

Agenda Report

TO: CITY COUNCIL

DATE: January 22, 2007

THROUGH: MUNICIPAL SERVICES COMMITTEE (January 17, 2007)

FROM: CITY MANAGER

SUBJECT: ADOPTION OF THE MASTER SEWER PLAN (MSP)

RECOMMENDATION

It is recommended that the City Council adopt the findings contained in Section 1-6 of the Master Sewer Plan (shown in Attachment 1) as the model for operations and maintenance of the City's sanitary sewer system and have staff return at a later date with an implementation plan and recommendation on Section 7, Sewer System Improvement Costs.

BACKGROUND

The purpose of the Master Sewer Plan (MSP) is to ensure that the sewer system has the capability of providing reliable sewer service for current and projected needs. The MSP evaluates the system for hydraulic capacity, provides recommendations for operational and maintenance practices, evaluates replacement needs of aging and aged facilities, and analyzes revenue requirements to ensure future financial solvency.

The City's last MSP was prepared in 1973, and updated in 1977. The old MSP is no longer accurate due to its age, its assumptions regarding the City's growth and distribution, changes in the City's zoning plan, and modifications that have been made to the system, including flow diversion and pipe upsizing that have been made in the last 29 years. The 1977 MSP projected a population of 125,000 in the year 2010. The current population of Pasadena is between 141,000 and 146,000 with a job base of about 100,000.

The preparation of a Master Sewer Plan (MSP) to provide for the management and planning of the City's sewer collection system is included in the adopted Capital Improvement Program. Kennedy/Jenks Consultants was awarded a contract to prepare the MSP on April 26, 2004.

The MSP was to include the following information and services for the management of the Citywide sewer system: Digitizing of the City's existing set of sewer plans for inclusion in the City's GIS mapping system; creation of a database on properties for all sewer manholes and pipes; preparation of sewer atlas maps, provision of interactive software for maintenance operations tracking and analysis of development's sewer impact; storm water infiltration analysis; evaluation of existing and future sewer capacities; setting forth flow criteria and design guidelines; identification of system deficiencies and recommendation for improvements and maintenance program; sewer use fee and sewer facility charge study.

ADOPTION OF MASTER SEWER PLAN

It is recommended that the finding of Section 1-6 of the Master Sewer Plan be adopted for use as the model operation and maintenance of the sewer system. Adoption will enable the City to implement, enforce, and manage the sewer system using the standards, findings, and tools developed and recommended in the MSP, resulting in a more reliable and efficiently managed system. Standards include: Design and operating peak depths of flow in the pipe under both dry or nonrain days, and under wet or rainy-day conditions, and recommended sewer system management cleaning and inspection cycles. Findings include identification of current and future segments of sewers with capacity deficiencies. Tools include the interactive computer analysis and design features of the hydraulic software application and data retrieval and updating using the GIS features of the MSP.

The MSP concludes that the current City sewer system is generally operating within safe levels under dry or nonrainy conditions. However, the analysis of the system discloses storm water infiltration problems. Due to rainwater infiltration into the sewer, there are some sewer segments that are operating outside of acceptable limits under wet or rainy conditions.

IMPLEMENTATION PLAN

The Master Sewer Plan contains several recommendations that require further staff review, community involvement, and Council action to implement. Staff will develop an implementation plan that will bring it back for City Council approval at a later date. The major recommendations in the MSP are:

Capital Improvement Plan for Capacity Upgrades

The MSP identifies current and future sewer capacity deficiencies, and recommends a program or modifying and reconstruction specific segments of the sewer system to provide sufficient capacity to ensure the systems current and future safety and reliability. The estimated cost for the capacity upgrades is \$14 million. A map of deficient reaches is included in the MSP.

Establish a Program to Replace Aged Facilities

The City's sewer system is aged; over 60 percent of the system is more than 70 years old. The MSP recommends that a program be established to fund the replacement of

sewer facilities that have exceeded their useful design life. The MSP recommends an annual funding level of \$2.7 million for facility replacement.

Staff is currently reviewing the facility replacement recommendation, including the assumptions inherent in the calculations; the necessity of the level of replacement; and the ability to implement the replacement strategy. Staff will likely recommend reducing the replacement fund amount from the \$2.7 million figure to \$1.4 million a year. This change in replacement funding will have a significant impact on the sewer use fee.

Sewer Facility Charge

The MSP recommends that an equitable portion of cost of capacity upgrades be borne by those generating new sewage to the system. A new fee called a Sewer Facility Charge would be levied on future users based on their demands on the system.

A Sewer Facility Charge will ensure that future generators of additional sewage pay their share of the current system capacity costs as well as the cost of future facilities constructed to accommodate their generated sewage. The Sewer Facility Charge is a new mechanism to replace the current methodology of collecting new developments' share of system improvement costs. Staff will be meeting with development interests to educate and inform them about the revised means for collecting new developments' share of sewer system capacity costs.

Sewer Use Fee

The City currently charges a sewer fee to all users of the system. The fee is used to cover the costs of operating and improving the system. An assessment of the City's sewer expenditure and sewer use fee revenues was performed as part of the MSP. The current fee generates about \$2 million a year in revenue. A financial analysis developed in Section 7 of the MSP indicates that this level of funding does not meet the funding level required to implement the operational and capital recommendations in the MSP. Section 7 of the MSP calculated that the sewer fee would need to be increased by 60% to implement the plan. Staff will examine this recommendation as part of the implementation plan and the recommendation for adoption of Section 7 to return to City Council at a later date.

Maintenance

Continued inspection, maintenance, and rehabilitation of the sewer system is required to extend the useful life of the wastewater infrastructure and prevent system failure. In order to accomplish the City's routine pipeline cleaning and televising goal to provide for a six-to-seven year inspection cycle, the MSP recommends the acquisition of additional staffing and equipment elements.

Management of Sewer Fees and Sewer Facilities Charge

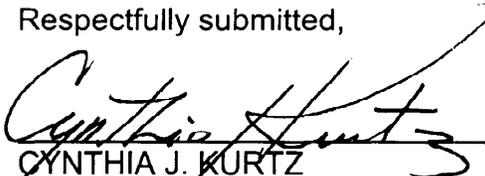
Currently sewer fees and storm drain fees are assessed and collected separately by the City and then combined into one joint account. The MSP recommends that the fees be placed in separate sewer and storm drain accounts and funds be drawn from those

accounts for those specific purposes. The MSP also recommends that funds received under the proposed Sewer Facilities Charge be placed in a separate account, and that those funds be used only for sewer capacity enhancement purposes.

FISCAL IMPACT

The Master Sewer Plan contains a number of operational and capital recommendations for the prudent management of the City's sewer system. In addition, Section 7 contains recommendations for a Sewer Facilities Charge to fund system upgrades as a result of new development and an increase in the Sewer Use Fee to fund system replacement and increased levels of maintenance. Staff is examining the Master Sewer Plan Section 7 recommendations and preparing an implementation plan which modifies the capital, staffing, and funding recommendations needed to successfully implement the findings of the Master Sewer Plan.

Respectfully submitted,



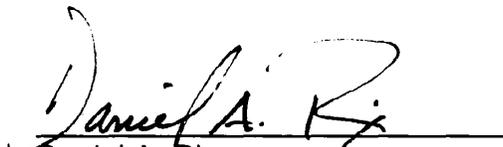
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