2007-A05

Metropolitan Council

Program Evaluation and Audit

ENVIRONMENTAL SERVICES

Service Availability Charge (SAC)

and

Industrial Rate System

January 1, 2007

INTRODUCTION

Background

Service Availability Charge (SAC)

Municipal wastewater charges account for about 76% of Environmental Services (ES) annual revenues and are charged to municipalities based upon actual usage of the metropolitan disposal system (MDS). The Service Availability Charge (SAC) program generates revenue that supports capital investment in the wastewater collection and treatment system available for future use (reserve capacity). A SAC fee is imposed by ES for new connections or increased capacity demand to the MDS. SAC payments are made by 108 local governments (including the U of M and Metro Airports Commission) connected to the MDS. SAC revenue accounts for about $32 million; about 18% of all ES revenues.

Each year the unused proportion of the MDS (reserve capacity) is multiplied by total ES capital costs to determine the capital costs to be paid by SAC funds. The SAC rate is determined by adjusting those costs for any amount required to maintain the SAC reserve fund at its minimum requirement and then divided by the estimated number of SAC units expected to be connected to the MDS. A SAC unit represents one sewered residential household or the equivalent of 274 gallons/day (gpd) of commercial, industrial or institutional capacity. Apartments and public housing may qualify for discounts based upon the absence of certain water-using appliances. SAC units have averaged 20,002 over the 33 year life of the program, 20,375 over the past 20 years and 19,948 over the last five years, ranging from a high of 30,149 in 1986 to a low of 15,102 in 1991. A SAC reserve is maintained to allow for down turns in construction that can negatively impact ES revenues. The minimum reserve must equal at least 20% of estimated gross SAC fee revenues for the following five year period. Relevant SAC data is summarized in Table 1.

Table 1: Summary SAC Data

Description	2001	2002	2003	2004	2005
SAC Rate	1,150	1,200	1,275	1,350	1,450
SAC Units	19,539	19,175	21,150	20,542	19,334
SAC Fees	$21,675,001	$22,411,921	$25,804,319	$27,062,103	$27,246,750
SAC Review Revenue	$540,852	$322,490	$863,092	$381,123	$426,497
Minimum Reserve	$27,346,000	$29,446,000	$31,253,000	$33,507,000	$36,300,000
Actual Reserve	$97,284,546	$89,021,242	$79,717,378	$83,975,767	$81,817,214
Reserve Capacity	34.86%	36.80%	38.31%	44.33%	44.52%

Notes: 1. SAC Review Revenue represents revenue gained by ES through the process of reviewing payments made by the 108 local governments hooked to the MDS.

2. The SAC Reserve Fund was reduced in 2001, 2002 and 2003 by pay-as-you-go capital outlays of about $12,000,000 each year. This practice was discontinued after 2003.

Industrial Rate System

Industrial Rate System fees are charged directly to industrial users and accounted for $8.8 million (5%) of ES 2005 revenue. Industrial Strength Charges accounted for about 70% of all 2005 Industrial Rate System revenue as summarized in Table 2.

Table 2. Industrial Rate System (IRS) Revenue 2001 - 2005

Description	2001	2002	2003	2004	2005
Industrial Strength Charge	5,763,931	6,306,230	6,109,295	7,108,207	6,117,481
Liquid Waste Hauler Load Charge	345,140	426,031	616,725	614,478	942,756
Industrial Discharge Permit Fee	681,230	698,694	729,926	760,625	836,288
Add-On Service Charge	240,509	277,776	317,535	304,265	322,137
Self-Monitoring Report Late Fee	10,900	7,200	6,000	6,300	7,200
Stipulation Agreement Payment	0	0	0	0	0
Cost Recovery Fee	800	785	30,415	21,341	20,254
Special Strength Charge	379,826	700,477	581,656	495,987	553,940
Total	7,422,336	8,417,193	8,391,552	9,311,203	8,800,056

Industrial Strength Charges – Fees that capture extra treatment costs caused by industrial wastewater that has more pollutants than typical domestic wastewater.
Liquid Waste Hauler Load Charge – A system of charges for liquid wastes discharged to any of the nine approved ES disposal sites in the metropolitan area.

Industrial Discharge Permit Fee – Annual fee paid by all permitted industrial users of the MDS. This revenue recovers about half the direct costs to administer the industrial pretreatment program. The permits are a method of controlling and regulating industrial discharge to the MDS to ensure compliance with local and federal regulations that protect the sewer system and the public. The permit includes a number of conditions for discharge monitoring and self-reporting.

Add-on Service Charge – A charge for a temporary discharge of treated, contaminated groundwater into the MDS.

Self-Monitoring Report Late Fee – Self Explanatory

Stipulation Agreement Payment – Daily penalties and monthly negotiated payments intended to negate the economic advantage of noncompliance with federal, state or local pretreatment standards. There have been no fees for the past five years due to improved compliance by industrial users with pretreatment standards.

Cost Recovery Fee – Used to recover costs from any responsible party associated with spill or enforcement responses or non-routine data requests.

Special Strength Charge – Used in situations where regular strength charges do not apply.

Assurances

This review was conducted in conformance with Government Auditing Standards and the Standards of the Institute of Internal Auditors. Findings are reported to auditee senior management, the Regional Administrator and the Audit Committee of the Council.

Scope

The review of ES SAC and Industrial Rate System programs included an assessment of (i) community compliance with required SAC reporting procedures, (ii) ES processes for reviewing the accuracy of community SAC reporting, (iii) the internal controls in place to assure appropriate accounting of all SAC funds received from communities, (iv) the process by which the SAC rate is determined, (v) the effectiveness of determining commercial and industrial SAC units, and (vi) process by which Industrial Strength Charges are determined.

Methodology

To gain an understanding of ES SAC and Industrial Rate System programs, assess compliance program procedures and provide assurance that sufficient controls exist to assure the viability of the programs, the following methods of inquiry were used:

- ES personnel were interviewed.
- SAC payments were traced to appropriate accounts and bank statements.
- Monthly community SAC reports were reviewed.
- SAC reviews were analyzed.
- SAC determinations were verified.
- Industrial Waste permit monitoring process was evaluated.
- Industrial Waste invoicing process was verified.
- Industrial Waste re-permitting and SAC re-determination processes were reviewed.

OBSERVATIONS

Service Availability Charge (SAC)

Community SAC Reporting

Throughout the Twin Cities metropolitan area, 108 local governments use ES wastewater treatment facilities and participate in the SAC program. Environmental Services personnel work with each local government in an effort to efficiently and effectively assure that proper SAC determinations and payments are made. Environmental Services publishes a SAC Procedure Manual annually for use by local government and ES personnel for administering this program. The Manual describes (i) the SAC program and how it is funded, (ii) the responsibilities of ES and local governments, (iii) residential, commercial and industrial property SAC determination and credit processes, (iv) the monthly SAC reporting process, and (v) criteria for determining SAC for commercial properties (Appendix A). It also includes copies of approved forms to be used when reporting SAC.

According to the SAC Procedure Manual, each local government is required to submit monthly SAC activity reports (SAC-A form). If there is no activity, reports are still required, indicating such. These reports are used to calculate fees due from the local government for maintaining reserve capacity within the MDS. The ES SAC Coordinator (Coordinator) collects and maintains these monthly local government SAC reports. In addition, the Coordinator is responsible for scheduling and performing reviews of local government SAC reporting, providing training upon request or where ES staff believes it is warranted and providing monthly and annual reports to the ES Finance Director including various indices regarding SAC units, revenue and receivables.

A representative random sample of 61 monthly reports was analyzed to assess local government reporting practices. In 14 instances, local government reports were not found for the sampled time period. Instead, the missing month would be written on the next available report. For example, a report for the month of November would have "December" written in by the Coordinator and there would be no individual report for November. In one case the report was simply put on the reporting entity's letterhead.

In an effort to make administration of the SAC program as efficient as possible for ES and each local government, some record retention and SAC Procedure Manual practices have been waived. As a result, local governments vary in their reporting practices.

According to the Coordinator, some monthly reports are missing because the local government reported that zero SAC was due. In the interest of reducing file sizes, the Coordinator discards such forms and adds the month's zero report to the next month in which SAC is actually due. It is a commendable practice to reduce the expense of storing documents, however, the monthly report is the official document attesting to the local government's compliance with the SAC reporting process and these reports should be maintained. In addition, some local governments were granted the option of reporting SAC on a quarterly basis. It is commendable to work with each local government so that the SAC reporting process becomes as efficient as possible, but again, this practice varies from the procedures for SAC reporting as outlined in the SAC Procedure Manual.

SAC Reviews

The Coordinator reviews SAC charges of all local governments using the Council's wastewater treatment facilities at least once every three years by visiting building and sewer departments of reporting local governments to reconcile building permits to what was reported on the monthly SAC reports.

The Coordinator has developed a risk assessment form that takes into account construction activity, local government staff turnover, monthly error rate, the history of problems and resolutions and the last visit to the local government. Each is ranked on a scale from "0" to "3." Such an assessment is a good start in developing a risk-based analysis; however, it assumes equal weight of all variables and it does not include a financial risk variable (i.e. the dollar value of past review findings) among them. That said, the Coordinator does not currently use the risk assessment form. Having performed such reviews for 20 years, the Coordinator ranks local governments based upon an overall view of risk. According to the Coordinator, certain large local governments are reviewed every year, while smaller ones average about every other year.

During the review, all building activity since the time of the previous review is normally analyzed. A random sample of 19 field reviews conducted in which no review was performed in the previous year (i.e. 2005 was reviewed; 2004 was not; 2003 was reviewed) disclosed that all reviews covered both the current year and the previous year. Such was not the case when the local government had not been reviewed in the previous two years. All five of these instances were analyzed. One review included all activity since the previous one, three did not and one is still under review although the field work was conducted in 2004. The three that did not cover all activity showed no evidence of reviewing four month, two month and six month time frames, respectively. Reportedly, this lack of review documentation was due to a lack of development activity within the community; if so, this should be better documented.

An analysis was performed on all SAC reviews for the period 2001 to 2005. There were 383 reviews conducted resulting in recouping an additional $2,535,552 in revenue and $790,764 in unearned SAC credits. On average, 77 reviews were performed annually resulting in $507,110 additional revenue and $158,153 in unearned credits.

Program Evaluation & Audit performed a risk analysis based upon local government reporting effectiveness. Local governments were divided into three groups: 1) those that have never misreported SAC, never reported unearned SAC, or were due minimum SAC credits (low risk); 2) those that misreported SAC in 50% or less of the reviews performed (medium risk); and 3) those that were found to have misreported SAC in over 50% of the reviews conducted (high risk). Table 3 summarizes this risk analysis.

Table 3: Review Risk Analysis 2001-2005

Risk Level	Error Rate (%)	Number of Local Govern-ments	Number of Reviews	Number of Errors	SAC Revenue	SAC Credits	Average Revenue per Review	Average Credits per Review	Review Frequency in Months
Low	0%	19	52	2	0	6,525	0	125	22
Medium	1-50%	40	161	61	610,065	32,809	3,789	204	15
High	>50%	43	170	128	1,925,487	(830,098)	11,326	(4,883)	15
	Totals	**102**	**383**	**191**	**2,535,552**	**(790,764)**	**6,620**	**(2,065)**	

Eight local governments are not included in this analysis because they were not reviewed during the five year period under examination. These include Columbus Township, Dayton, Dellwood, Greenfield, Hilltop, Landfall, Medicine Lake, and Mendota. According to the Coordinator, there was no SAC activity in these local governments from 2001 to 2005 (except one development that was reported and paid through a neighboring community), and Dayton and Columbus Township are new to ES service and will be included in future reviews.

Nineteen low risk local governments were reviewed on an average of 22 months resulting in no additional revenue. Forty medium risk local governments averaged a review once every 15 months, resulting in additional revenue averaging about $3,789 per local government. In the high risk group, 43 local governments were also reviewed every 15 months and accounted for $11,326 in additional revenue per review.

The high risk group is of most concern. These local governments have consistently underreported SAC and also misrepresented the number of earned SAC credits, claiming on average, $4,883 in unearned SAC credits for every review.

Low risk local governments are also of interest because some are being reviewed up to four times in five years, or once every fifteen months. The median low risk local government was reviewed three times in five years or every twenty months. These local governments have demonstrated exemplary routines of proper SAC reporting, rendering such frequent field work unnecessary.

A model was created using the risk analysis described above and historic SAC review revenues to forecast future revenues. Given that local governments should be reviewed at least every three years, low risk local governments were modeled to be reviewed once every 36 months, medium risk local governments once every 24 months and high risk local governments every year. The number of local governments in each risk category was then multiplied by the average revenue per review (based on 2001 - 2005 results) to determine projected annual revenue. This was compared to 2001-2005 average annual revenue to determine the efficiency of the current review planning process. Projected SAC review results using this analysis are shown in Table 4.

Table 4: Projected SAC Review Revenue Using Risk Assessment

Risk	Number of Local Govern-ments	Projected Review Frequency in Months	Avg. Revenue per Review	Projected Annual Revenue	2001-2005 Average Annual Revenue	Projected Revenue Change	Projected Reviews/ Year	Current Reviews/ Year
Low	19	36	0	0	0	0	6	11
Medium	40	24	3,789	75,780	122,013	(46,233)	20	32
High	43	12	11,326	487,018	385,097	101,921	43	34
Subtotal	102	-	-	562,798	507,110	55,688	69	77
Medium	8	12	3,789	30,312	0	30,312	8	0
		-	**Total**	**593,110**	**507,110**	**86,000**	**77**	**77**

Given this model, although there would probably be little increase in total revenue since the majority of the monthly reports between reviews are analyzed, revenue that under the current review plan would be received in later years could be received earlier, making it available for use and for inclusion in the calculation of future SAC rates. In addition, similar revenue could be gained by conducting eight fewer reviews per year. The time that would have been used conducting such reviews could then be allocated to other Coordinator job responsibilities. On the other hand, early revenue receipt could increase by $86,000 if the same number (77) of reviews were performed

annually. In addition, unearned SAC credits that were identified total $47,020 and $45,388, respectively.

In a separate risk assessment, low risk local governments would not be reviewed and the saved time would first be applied to annual reviews of high risk local governments with any spare time applied to reviewing medium risk local governments. Each year that this scenario is applied, earlier receipt of SAC review revenue and unearned credits would be about $119,000 and $43,000, respectively.

SAC Review Documentation

As a local government review progresses, the Coordinator maintains an informal list to identify unreported SAC or over reported credits. However, there is no formal documentation of this information or process; therefore, review findings and resolutions cannot be traced to the supporting documentation located at the local government offices under review.

Standard data collection practices require that information and accompanying analysis should be complete and recorded to support the conclusions and recommendations made based upon such data and to facilitate the use of such data by others within the organization and by third-party reviewers. The recorded information should consistently document the procedures performed, the information obtained and the conclusions reached. In addition, the purpose of any analysis and sources of information should be clearly identified and conclusions reached should be based upon the evidence gathered. Consistently following and documenting SAC Procedure Manual and ES Work Instruction guidance regarding reviews of SAC reporting by local governments provides ES greater assurance that decisions made regarding an individual local government entity are consistently applied.

SAC Reporting and Review Procedures

The current Coordinator has been at this position for 24 years and has a vast amount of knowledge regarding individual local governments, their personnel, how they report, what to expect in the future and ways to gather information to identify SAC changes (i.e. newspaper articles, TV and radio news broadcasts, construction industry publications). The 108 local governments use various computer programs for tracking building permits. Knowing what local government uses what electronic method assists the Coordinator in planning the review and in discussing documentation needs with the reviewee. Local governments vary in size and in procedures. In larger entities, a person may be specifically assigned to report SAC. In smaller entities, SAC reporting is usually only a small aspect of one person's responsibilities. Maintaining a formal list of local government SAC personnel is invaluable for anyone within ES required to interact with that person. Background data on turnover, reporting error history, prior review findings, growth patterns and construction history can assist both the current and future Coordinators in planning reviews. This valuable information is not written down and can be lost should the Coordinator change.

Due to familiarity with local governments and with the current review process, actual reporting has deviated from that proscribed in the SAC Procedure Manual. As previously mentioned, some local governments report quarterly and in about a quarter of the instances audited by Program Evaluation & Review, monthly reports that had been provided were destroyed. Therefore, care must be taken when formalizing reporting and review procedures to assure compliance with published requirements.

SAC Determinations

One SAC unit is equal to the usage ascribed to a single family home (274 gpd). The process for determining single family home and townhouse SAC is clear and well documented. Therefore, local governments make SAC determinations for most single family and townhouse construction, redevelopment and demolition. Determining apartment and condominium SAC is more complex and ES conducts most of those determinations.

Appendix A to the SAC Procedure Manual contains a listing of various SAC unit equivalents for use in determining commercial and industrial SAC. Local governments have the option of conducting their own commercial determinations or requesting such from ES. In the vast majority of instances, ES does these determinations based upon pre-construction blueprints provided to the local government when applying for a building permit and any adjustments deemed appropriate by the local government building inspector prior to issuing a permit. No further determination is made upon completion of the building even though changes can occur which affect the number of SAC involved. Currently, ES relies upon local government staff and the SAC review process to discover such changes.

Environmental Services is the only entity that makes industrial SAC determinations. They are initially compiled in a manner similar to that used for commercial determinations, however, industrial SAC determinations are reviewed every three years by the Industrial Waste (IW) department at the time the industrial customer is required to renew its wastewater disposal permit (see the "*Triennial SAC Reviews*" section, below).

SAC is determined based upon the potential daily discharge for an activity at a specific address to which ES provides service. Determinations for initial construction on a plot of land are easier than those for remodeling, demolishing and re-building or when an existing property is put to a new use. In such cases, when SAC has already been paid for past use, SAC credits become available to offset the gross SAC calculated under the new use.

The SAC database contains historical records of SAC previously determined and charged for a particular address. The data contained in this database is used to identify SAC credits for new construction on previously occupied land. In 2002 this data was placed into an Oracle relational database; however, it has not been easy to use and problems persist, some of which are identified below. In June 2006 an analyst within the IS department was given full time responsibility to work with ES personnel (currently the Coordinator who spends about 80% of her time on this project) to construct the database in form and relational perspective friendly for use by ES personnel. The planned completion date of this project is May 2007.

With the assistance of ES personnel, Program Evaluation & Audit judgmentally sampled nine sets of project drawings from the July – August 2006 period to assess the effectiveness and efficiency of the SAC determination process. Plans included a mosque, a music school, two commercial and one industrial property, a restaurant, a condominium development, a residential suite hotel and a special needs residence. Five were for new construction on property not previously built upon and four were for reconstruction/remodeling previously built parcels. Sampling determinations made earlier than July 2006 could not be conducted because backup documentation (building plans) was destroyed after two months.

Total SAC and associated credits determined by ES was 203 and 66, respectively; for Program Evaluation & Audit it was 197 and 13. Each SAC unit and associated credit equals $1,550, so there was a gross difference of $9,300 in SAC and a negative ($82,150) in associated credits.

The determination process is complex and open to interpretation. SAC equivalents vary between residential, commercial and industrial types of construction; however, even within these broad categories, project specific plans allow subjective interpretation. Although Program Evaluation & Audit determinations resulted in a lower total SAC count, as a result of this review, three additional SAC were invoiced that had been overlooked by the ES determinator. As mentioned, these findings are based upon reviewing nine determinations. During the period 2003-2005, ES averaged 1,164 determinations annually (about 5 per day), averaging 11.2 SAC per determination. Although our sample was judgmental and cannot be extrapolated to all 1,164 determinations, it is clear that there can be pronounced effects in SAC invoicing due to the complex nature of the determination process**.**

SAC Rate

In its "Analysis of Rural Growth Center SAC," an outside consultant reviewed the ES capital finance module used to develop the SAC rate. The interest rate (5%), inflation factor (3%) and minimum SAC reserve balance (20% of future 5-year average SAC collections) were all assessed and deemed reasonable. However, the consultants did recommend that the policy concerning current reserve balance funding be changed to include justification for the 5-year minimum reserve based upon long-term capital needs. The consultant also recommended pay-as-you-go (PAYG) financing where feasible and that "a funding and reserve policy, clearly communicating the intended level or percentage of pay-as-you-go financing, should be included in the financial management policies." ES financed some of the reserve capacity on a PAYG basis during 2001-2003.

SAC rate calculations consider reserve fund earnings, withdrawals and requirements along with a progressively increasing SAC rate and revenue so that although the reserve is over-funded today, it could begin to be under-funded by the year 2025. Therefore, the PAYG strategy of 2001-2003 was halted so that the positive reserve balance projected out to 2025 is retained rather than being depleted earlier and requiring a larger annual increase in the SAC rate. ES desires to maintain a smooth and reasonably predictable transition of SAC increases to not discourage development and also to give both large and small developers an equal opportunity.

Based upon this review and the work of the outside consultant, no exceptions are taken to the construction of the capital finance module for determining SAC rates.

SAC Receipts

Communities submit payment with their monthly SAC reports. The payments and reports are routed to the Council's Accounts Receivable (A/R) department at which time an invoice corresponding to the payment made is generated and the SAC report is sent to the Coordinator. It is standard accounting procedure to first generate an invoice, submit it to the customer for payment and then record the subsequent receipt to the outstanding receivable account. However, the amount of the payment is unknown until the communities submit their monthly SAC reports along with their payments.

A random sample of SAC monthly payments was taken to verify that SAC payments have been deposited in the Council's bank account and reconciled to the Council's subsidiary ledgers and to the appropriate monthly bank statements. Although it is not standard accounting practice to write the invoice at the time payment is received, all sampled payments were verified as being deposited.

A separation of duties also exists between the individual depositing the check and the individual originating the invoice in the Council's books of record.

SAC Records Retention

The following instances of improper record retention within the SAC determination and review process were identified earlier:

1. Monthly local government SAC reports with no activity are destroyed.
2. SAC review work papers are not properly maintained.
3. SAC determination backup is retained from 3-4 months and then destroyed.

The ES SAC Records Retention Schedule states that "SAC Records Include Community Forms and Correspondence" (i.e. monthly reports and review backup information) and that they are permanent records. It specifically requires that "SAC Charge determinations and backup info" (i.e. plans upon which determinations are based) also be retained permanently. ES is not in compliance with the published Records Retention Schedule. The ES Finance Director states that the Records Retention Schedule is outdated, that the construction plans used to determine SAC were not a necessary part of the backup and that the retention schedule refers to SAC determination correspondence and notes. However, the entire Metropolitan Council is required to abide by the Minnesota Government Data Practices Act (MGDPA), including identifying all records, their classifications and a specific retention period. The Council's record retention schedules are approved by the State under the MGDPA. The current records retention plan for ES may be outdated, but it is the only approved schedule in place that covers SAC records.

Industrial Rate System

Industrial Waste Strength Charge Formula

A study of the Industrial Waste Strength Charge Formula was conducted in 2003 and updated in 2005. It contained five recommendations, four of which have been implemented, deemed too costly for the benefit received or planned for an appropriate future date. One recommendation, to determine if high-strength commercial dischargers should be included in the industrial strength charge system, is being considered by ES.

The first two recommendations, to continue to use chemical oxygen demand (COD) for determining the strength of industrial discharges and to continue to use the current strength parameters in determining COD are being fulfilled. The third recommendation stated that "the strength charge formula should not place a surcharge on high-strength industrial phosphorus discharges;" however, "additional phosphorus data from industry should be collected over the next two years and reanalyzed to determine if the strength charge formula should include phosphorus." Data collection has not been implemented, although it appears that any adjustment would be revenue neutral and too costly to implement. Recommendation four, to hire an outside consultant to perform an objective evaluation of MCES operational cost splits between flow and strength and between total suspended solids (TSS) and COD is still under review.

Permit Monitoring

Industrial Waste (IW) monitors about 800 permittees that, due to the nature of activity, discharge wastewater subject to regulation into the MDS. About 260 of these permittees are classified as significant industrial users (SIU); the remainder as non-SIUs. All permittees are periodically

required to report detailed self-monitoring water quality and flow data to IW. Industrial Waste verifies this data by conducting its own monitoring annually for SIUs and once every three years for non-SIUs. Both permittee and IW monitoring data is disclosed in annual IW Pretreatment reports.

A review of 505 permittees monitored a total of 1,035 times during the period 2003-2005 disclosed that 422 (84%) were monitored exactly according to standard procedural time requirements. Taking into consideration other procedural requirements (15), additional monitoring to save travel expense (10), monitoring at-risk permittees (27) and reporting errors (21), in the final analysis, 495 (98%) of permittees were monitored according to IW procedures. IW is effectively and efficiently monitoring permitees. In addition, an audit of IW monitoring practices was conducted by the Minnesota Pollution Control Agency (MPCA) in 2005. With the exception of two minor administrative items that have subsequently been corrected, the MPCA found no violations with IW monitoring of the pretreatment terms and conditions of numerous federal and IW requirements. It further stated that "the Industrial Waste and Pollution Prevention section staff continues to do an excellent job of implementing the MCES pretreatment program."

Industrial Rate System Invoicing Process

Industrial Waste originates about 1600 invoices annually, half being for permit fees; however, industrial strength charge invoicing accounts for about 70 percent of all IW revenue. About 275 of the 800 permittees are subject to strength charges; the remaining permittees do not exceed the standard strength limits. All self-monitoring reports submitted by permittees are reviewed and approved by IW engineers and the data entered into an Excel spreadsheet. The data is then checked once more against the original self-monitoring report and a random check of rates used in the calculations is also conducted. The information is then transferred to the PACS database in which COD and TSS levels are calculated and invoice amounts generated for those permittees exceeding standard strength levels. After a second review by IW personnel, this invoice data is submitted to Information Services that inputs the data into PeopleSoft and generates the actual invoice after final review and approval by IW. Industrial Waste does not receive copies of the invoices, but looks to Accounts Receivable to track and obtain payment, although IW does assist A/R in collection if requested. Industrial Waste does receive copies of A/R past due notices which are routed to the engineer responsible for that permittee.

Program Evaluation & Audit took a random sample of 39 permittees and reviewed recent Industrial Wastewater Discharge Reports for wastewater discharge, COD and TSS data. A strength charge was calculated and traced to the corresponding invoice sent to the permittee. Nineteen of the permittees did not have COD and TSS levels that exceeded the standards; therefore, no invoice was required. Of the remaining 20 permittees, all strength charges were accurately calculated and 17 permittees invoiced; two were less than $25 and not invoiced according to IW practice and one report was missing.

Appropriate internal controls are in place within the IW invoicing system to assure that permittee Industrial Strength charges are accurately calculated and billed.

Triennial SAC Reviews

Initial SAC payments were determined by ES based upon information provided to ES prior to initially being attached to the MDS. This provided a baseline of estimated usage and a resultant SAC determination. SAC permitted industrial users are required to renew their permits every three years. Industrial Waste conducts SAC reviews on permitted industrial users in conjunction with the

user's industrial permit renewal. If the review identifies a greater flow, additional SAC is charged and a new baseline is established. If the flow is shown to be less than the current baseline, SAC is not refunded and the baseline remains as is.

Letters of reviewed volume levels are based upon the same permittee Discharge Reports that are used to calculate strength charges. Industrial Waste engineers review the Discharge Report, make adjustments where needed, calculate current SAC units and compare them to the SAC baseline (the SAC units outstanding at the time of the previous renewal date). Industrial Waste then sends a letter to the user 12 months before the permit is to expire stating this information and, if SAC is owed, instructing the permittee to make payment to their respective local government within 30 days of the renewal date of their permit.

Users have the option of working with IW engineers to reduce flow to the current baseline instead of paying additional SAC. If a company chooses to do this, they must conduct a 30-day volume study to measure flow. The new volume will be the average of the flow from each of the 30 days studied.

If a user is found to have a volume below its baseline it is usually not refunded previously paid SAC unless, within six months of the initial construction drawing based determination, the estimated flow had changed. The permittee would then need to request a re-determination from ES.

Program Evaluation & Audit sampled the same 39 permittees used in the invoicing review discussed above to determine if SAC was being accurately calculated and charged. Of the 39 permittees, 31 had current wastewater flows less than their SAC baseline and, therefore, no new SAC was charged. Three permittees had flows greater than the current baseline, but through working with Industrial Waste, were able to implement measures to bring wastewater flows back to or below the current baseline. Finally, five permittees had flows greater than the current baseline, the baseline was raised and additional SAC was due. Because permittees do not pay SAC directly to ES, but through their local government, Program Evaluation & Audit reviewed local government monthly SAC reports for periods near the permit renewal dates of the five permittees. One was verified as paid in the amount required, one was granted an extension in order to conduct the 30 day flow analysis after making changes to reduce flow, and three renewals are recent and payments have not yet been made.

Industrial Waste provides permittees adequate notice of SAC changes, accurately calculates what those changes are, and notifies the permittee when and how to make payment. In addition, the SAC Coordinator reviews local government monthly reports to assure that the SAC due is actually paid.

CONCLUSIONS

1. *Environmental Services publishes the SAC Procedure Manual annually; however, some practices regarding local government SAC reporting processes are not functioning according to the manual's provisions.*

   The SAC Procedure Manual provides communities with monthly reporting requirements. Deviating from these standard procedures places ES at risk for claims of unequal treatment. For example, some communities report quarterly rather than monthly, some use their own forms rather than those specified in the Manual and some do not provide required supporting documentation.

2. *The SAC review process recoups a significant amount of SAC revenue not reported by communities on their monthly reports. The review process is, however, in need of improved documentation practices to provide reliable source material to support findings, to provide adequate information for use within the SAC determination process and to provide procedures for accomplishing review tasks.*

   Maintaining reliable source material documentation will assist others within the ES organization in understanding findings and duplicating review tasks. Providing centralized and accurate SAC credit data to ES determinations personnel can ease the time burden and improve the accuracy of SAC determinations. In addition, providing detailed written procedures of review tasks can provide for a smoother transition when other employees are required to perform such duties.

3. *Over the past four years, ES personnel have averaged about five SAC determinations per day. However, the current determination process is complex and open to interpretation. SAC equivalent guidance (Appendix A) is difficult to understand and, in many cases, the Coordinator must be relied upon to furnish information regarding existing SAC credits.*

   The SAC Procedure Manual provides guidance on SAC equivalents, although some guidance is difficult to understand, some is duplicative and some criteria differ for similar rooms within different types of buildings, causing confusion. Some equivalent information, by its nature, is too subjective to include in the manual; however, such information is not maintained in a format easily accessible to ES employees who make SAC determinations. The SAC data base is also difficult to understand, does not provide adequate historical data upon which to identify existing credits that may apply to renovations or new construction and must be supplemented by manual records provided by the Coordinator. In addition, there is no ES review process in place to assure SAC equivalents are effectively applied.

4. *As part of the Council's Record Retention Policy, ES has established a schedule identifying the retention period for its records. However, the retention practices for some of its records do not comply with the published ES Records Retention Schedule.*

   The ES SAC Records Retention Schedule states that all SAC records are to be retained permanently. However, monthly community SAC reports with no activity and SAC determination supporting data is destroyed soon after receipt and SAC review work papers are not consistently maintained.

5. *Environmental Services SAC and Industrial Rate System systems are revenue neutral. Greater revenue limits annual rate increases for these systems and less revenue magnifies the annual increase, however, maintaining a balanced system is important to the Council as one aspect of encouraging planned, sustainable growth within the seven county metropolitan area.*

   A dependable rate system is important to both communities and developers. Gradual increases can be budgeted and included in project costs and have less effect on the ability of communities to plan for and control growth.

6. *The Industrial Waste department effectively monitors and invoices permittees.*

   Industrial Waste monitors permittee discharge flows and strengths according to stated procedures and has passed MPCA audits of its process. In addition, the process used to calculate permittee charges and fees accurately applies rates published by ES.

RECOMMENDATIONS

Program Evaluation and Audit recommendations are categorized according to the level of risk they pose for the Council. The categories are:

- **Essential** – Steps must be taken to avoid the emergence of critical risks to the Council or to add great value to the Council and its programs. Essential recommendations are tracked through the Audit Database and status is reported twice annually to the Council's Audit Committee.
- **Significant** – Adds value to programs or initiatives of the Council, but is not necessary to avoid major control risks or other critical risk exposures. Significant recommendations are also tracked with status reports to the Council's Audit Committee.
- **Considerations** – Recommendation would be beneficial, but may be subject to being set aside in favor of higher priority activities for the Council, or may require collaboration with another program area or division. Considerations are not tracked or reported. Their implementation is solely at the hands of management.
- **Verbal Recommendation** – An issue was found that bears mentioning, but is not sufficient to constitute a control risk or other repercussions to warrant inclusion in the written report. Verbal recommendations are documented in the file, but are not tracked or reported regularly.

1. **(Essential) Sufficient reliable source material should be maintained or referenced so that the results of community reviews by the ES SAC Coordinator can be traced and reconciled to original records.**

   During the SAC review, the Coordinator reviews building and sewer permits at local government offices. The Coordinator maintains an informal scratch sheet to identify unreported SAC or over reported credits based upon this review as it compares to previously submitted monthly reports maintained by the Coordinator. This scratch sheet is placed in the local government review file; however, it does not adequately identify source documents and is not easily understood by anyone other than the Coordinator. In addition, formal documentation is not maintained that traces problems and their resolution to supporting documentation. It is difficult to understand how the Coordinator made decisions.

   Management Response: *Management agrees that documentation can be better. During the first half of 2007, a standard template will be developed and implemented. These forms will be retained with the reporting documentation for each community.*

2. **(Essential) Environmental Services should retain SAC monthly reports and determination records for the appropriate period of time as identified in its Records Retention Schedule, or the Schedule should be revised to reflect more appropriate retention periods.**

   Some SAC monthly reports are destroyed and SAC review work papers do not include all the information required to support findings. In addition, plans used as the basis for making SAC determinations are retained between three and four months and then disposed of. Plan data provided by a builder can be very bulky and costly to store. However, plan pages used to make determinations are usually minimal and can be separated from the full project plans. As the ES

Record Retention Schedule is currently written, monthly reports, review work papers and determination documentation are to be permanently maintained.

***Management Response**:*

a) Management agrees that the monthly community reports or alternative communications - that are permitted when no activity occurs - will be retained.

b) All construction plan data submitted is retained 3-4 months. It was not intended by the language of the current Retention Schedule nor is it practical to keep all this plan information for a much longer period of time. A standard worksheet will be developed and implemented to document the basis for each determination. This worksheet will be permanently retained.

c) Revisions to the Records Retention Schedule, which among other things will clarify that keeping the full plan pages is not required to be permanently retained, is in process now.

3. (Significant) The Council's IS Department should continue to work with ES to determine a solution for developing and maintaining a SAC database that is functional, complete and reliable for use by ES personnel.

The current database, moved to Oracle in 2002 is not efficient; it is difficult to use and adds time to the process of making fair SAC determinations. Often, paper documents must be found and reviewed to be assured that the information obtained from the database is correct. The database needs to be either repaired or replaced to ensure its viability as a tool for SAC determinations.

***Management Response**: While this database work has been in process continuously (as an IS project) since 2002, IS has within the last year dedicated more resources and committed to the completion of this work as a priority. IS and ES have been working very closely on this SAC redesign project. Phase one is designed to mitigate the kinds of issues that are written about in this report. More time has been taken to gather business requirements to ensure the database is designed properly. Extensive testing is part of the plan to make sure the data is reliable and the system is functional. The project is on schedule and expected to be completed in May 2007.*

It must be noted that while the database has some issues and the current process is inefficient, the data needed has been retrieved from old system on the VAX mainframe, which will be retired December 31, 2006, or in paper formats and the quality of the determinations has not been compromised.

4. (Significant) Environmental Services personnel should require that municipalities comply with the reporting provisions as prescribed in the SAC Procedure Manual. The manual should be changed, if needed to reflect a process that is stable, provides the needed information, and is agreeable to all parties.

Standard forms are provided for use; however, some communities provide only supporting information, leaving the Coordinator to determine the relationship of such information to that required on the standard form. The SAC Procedure Manual specifically states that when there is no activity for the reporting month that the SAC-A report should still be submitted; however, some local governments report only when there is activity. Finally, monthly reporting is required; however, some communities have been granted permission to report quarterly.

Requiring uniformity in SAC reporting would save review time, make the system more transparent to outside auditors and other users of monthly SAC report data and be in compliance with the SAC Procedure Manual. However, if the Manual is out dated it should be revised. It is very important to require consistent application of standard policies to which all municipalities have access and knowledge.

Management Response: *Management agrees with this finding. However, customer service suggests that we allow some flexibility. Revisions have been made to the 2007 SAC Manual currently being drafted, so that all communities will have the same documented options. The new Manual will be completed and distributed by January 2007.*

5. (Significant) Environmental Services SAC personnel should develop and regularly use a more objective risk assessment model to aid in deciding what municipality to review and how often.

The current risk assessment method is based upon remembered experience and has not identified some communities that repeatedly misreported SAC. A more objective model prepared (but not used) by the Coordinator takes into consideration five risk factors; however, it does not include the financial impact of past reviews as one of those factors. In addition, a number of local governments were reviewed an average of every two years even though they were never found to owe SAC. Preparing and conducting an objective risk analysis that targets high risk reviewees can lead to better initial reporting compliance and a more timely receipt of miss-reported SAC.

Management Response: *The financial impact of past reviews will be added as a factor to the risk assessment model.*

2006 (and likely 2007) will see a reduced quantity of reviews because of the SAC database work and new ES staff training required. We perform as many community reviews as staff workload allows each year. This is good customer service - the SAC review of city records provides training to city staff and most of the cities prefer timely reviews (so they don't have to go back and try and collect from developers belatedly). More frequent community reviews may make the risk assessment model moot.

6. (Significant) Environmental Services should review the SAC determination, crediting and reviewing processes and develop procedures for those that are deemed appropriate yet not formalized.

Some current practices (SAC determination and review processes) are not detailed in ES written procedures. As a result, some SAC determination and review processes have become inefficient and only the employees currently working in these positions are able to do the work.

Management Response: *In early 2006, two staff departures left ES with weaker SAC expertise and resources available than usual. Moreover, this was a time of high SAC activity. In response, in the summer of 2006 responsibility for the determination process was moved to ES Finance and new staff was hired. This includes a SAC administrative assistant for the first time. To improve continuity of expertise, we are planning to develop job aides to document the practices for determinations. Also the Engineering Planning department has been tasked with reviewing and updating the engineering basis for the determination criteria.*

7. **(Consideration) Environmental Services should add a periodic review procedure in the SAC determination process.**

   SAC determinations are based upon preliminary plans submitted by builders to local governments in order to obtain a building permit, with a copy to ES. Upon completion of a project, final drawings are available; however, these plans are not reviewed to verify that the initial determination is still valid. Currently, ES depends upon the Coordinator and local government staff to identify any changes. No formal review process exists to assure that the initial determination is still valid upon project completion. It may be worthwhile to periodically review some determinations at projects' end to assess the accuracy of the predictions and underlying methodology.

   Management Response: *ES does not have the staff to do periodic reviews on a regular basis – we rely on our city partners to apprise us of any material changes in the plans or the actual buildings. After the update of the engineering specifications we will review the need for a random or spot check review of final plans or actual build outs for the more material or higher risk development types.*

8. **(Consideration) Environmental Services should place all relevant SAC determination information in a single source to ensure that everyone involved in the determination process has access to all available information.**

   Appendix A to the SAC Procedure Manual lists standard SAC unit equivalents for many water usage possibilities. However, many others exist that are not in the manual or in a location where they can be easily referenced by anyone with questions or issues.

   Management Response*: The Procedure Manual is intended to provide sufficient info to communicate SAC criteria for most developments. It is not intended to convey the engineering analysis behind the criteria or handle all circumstances or new types of development. The engineering basis for the SAC units provides the basis for unusual circumstances and, as mentioned above, will be updated and better organized during 2007.*

9. **(Consideration) Prior to the next annual publication, ES should update Appendix A to the SAC Procedure Manual to insure that it provides a clear understanding of those items included, that it identifies additions and deletions and that the use of unique words are defined.**

   The current appendix, dated January 2006, contains many SAC unit equivalents necessary to determine total project SAC. However, some equivalent types (i.e. "schools") include various scenarios and not enough explanatory text (i.e. treatment of office space), and can be difficult to understand. In addition, some common, yet difficult to apply, conditions such as "showers" are not included, some new items are added (such as ablution rooms) and one item (i.e. "hose bib") may be seldom used outside the construction/SAC determination process and is not adequately defined.

   Management Response: *Improvements to Appendix A are included in the current draft of the 2007 SAC Procedures Manual.*