

8. Managing the Interface Between the Public Utilities Commission and the Department of Public Works

- **Both the Public Utilities Commission and the Department of Public Works have clean water responsibilities. All of the Department of Public Works' clean water functions are funded by clean water revenues through Public Utilities Commission work orders.**
- **A number of Public Utilities Commission staff indicated to the Budget Analyst that they wished to receive more data on the Department of Public Works' delivery of services paid for by clean water revenues. However, the Budget Analyst found that considerable amounts of data are already gathered by the Department of Public Works and the Public Utilities Commission through a number of protocols, regular reports and meetings, and databases. The two departments need to do a better job of information sharing.**

Current Situation

Prior to 1996, the Department of Public Works was responsible for clean water services. At that time there was no one Clean Water Enterprise; rather the responsibility for clean water services was allocated between a number of bureaus within the Department of Public Works.¹ Between 1996 and 1997, the Mayor transferred most clean water related functions from the Department of Public Works to the Public Utilities Commission. As part of the transfer, 6.00 FTE new Public Service Aid Program positions and 1.76 FTE new temporary positions were created, and a further 5.00 FTE new stationary engineering positions were created to handle the transfer of the Treasure Island and Hunters Point Naval facilities. Then, in 1999, the Department of Public Works janitors and craftspeople working on Water Pollution Control Division facilities, and the Project Manager for the clean water repair and replacement program, were also transferred to the Public Utilities Commission.

Under the July 27, 1997 memorandum of understanding which memorialized the transfer of clean water functions between the two departments, the Public Utilities Commission assumed responsibility for:

¹ The former Clean Water Enterprise, which had encompassed the entire program, had been disaggregated in 1990.

- The ownership and management of clean water system facilities, including the sewer system.²
- Staff in the Water Pollution Control Division, the laboratories at the Southeast Water Pollution Control Plant, the Industrial Waste Group (the nucleus of the Bureau of Environmental Regulation and Management), and Planning.
- The financial management of the Clean Water Enterprise Fund.

Under the July 27, 1997 memorandum of understanding, the Department of Public Works remains responsible for:

- Some design, construction management, and post-construction services for clean water capital projects and programs.
- Emergency sewer repair services, provided by either Department of Public Works staff or contractors.
- Paving for all non-capital sewer and water main repair and replacement capital projects, provided by either Department of Public Works staff or contractors.
- Management of sewer collection system and sewer repair records on behalf of the Public Utilities Commission. (The Public Utilities Commission maintains its own sewer cleaning maintenance records.)

Both departments continue to occupy the City and County of San Francisco Yard, the operations center for Department of Public Works maintenance, cleaning, and construction crews and for Public Utilities Commission Sewer Operations staff located at 2323 Cesar Chavez Street.

This allocation of responsibilities allowed the Department of Public Works to remain a full-service engineering, landscape design, and architecture shop for the City, and to retain primary responsibility for City streets and the coordination of all work in the right-of-way. This allocation of responsibilities also minimized the transition's impact on the Department of Public Works' overhead rates. As a result, the Department of Public Works retained the following clean water related functions: (a) the Hydraulic Section, which designs sewer replacements in the City's right-of-way, (b) the sewer repair and replacement, and street paving services provided by the Bureau of Street and Sewer

² Sewer system management includes repairs, television tape and walking inspections, cleaning blocked sewers, maintaining sewer maps, root control, sewer odor control, and preventive maintenance cleaning. Public Utilities Commission inspectors work in conjunction with the Department of Public Works' paving program, recognizing that a five year moratorium on street work after repaving work performed by the Department of Public Works limits the Public Utilities Commission's ability to work on sewers in a repaved location for five years afterwards.

Repair, (c) architectural services,³ and (d) construction management, site assessment, and site remediation for all street-related clean water capital projects performed by the Department of Public Works.

In addition, the Department of Public Works continues to provide payroll services for its former staff transferred to the Public Utilities Commission, an arrangement which is finally scheduled to cease in December of 2004. This payroll service was provided by the Department of Public Works under an annual \$150,000 work order. Public Utilities Commission staff advise that this arrangement has lasted for 7.5 years because the Public Utilities Commission was waiting to transfer the former Department of Public Works staff onto a new Department-wide payroll system based on a modified version of TESS, the payroll system used by most City departments. However, because the Personnel Payroll Services Department of the Controller's Office has not added the system functionality to TESS that the Public Utilities Commission needed, the Public Utilities Commission has developed and implemented its own enterprise timekeeping system, Etime. The \$150,000 work order was deleted from the FY 2004-2005 budget in anticipation of the December migration onto the new in-house Etime system.

All these Department of Public Works' clean water services are funded by clean water revenues through Public Utilities Commission work orders to the Department of Public Works.

Department of Public Works Work Order Services Provided to the Public Utilities Commission

Since 1997, the Public Utilities Commission has work ordered the amounts shown in Table 8.1 below to the Department of Public Works for building repair, street cleaning, engineering for the sewer system, updating and maintenance of the Geographic Information System for the sewer system, waste disposal, construction, and street and sewer repair.⁴

³ As part of the transition of clean water functions and staff into the Public Utilities Commission, certain Public Utilities Commission architects were transferred to the Department of Public Works to centralize such services.

⁴ The work order figures in Table 8.1 exclude the Public Utilities Commission's annual work order payment to the Department of Public Works for the Southeast Community Childcare Facilities for building repair services. This work order is funded by the General Fund. In FY 2004-2005, this work order is budgeted in the amount of \$99,810.

Table 8.1

Public Utilities Commission Work Orders to the Department of Public Works Since the Transfer of Clean Water Functions

Fiscal Year	Actual Expenditures
FY 1997-98	\$9,936,987
FY 1998-99	\$10,463,300
FY 1999-2000	\$8,182,845
FY 2000-2001	\$8,449,835
FY 2001-2002	\$7,127,514
FY 2002-2003	\$8,170,192
FY 2003-2004	\$8,911,289

Source: Public Utilities Commission Financial Services

In FY 2004-2005, the Public Utilities Commission is work ordering the Department of Public Works in the amounts of:

- \$10,075,340 for building repair, street cleaning, engineering for the sewer system, updating and maintenance of the Geographic Information System for the sewer system, waste disposal, construction, and street and sewer repair.
- \$3,000,000 to maintain the Department of Public Works' FY 2003-2004 level of street cleaning to minimize the amount of plant, litter, and other debris entering into the sewer system which would require treatment and disposal. This is the first time since the 1980s that the Clean Water Enterprise Fund has funded the Department of Public Works for this purpose.
- Negotiated amounts for specific capital projects under the clean water repair and replacement program.

The Need for Reporting Enhancements

Under the July 25, 1997 memorandum of understanding, the Department of Public Works is required to produce monthly progress reports for each capital project or program. For

sewer repair work, the Department of Public Works is required to produce (a) emergency and daily reports on new or required capital projects involving the potential for injury or damage, (b) weekly reports for any activities incurring a cost to the Public Utilities Commission, (c) monthly reports on all completed work, and (d) quarterly reports to reconcile the Department of Public Works' charges against Public Utilities Commission work orders.

A number of Public Utilities Commission staff indicated to the Budget Analyst that they wished to receive more data on the Department of Public Works' delivery of services paid for by clean water revenues. Further, the *Draft Interim Phase II Report* on the Water Pollution Control Division prepared by Red Oak Consulting (August 10, 2004) identified that the budget and schedule information held by the Department of Public Works did not appear to be communicated to the Public Utilities Commission and that there is no clear follow-up on work performed by the Bureau of Street and Sewer Repair in terms of scheduling and completion of such projects. Red Oak Consulting recommended a formal reporting system "to enable efficient and accurate tracking of work order budget, schedule, and status, including completion, closure, and current backlog."

The Budget Analyst has found that considerable amounts of data are already gathered by the Department of Public Works and the Public Utilities Commission through a number of protocols, regular reports and meetings, and databases, including:

- Public Utilities Commission authorization on a case-by-case basis for the Department of Public Works to repair roadway defects caused by sewer subsidence.
- A Geographic Information System based reporting database developed by the Department of Public Works, significantly funded over the last five years by Public Utilities Commission work order funds for sewer information support. This database links documents about the sewer pipes, their size, age, material, and condition, to a Geographic Information System "Sewer Base Map." The resulting data supports sewer project management, sewer television tape inspections, the sewer work order tracking system, and hydraulic engineering, and is used by both departments. The Department of Public Works is developing a system that will provide real time updates of the Sewer Base Map.⁵

⁵ If, as recommended in Section 9, the Department of Public Works' Hydraulic Section is transferred to the Public Utilities Commission, the Public Utilities Commission will need to negotiate use of the Geographic Information System "Sewer Base Map" with the Department of Public Works. The Geographic Information System would need to remain in the Department of Public Works because its street, right-of-way, and easement information is used by other Department of Public Works bureaus. However, due to the Public Utilities Commission's significant investment in the development of that system, that investment would need to be factored into the two department's mutual calculation of what constitutes an equitable annual charge for the Public Utilities Commission's ongoing use of that system.

- A database of sewer cleaning work completed by the Public Utilities Commission's Sewer Operations, through which repair requests can be electronically transmitted to the Department of Public Works' Bureau of Street and Sewer Repair.
- A Department of Public Works database which records the daily product figure reports from the daily crew production sheets. This database contains data such as the total number of linear feet of pipe installed, the total cubic yards of excavation completed, and the locations of the tasks performed as performed by both Department of Public Works crews and contractor crews. The Public Utilities Commission has access to this database.
- A weekly report prepared by the Public Utilities Commission which tracks clean water capital project expenditure data, including Department of Public Works expenditures, to the City's financial management system, FAMIS.
- Other as-needed FAMIS reports. For example, materials and supplies expenditure data are posted to FAMIS daily. While the FAMIS system provides information on expenditures, it is not a user-friendly program management tool. FAMIS does not provide information on the average cost of regularly required tasks (for example, the average cost of installing a catch basin), and FAMIS data cannot guarantee that all work order funds are, in fact, being spent on sewer repairs.
- As-needed Financial and Personnel System (FPS) payroll system reports on the Department of Public Works labor costs. This system captures the crew timesheet information signed off by the responsible foremen.
- Regularly scheduled monthly staff meetings on the Repair and Replacement Program, combined sewer operations, and streets and highways project coordination which are attended by both Public Utilities Commission and Department of Public Works staff.
- A quarterly and annual report prepared by the Department of Public Works' Hydraulic Section on its sewer-related activities.
- Periodic reports issued by the "One Point of Contact" staff member in the Department of Public Works' Bureau of Construction Management. This position acts as the operational interface between the Public Utilities Commission's Sewer Operations and the Department of Public Work's Bureau of Street and Sewer Repair. The reports issued by the "One Point of Contact" staff member are derived from a stand-alone database managed by the Bureau of Street and Sewer Repair. However, these reports do not tie to FAMIS expenditure reports nor to FPS payroll reports.
- Department of Public Works monitoring of third party contractors working on clean water projects against their contract bid lists which specify the tasks to be performed and those tasks' costs.

Despite this array of available information, improvements could be made to the reporting relationship between the two departments to improve reporting on the actual work performed. The two departments should jointly:

- Determine if there is additional cost and schedule information which needs to be electronically shared between the parties.
- Ensure that all reporting systems permit appropriate information exchange and results verification. For example, when the Public Utilities Commission's Sewer Operations electronically requests a sewer repair be performed by the Department of Public Works' Bureau of Street and Sewer Repair, there needs to be an automatic electronic report back to Sewer Operations when that job has been completed.
- Determine how data protocols can be structured so that personnel in both departments can view the management reporting databases operated by the Department of Public Works. Currently, security concerns over protecting the integrity and accuracy of data are preventing certain electronic files from being shared.
- Ensure that all field operations information should be stored electronically, rather than having some information held in paper-based document form.
- Ensure accurate data exchange between Department of Public Works databases and the FPS payroll and FAMIS financial management systems to capture all project expenditures.
- Ensure, to the degree possible, that all data exchange is in the form of user-friendly information.

The Need for a Service Cost Comparison Between the Department of Public Works and Third Party Contractors

The Department of Public Works uses third party sewer construction contractors to perform a portion of its sewer repair services work order when its own staff are fully committed or there is specialist work which is best performed by contractors. The Department of Public Works awards between one and three such contracts per year based on the lowest per unit cost bid, subject to the bidders complying with prescribed quality standards. Such contracts are usually capped at a cost of \$500,000 apiece.

No analysis has been performed comparing the cost of sewer repair services provided by the Bureau of Street and Sewer Repair with those provided by third party contractors. Such a comparative analysis would provide the Public Utilities Commission with useful cost benchmarks to determine if it receives good value for its work orders and if the appropriate proportion of sewer repairs are being allocated by the Department of Public Works to third party contractors. Such a comparative analysis would need to take into account the following factors:

- City staff and equipment are available for immediate mobilization in emergencies, whereas third party contractors would not be available immediately.
- Contractors can hire their staff on a temporary basis to meet seasonal needs, whereas City staff are usually hired on a permanent basis.
- There would likely be public sector union opposition to increased contracting out.
- The City's contracting process can be both expensive and lengthy.
- The incentives for public and private sector managers are different. Whereas cost savings in the private sector can result in bonuses for staff, cost savings in the public sector can result in budget reductions in the next fiscal year due to under-expenditure.

Nevertheless, these factors do not negate the value of understanding third party contractors' price structures and how they compare to using City employees and resources. Even if third party contractor costs are lower, the City may still wish to pay more for its own services for a variety of valid public policy and political reasons. In that case, however, the Public Utilities Commission and the Department of Public Works should know the value of the premium they are paying to understand the opportunity costs involved.

The Need for a Space Analysis at the City and County of San Francisco Yard

The Public Utilities Commission Sewer Operations staff continue to use space at the City and County of San Francisco Yard, the operations center for Department of Public Works maintenance, cleaning, and construction crews and for Public Utilities Commission Sewer Operations staff. Under the 1997 memorandum of understanding, all clean water assets transferred to the Public Utilities Commission and neither party was to incur increased expenses as a result of the transition. The Public Utilities Commission interpreted that to include the space occupied by Sewer Operations staff at the City and County of San Francisco Yard, whereas the Department of Works did not. A study of alternative sites prepared by the Department of Public Works' Bureau of Architecture determined that shifting Sewer Operations staff would cost between \$2 million and \$7 million, and such funding was not available. Although the Department of Public Works wishes to take over the space used by Public Utilities Commission Sewer Operations staff, the Budget Analyst notes that:

- Physical co-location facilitates communication between Sewer Operations and the Bureau of Street and Sewer Repair, a vital interface in the efficient management of the sewer system.
- Space had previously been available for Sewer Operations staff when they were part of the Bureau of Street and Sewer Repair.

- The insistence on separate administrative and workshop facilities for staff in each department may not be the most rational use of the available space. Based on comments from interviewees, the Budget Analyst understands that the current space would be sufficient if all staff were reunited under the Bureau of Street and Sewer Repair. This suggests that current perceived space shortages are the result of restrictive space rationing decisions based on artificially rigid demarcation lines between the two departments.
- The Department of Public Works uses adjacent Public Utilities Commission land rent-free for the storage of large items, the transfer of equipment needed for night work, and the clean-up of contaminated equipment.
- Freeing up the space used by Sewer Operations would not necessarily become available to the Bureau of Street and Sewer Repair. The Mayor's Office could, for example, request that the space be reallocated to a community-based program.
- Senior management from the two departments recently met to develop a tentative plan to relocate all Public Utilities Commission staff and functions within one contiguous area of the City and County of San Francisco Yard. The Sewer Operations trailer will be moved to the front gate area by the end of 2004, with moving costs shared by both departments. The two departments would need to negotiate about the Department of Public Works' contribution to any further Public Utilities Commission accommodation moves.

The Budget Analyst recommends that the General Manager and the Director of Public Works conduct a joint space needs analysis of the City and County of San Francisco Yard and adjacent Public Utilities Commission space to ensure the two departments' optimal usage of those sites, and to clarify property ownership issues within the City and County of San Francisco Yard.

Conclusion

Both Public Utilities Commission staff and Red Oak Consulting have identified deficiencies in the management information provided to the Public Utilities Commission by the Department of Public Works. However, the Budget Analyst notes that considerable amounts of data are already gathered by the Department of Public Works and the Public Utilities Commission through a number of protocols, regular reports and meetings, and databases. This data should be shared more effectively between the two departments to improve reporting on the actual work performed.

Useful management information would also be provided by (a) a comparative analysis of the cost of sewer repair services provided by the Bureau of Street and Sewer Repair and third party contractors, and (b) a joint space needs analysis of the City and County of San Francisco Yard and adjacent Public Utilities Commission space to ensure the two departments' optimal usage of those sites, and to clarify property ownership issues within the City and County of San Francisco Yard.

Recommendations

The Public Utilities Commission General Manager and the Director of Public Works should jointly:

- 8.1 Determine if there is additional cost and schedule information which needs to be electronically shared between the parties.
- 8.2 Ensure that all reporting systems permit appropriate information exchange and results verification.
- 8.3 Determine how data protocols can be structured so that personnel in both departments can view the management reporting databases operated by the Department of Public Works.
- 8.4 Ensure that all field operations information is stored electronically, rather than having some information held in paper-based document form.
- 8.5 Ensure accurate data exchange between Department of Public Works databases and the FPS payroll and FAMIS financial management systems to capture all project expenditures.
- 8.6 Ensure, to the degree possible, that all data exchange is in the form of user-friendly information.
- 8.7 Commission a comparative analysis of the cost of sewer repair services provided by the Bureau of Street and Sewer Repair and third party contractors.
- 8.8 Conduct a joint space needs analysis of the City and County of San Francisco Yard and adjacent Public Utilities Commission space to ensure the two departments' optimal usage of those sites, and to clarify property ownership issues within the City and County of San Francisco Yard.

Costs and Benefits

There may be information technology costs associated with the recommended reporting enhancements between the Public Utilities Commission and the Department of Public Works, but they cannot be estimated until the scope of required work between the two departments has been defined. In both departments, however, the base software is already in place. The most important benefit of the recommended reporting enhancements would be the improved reporting on the actual work performed by the Department of Public Works for the Public Utilities Commission, and that work's actual cost.

Given the cost data they already hold, staff in the two departments should jointly be able to conduct a comparative analysis of the cost of sewer service repair services provided by

the Bureau of Street and Sewer Repair and third party contractors. Therefore, the only significant cost would be staff time. The resulting information would assist the two departments to make optimal work allocation decisions between City staff and third party contractors.

Similarly, staff from the two departments should jointly be able to conduct a space needs analysis of the City and County of San Francisco Yard, with support from property experts in the City. Therefore, the only significant cost would be staff time, including support from the Department of Administrative Services' Real Estate Division and from the City Attorney's Office. The resulting analysis would assist in resolution of space usage debates and future planning options at the City and County of San Francisco Yard.