Joy Smith, Board Director, Wells Branch MUD, PIC Member – Wholesale Class Submitted: 1/23/2008

My comments on the January 22, 2008 meeting are as follows:

1. My understanding is that the City’s current discharge permit includes parameters for TKN disposal. As a result, it is my opinion that the City should add this parameter to the cost allocation model as soon as data is available. As the City’s discharge permit includes these parameters for testing and discharge requirements, it seems that it would be most appropriate to also allocate costs surrounding TKN as well – further matching cost drivers to cost allocations between customers.

2. The consultant recommended allocating I/I based on total volume. As the City indicated that most of the City’s I/I is within the collection system, and most of the System’s I/I is not directly impacted by the activities of specific customers, it is rather the resultant impact of the system maintenance; it seems that the Consultant’s recommendation to allocate costs based on total volume seems to be a reasonable means of cost allocation. This recommendation is reasonable assuming that wholesale customers who have individual flow meters are not allocated the I/I since a large amount of I/I would have occurred between the individual customer meters and the flow meter with the City; thereby capturing their resultant proportion of I/I in the metered flows.

Once again, I’d like to express my appreciation to the City for its time and effort in the process and look forward to our continued relationship.

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Dan Wilcox, Spansion, (On behalf of both Industrial PIC members and Large Volume Industrial Customer Group LVIG)
Submitted: 02/08/2008

RE: PIC ISSUE PAPER NUMBER THREE

ISSUE 1: WASTEWATER COST ALLOCATION OPTIONS

The LVIG does not have any concerns with the consultant’s recommendation to use the Hybrid Approach methodology for cost allocation at this time. However, we have not seen the actual allocations and our comments are based on our understanding of the concept in general. It would be easier to determine which method is the most equitable for all customer classes if each of the options presented were compared using the consultants rate model.

ISSUE 2: CUSTOMER SERVICE CHARACTERISTICS
Flow, BOD, and TSS
The LVIG can not agree or disagree with the consultant’s recommendation without more information about the Flow, BOD, and TSS limits that will be assigned to the Industrial Class.

As presented in our first paper, the LVIG has concerns that the wastewater cost of service will not be fair if wastewater strength is not properly factored into the rate model. The Industrial Customers in general have very low BOD and TSS levels in the wastewater streams discharged into the City wastewater system. In fact, the Industrial wastewater characteristic provides steady-state dilution to offset the spikes inherent in domestic influent treated by the Austin Wastewater Utility treatment plants, again providing the utility and its customers a major operational benefit.

Many customers in the Industrial class have made significant investments in pretreatment and waste reduction management processes that have resulted in lowering wastewater pollutant loadings as compared to the other customer classes. Industrial customers have also made major improvements in wastewater recycle and reclaim processes in recent years and continue to move forward in these efforts.

As these efforts are cost effective and greatly benefit the environment, it also causes industrial waste streams to increase in concentration. If BOD, and TSS limits continue to be concentration based, it will dissuade further wastewater reclaim and recycle efforts. The industrial wastewater and commercial wastewater streams are sampled regularly by the city providing actual wastewater constituent data that can support this argument. Similarly, the primary requirement for being characterized as a Industrial customer is a minimum annual flow of 85,000,000 gallons per year. Since some Industrial customers are approaching this limit, they must also consider the cost effectiveness of further wastewater reclaim and recycle projects that would move them to the commercial customer class at higher rates.

In summary, The LVIG strongly recommends that the Executive Team use actual BOD and TSS data as measured by AWU to determine allocation to customer classes. In addition, we recommend a mass based approach for determining industrial wastewater discharge limits and removing the minimum water usage criteria that determines Industrial Customer Classification. These changes will encourage and promote implementation of additional waste reduction, recycle, and other environmentally friendly programs leading to reduced costs for the AWU and all of its customers.

Add, TKN and Phosphorus
The consultant recommends adding TKN and Phosphorus to the industrial pretreatment program; however they did not recommend a methodology for determining the TKN or Phosphorus charges.

In the last PIC meeting AWU personnel stated that the TKN levels entering the Austin Municipal Wastewater treatment plants were significantly below federal and state limits. Furthermore, it was stated that if TKN levels were to increase in the future treatment would only require additional aeration resulting in minimal O&M costs increases. Industrial and Commercial customers do not currently have aeration equipment in their pretreatment systems which would result in additional long term capital cost hindering economic growth in the Austin metro area.

Phosphorus in municipal wastewater typically comes from detergent products used for laundry, foodservice, and car washes - NOT from Industrial customers; therefore it would be discriminatory to invoke a surcharge program on Industrial customers if they are not the primary source. In fact, the industrial customers are likely to have very low phosphorus levels which again add dilution benefit to the composite wastewater entering the treatment plants.

The commercial laundry industry is required by Federal mandates to use detergents that are high in Phosphorus content for disinfection of linens and clothing used by the healthcare industry. Invoking a phosphorus surcharge on the commercial customer class would therefore be in conflict with federal mandate and unreasonably discriminatory to one specific customer class. Treating phosphorus in
commercial wastewater discharge would also require capital intensive pre-treatment equipment which again would be counterproductive to small business growth in the Austin Metro area.

In summary, the LVIG oppose the consultants’ recommendations that TKN and Phosphorus be added to the Industrial pretreatment without an in depth study on current TKN or Phosphorus levels in or in the composite municipal wastewater stream including profile of these constituents by customer class. Instead, we recommend that AWU delay consideration of them in the ratemaking process until the next Cost of Service study.

**ISSUE 3 I/I ESTIMATION AND ALLOCATION**

The LVIG strongly disagrees with the consultant’s recommendation to determine and assign I/I charges based on flow volume. This change from the current methodology favors the Residential class over the other classes would be unreasonably discriminatory to the Industrial and Wholesale customer classes. Furthermore, the consultant did not present any supporting data to substantiate flow volume as a viable criteria for I/I allocation.

The issue paper presented by the consultants clearly states that the primary factors contributing to significant I/I are age of pipe, level of groundwater, soil conditions, and rainfall. The paper failed to mention that the number of I/I failure points are directly related to number of customers serviced by the system. In reality, the majority of external groundwater and rain water enters the system at the service laterals that connect each customer to the sewer system where the integrity of the collection piping has been compromised. This typically occurs at joints, fittings, branches, and long runs of piping in the system. The customer breakdown data handed out by the AWU in the first PIC meeting indicates that residential customer makeup 89% of the AWU customer base based on number of connections to the AWU waste collection system. In addition these residential customers are located throughout the entire service area. Contrary to this, the data also indicates that the Industrial Customers are less than 0.01% of the total number of connections to the AWU municipal WW system. Consequently, the Industrial class customers discharge into the collection system at eight (8) large main interceptors relatively close to the South Austin Regional WWTP. This limits the I/I caused by Industrial Customer to a very small number of connections and a comparatively small area of coverage. Thus, using flow volume is counterintuitive as a factor for I/I calculation and drifts significantly away from the cost causation criteria.

In the last cost of service study the Wholesale Customer Class (WCC) was not assigned any I/I because their wastewater volumes were metered. The basis supporting this was that if the WCC WW volume is known and measurable before it enters the AWU municipal waste collection system, then infiltration would only be subject to the maintenance and up-keep of the city wastewater collection system and out of the WCC’s control. The Industrial Customer class agrees with this methodology and since 87% of the discharges from manufacturing industrial customers are metered, LVIG feels that the Industrial class should also be subject to this methodology.

In summary, the LVIG believes that the allocation for I/I should be based on customer connections and that the Industrial Customer Class should be excluded from I/I allocation based on the wastewater metering precedent applied to the Wholesale Customer Class. However, if the Executive Team decides to allocate I/I to the Industrial class, the Wholesale class should be allocated an equitable portion. It would be unreasonably discriminatory to do otherwise.
INDUSTRIAL QUESTIONS TO THE CONSULTANT AND EXECUTIVE TEAM:

1. Please run the rate model comparing the three wastewater allocation methods presented.
2. What are the drivers for implementing the TKN and Phosphorus surcharges?
3. How will the BOD, TSS, TKN, and Phosphorus contributions from the residential class be determined?
4. Please provide current data of TKN and Phosphorus both entering and exiting the AWU waste treatment plants.
5. Please provide TKN and phosphorus limits and governing agency that AWU are subject to.

Angie Taylor Rubottom, West View Financial Consulting, Residential Rate Advocate
Submitted: 2/14/2008

Overall Allocation Method

Red Oak Consulting has recommended using the Hybrid Method of allocating capital and O&M costs of the wastewater utility. While this method is reasonable and seems like a balanced approach to allocation of wastewater costs, it does not stand out as conceptually superior to other methods. All methods considered rely on estimated measures of TSS and BOD from a sampling of class wastewater strengths. These measures are estimates and as such the resulting cost of service is only as estimate and should be looked at as such when the time comes to set class revenue requirements and design rates.

The Hybrid method’s effectiveness in allocating will depend to a great extent to its detailed application to Austin Water Utility’s actual costs. There will be a good deal of judgment still to be determined in determining which cost of the Utility will be allocated on a design as compared to a functional basis. Judgment will also be required to determine which cost is incurred for which function. As such we look forward to the opportunity to comment on the consultant’s specific recommendations regarding the allocation of Austin Water Utility’s actual cost of service components when available.

Customer Class Characteristics

Red Oak Consulting recommends the use of flow, BOD, and TSS as the customer characteristics to include in the hybrid allocation process. In addition they recommend future consideration of including TKN and Phosphorous. The flow is the only actual measured customer characteristic of each and every customer class. The other measures are based on various estimation methodologies. As such, a review of the specific estimation methodologies would be appropriate to determine the level of accuracy of these estimates and thus the level of accuracy to place on cost of service measures using these characteristics.

There was not enough information given to determine the appropriateness of applying City resources to the future consideration of TKN and Phosphorous. City staff experts’ ideas on the future impact of these constituents on the City’s permit requirements and future costs are needed before further commenting on these issues.
Inflow and Infiltration

Of all the cost components identified, this one has the least relationship to customer classes and is clearly a system cost. Its incurrence and the amount of it is determined by the utility’s decision to invest to reduce I&I or invest to accommodate it in the system. This component is analyzed and viewed economically from the point of view of what is best for the total system, not weighing one class’s cost of service versus another. So, the allocation should be done in a way that spreads the costs over the system in proportion to the benefit the system provides to the whole. Using annual total flow as an allocation method seems reasonable. However, once again, it is important to realize that there is not any method that is conceptually superior. As such, practical considerations should be weighed; such as what kind of effect this allocation change from previous studies will have on the class cost of service compared to past studies. Any drastic changes that might result in a drastic rate change for that class need to be mitigated by the underlying conceptual dilemma that a superior method of cost sharing is not totally clear.

Summary

Again, the devil can be in the details in cost of service studies, thus we would like to reserve the opportunity to comment on the detail application of these allocation methods to the City’s costs of service in the upcoming study.

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END OF PUBLIC COMMENTS FROM JANUARY 22\textsuperscript{nd} PIC MEETING.