



Executive Briefing Memo – Solid Waste Collection, August 22, 2007

Date: August 20, 2007

Department/Division/Project: Public Works – Solid Waste Collection & Mowing

Division Overview: The Solid Waste Mission is to ensure that each City of Richmond resident has the means to conveniently dispose of their trash in an environmentally safe manner. It is our goal to provide the best possible customer service by maintaining the removal of refuse as well as dispose of it in a cost efficient and effective manner.

Current Operations: The Division is staffed by 131 positions, including

- 1 Customer Service Rep IV,
- 2 Office Support Spec II,
- 1 Lead Equipment Operator
- 2 Equipment Operators IV
- 1 Equipment Operator III
- 48 Refuse Truck Operators
- 31 Refuse Collectors
- 3 Property Maintenance Inspectors
- 5 Youth Workers
- 2 Warehouse Techs
- 35 Boaz & Ruth Employees (temp).

Overview of Solid Waste Management and Grounds Maintenance

In order to expedite the meeting, the overview of Solid Waste Management will be distributed as a handout for panel members to review at their leisure.

Other Issues for Discussion:

Follow up items from August 6 meeting:

1. **Q:** What were the overtime costs in FY 07 for bulk collection and mowing? **A:** Mowing costs are imbedded within two activity codes (Grounds Maintenance – Right of Way and Grounds Maintenance Non Right of Way. FY 07 expenses for these two activity codes were \$101,250. Bulk collection and brush collection are tracked with a single activity code. FY 07 overtime expenditures were \$25,689
2. **Q:** What was the bulk tonnage collected last year? **A:** 3,442.99 tons

3. **Q:** What is the breakdown of bulk collection requests for service in FY 07 received by phone as compared to over the internet and other means? **A:** Phone = 9,967, internet = 287. Twenty-one are still open.

Bulk Collection Update

In the August 6 meeting, Solid Waste Management described progress in closing late bulk collection tickets and progress in mowing at City-owned properties.

1. At the time of the August 6 meeting, 1,307 bulk collection tickets were open. Of that number, 441 or 33.7% were late (open for 30 days or more.) How many bulk collection tickets are currently open? How many are more than 30 days old? What efforts have taken place to analyze late requests and reduce their numbers?
2. Of tickets that are currently late, what is their distribution by zone and month of origin? Are any tickets identified as late in the August 6 meeting still open? If so, why?
3. Data provided to RichmondWorks staff for the August 6 meeting indicated that city-wide there are 441 open tickets aged 30 days or more. Zone "A" had 201 late tickets or 45.6% of all late tickets City-wide. Within Zone "A", Zip Code 23222 had 110 late tickets or 24.9% of all late tickets City-wide. Has an explanation for this data been identified? What action is planned to improve the performance of Zone "A"?
4. When were the bulk collection zones last reviewed? What are criteria for review? (RichmondWorks and GIS staff will work with Solid Waste on the best methods to review and assess existing zones for bulk collection as well as refuse collection routes.)
5. What is the timetable for Solid Waste Collection (including bulk & brush) to begin utilizing CityWorks?

Mowing Update

1. What is current status of the City-wide mowing program?
2. During discussions between RichmondWorks staff, DCAO staff and Solid Waste management, a need to review criteria for mowing frequency was identified. What steps have been taken to initiate this review? What is the timetable for completion?

Resource Management & Collection and Analysis of Data

RichmondWorks and DCAO staff were tasked with beginning an examination of the actions needed to fully integrate Solid Waste Management into the RichmondWorks effort by November 2007. Specific concerns were resource management (staffing allocations based upon workloads, operational procedures, etc) and the quality and scope of data available to manage operations and assess results.

Serious deficiencies exist at this time. RichmondWorks staff, the Department of Information Technology and Solid Waste Collection will continue to work together to identify and address issues. Issues identified thus far include:

Field Observation of Resource Management

Resource management in the Solid Waste and Ground Maintenance divisions can be summed up by the following statement: “We try hard”. Absent written operational procedures directing resource management activities, it appears that the statement “We try hard” is in fact the resource management strategy currently in place in the two divisions.

The above assessment of the resource management strategy is in no way a reflection of the efforts of the men and women of Ground Maintenance and Solid Waste. Ultimately an agencies’ director is responsible for the resource management strategy.

Currently the divisions are too reliant on manual processes and manual reporting can not seem to get ahead of the demand.

Recommendations are as follows:

Immediate

- Implementation of an electronic time card system
- Develop and document a weather related response action plan (Non-Hurricane)
- Implement a positive communication systems to informed customers CSR ticket are closed

Long range

- Conduct a field optimization study
- Outfit all new vehicles with GPS tracking systems
- Explore integrating an in-cab mobile dispatch system with the City’s CSR system

SOP’s & Operational Procedures

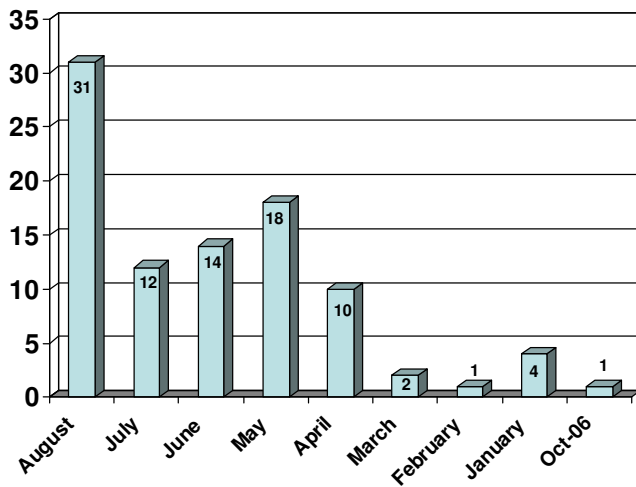
RichmondWorks staff requested all available documents of this type during a meeting on August 9, 2007. Although various documents such as a “vegetation control man hour analysis”, updated mowing schedules and a mowing operations fact sheet were provided, no operational procedures or SOP’s were received.

1. Absent written SOP’s and operational procedures, how are the operations of Solid Waste Management planned, executed and evaluated?

Potholes-Quality & Scope of Data

Solid Waste Management provided a listing of the 93 open pothole repair requests as of August 13, 2007. Of the 93 open requests, 61 or 65.6% are more than 30 days old. The chart below depicts the current status of pothole repair requests.

Open Pothole Requests by Month of Origin (93 Open as of August 13, 2007)



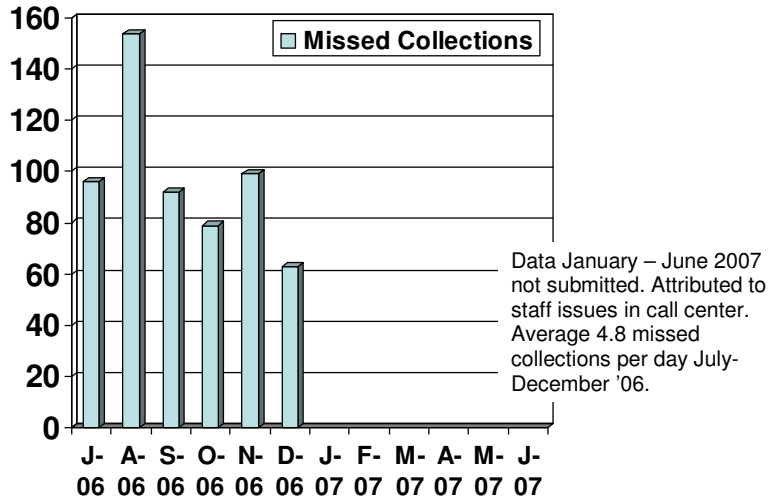
A total of 61 requests (65.6%) are more than 30 days old. Some requests may have actually been completed but not entered into tracking system.

1. Why are the majority of pothole repair requests older than 30 days?
2. The oldest pothole repair request dates to October 31 of 2006. How can a pothole request remain uncompleted for more than ten months?
3. Solid Waste management states that some of these pothole repair requests may have actually been completed, but were never entered into the system. Who is responsible for confirming that repairs have been completed and correcting the system as necessary? What steps have been taken to ensure that data is entered into the system in a timely and accurate fashion?
4. What analysis has been performed to determine if there are proactive steps that can be taken to reduce the number of pothole repairs needed?

Refuse Collection – Quality & Scope of Data

Solid Waste Management provided summary data on all activities performed during FY 06. The following chart depicts missed refuse collection complaints.

Refuse Collection: Missed Collections per Month July 2006 – June 2007



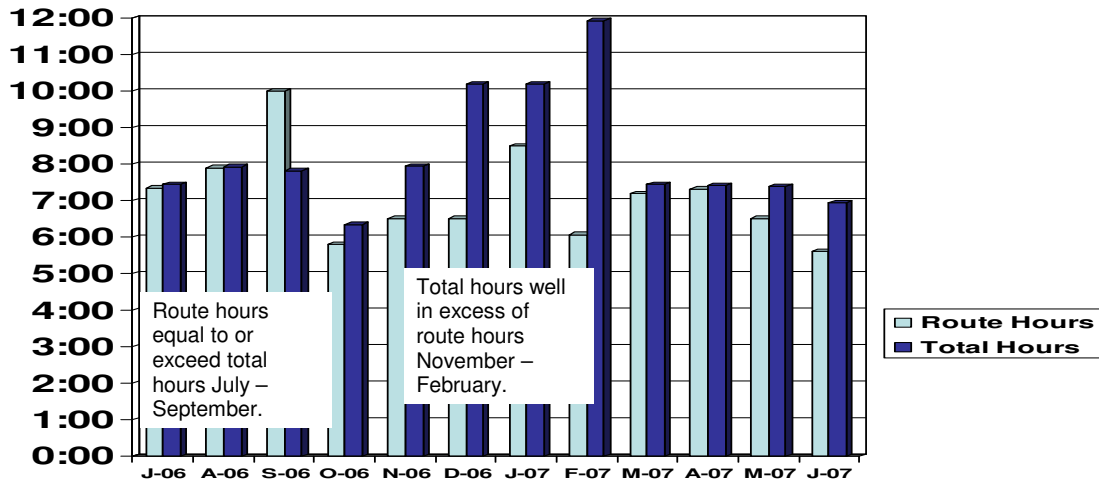
As the chart indicates, data on missed collections was not submitted for the period January to June, 2007. The refuse collection manager states that the data was not submitted because after January, 2007, the call center no longer had anyone to send the information. He also stated that last week the call center recently hired a new employee and that the data would begin to flow soon.

Although missed refuse collections are not always the fault of Solid Waste Management, the data represents an important performance metric.

1. Given the importance of this data, why was a reporting gap of more than 7 months allowed to persist? What alternative methods for securing the data were explored? Was the employee that left the only person that could compile this data and send it to Solid Waste Collection?

The chart below represents average refuse route hours and refuse total hours for the period July 2006 – June 2007. Refuse route hours are defined as the amount of time the refuse trucks spend on routes, while refuse total hours includes refuse route hours plus travel time to routes and travel time to the transfer stations. By definition, refuse total hours *must* exceed refuse route hours. Both of these measures are subject to a number of influences, including terrain, weather conditions, equipment failure and traffic conditions.

Refuse Collection: Route Hours vs. Total Hours July 2006 – June 2007



As noted on the chart, during the period July to August 2006, route hours equal or exceed total hours. In September 2006, route hours were reported as 10:00, while total hours were reported as 7:49. For the period November 2006 to February 2007, total hours were well in excess of route hours, topping out with the month of February reporting 6:04 route hours and 11:56 total hours.

RichmondWorks staff examined daily records and discovered a number of data entry errors that seem to explain the majority of the errors. This information was shared with the refuse collection manager, who acknowledged that something was wrong with the tracking spreadsheet. RichmondWorks staff then asked the refuse collection manager how long he had been aware of the issue. The response was that he had been aware of the problem since December 2006.

The Department of Information Technology is working with Solid Waste Management to provide a more sophisticated and reliable means of tracking refuse collection metrics.

Although the problems with refuse collection metrics may have been first noted in December 2006, they had existed since at least since September 2006 when route hours were reported to exceed total hours.

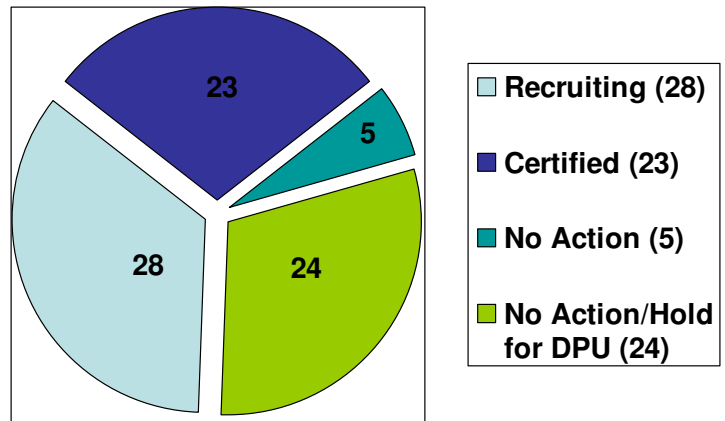
1. Given the utility and importance of these metrics, why was the problem unnoticed for months? Who is responsible for reviewing this data and what type of variations raise a red flag? How are unusual data identified, investigated and resolved?
2. If the data quality issue was first identified in December 2006, why was it not corrected in a more timely fashion? What steps were taken to correct the problems in December 2006?

3. The poor quality of data on refuse routes, coupled with the absence of information on missed collections, suggests that Solid Waste Management has very limited capacity to monitor performance. How has Solid Waste Management assessed and managed performance in the past year?

Vacancies

A review of measures taken to reduce vacancies by DPW (including Solid Waste Management) and Human Resources indicates that the situation is improving, but will require continued monitoring. The chart below depicts the status of Solid Waste Management vacancies as of August 10, 2007.

DPW Full-Time Vacancies (J. Powell)
(80 Vacant as of August 10, 2007)



Recruiting means that the position is currently being advertised and applications processed.
Certified means that the top candidates have been selected and forwarded to the hiring manager.
No action means that Human Resources has not been contacted by the department to begin the recruitment process.
Hold for DPU identifies vacancies being held for Storm Water recruitment.
