

**CITY COUNCIL  
COMMUNICATION:**

**03-449**

**AGENDA:**

SEPTEMBER 8, 2003

**SUBJECT:**

STATUS REPORT ON  
IMPLEMENTATION OF  
AUTOMATED/SEMI-  
AUTOMATED WASTE  
COLLECTION

**TYPE:**

RESOLUTION  
ORDINANCE  
RECEIVE/FILE

**SUBMITTED BY:**

WILLIAM STOWE  
PUBLIC WORKS  
DIRECTOR

**ITEM** \_\_\_\_\_

**OFFICE OF THE CITY MANAGER  
CITY OF DES MOINES, IOWA**

**SYNOPSIS —**

In April 2001, the Public Works Department implemented a pilot automated solid waste collection program in Des Moines. The program was expanded in July 2002, and approved for full implementation in April 2003. Following the procurement of carts, trucks, and cart lifters, the Public Works Department has now implemented automated/semi-automated solid waste collection. Attached is a status report on the automated/semi-automated solid waste collection program.

**FISCAL IMPACT —**

Funding for automated/semi-automated solid waste collection is provided for in the Solid Waste Enterprise Account.

**RECOMMENDATION —**

Receive and file.

**BACKGROUND —**

The City has been providing solid waste collection services for 27 years. Following is the schedule of significant operational changes implemented:

| <u>Date</u> | <u>Operation Change</u>                               |
|-------------|---|
| 1976        | City in-sourced solid waste collection                |
| 1981        | Back yard changed to curbside collection              |
| 1989        | Leaf and yard debris collected separately             |
| 1995        | Recyclables collected                                 |
| 2001        | Pilot program automated collection                    |
| 2002        | Expanded automated solid waste collection             |
| 2003        | Fully automated/semi-automated solid waste collection |

Attachment



**PUBLIC WORKS DEPARTMENT  
STATUS REPORT ON  
AUTOMATED/SEMI-AUTOMATED  
SOLID WASTE COLLECTION**

**September 8, 2003**

On April 2, 2001, automated solid waste collection began for approximately 4,000 households in Des Moines. In July 2002, the program expanded to approximately 11,500 households. Based on the success of the initial program, as determined through both customer surveys and operating efficiencies, the City Council authorized expansion of automated/semi-automated solid waste collection throughout Des Moines.

On April 21, 2003, by Roll Call No. 03-933, the City Council authorized the purchase of carts from Toter, Inc., in the amount of \$2,190,000; and by Roll Call No. 03-931, the City Council approved purchase of three additional automated solid waste trucks. Also on April 21, 2003, by Roll Call No. 03-932, City Council approved the purchase of rotary cart lifters to facilitate semi-automated collection pending delivery of the full complement of automated solid waste collection units. On July 14, 2003, by Roll Call No. 03-1652, the City Council approved the purchase of additional automated solid waste collection units.

**Cart Deliveries**

The solid waste carts were purchased under an existing contract with Toter, Inc. On July 15, 2003, Toter's delivery contractor began distributing carts to Des Moines residences. Delivery was assisted by the routing software approved by the City Council September 23, 2002, by Roll Call No. 02-2329. The routing software has now been used to balance solid waste routes for both efficiency and effectiveness, requiring some 5,000 residents to change their traditional collection day.

At the present time, all initial cart deliveries have been completed. Public Works' crews continue to accommodate resident requests for exchanges in the cart delivered. Currently, an estimated 37,000 96-gallon containers have been delivered along with an estimated 13,700 64-gallon containers. Residents may opt to exchange their container one time without charge. The collection rate for a 96-gallon container is \$12 per month and the collection rate for a 64-gallon container is \$11 per month. Residents may request more than one cart at a reduced price for the second cart. The Public Works Department continues to provide a \$1 subsidy for an estimated 1,000 households and special non-curbside collection for an estimated 1,150 households.

**Extra Item Stickers**

The implementation of automated/semi-automated solid waste collection promotes a "pay as you throw" philosophy. The efficiency and safety advantages of automated collection are seriously eroded by refuse outside the automated container. Therefore, similar to our suburban communities, the Public Works Department has developed, printed, and will soon distribute to participating grocery stores \$1 stickers for extra bags of garbage and \$5 stickers for large items such as chairs, sofas, and mattresses.

With the introduction of the large item sticker, the Public Works Department is discontinuing appliance sticker sales. Residents will now be asked to purchase seven large item \$5 stickers totaling \$35 rather than one \$35 appliance sticker. By eliminating the appliance sticker, the

sale of \$1 and \$5 stickers by area grocery stores has been better received. Participating stores may continue to sell their existing stock of appliance stickers through December 31, 2003, when the use of separate appliance stickers will be discontinued. It is projected that the sale of all extra item stickers will generate an estimated \$150,000 per year.

### **Recycling**

On November 18, 2002, by Roll Call No. 02-2710, the City Council approved a contract with Mid-America Recycling for the purchase of recyclables effective December 1, 2002. The contract has provided the City its first-time ever revenues for recyclables.

In the agreement, Mid-America guaranteed \$100,840 of revenue to the City during the first year. Fiscal year end now shows an increase in recycling tonnage from 6,179 tons in Fiscal Year (FY) 2002 to 6,409 tons in FY2003. Increased recycling is anticipated as residents adapt to the City of Des Moines' new "pay as you throw" approach to solid waste disposal by recycling to the exclusion of land filling household waste streams.

### **Staff Reductions**

With the introduction of automated collection, the Public Works Department has been able to reduce staff. Where two-person crews have been required in the past for manual collection, the automated trucks are designed to be operated by one individual. To date, seven automated trucks have been purchased, resulting in a corresponding reduction in seven refuse collector positions. In addition to personnel savings by attrition, a reduction in workers compensation claims due to injuries is anticipated with automation.

### **Modified Work Schedules**

To maximize the use of the City's automated solid waste collection units on the routes, the Public Works Department has negotiated modified work schedules for many solid waste employees. Specifically, those employees operating the automated units will be working four 10-hour days rather than five 8-hour days. The program provides for alternate days off and therein ensures the automated trucks are in service 10 hours a day, 5 days a week.

While staff considered a possible change in start times for collection on the routes from 7 a.m. to 6:30 a.m., additional experience is deemed necessary before making that decision. Nevertheless, solid waste workers will be reporting to work at 6:45 a.m. rather than 7 a.m. to ensure they are at the head of their routes to commence actual collection at 7 a.m. Depending on our experience with 10-hour work schedules and the overall efficiency of automated solid waste collection, staff may be recommending an earlier collection start time on routes in the future.

### **Equipment Purchases**

In addition to the seven automated solid waste collection units currently in service, the Public Works Department is preparing for the delivery of four more units in November 2003. On July 14, 2003, by Roll Call No. 03-1652, the City Council approved purchase of four additional fully automated solid waste compaction units, bringing the total of one-person vehicles to 11. Five additional fully automated vehicles are scheduled for purchase July 1, 2004.

### **SUMMARY**

The implementation of automated solid waste collection in Des Moines has required the purchase of equipment, the assistance of Teamsters Local 90, and the cooperation of Des Moines residents. With automation, the Public Works Department plans to improve efficiency and overall effectiveness of solid waste collection.

