE USE OF WATER/ CONSERVATION	EQUITY	CONSISTENCY WITH EXISTING POLICY
A. Targeted Conservation Assistance	Most of the cost is already funded in existing budgets. Enhancements funded at $100,000 level would be targeted at 800 low income/high use customers.	Legal authority currently exists.	Benefits low income customers able and willing to change water consumption habits.	Could be administered within existing programs.	Option supports water conservation efforts.	Provides direct relief when costs are high due to leaks or inefficient water use. Affect on other ratepayers depends on funding source.	This option is consistent with cost of service and conservation policies.
B. Budget Billing	Cost is minimal for operations, since self-selection includes nominal service charge. Costs to program changes in CBIS are unknown.	Council has directed Water Bureau to proceed with implementation.	Benefits customers who can afford service but have difficulty budgeting for quarterly payments. No means test.	Requires changes in Credit & Collection operations.	Would be consistent with conservation by allowing seasonal price variation to be reflected in quarterly charges.	Using self-selection with modest service charge, option would be equity-neutral and not affect other ratepayers.	This option is consistent with cost of services rate-making and other bureau policies.
C. Equal Monthly Payment Program	Cost is minimal assuming the implementation of Budget Billing. Costs of program changes in CBIS are unknown.	Legal authority currently exists.	Benefits customers who can afford service but have difficulty budgeting for quarterly payments.	Requires changes in Credit & Collection operations.	Negates seasonal price variation, a key part of increasing block pricing.	Using self-selection with modest service charge, option would be equity-neutral and not affect other ratepayers.	This option is consistent with cost of services rate-making and other bureau policies.
D. Monthly Billing	A $300,000 funding level would allow implementation of monthly billing for 5,000 qualified accounts.	Legal authority currently exists.	Benefits customers who can afford service but have difficulty budgeting for quarterly payments. Requires means test.	Requires changes in Credit & Collection operations.	Option supports and enhances conservation programs.	Using means test and self-selection, option would directly benefit selected users, may be issue of equity for subsidy by other ratepayers.	This option is consistent with cost of service and conservation policies.

Table 2: Summary, Low Income Assistance Options Versus Evaluation Criteria (cont'd)

ASSISTANCE OPTION	COST	LEGAL AUTHORITY	BENEFIT	EASE OF ADMINISTRATION	PROMOTES WISE USE OF WATER/ CONSERVATION	EQUITY	CONSISTENCY WITH EXISTING POLICY
E. Contract-Provider Workshops	A $100,000 funding level would extend services to 2,500 customers per year. Proportionately more costs for larger group.	Legal authority currently exists.	Benefits workshop participants. Intensive outreach could target participants by income level and neighborhood.	Can be administered within existing program structure; maximizes resources already in place.	Option supports and enhances conservation programs.	Provides direct relief when costs are high due to leaks or inefficient water use. Affect on other ratepayers depends on funding source.	This option is consistent with cost of service and conservation policies.
F. Crisis Fund	Funding at $50,000 level would double the amount of funds historically available.	Legal authority currently exists. Funding source authority needs clarification.	Provides direct, one-time benefit to those unable to pay water/sewer bills.	Administered under agreement with community action agencies; requires funds transfer and annual audit, policies and procedures.	Minimal impact on conservation objectives.	Assists those with immediate need who access social services delivery system. Perceived equity by other ratepayers depends on funding source.	Departs from existing policy by providing direct cash for ongoing household costs. Not consistent with cost of service principles with cross-subsidy.
G. Deferred Payment Program	If used by low income owner-occupied households, start-up shortfall funding is $1.2 million, plus ongoing annual cost estimated at $100,000.	Likely that changes in City Code would be required.	Benefits property owners electing to participate.	Complicated to administer; likely require coordination with State and Auditor's Office. Client intake responsibility not resolved.	Does not support conservation efforts.	Renters may perceive this option as inequitable. Notion of lien may seem burdensome to some.	Options depart from existing policies: ongoing expenses are lien against property. Raises issues regarding reliance on property liens to fund utility costs.
H. Lifeline Rates	Revenue reductions of approximately $600,000 per year would result from a monthly allowance of 4 Ccf provided at no charge for either water or sewer.	Legal authority currently exists.	Benefits eligible low income households, up to "lifeline" allowance; reduction in bill diminishes as consumption exceeds allowance.	Can be administered within framework of utility billing system; requires change to billing system, recurring means test.	Promotes wise use within the allowance through reduced price incentive.	Equity influenced by eligibility standards and use allowance; cross-subsidy if funded from rates; popular within utilities industry.	Can be constructed to minimized variance from cost of service principles.

Table 2: Summary, Low Income Assistance Options Versus Evaluation Criteria (cont'd)

ASSISTANCE OPTION	COST	LEGAL AUTHORITY	BENEFIT	EASE OF ADMINISTRATION	PROMOTES WISE USE OF WATER/ CONSERVATION	EQUITY	CONSISTENCY WITH EXISTING POLICY
I. Discounted Rates	Reducing charges 10 percent to all eligible households would cost $1 million per year, presumably made up by higher rates for all other customers.	Legal authority currently exists.	Benefits eligible low income households; reduction is a uniform percentage of total bill.	Administered directly through the billing system; difficult to limit costs; recurring means test; requires change to billing system.	Directly contradicts wise water use and conservation.	If funded from rates, raises costs for all customers; may be issue of equity based on eligibility standards.	If this option uses a rate subsidy, then it is not consistent with cost of service principles; causes cross-subsidy.
J. Cap on Bills	Costs for limit on bills for eligible customers set at $30 per month (system average) are $1.8 million yearly. Added costs for operations are not included. Costs of program changes in CBIS are unknown.	Legal authority currently exists; funding source authority needs clarification.	Benefits eligible low income households. Greater benefit as use increases.	Difficult to administer; requires change to billing system, recurring means test.	Does not support conservation objectives - subsidy for water use above cap.	Equity influenced by eligibility standards and funding source. If Utility funded, cross-subsidy likely.	Departs from existing policy by providing direct subsidy for ongoing household expenses. Not consistent with cost of service principles; causes cross-subsidy.
K. Resume Senior Discount Rates	Annual cost for subsidized rates is $300,000. Added administration costs are unknown. Costs of program changes in CBIS are unknown.	Legal authority currently exists for sewer - never used for water charges.	Benefits low income senior citizen households whose bills have increased from metered billing. Disadvantageous when consumption is below class average. May require "dual" option.	Difficult to administer; requires change to billing system, recurring means test.	Does not promote conservation; it subsidizes water use.	Targets only low income senior citizen households. May not be viewed as equitable in its application.	If this option uses a rate subsidy, then it is not consistent with cost of service principles.

Funding

Funding for low income assistance programs must address both capital requirements as well as on-going operations. The type of application or use of funds might dictate the funding source. For example:

- Funds to fix broken plumbing fixtures or repair underground leaks might come from grants;
- On-going financial assistance like rate adjustments should be supported by a continuously available, predictable, reliable source of funds; and,
- Lump sum options may necessarily be provided from General Fund resources in order to comply with Charter provisions.

There are a limited number of potential funding sources. This analysis has identified four potential sources of funding:

1) the water and sewer fees,
2) the City's General Fund,
3) grant funds, and
4) charitable contributions.

For purposes of this analysis, we assume that funding from that state, other utilities, or to new tax sources is impractical.

1. **Water and sewer fees.** At City Council's direction, the City's water and sewer utilities could establish funding for low income assistance programs by either curtailing funding for existing programs and diverting resources to a low income program, or by raising rates to provide for new resources. Funding by the utilities raises several policy issues.

First, depending on the final design of the preferred assistance program, funding by the two utilities may conflict with cost of service rate-making policy. For example, direct cash assistance to eligible low income customers would require rate hikes to other customers who would not benefit from the program, creating inequities within the existing system of rates and charges for water and sewer service. On the other hand, funds for programs that encourage customers to reduce consumption can result in lifestyle changes which reduce their bills. A program which reduces delinquencies and collection costs can contribute system-wide benefits which support cost of service objectives.

Second, funding from the utilities would create additional upward pressure on forecast rate increases necessary to meet operating, capital and regulatory requirements. This could create competition between basic water and sewer service requirements and low income assistance programs. Additionally, it would (itself) add to the problem of rising sewer and water utility rates, potentially expanding the list of eligible participants in a low income program.

Finally, Charter provisions for use of Water Fund proceeds have been the subject of some contention in the past. Earlier efforts to provide "free water" to other agencies were thwarted because of limitations in the Charter. The agency has noted this matter during informal discussions of funding options. It raises the question whether financial assistance can reduce charges to a specific class of ratepayers. This matter should be reviewed by the City Attorney before final funding decisions can be made.

2. The City's General Fund. The General Fund is not constrained by cost of service rate-making methodologies. Providing assistance to low income City residents is consistent with many of the policies that guide allocation of General Fund resources. City Council has the discretion to expand funding within the General Fund to accommodate low income assistance for water and sewer bills. The primary funding issue is the choice among competing programs and services needs.

Capping the City utilities' contribution to the General Fund, as part of their franchise fee payments, has been cited in the past as a source of funds option. As proposed, this approach would cap revenues from water and sewer utility franchise fees, limiting the amount allocated for discretionary use. As both rates and revenues increase in the future, so will franchise fees receipts. It has been suggested that these incremental revenues be allocated to assistance programs.

3. Grant funds. There are federal grant programs that could provide at least some of the funding for a low income assistance program. A primary example is the Housing and Community Development Block Grant program. However, grant funding is not a reliable, predictable funding source. To the extent funds are available, they might be better utilized to address one-time funding needs, such as repair programs for underground leaks or fixture repairs. There may be opportunities to collaborate with the City's Energy Office in grant preparation and proposals.

4. Charitable contributions. Other utilities have created programs for ratepayers to contribute funds to assist low income households in payment of utility bills. For example, some utilities include billing stuffers that request direct contributions to create emergency funds for use by social service agencies that work with low income households. These funds are used to help these households pay their utility bills when they are facing shut-off of service. Another example is a "round-up" program, where utility customers are requested to round their utility bill up to the next whole dollar amount when they make payment. The incremental amount of the over-payment is then dedicated to assist low income households in paying their utility bills.

V. A PROGRAM STRATEGY

This report suggests there are a number of options from which the Council can choose to accomplish strategic objectives that assist low income utility customers and mitigate the effect of rising charges. Several represent entirely new programs, another has been approved and awaits implementation, and still others embody better coordination of existing programs.

While City officials consider the options for new programmatic response to the problem, it seems appropriate that the Bureaus continue focused effort in two areas:

- refine the coordination of existing program so that existing services and programs can be more directly targeted to the low income customer population; and,

- implement approved billing system modifications and present new programs to Council for consideration as longer term solutions.

This approach capitalizes on opportunities to move forward with a program in the 1995 fiscal year, keeping in mind the limited resources available to both agencies, without substantially increased funding. At the same time, it focuses attention and debate of the merits of various alternatives to address needs and response to low income households.

The focus of this section of the report is on what can be done now. Staff of both bureaus believe that focused program efforts, at this time, can use the processes and activities already in place in the city to assist low income households. Six different program components have been identified that can immediately impact low income households:

- establish a centralized clearinghouse;

- finance a crisis fund;

- staff a direct outreach effort which can respond to high water use problems and support conservation efforts;

- support workshops directed at the specific needs of low income households;

- fund a voucher system to offset some of the costs of fixture repair; and,

- employ more aggressively existing programs (payment extension and time payment agreements).

Details envisioned for these six activities are described in greater detail, below. Organized and delivered as a coordinated service, they are an opportunity to proceed with services now as well as support the development of longer term strategies.

The specifics of this approach are as follows:

Allocate a half-time position (either contracted or in one of the Bureaus' Customer Services sections) to work as a direct liaison between the agencies and the customer.

Staffing is necessary to generate and track service orders used in customer outreach. In addition, it appears that the initial contact and scheduling of site visits with customers is one of the most time-consuming segments of the services offered, based on the experience of the Phase I research. Among the information that could be provided are options for payment assistance, solicitation of interest and information about other programs, and performance tracking.

Allocate a field outreach position (either contracted or a Meter Inspector in the Water Bureau Customer Services Group) to provide direct contact with customers detected or identified as having "high" water use.

Affected customers could be contacted, regardless of income level, but those clearly qualifying as "low income" could be given priority assistance.

The Water Bureau already contacts customers when regular meter reading activity indicates a property-side leak. However, this action is informational only: leaving a "door-hanger" notice and attempting to reach the bill payer by telephone. If the customer elects to repair the leak, they may be eligible for an adjustment to water charges for the current billing cycle. More aggressive follow-up, including advising customers of the costs of allowing the leakage to continue, as well as informing them of city-sponsored programs which may provide funding assistance (e.g., PDC "emergency plumbing repair" funds) could reduce the persistence of property side leaks that are discovered. Water Bureau staff report that an average of one significant, bona fide property-side leak is discovered daily.

The same "outreach" staff could also provide information on conservation techniques, in those cases where leaks were not at issue. Or, if interior plumbing leaks were a suspected problem, inform customers of available "do-it-yourself" options, training pamphlets and service agencies that might provide assistance.

Fund training and information "workshops" put on by local agencies that direct services at low income households.

This activity could be contracted to interested agencies, with reimbursement based on participation levels. Sample curriculum has already been discussed. Potential participation could involve as many as 2,500 households annually.

Provide a nominal commitment to fund crisis funding, for instance, $25,000 annually.

These funds could be allocated directly to a local social service agencies (e.g., LUSSA, Multnomah County Community Action Programs) for one-time direct financial assistance to households that were unable to meet payment obligations. A requirement of the agency recipient would be a full accounting of the distribution of funds on a quarterly basis.

A funding commitment of $25,000 to provide for vouchers which could be applied toward the cost of interior plumbing fixture repair.

This could be used to offset materials costs for either "do-it-yourself" endeavors, or those provided by local (plumbing) service companies.

Provide targeted attention to the use of existing programs used to aid customers in meeting payment obligations.

The Water Bureau's Credit and Collections Section already works with customers using either the Payment Extension (PED) or Time Payment Arrangement programs to extend the time over which charge obligations can be satisfied. Approximately 8,000 customers avail themselves of these programs already. A centralized clearinghouse serving low income households should improve utilization of these services.

These kinds of actions build upon what has been learned from this research. They can effectively provide direct service to low income households with identified usage problems at a comparatively low level of fiscal commitment. They also allow both bureaus to better understand and analyze the nature of the problem and measure their performance in a step-wise fashion, keeping open the option of increasing funding for successful program elements in the future. Finally, given the uncertainty of participation rates and results from these programs, the ability to proceed forward while maintaining the option to change or discontinue a program feature is especially desirable.

Conclusions

The programs described in this section can be implemented in the near term and provide direct assistance to low income households. They draw from resources already available within both agencies, as well as seed new programs and opportunities in the community. Some of the longer term assistance program options considered here appear to warrant further study. City Council has the time to consider them carefully and choose among them those which are best suited to addressing their objectives. While implementing options that can proceed immediately, focused efforts should continue to gathering more information about the size and nature of the target population. This will enable the eventual development of effective solutions.

As municipal utility costs continue to rise, Portland will continue to hear from its ratepayers of instances of limited ability to pay higher costs. Continuing research of this problem and its solutions, while moving ahead with practical responses to problems that can

be accommodated at reasonable costs and in a timely manner seems a prudent course of action.

Appendix A: High Water User's Survey Instrument and Data Tabulation

PORTLAND WATER BUREAU
HIGH USERS SURVEY
SEPTEMBER, 1993

Date: _____ Questionnaire Number: ____ ____ ____
1 2 3

Interviewer Name: _____ Interview Length: ____ Minutes

Hello, my name is _____ from Decision Sciences, an opinion research company. We're not trying to sell you anything. We are gathering information for the Portland Water Bureau to help develop programs to lower water use. All your responses will be kept strictly anonymous; your responses will not be associated with your name in our reporting. The survey will take only a few minutes and I think you will find the questions interesting.

---

1. Do you have a lawn or garden?

4- 1- Yes
2- No - Skip to Q. 5
3- DK/NS/NR - Skip to Q. 5

2. (IF YES TO Q. 1) Do you or someone else in your home water your lawn or garden regularly during the summer?

5- 1- Yes -
2- No - Skip to Q. 5
3- DK/NS/NR - Skip to Q. 5

3. (IF YES TO Q. 2) In a typical summer, how many times a week would you or someone else in your home water your lawn or garden? Your best estimate will do. (RECORD NUMBER IN SPACES BELOW.)

- ___ ___
6 7
99- DK/NS/NR

4. (IF YES TO Q. 2) Do you use an automatic sprinkler system with a timer?

8- 1- Yes
2- No
3- DK/NS/NR

5. How many bathrooms are in your home? (RECORD NUMBER IN SPACES BELOW.)

- ___ ___
9 10
99- DK/NS/NR

Tell me how many of the following fixtures are in your home.
(RECORD NUMBER IN SPACES BELOW. IF NONE RECORD 00.)

6. Showers, bathtubs, or shower/tub combinations

- ___ ___
11 12

7. Toilets

- ___ ___
13 14

8. Sinks including any in the kitchen, bathrooms, and including laundry trays

- ___ ___
15 16

9. Dishwashers

- ___ ___
17 18

10. Washing machines

- ___ ___
19 20

11. Do you consider your household to be a low water user, a moderate water user, or a high water user?

21-1- Low
2- Moderate
3- High
4- DK/NS/NR

12. Is there anything specific that you want to tell the Portland Water Bureau or anything that you have a question about?

22- 1- Yes
2- No
3- DK/NS/NR

13. (IF YES TO Q. 12) What is your concern? (RECORD ON BACK OF LAST PAGE.)

INTERVIEWER: IF CONCERN RELATES TO POSSIBLE LEAK, ASK RESPONDENT FOR PERMISSION TO PASS THEIR NAME ON TO THE WATER BUREAU.

14. Leak Status/Can Give Name? (DON'T ASK/RECORD.)

23-1-.Mentioned/O.K. to tell
2- Mentioned/Not O.K. to tell
3- Not Mentioned

Finally, I need some background information for statistical purposes. Remember, your answers will be kept anonymous.

15. Including yourself, how may people live in your home? (RECORD NUMBERS IN SPACES BELOW.)

-__ __
24 25

16. How may people ages 0-12 live in your home? (RECORD NUMBERS IN SPACES BELOW. IF NONE RECORD 00.)

-__ __
26 27

17. How may people ages 13-18 live in your home? (RECORD NUMBERS IN SPACES BELOW. IF NONE RECORD 00.)

-__ __
28 29

18. How may people ages 19 or older live in your home?(RECORD NUMBERS IN SPACES BELOW. IF NONE RECORD 00.)

-__ __
30 31

INTERVIEWER: BE SURE TOTAL FOR Qs 16+ 17 + 18 EQUALS NUMBER FOR Q. 15.

19. Which of the following categories best describes your total household income before taxes in 1992? Just call out the letter.

32-1- A Less than $18,000
2- B. $18,000 - $27,000
3- C. $27,000 - $36,000
4- D. $36,000 - $50,000
5- E. $50,000 - $80,000
6- F. More than $80,000
7- DK/NS/Refused

20. Do you own or rent your residence?

33-1- Own
2- Rent
3- DK/NS/NR

21. Gender. (DON'T ASK/RECORD.)

34-1-.Male
2- Female

22. Account Number. (DON'T ASK/RECORD 10 DIGITS.) ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
35 36 37 38 39 40 41 42 43 44

23. Zip code. (DON'T ASK/RECORD 9 DIGITS.)) ___ ___ ___ ___ ___ ___ ___ ___ ___
45 46 47 48 49 50 51 52 53

24. Total Use Level (DON'T ASK/RECORD NUMBER. RIGHT JUSTIFY: 91=091)

___ ___ ___
54 55 56

25. Winter Average Use Level (DON'T ASK/RECORD NUMBER. RIGHT JUSTIFY.)

___ ___ ___
57 58 59

VERIFICATION RECORD:

Respondent's First Name: _____

Respondent's Phone Number: ___ ___ ___ - ___ ___ ___ ___

Interviewer Receipt: By this signature, I hereby certify that I have properly filled out the survey honestly, completely, and correctly. I understand that should I falsify, or in any manner misrepresent the information gathered on this instrument, I will be solely liable for damages that might accrue to Decision Sciences, Inc.

_____ _____

Interviewer's Signature Date

DECISION SCIENCES, INC.
MARKET AND PUBLIC OPINION RESEARCH

1984 SOUTHWEST SIXTH AVENUE
PORTLAND, OREGON 97201
(503) 220-0575
FAX (503) 220-0576

September 9, 1993

TO: Jim Burke, Portland Water Bureau

FROM: Decision Sciences, Inc.

RE: High Users Survey Results

Attached are tables to get you going. Our resources were expended to assure a valid sample; we did look up telephone numbers for respondents who did not have phone numbers in the data base.

You may find Tables 4, 12, and 20 particularly helpful. They are summary tables with means.

The findings included the following statistically significant variations by income. Higher income respondents were more likely to:

°Have a lawn or garden.
°(If have a lawn or garden) Were more likely to water it regularly in summer and
°Were more likely to use an automatic sprinkler system with timer.
°Have more bathrooms, showers/tubs, toilets, and sinks.
°Have fewer children age 0-12 in the home.
°Own a home.

To be as helpful as we can, we'll transcribe the responses to the open-ended question and do a content analysis. We would need more money to make it possible to cross-tabulate these responses with other responses.

AD:wm

Account numbers of respondents who said they had a specific concern to share with the Portland Water Bureau and who indicated a possible leak and who said it was okay to pass along their name.

QNUM	Q22
855	2790424045
711	3780210034
754	4300326030
209	1610026053
146	1040248063
104	960444037
12	450068034
123	940508030
108	980316034
284	1680312033
242	1710040035
249	1740362040
267	1540090038
276	1780192031
397	2370476030
414	5180100035
222	1800106066

TABLE 1
DO YOU HAVE A LAWN OR GARDEN BY INCOME

	INCOME						TOTAL	
	Under $18,000	$18,000 - $27,000	$27,000 - $36,000	$36,000 - $50,000	$50,000 - $80,000	Over $80,000	Unsure/ Refused	#	%
DO YOU HAVE A LAWN OR GARDEN?									
Yes	137 88%	145 96%	130 96%	141 97%	119 99%	99 97%	183 93%	954	95%
No	19 12%	6 4%	6 4%	4 3%	1 .8%	3 3%	13 7%	52	5%
TOTAL	156 100	151 100	136 100	145 100	120 100	102 100	196 100	***	100

TABLE 2
DO YOU WATER REGULARLY IN THE SUMMER BY INCOME
(AMONG RESPONDENTS WITH A LAWN OR GARDEN)

	INCOME										TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
DO YOU WATER REGULARLY IN SUMMER?																
Yes	59	43%	76	52%	67	52%	89	63%	75	63%	82	83%	100	55%	548	57%
No	78	57%	69	48%	63	48%	52	37%	44	37%	17	17%	83	45%	406	43%
TOTAL	137	100	145	100	130	100	141	100	119	100	99	100	183	100	954	100

TABLE 3
TYPICAL NUMBER OF TIMES PER WEEK WATER LAWN OR GARDEN BY INCOME
(AMONG RESPONDENTS WITH A LAWN OR GARDEN AND WHO WATER REGULARLY IN SUMMER)
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
TYPICAL NUMBER OF TIMES PER WEEK WATER IN SUMMER																
1	11	19%	18	24%	14	21%	15	17%	10	13%	8	10%	16	16%	92	17%
2	20	34%	15	20%	19	28%	21	24%	23	31%	17	21%	29	29%	144	26%
3	19	32%	22	29%	19	28%	23	26%	21	28%	26	32%	31	31%	161	29%
4	4	7%	8	11%	5	7%	15	17%	6	8%	11	13%	8	8%	57	10%
5			2	3%			3	3%	6	8%	4	5%	3	3%	18	3%
6			1	1%	1	1%	1	1%							3	.5%
7	5	8%	9	12%	8	12%	9	10%	9	12%	13	16%	8	8%	61	11%
14													1	1%	1	.2%
20											1	1%			1	.2%
No Response			1	1%	1	1%	2	2%			2	2%	4	4%	10	2%
TOTAL	59	100	76	100	67	100	89	100	75	100	82	100	100	100	548	100

TABLE 4
TYPICAL NUMBER OF TIMES PER WEEK WATER LAWN OR GARDEN BY INCOME
(AMONG RESPONDENTS WITH A LAWN OR GARDEN AND WHO WATER REGULARLY IN SUMMER)
(MEAN AND STANDARD DEVIATION)

	INCOME							TOTAL
	Under $18,000	$18,000 - $27,000	$27,000 - $36,000	$36,000 - $50,000	$50,000 - $80,000	Over $80,000	Unsure/ Refused	
TYPICAL NUMBER OF TIMES PER WEEK WATER IN SUMMER								
Mean	2.69	3.00	2.89	3.10	3.15	3.69	2.96	3.09
S.D.	1.57	1.86	1.82	1.74	1.78	2.60	1.95	1.95

TABLE 5
DO YOU USE AN AUTOMATIC SPRINKLER SYSTEM WITH TIMER BY INCOME
(AMONG RESPONDENTS WITH A LAWN OR GARDEN AND WHO WATER REGULARLY IN SUMMER)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
DO USE AN AUTO SPRINKLER SYSTEM WITH TIMER?																
Yes	1	2%	7	9%	5	7%	15	17%	20	27%	39	48%	28	28%	115	21%
No	58	98%	68	89%	61	91%	73	82%	55	73%	43	52%	70	70%	428	78%
Unsure/No Response			1	1%	1	1%	1	1%					2	2%	5	.9%
TOTAL	59	100	76	100	67	100	89	100	75	100	82	100	100	100	548	100

TABLE 6
NUMBER OF BATHROOMS IN HOME BY INCOME
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF BATHROOMS IN HOME																
1	97	62%	62	41%	63	46%	42	29%	25	21%	5	5%	59	30%	353	35%
2	49	31%	71	47%	60	44%	75	52%	47	39%	30	29%	83	42%	415	41%
3	7	4%	15	10%	11	8%	22	15%	39	33%	38	37%	37	19%	169	17%
4	3	2%	2	1%	2	1%	5	3%	9	8%	19	19%	9	5%	49	5%
5			1	.7%			1	.7%			8	8%	4	2%	14	1%
6											1	1%	2	1%	3	.3%
7											1	1%			1	.1%
No Response													2	1%	2	.2%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 7
NUMBER OF SHOWERS AND/OR BATHTUBS BY INCOME
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF SHOWERS AND/OR BATHTUBS																
1	105	67%	78	52%	76	56%	64	44%	40	33%	11	11%	77	39%	451	45%
2	43	28%	63	42%	50	37%	63	43%	55	46%	42	41%	88	45%	404	40%
3	6	4%	10	7%	10	7%	17	12%	21	18%	34	33%	24	12%	122	12%
4	2	1%					1	.7%	4	3%	13	13%	4	2%	24	2%
5											2	2%	2	1%	4	.4%
No Response													1	.5%	1	.1%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 8
NUMBER OF TOILETS BY INCOME
(FREQUENCIES)

	INCOME										TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF TOILETS																
1	93	60%	59	39%	62	46%	38	26%	24	20%	3	3%	59	30%	338	34%
2	53	34%	74	49%	58	43%	79	54%	47	39%	30	29%	80	41%	421	42%
3	6	4%	15	10%	14	10%	22	15%	39	33%	40	39%	41	21%	177	18%
4	4	3%	2	1%	2	1%	5	3%	10	8%	19	19%	8	4%	50	5%
5			1	.7%			1	.7%			7	7%	4	2%	13	1%
6											2	2%	2	1%	4	.4%
7											1	1%	1	.5%	2	.2%
No Response													1	.5%	1	.1%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 9
NUMBER OF SINKS BY INCOME
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF SINKS																
1	7	4%							1	.8%			1	.5%	9	.9%
2	46	29%	30	20%	38	28%	11	8%	9	8%	1	1%	28	14%	163	16%
3	66	42%	65	43%	49	36%	51	35%	35	29%	12	12%	58	30%	336	33%
4	27	17%	35	23%	36	26%	56	39%	35	29%	21	21%	56	29%	266	26%
5	7	4%	14	9%	8	6%	22	15%	23	19%	22	22%	24	12%	120	12%
6	3	2%	5	3%	2	1%	4	3%	12	10%	17	17%	19	10%	62	6%
7			2	1%	2	1%	1	.7%	3	3%	19	19%	3	2%	30	3%
8									2	2%	6	6%	4	2%	12	1%
9					1	.7%					3	3%			4	.4%
10											1	1%			1	.1%
12													1	.5%	1	.1%
No Response													2	1%	2	.2%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 10
NUMBER OF DISHWASHERS BY INCOME
(FREQUENCIES)

	INCOME										TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF DISHWASHERS																
0	82	53%	55	36%	47	35%	33	23%	17	14%	1	1%	46	23%	281	28%
1	74	47%	96	64%	88	65%	111	77%	102	85%	98	96%	148	76%	717	71%
2					1	.7%	1	.7%	1	.8%	3	3%	1	.5%	7	.7%
No Response													1	.5%	1	.1%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 11
NUMBER OF WASHING MACHINES BY INCOME
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF WASHING MACHINES																
0	7	4%			1	.7%	1	.7%			1	1%	6	3%	16	2%
1	149	96%	151	100	134	99%	144	99%	117	98%	101	99%	188	96%	984	98%
2					1	.7%			3	3%			1	.5%	5	.5%
No Response													1	.5%	1	.1%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 12
NUMBERS OF BATHROOMS, SHOWERS/TUBS, TOILETS, SINKS, DISHWASHERS, AND WASHING MACHINES IN HOME BY INCOME
(MEANS AND STANDARD DEVIATIONS)

	INCOME							TOTAL
	Under $18,000	$18,000 - $27,000	$27,000 - $36,000	$36,000 - $50,000	$50,000 - $80,000	Over $80,000	Unsure/ Refused	
NUMBER OF BATHROOMS IN HOME								
Mean	1.46	1.74	1.65	1.95	2.27	3.02	2.08	1.97
S.D.	.68	.75	.69	.80	.88	1.12	1.01	.96
NUMBER OF SHOWERS AND/OR BATHTUBS								
Mean	1.39	1.55	1.51	1.69	1.91	2.54	1.80	1.73
S.D.	.63	.62	.63	.70	.80	.92	.81	.79
NUMBER OF TOILETS								
Mean	1.49	1.75	1.68	1.98	2.29	3.07	2.12	2.00
S.D.	.70	.74	.72	.79	.88	1.10	1.07	.97
NUMBER OF SINKS								
Mean	2.94	3.37	3.25	3.72	4.07	5.41	3.89	3.73
S.D.	1.00	1.09	1.17	.95	1.33	1.67	1.50	1.42
NUMBER OF DISHWASHERS								
Mean	.47	.64	.66	.78	.87	1.02	.77	.73
S.D.	.50	.48	.49	.43	.37	.20	.43	.46
NUMBER OF WASHING MACHINES								
Mean	.96	1.00	1.00	.99	1.02	.99	.97	.99
S.D.	.21	.00	.12	.08	.16	.10	.19	.14

TABLE 13
ESTIMATED LEVEL OF WATER USE OF HOUSEHOLD BY INCOME

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
ARE YOU A LOW, MODERATE, OR HIGH WATER USER?																
Low	53	34%	38	25%	32	24%	28	19%	21	18%	11	11%	50	26%	233	23%
Moderate	71	46%	77	51%	81	60%	91	63%	77	64%	66	65%	104	53%	567	56%
High	29	19%	34	23%	20	15%	25	17%	20	17%	23	23%	33	17%	184	18%
Unsure/No Response	3	2%	2	1%	3	2%	1	.7%	2	2%	2	2%	9	5%	22	2%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 14
FEEDBACK TO BUREAU BY INCOME

	INCOME										TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
DO YOU HAVE ANYTHING SPECIFIC TO SAY OR ASK?																
Yes	64	41%	74	49%	58	43%	55	38%	49	41%	32	31%	65	33%	397	39%
No	90	58%	77	51%	78	57%	90	62%	69	58%	70	69%	128	65%	602	60%
Unsure/No Response	2	1%							2	2%			3	2%	7	.7%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 15
LEAK STATUS/CAN GIVE NAME BY INCOME

	INCOME										TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
LEAK STATUS/CAN GIVE NAME?																
Mentioned/OK to tell	6	9%	4	5%	2	3%	2	4%	3	6%					17	4%
Mentioned/Not OK to tell					1	2%							1	2%	2	.5%
Not Mentioned	58	91%	70	95%	55	95%	53	96%	46	94%	32	100	63	97%	377	95%
Refused													1	2%	1	.3%
TOTAL	64	100	74	100	58	100	55	100	49	100	32	100	65	100	397	100

TABLE 16
NUMBER OF PERSONS IN HOUSEHOLD BY INCOME: TOTAL
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF PERSONS IN HOUSEHOLD: TOTAL																
1	14	9%	2	1%	2	1%	3	2%	1	.8%	2	2%	4	2%	28	3%
2	31	20%	27	18%	19	14%	23	16%	23	19%	15	15%	45	23%	183	18%
3	26	17%	33	22%	11	8%	25	17%	18	15%	25	25%	42	21%	180	18%
4	36	23%	38	25%	50	37%	54	37%	36	30%	32	31%	45	23%	291	29%
5	18	12%	26	17%	28	21%	20	14%	24	20%	19	19%	30	15%	165	16%
6	18	12%	16	11%	10	7%	10	7%	11	9%	6	6%	11	6%	82	8%
7	2	1%	6	4%	10	7%	8	6%	4	3%	3	3%	10	5%	43	4%
8	7	4%	2	1%	3	2%			2	2%			4	2%	18	2%
9	3	2%			1	.7%	1	.7%					2	1%	7	.7%
10			1	.7%	1	.7%			1	.8%			1	.5%	4	.4%
11	1	.6%					1	.7%							2	.2%
14													1	.5%	1	.1%
No Response					1	.7%							1	.5%	2	.2%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 17
NUMBER OF PERSONS IN HOUSEHOLD BY INCOME: AGE 0-12
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF PERSONS IN HOUSEHOLD: AGE 0-12																
0	75	48%	76	50%	64	47%	77	53%	64	53%	51	50%	111	57%	518	51%
1	29	19%	22	15%	22	16%	29	20%	18	15%	23	23%	37	19%	180	18%
2	24	15%	29	19%	26	19%	26	18%	25	21%	21	21%	26	13%	177	18%
3	14	9%	17	11%	12	9%	6	4%	9	8%	6	6%	14	7%	78	8%
4	11	7%	3	2%	5	4%	2	1%	3	3%			5	3%	29	3%
5	1	.6%	2	1%	5	4%	4	3%							12	1%
6	1	.6%			2	1%	1	.7%	1	.8%			1	.5%	6	.6%
7	1	.6%	1	.7%											2	.2%
No Response			1	.7%							1	1%	2	1%	4	.4%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 18
NUMBER OF PERSONS IN HOUSEHOLD BY INCOME: AGE 13-18
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF PERSONS IN HOUSEHOLD: AGE 13-18																
0	101	65%	99	66%	79	58%	90	62%	73	61%	65	64%	143	73%	650	65%
1	26	17%	40	26%	36	26%	31	21%	30	25%	22	22%	27	14%	212	21%
2	20	13%	9	6%	12	9%	21	14%	16	13%	13	13%	14	7%	105	10%
3	7	4%			7	5%	2	1%					4	2%	20	2%
4					2	1%			1	.8%			4	2%	7	.7%
5	1	.6%					1	.7%			1	1%	1	.5%	4	.4%
No Response	1	.6%	3	2%							1	1%	3	2%	8	.8%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 19
NUMBER OF PERSONS IN HOUSEHOLD BY INCOME: AGE 19 AND OVER
(FREQUENCIES)

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NUMBER OF PERSONS IN HOUSEHOLD: AGE 19 AND OVER																
0	1	.6%	1	.7%									2	1%	4	.4%
1	42	27%	9	6%	5	4%	7	5%	1	.8%	3	3%	10	5%	77	8%
2	69	44%	81	54%	91	67%	90	62%	78	65%	68	67%	108	55%	585	58%
3	26	17%	36	24%	26	19%	30	21%	20	17%	20	20%	42	21%	200	20%
4	12	8%	17	11%	8	6%	13	9%	14	12%	7	7%	19	10%	90	9%
5	3	2%	5	3%	3	2%	2	1%	4	3%	1	1%	5	3%	23	2%
6	2	1%			2	1%	1	.7%	2	2%	1	1%	4	2%	12	1%
7	1	.6%			1	.7%	2	1%	1	.8%	2	2%			7	.7%
8			1	.7%									2	1%	3	.3%
10													1	.5%	1	.1%
19													1	.5%	1	.1%
20			1	.7%											1	.1%
No Response													2	1%	2	.2%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 20
NUMBERS OF PERSONS IN HOUSEHOLD BY INCOME: TOTAL, 0-12, 13-19, 19 AND OVER
(MEANS AND STANDARD DEVIATIONS)

	INCOME							TOTAL
	Under $18,000	$18,000 - $27,000	$27,000 - $36,000	$36,000 - $50,000	$50,000 - $80,000	Over $80,000	Unsure/ Refused	
NUMBER OF PERSONS IN HOUSEHOLD: TOTAL								
Mean	3.87	3.98	4.34	3.97	4.04	3.79	3.90	3.98
S.D.	2.00	1.57	1.63	1.56	1.56	1.29	1.86	1.69
NUMBER OF PERSONS IN HOUSEHOLD: AGE 0-12								
Mean	1.16	1.07	1.23	.92	.94	.82	.81	.99
S.D.	1.45	1.34	1.51	1.27	1.22	.96	1.15	1.30
NUMBER OF PERSONS IN HOUSEHOLD: AGE 13-18								
Mean	.59	.39	.65	.58	.55	.52	.46	.53
S.D.	.95	.60	.95	.87	.79	.84	.94	.86
NUMBER OF PERSONS IN HOUSEHOLD: AGE 19 AND OVER								
Mean	2.18	2.65	2.43	2.48	2.60	2.47	2.69	2.51
S.D.	1.13	1.75	.95	.99	1.03	1.01	1.73	1.32

TABLE 21
INCOME BY INCOME

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
INCOME																
Under $18,000	156	100													156	100
$18,000 - $27,000			151	100											151	100
$27,000 - $36,000					136	100									136	100
$36,000 - $50,000							145	100							145	100
$50,000 - $80,000									120	100					120	100
Over $80,000											102	100			102	100
Unsure/Refused													196	100	196	100
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

TABLE 22
HOUSING TENURE STATUS BY INCOME

	INCOME												TOTAL	
	Under $18,000		$18,000 - $27,000		$27,000 - $36,000		$36,000 - $50,000		$50,000 - $80,000		Over $80,000		Unsure/ Refused		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
HOUSING TENURE STATUS																
Own	92	59%	112	74%	106	78%	132	91%	112	93%	97	95%	159	81%	810	81%
Rent	62	40%	39	26%	30	22%	13	9%	7	6%	5	5%	29	15%	185	18%
Unsure/No Response	2	1%							1	.8%			8	4%	11	1%
TOTAL	156	100	151	100	136	100	145	100	120	100	102	100	196	100	***	100

Appendix B: Commissioner's Letter - Site Visit Invitation

CITY OF
PORTLAND, OREGON
OFFICE OF PUBLIC UTILITIES

Mike Lindberg, Commissioner
1220 S.W. Fifth Ave.
Portland, Oregon 97204
(503) 823-4145

Dear Customer:

As you know, a specific portion of your water and sewer service costs are directly related to your water usage. In efforts to find ways to both help you control your costs and conserve natural resources, I have asked the Bureau of Water Works staff to look at water usage throughout the City. They identified a list of accounts with higher than average water use.

I am contacting you because your water usage appears to be higher than the average. There may be an opportunity for you to reduce your bill by reducing your use. The most common reasons for higher than average water usage are:

- **Hidden underground water line leaks between your house and the meter;**
- **Leaky plumbing fixtures, such as faucets or toilets;**

or

- **Lack of information about water conservation techniques.**

Taking steps to address any of these could reduce your water and sewer bill and we'd like to help. If you're interested, a Water Bureau Inspector can visit your home to deliver conservation information and perform a brief test at your water meter to check for underground leaks between your house and the meter. While they can't do repairs, they can advise you on how repairs can be made. The inspector can also provide information about how you might conserve water in your home.

There is **no cost** for these services. Simply check the box on the enclosed postage-paid postcard, provide a daytime telephone number where you can be reached, and drop the card in the mail. A customer service representative will call you in a few days to arrange for an appointment. If you have questions, please call Customer Services at 823-7770.

Sincerely,

Mike Lindberg
Commissioner of Public Utilities

PLEASE REMEMBER: *Water Bureau Inspectors will make appointments with you before they visit. Ask for identification before opening your door. NO FEE is required for these services and you should immediately report anyone attempting to solicit money in the name of the Water Bureau.*

Appendix C: Table C-1: Summary, Site Visits Information and Findings

Table C-1: Summary, Site Visits Information and Findings

Winter Average	Last Qtr's Use	First Prior Qtr Use	Second Prior Qtr Use	Third Prior Qtr Use	Time On Site	Cnsrv Kit	Occu-pants	Lot Size	Yard Size	Garden Size	BES Senior Acct	Leaks	Remarks
68	121	102	75	64	25	yes	5	large	large		x		
49	69	76	51	74	10	yes	2	small	small		x	interior	
47	72	58	61	55	10		3	small	small		x		new lawn over summer
44	56	53	57	44	20	yes	2	small			x		
43	63	69	65	49	15	yes	2	small	medium		x	interior	toilets leak (2)
48	89	34	50	56	30	yes	4	large	large	medium	x	fixture	interior fixture; indicator moved slowly
37	51	38	33	41	25	yes	6			small			corner lot
42	49	40	45	30	20	yes	3	small			x		water lawn once a week
48	67	69	50	47	20	yes	6	large			x	faucet	
39	47	39	41	38	20	yes	3	small		small	x		wash clothes 3 times a week
40	58	52	59	46	5	left	2	medium	medium		x		
36	45	40	38	31	25	yes	1				x	toilet	
40	40	32	42	63	25	yes	4	dbl lot		large			
56	51	49	58		10	owns	5	medium				kitchen	leaky kitchen faucet
38	41	55	40	58	25	yes	3	medium	large		x	bathroom	
44	26	33	45	51	10	yes	3	medium	medium		x	interior	had faucet leaks; fixed
40	54	46	42	41	15	yes	2	small		small	x	tub	leak in bathtub
67	94	84	68	70	5	left	4	small	small		x	possible	indicator was running; not home
42	38	43	46	51	15	yes	5	small					
36	44	40	37	48	15	yes	1	small			x		
36	31	33	37	41	15	yes	2	small		small			two seperate leaking areas; one found
51	34	56	87	44	20	yes	1	large	large				possible underground leak

Table C-1: Summary, Site Visits Information and Findings (Contd)

Winter Average	Last Qtr's Use	First Prior Qtr Use	Second Prior Qtr Use	Third Prior Qtr Use	Time On Site	Cnsrv Kit	Occu-pants	Lot Size	Yard Size	Garden Size	BES Senior Acct	Leaks	Remarks
37	23	0	39	26	15	yes	2	medium	medium		x		
46	50	50	48	48	15	yes	2	large			x		
56	40	57	71	59	15	yes	5	small	small				many teenagers
38	63	45	46	30	45	yes	8		large		x	faucet	small above-grnd swimming pool
62	54	46	71	57	15	yes	5	small	large		x		1 90yr old w/ 4 other residents
37	38	35	37	53	20		4	large			x	plumbing	drip in basement
37	40	30	38	38	15	yes	2	small	small			toilet	small leak from tank ball
39	43	41	40	44	10	yes	1	small			x		
41	46	45	41	52	20	yes	6	small		small	x	toilet	possible leak in basement
43	118	52	43		25	yes	2					plumbing	runs constant / turns off when leave
42	43	35	43	41	15	yes	6	large			x		
43	27	43	100	31	12	yes	2	small			x		very small drip outside faucet
42	46	45	41	49	5	yes	7	large	large			box	found water in meter box
54	15	34	56	80	15	yes	1	small		small	x		previously had four (4) residents
46	66	54	45	48	20	yes	6		large	large			
54	33	61	54	72	15		2	medium			x		
95	22	31	98	105	25	yes	1					toilet	
37	46	17	38	43	15	yes	2	large	large	small	x		leak repaired recently
53	60	55	48	59	16	yes	2	medium			x		fixed irrigation
36	31	36	36	40	25	owns kit	3	small	small		x		
	28	40	62	68	5	left							vacant house
44	41	27	61	54	20	none	1	large			x	mainline	leak in main line; bad read

Appendix D: Table D-1: Summary of Program Details, Selected Cities

Table D-1: Summary of Program Details, Selected Cities

CITY	HISTORY	TO QUALIFY	RENTERS' PROVISIONS	ADMINISTRATION	WHO IS IMPACTED
Boston	1977 enabling law for Water/Sewer Commission required a water rates discount program for senior and disabled citizens. Discount has increase from 10 percent to (now) 25 percent. Original amount was arbitrary, but the increases have been tied to rate increases.	Seniors and disabled citizens who own residential dwellings; intake through the Commission office; no means testing.	Must be water or sewer customer	Billing system modifications	All seniors and disabled, regardless of income; 1993 expense - $900,000 of $210 million rate revenue requirement; participation increasing as rates rise.
Los Angeles	Outgrowth of statewide practice of utilities offering some type of lifeline rate. Established during the 1970's by Dept. of Water and Power, restructured in 1993 and expanded to all low income. Billing agency charges for water and electric; flat rate credit adopted for administrative ease.	Applications are processed through the City Clerk's office -- they use a self certification process.	Renters can receive water credit as a credit on electric bill, independent of landlord.	Billing system modifications	Water: - Senior and disabled base credit is $10.00 per bill. - Low income credit is $5 to $10 per month, depending on occupancy; Sewer: - Seniors/disabled/low income rates discounted 15 percent.
Oakland	Rate increases during drought heightened concern for low income -- discount was adopted, fashioned after a phone company discount in existence and easily accepted because of its low impact on rates.	Applications are processed through the Salvation Army -- no recertification required.	Must be customer and responsible party for billing.	Billing system modifications	Low income customers are marginally impacted (amounts to very small discount). Current program costs estimated at $300,000 yearly.
Philadelphia	Required by 1986 regulations; current program developed from Water Dept. proposal for low income aid funded by grants from the Water Dept. either to assist customers with payment arrangements or forgive arrearage. Grants are up to $200 per person. Water Dept allocates about $2.5 million yearly for grants. Also offer a 25 percent discount for qualified low income seniors; 65,000 seniors out of 550,000 ratepayers participate.	Water Dept Customer Service office processes applications for owner occupied dwellings.	Not eligible	Senior program administered through billing system. Payment program uses separate microcomputer system not tied to the other data bases. Program growth has made this a cumbersome process. The payment program is very labor intensive.	City staff feel the programs seem to be meeting the needs of the low income population, based upon feedback.
Buffalo	City provides direct 6 percent discount to water charges for qualified senior citizens. Program was adopted to augment property tax relief; no information on the how level of discount was determined.	Automatic qualification through application for property tax relief.	Not eligible.	Billing system modifications.	Low income seniors who own their own homes.

Table D-1: Summary of Program Details, Selected Cities (Cont'd)

CITY	HISTORY	TO QUALIFY	RENTERS' PROVISIONS	ADMINISTRATION	WHO IS IMPACTED
Toledo	Desired to offer similar types of programs that other utilities offered -- no information about how amount of discount was determined.	Must be owner occupied, low income senior. Qualification handled through county in conjunction with property tax relief program. Originally administered through United Way office.	Not eligible.	Billing system modifications.	Marginal impact (about $2.70 per month) for low income seniors who own their homes.
Seattle	City provides water and electric services; assistance began for electricity with a "Project Share" program using voluntary contributions. Subsequently, City paid half of outstanding balance if low income customers made arrangements for paying other half and current monthly bill. Original program was low income seniors and disabled, later expanded to all low income. Council later identified water/sewer/garbage as vital services that should be included in assistance program. Increases to discount have been made as rates increased.	Done through Seattle's Dept. of Housing and Human Services. Based upon 125 percent of Federal poverty level. Renters in multi-family units with individual electric meters receive water/sewer discount as credit on electric bill. Renters in multi-family with one meter receive vouchers. Agency conducts means testing.	Based on occupancy status.	Billing system, separate city agency (from water/sewer).	Seattle officials believe this program impacts a good percentage of the low income population due to the amount of the discount: 40 percent of water/sewer/garbage bills for low income households.