

MEMORANDUM

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DATE: September 20, 2002

TO: Frankie Pillifant, Chair
Assembly Public Works and Facilities Committee

FROM: Joe Buck, PE
Public Works Director

SUBJECT: Request for Sewer Reserve Fund Appropriations for

- * MVTP Effluent Copper Levels Analysis
- * Wastewater Utility Cost Allocation and User Rate Study

The purpose of this memorandum is to request authorization from the Assembly Public Works and Facility Committee to introduce two appropriations from the Sewer Reserve Fund to the Assembly in October 2002.

The appropriation requests are to:

- * Fund \$50,000 for continued technical service support to the Wastewater Utility in solving the Mendenhall Valley Wastewater Treatment Plant's effluent copper level problem. The anticipated completion date for this work if funded is the end of November 2002.
- * Fund \$50,000 for a cost allocation and user's rate study for the Wastewater Utility. The anticipated completion date for this work if funded is the end of February 2003.

I propose to offset this appropriation request by transferring remaining Sewer Fund monies from the Willoughby Avenue Reconstruction project when it is closed this fall. The transfer from the Willoughby Avenue project to the Sewer Reserve Fund is expected to be \$229,389. This transfer will be included in the next capital projects closeout list submitted to the PWFC by the Engineering Department this fall.



MVTP Effluent Copper Levels Issue

The MVTP is currently authorized to discharge treated effluent to the Mendenhall River under EPA National Pollutant Discharge Elimination System (NPDES) Permit AK-002295-1. The current permit is a renewal of a prior permit and was issued for the 5-year period from March 6, 2001 to March 6, 2006.

Each NPDES permit stipulates the effluent limitations and monitoring requirements to ensure that the treatment facility operates efficiently and that the receiving waters or environment is being adequately protected from harmful pollutants. When the NPDES permits are renewed, it is common for the new permit to reflect new or revised effluent limitations to be imposed as a result of improved environmental assessment science.

For the MVTP, the effluent limitations for total recoverable copper in the recent EPA permit have been impossible for the plant to achieve to date. The Wastewater Utility has received two notices of non-compliance from the EPA for copper level violations in the plant's effluent stream for this year. Staff has been aggressively seeking a solution to the problem by approaching the copper levels issue from multiple perspectives.

The following approaches to solving the problem are being assessed:

- * Modifications to the Water Utility system to provide a higher PH level for the domestic water to reduce corrosion of the copper water pipes with the homes
- * Assessment and modifications to the plant's effluent testing procedures to verify that the copper levels actually are in non-compliance
- * Modification of the current NPDES permit for the plant to allow higher copper concentration levels based on actual river and effluent flow data collected since the original permit was issued for the plant
- * Plant modifications to remove copper from the plant effluent
- * Design and construction of a new deep-water marine outfall for the plant

Staff and consultants believe that the correct course of action is to first verify that the testing methods used in sampling the effluent are in accordance with current testing technology, and then work with EPA and ADEC in re-evaluating and re-issuing the plants NPDES permit to reflect the additional scientific and technical data on the facility and river flows now available to us. ADEC staff has been very supportive of our efforts to request a re-evaluation of the current permit.

This appropriation request is to fund \$50,000 for two consultant service contracts and to cover related administrative expenses. One contract is for scientific environmental services from an environmental scientist, Mr. Lincoln Loehr, who specializes in EPA permitting issues, and a second contract from the local firm of Carson-Dorn Consultants for technical engineering services in assessing plant modifications. The Wastewater Utility must have a solution identified as quickly as possible due to the non-compliance letters received from EPA. Therefore, the Utility is working to have the solution identified by the end of November 2002.

Wastewater Utility User Rate Study

I have not been able to determine when the CBJ conducted its last comprehensive Wastewater Utility rate study. Based on industry standards, cost allocation and user rate studies should be conducted by a Utility on a typical 10-year cycle.

The CBJ Assembly approved a sewer rate increase on June 18, 2001 for a \$2.00 per month rate increase for FY03. This brought the sewer rates up to the current \$39.50 per month. Another \$2.00 per month rate increase is planned for FY04 and is reflected in the proposed FY04 budget for the Wastewater Utility. These rate increases are based on review of the utility costs of operations in the spring of 2001 by staff.

A recent financial review of the Wastewater Utility by Public Works administration staff and ADEC indicates that if the \$2.00 increase is approved by the Assembly for FY04 (increase to only \$41.50/month) that the Utility will be able to meet its annual expenses for that fiscal year, but will not be able to contribute to the Sewer Reserve Fund or be able to adequately fund any necessary asset replacement or repair work. In addition, the Utility appears to have reached its maximum borrowing capacity for ADEC loans based on the current rate structure. ADEC's primary concern is with the Utility inability to fund asset depreciation as required under GASB 34 requirements.

A comprehensive cost allocation and rate study is needed to assess the Wastewater Utility's future financial health.

The Water Utility is currently contracting with the Financial Consulting Solutions Group, Inc. of Redmond, WA to conduct a comprehensive cost allocation and water rate design study for the City and Borough. This analysis is using a 10-year study period. The program is to design user rates to be implemented over a 10-year period, with a reassessment by the Utility's financial condition in the fifth year to assess the applicability of the rate plan for the last 5-years of the study period.

The Wastewater Utility also has the opportunity to piggyback this contract for a wastewater rate study. This appropriation request is for \$50,000 from the Sewer Reserve Fund to contract with FCSG, Inc. for this additional service and to cover related administrative expenses.

The Wastewater Utility cost allocation and rate study will provide a comprehensive assessment of the utility's user revenue needed to meet the financial obligations, including capital, operating, and policy-driven commitments of the utility. The study would develop a policy framework for wastewater rates and the utility's fiscal health. The scope of the rate study contract would include:

- * Revenue Requirements: In providing adequate wastewater service to its customers, the Utility must receive sufficient total revenue to insure proper operation, maintenance, development and perpetuation of the systems as well as sustainability of its financial integrity. The first step will be to establish the total annual operation revenue requirements for the Utility for a ten-year period in which these rates will be effective.
- * Cost Allocation: A viable analysis of the adequacy of charges requires allocation of costs among customers proportionate with their service requirements in order to

recognize differences in cost for furnishing service to different types of customers. This is to express the total Utility cost in relation to costs associated with supplying wastewater collection and treatment service to both industrial and residential users. In some cases, industrial users may require special treatment processes or infrastructure to handle and treat their waste products.

- * Distribution of Costs to Customer Classes: This recognizes that the cost of providing sanitary sewer service can be reasonably determined for groups or classes of customers that have like wastewater use characteristics and for other customers having unusual service needs. It is the prime objective of the study to review our recent industrial user studies and users records and to assign to classes or customers in a manner in which rates can be designed that are nondiscriminatory and meet as nearly as possible the cost of providing sanitary sewer service to the customers.
- * Development and Design of a Rate Structure: The final step in the study will be the development of a schedule of rates to recover, as nearly as possible, the allocated costs of service from the customers. The goal is the development of a rate structure that will achieve the maximum degree of equitability among customers, be consistent with local practices and conditions, and will be in the best interest of the community and utility.

Wastewater Utility Perspective

Questions to be answered by the study include:

1. Does the proposed rate structure fully compensate the utility and meet the revenue requirements?
2. Will the rate structure be easy to manage and cost effective to the utility?
3. Is the rate structure strategically sound and able to meet future management and long term planning requirements?

Consumer Perspective

Questions to be answered include:

1. Is the rate making process and rate structure equitable?
2. Are the rates perceived as affordable?
3. Is the process and rate structure understandable?

Society's Perspective

Questions to be answered include:

1. Is the process and rate structure just and reasonable?
2. Does the rate structure promote economic efficiency?
3. Will the rates promote the appropriate valuation and conservation of the resources?

If the Assembly approves this appropriation request, the study is expected to take approximately 120 days to complete. A final report should be completed by February 2003 for use in developing update Wastewater Utility budget for FY04.

