Council Agenda #7A
Meeting of March 28, 2006

Staff Report

OVERVIEW OF SOLID WASTE SERVICES AND SEWER, STORM DRAIN, AND PAVEMENT INFRASTRUCTURE

Honorable Mayor and Council Members:

Summary

This report describes the City's infrastructure and solid waste management programs. It identifies organizational and funding issues in the program that will eventually require Council's consideration. The report proposes a schedule for staff to bring detailed reports to Council for discussion and direction. The scheduling takes into account staff's pressing need for direction to complete FY07 capital budget planning. Finally, the report recommends that Council consider forming a subcommittee to work with staff on infrastructure and solid waste issues.

Background

The City has several large infrastructure rehabilitation and service programs that have problems with funding and organization. It has proven difficult to address the needs of any single program without considering the effects on the City's finances and organization as a whole.

These programs are all undergoing a tremendous amount of review and planning at this time. The City is completing new master and/or management plans for sewers, storm drains and pavement, and the South Bayside Waste Management Authority has launched into a five-year solid waste contractor procurement process. The results of these efforts will set the course of action for the programs for the next couple decades.

Discussion

This discussion will cover:

- An overview of the scope and issues of solid waste management services and infrastructure programs,
- A proposed schedule for presentation of detailed program reports, and
- A description of a proposed Council subcommittee for Infrastructure and Services.

Staff has included order-of-magnitude financial information about the programs solely to give Council a general idea of the size of the programs and the value of the assets. Much of this information is drawn from preliminary master planning analysis and will be subjected to further review and revision.

1. Overview of Solid Waste Services and Infrastructure Programs

The City manages the solid waste program as a service with ongoing operating costs. The City is a part owner of the transfer station and recyclery through its membership in the South Bayside Waste Management Authority (SBWMA), but SBWMA is responsible for financial management of these facilities. The contractor owns and operates the fleet and landfill.

The City owns and maintains the sewer, storm drains, and street pavement. This infrastructure was largely constructed by postwar developers from 1950 through 1970 at a cost of roughly $200 millions in today's dollars. It is aging slowly and would benefit from rehabilitation to extend its life and maintain its condition. Preliminary assessment has identified about $50 million of improvements to bring the infrastructure into good condition. The cost will increase with time as the infrastructure condition continues to deteriorate.

1.1 Solid Waste Services

Solid waste services is a nearly $4 million annual program provided to all residents and businesses. It has 6369 residential customers, 472 commercial customers and serves all public facilities including buildings, parks and streets. Each year, the City collects and disposes about 21,000 tons of garbage and collects and processes another 11,000 tons of recyclables.

Staff from the City Manager's Office, and the Public Works, Finance, and Parks Departments work on various aspects of this program. The City contracts directly with Allied Waste for garbage and recycling collection services and indirectly through SBWMA for transfer station/recyclery operations and disposal. The City contracts directly for some consultant support and receives other consultant services through SBWMA.

Staff will be seeking Council direction on the following solid waste management items:

1) Creation of a new budget service center for solid waste management. Solid waste management does not currently have a service center budget or performance measures. Other funds subsidize staff administration costs. A new service center could be funded by the disposal agreement cash payment and by pass-through fees on the collection contract. The fund could pay for staff time, City services such as street sweeping, and consultant support to audit and optimize the City's services.
2) Contractor procurement. SBWMA is working on competitive procurements for the collection and operation contracts which expire on December 31, 2010. Staff will need to coordinate closely with Council throughout this process. SBWMA has approved a

five-year procurement process with numerous tasks and milestones. It has also formed subcommittees composed of City staff to work through contract, process, facility, and program questions so that these can be clearly defined in the requests for proposal.

3) Service rate increases. Council approved three rate increases in the past six years (2000, 2003 and 2005) but further increase is needed to fully fund the City's commitments to Allied Waste and SBWMA. Belmont was running a $473,000 deficit in its balancing account as of January 1, 2006. This deficit is projected to increase to $605,000 by December 31, 2006 if rates are not adjusted.

1.2 Storm Drainage

Storm drainage has a wide-ranging organization consisting of:

- Maintenance and improvement of the storm drain conveyance system,
- Maintenance and improvement of natural creeks and Water Dog Lake, and
- National Pollutant Discharge Elimination System (NPDES) stormwater permit compliance activities.

The revenues and expenditures for these activities are all grouped into a single budget fund.

1.2.1 Storm Drain System

The City owns and maintains a storm drain system of about 125,000 feet (24 miles) of conduit or pipe, 1400 catch basins, 500 manholes, and two pump stations. About 84 percent of the pipe is made of long-lasting reinforced concrete, 10 percent is corrugated metal, 4 percent is plastic and 2 percent is cast iron. The cost to build this system today ranges from $30 million to $50 million.

The City has contracted for consultant services to prepare a sewer master plan to define and prioritize system-wide improvements. Staff is also developing an asset management system to inventory the age, condition, replacement schedule, and replacement cost of system components. Preliminary results indicate that the drainage system needs about $30 million of improvements to increase capacity and complete gaps in the network. In addition, about $3 million is needed to replace aging corrugated metal pipe which is near the end of its service life.

1.2.2 Maintenance of Water Bodies

The City leases Water Dog Lake from the University of Notre Dame de Namur (50-year lease expiring in 2015) and operates the reservoir as a flood control facility under a California Department of Water Resources (DWR) dam safety permit. In recent years, DWR has required the City to stabilize a slope failure and replace portion of the 60-inch outfall pipe, install and monitor survey points, install and monitor groundwater wells, perform a geotechnical stability analysis of the earthen dam, and submit annual compliance reports at a cost to date of about $300,000. In addition, the lake has lost signification flood retention capacity due to sediment deposition. Costs to dredge the lake sediments are on the order of $1 million.

The City owns portions of Belmont Creek and East Laurel Creek and has identified several areas where creek bank erosion may be destabilizing City infrastructure. The City also dredges deposited sediments in lower reaches of Belmont Creek to reduce flooding.

1.2.3 NPDES Permit Compliance

The California Regional Water Quality Control Board requires the City to perform stormwater quality protection activities through an NPDES compliance permit. Compliance activities include street sweeping, storm drain cleaning, enforcement on commercial and illicit dischargers, public education, and enforcement of development/construction best management practices. The City collects about $400,000 per year from parcel taxes for NPDES permit compliance. This fee has not changed since Proposition 218 was approved so it is unlikely that it covers all of the City's compliance costs. In addition, the California Regional Water Quality Control Board is expected to increase the scope and costs of compliance when it issues the next stormwater permit. It issued the last five-year permit in 1999 but has extended this permit while it negotiates a Bay Area region-wide permit with the regulated agencies.

Staff will seek Council direction on the following storm drainage issues:

1) Organization of storm drain capital, storm drain operations, and NPDES compliance service centers. Storm drainage is currently the only infrastructure with capital improvement and maintenance and operations drawn from a single fund.
2) Funding of storm drain pipe rehabilitation. Storm drain improvements have been funded by proceeds from the sewer bonds. The rationale is that defective storm drains contribute to the inflow and infiltration peak loading in the sewer system and so increase sewer processing costs. Council has asked staff to further research the technical and legal consideration for this transfer.
3) Appropriate scope and pace for storm drain improvements. Staff will bring the draft master plan to Council this spring to discuss the identified improvement needs. Staff will finalize the master plan after discussion with and direction Council.
4) Funding for improvements to water bodies. There is currently no funding mechanism for capital improvement of Water Dog Lake or the creeks. DWR permit compliance and creek dredging is funded through storm drain operations which receives a transfer of sewer fees and NPDES compliance fees.
5) Research additional funding sources for Council consideration.
6) Upcoming Regional NPDES permit. Staff has been reviewing and commenting on the draft permit requirements and are concerned about their magnitude and specificity.

1.3 Sewer Collection System

The City owns and maintains a network of over 400,000 feet (78 miles) of sewer pipe, 1500 manholes, and eleven pump stations with an estimated replacement value of $80 million to $100 million. This system serves virtually every residence and business within the City. The majority of components range in age from 40 to 100 years and are reaching the end of their service life. For the past five years, the City has budgeted approximately $1 million per year for sewer rehabilitation projects and it is about midway through a comprehensive program to replace or line defective old clay pipes with jointless plastic pipe. A preliminary estimate of the remaining work ranges from $5 million to $15 million.

On July 7, 2005, the State notified all sewer collection system owners of new requirements for a Sewer System Management Plan and sanitary sewer overflows (SSOs) reporting. These requirements will phase in over the next three years. Ultimately, the State is expected to require sewer collection system owners to prevent SSOs by whatever means feasible, including investment in capacity improvements and increased maintenance and monitoring. The State has not yet defined the specific terms of SSO compliance.

The City has contracted for consultant services to prepare a sewer master plan to identify and prioritize systemwide improvements. Staff are developing an asset management system to inventory the age, condition, replacement schedule, and replacement cost of individual system components. The master plan and asset management system will provide the tools to objectively analyze, scope, schedule and estimate future system improvements.

Staff will bring the following items to Council for discussion and direction:

1) Draft sanitary sewer master plan. Staff will seek direction on the ultimate scope and pace of the rehabilitation program. The scope and pace have direct bearing on sewer rates and whether and when the City will issue further sewer bonds.
2) Discussion of Belmont sewer rates and comparison with regional rates.
3) Infiltration and inflow reduction.

1.4 Street Pavement

The City of Belmont owns and maintains 68 miles of paved streets with an estimated replacement value of $65 million. Seventy-two percent of these streets are classified as residential. The City does not have sufficient funding to maintain all of its pavement in good condition. Consequently, the overall pavement condition and asset value are declining. The current deferred maintenance backlog is about $12 million and is projected to grow to $29 million over the next five years unless funding is increased. The City also has a backlog of streets that are failing due to underlying slope instability. These specific projects have not been recently estimated but slope stabilization is generally very expensive.

Street pavement maintenance has been traditionally funded from a combination of federal, state, regional, county and local sources. The City's major funding sources are grants, gas taxes, Measure A sales tax, RDA bond proceeds, and the refuse vehicle impact fee. Other potential funding sources used by other municipalities include assessment districts and various pavement impact fees.

The City's pavement program competes with other street needs such as retaining walls, traffic signals, street lights, street signs, striping, and ADA curb ramps for the City's Measure A and gas tax funds. The City allocates about $200,000 per year of its funds for pavement rehabilitation. It also competes for grant funding whenever it is available, but these funds are generally restricted from use on residential streets.

The Metropolitan Transportation Commission has certified that that City's pavement management program uses its rehabilitation funds efficiently. Such certification is required for grant eligibility. The program strategy focuses investment into maintaining the existing good pavement condition since this minimizes the overall rate of asset value decline. It costs about ten times less to extend the life of good pavement through maintenance as it does to rebuild failed pavement. The City also has a backlog of streets that are failing due to underlying slope instability. Slope stabilization is very expensive.

Staff will be seeking Council direction on the following street pavement program items:

1) Appropriate division of street funds for pavement rehabilitation and other street infrastructure needs.

2) Discussion of the pavement management strategy emphasizing maintenance of good condition pavement.

3) Process to address reconstruction of failing pavement.

4) Scope and pace for slope stabilization projects.

5) Additional funding sources staff should research for Council consideration.

6) Direction for staff to explore the cost-effectiveness of acquiring in-house pavement maintenance capability (in a manner similar to its in-house sewer video capability).

7) Updated street light standard. (Though not part of the pavement program, this direction is needed now for incorporation into the Old County Road undergrounding project.)

2. Proposed Schedule for Detailed Infrastructure and Services Reports

Staff proposes to bring detailed reports to Council for discussion and direction according to the following schedule.

April 11 — Storm Drain Program - Placed at the beginning so that funding questions can be resolved in time for the FY07 budget.

- Reorganize Service Centers/Budget Funds
- Funding options for Storm Drain CIP Projects
- Discussion of sewer/storm drain I/I nexus
- Use of NPDES funds if streetsweeping is moved to solid waste

April 25 — Solid Waste Program - Solid waste is also placed early to coordinate the SBWMA procurement process and to provide sufficient lead-time for a June13 rate increase

- Creation of Service Center/Budget Fund
- Staff Assignments: SBWMA Board, Subcommittees, Recycling Program, City Services
- Consultant Support: Audit of Belmont's services and costs
- City Services: Street sweeping, city facilities
- SBWMA Contractor Procurement Process
- Status of balance account
- Analysis of revenue and costs actual vs. projections

May 9 — Sanitary Sewer Program

- Master Plan Status Report
- Condition assessment
- Capacity assessment and I/I reduction

May 23 — Rate Workshop and Introduction of FY07 Budget

- Solid Waste
- Sewers
- NPDES

June 13 — Rate Public Hearing and Adoption of FY07 Budget Master Fee Schedule

- Solid Waste
- Sewers
- NPDES

July 25 — Street Program

- Pavement Description and Condition
- Pavement Maintenance and Rehabilitation Backlog
- Street Light Standard (Old County Road Underground District)

August 22 — Street Pavement Funding Options

- Outlook for federal, state, and regional funding

- Options for additional local funding

3. Formation of Council Infrastructure and Services Subcommittee

Staff is proposing that Council consider forming an Infrastructure and Services subcommittee to work with staff on solid waste services and infrastructure programs. The subcommittee would be composed of two Council members following the model of the Economic Development Team and the South County Fire Authority subcommittees. The subcommittee members would gain expertise in infrastructure and solid waste and so could give staff specific and frequent feedback. Staff could then bring the infrastructure and service items to Council in a more efficient and effective manner.

Fiscal Impact

There is no fiscal impact from this report.

Public Contact

The Council agenda was posted.

Recommendation

Staff recommends that Council accept this report and consider forming an Infrastructure and Services subcommittee.

Alternatives

1. Take no action.
2. Refer back to staff for further information.

Attachments

None.

Respectfully submitted,

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