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Title: Direct staff to prepare a budget amendment for \$274,000 to effectively continue the desired service levels of the City’s annual six-week, three-cycle bulk curbside leaf program.

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CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Direct staff to prepare a budget amendment for \$274,000 to effectively continue the desired service levels of the City’s annual six-week, three-cycle bulk curbside leaf program.

DEPARTMENT: Department of Public Works

SUBMITTED BY: Richard Dublinski, Director

BOARD/COMMISSION REVIEW:

N/A

BACKGROUND:

Due to challenges surrounding aging equipment, unpredictability of weather and the public safety need for adequate winter preparation, on April 16, 2019, staff recommended a transition of the annual bulk curbside leaf collection program to a four-week, two-cycle program beginning in fall 2019. The City Council did not approve this change and directed staff to examine alternative methods for continuing the existing six-week, three-cycle program in a more efficient and effective manner. Specifically, Council asked staff to evaluate new equipment, contractor assistance, and daily hours of operation to complete the program on time and before winter weather becomes an issue.

Council noted that the leaf program is one of the most important services the City provides to its residents and that the City needs to find ways in which it can continue well into the future. Based on the Council’s feedback, DPW has developed a five-year plan from both an operational and equipment standpoint to help bolster the existing program in the coming years so that the City can continue to provide its residents with a six-week, three-cycle program well into the future.

DISCUSSION:

Each year DPW's leaf equipment continues to age and become less reliable. Finding replacement parts is a challenge since many pieces of equipment have been discontinued. When parts are found, they are costly since they often need to be fabricated and reproduced since they are not commonly used in the marketplace.

In addition to equipment issues, DPW is faced with winter weather towards the end of the leaf program each year. Winter weather in any form, from ice to accumulating snow, limits DPW's ability to effectively complete the bulk curbside leaf collection program. Over the past five years the area has seen on average approximately three winter storms (ice/snow) per year prior to December 1, which makes picking up leaves extremely difficult with most of the current equipment. In addition, larger accumulating snowfall in late November has occurred three times in the past five years, including an eight-inch snowfall on Nov. 25, 2018; a seven -inch snowfall on Nov. 21, 2015; and a two -inch snowfall on Nov.24, 2014.

Per City Council direction, DPW is recommending the following phased approach to ensure that the six-week, three-cycle annual bulk curbside leaf collection program is both more efficient and effective in 2019 as well as positioned for long-term sustainability into the future. The bulk curbside leaf collection program currently costs \$1.3 million annually. To complete the six-week program moving forward, an additional \$300,000 will be needed in CY19 and again in CY20, bringing the total cost of the program to \$1.9 million annually. These additional funds will assist with equipment replacement, contractor services, and trucking costs, all of which are necessary to continue offering this service. Additional costs are outlined throughout this memo along with the benefits they provide. It should be noted that the additional current year funding is not programmed into the current CY19 budget. The other CY19 proposed items will be funded by operating reserves within the City's operating budget.

Contractor Leaf Pickup

The City is divided into 20 leaf districts. A contractor currently assists with leaf pick-up in District 12, an area in Naperville located just north of Royce Road that sees the largest leaf volume. The contractor previously bid on this work for both District 12 and 10, which is located southeast of Naper Boulevard and 75th Street; however, due to financial constraints, the City has only had the contractor pickup leaves in District 12 over the past three years.

To assist DPW in expediting leaf pickup prior to winter weather and to stay on track with the program, DPW proposes the contractor pick-up leaves in both Districts 10 and 12 in the fall of 2019. District 10 will add approximately \$75,000 to the costs of the program. District 10 was going to be proposed as part of the four-week, two-cycle program as well, so it is not an entirely new concept. This plan was always in place to help preserve the City's aging equipment and expedite the pick-up process.

DPW also proposes to contract leaf pick up in District 8, which is another high-volume leaf district located near Olesen Lane and Hobson Road. It is estimated that this would add an additional \$75,000 to the budget. A contractor in District 8 further helps as part of the City's decision to retain a six-week, three-cycle program moving forward.

The use of contractors in these districts for all three cycles will allow DPW to keep on pace in the remainder of the districts with the goal of completion prior to the onset of winter. In addition, contractor assistance helps preserve DPW's aging equipment by allowing it to be used less often throughout the program and helps free up personnel later in the program to begin prepping for winter operations.

Loader Rental/Semi Trucking

DPW traditionally begins using two of its front-end loaders along with contracted semi trucking in weeks five and six of the leaf program to scoop up degraded and often frozen leaves off the City’s streets for disposal. To allow for DPW to more effectively manage these degraded leaves while also transitioning its dump trucks for winter operations prior to mid-November, DPW seeks to increase its budget by \$92,000 for the rental of two front end loaders and additional contracted semi trucking. This will allow DPW to use front end loaders to scoop and dump leaves into rented semi-trucks at a higher rate during the end of the program so that DPW’s dump trucks can be converted for snow plowing.

The table below depicts how the program would change so that half of DPW’s dump trucks can be set up for winter operations during week five of the program with the other half set up during week six of the program. Note that it takes approximately one week in duration to properly and safely set up all 24 dump trucks for winter operations.

| Leaf Program Weeks | Current # of Loaders Used | Proposed # of Loaders Used | Current # of Semi Trucks Used | Proposed # of Semi Trucks Used |
|---------------------------|----------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| 5-6 | 2 | 4 | 4 | 8 |

Equipment Replacement (Suction Units and Leaf Loaders)

On average, DPW annually picks up approximately 45,000 cubic yards of leaves during the six-week bulk curbside leaf program. DPW utilizes the following equipment to administer the program:

- 22 dump trucks
- 6 John Deere tractors
- 4 front end loaders
- 5 leaf loaders
- 5 suction units
- 1 vacuum unit
- 3 contractors (one for leaf pick-up and the other two for leave disposal)

All the equipment was planned for replacement at some point in the future regardless of the program’s overall length of time and number of cycles. However, DPW felt that by reducing the program from a six-week, three-cycle program to a four-week, two-cycle program, DPW would be able to extend the life of certain pieces of equipment since they would be utilized less intensely each year moving forward. However, now that the City will continue with a six-week, three-cycle program well into the future, DPW has determined that some equipment will need to be replaced sooner, with all equipment being replaced over a five-year period. This plan helps ensure both the immediate and long-term success of the program for decades to come.

The vacuum unit is nine years old, the five suction units are 11 years old and the five leaf loaders are 22 years old. The leaf loaders pick up most of the leaves (nearly 80%), but also require follow-up street sweeping to clean-up remaining debris. Below is a picture of a leaf loader in action.



The vacuum unit is moderately efficient and more reliable than the suction units and is used in areas with less leaf volume or along busier roadways. Below is a picture of a Titan vacuum unit.



The suction units are the least efficient and can only be used in specific areas of the City which have minimal leaf volume. DPW typically sees one machine out of service per week during the program due to the age and lack of replacement parts available for repairing the units when they break. A photo of the unit is below.



Staff recommends that one of the five suction units be replaced in CY20 with an additional vacuum unit at a cost of \$65,000. The suction unit that will be replaced is beyond repair and was only available for three of the six weeks of the 2018 program. Although DPW will be down one unit for the 2019 program, it is too late in the year to purchase and receive the unit before the season begins this year. DPW will likely request replacement of a second suction unit in 2021, providing DPW with three reliable vacuum units and three suction units for use in the future to help continue the program.

DPW also plans on renting a trackless leaf loader for the entire six-week program in 2019 to evaluate if this type of equipment can eventually replace the five leaf loaders. Renting the trackless will cost the City approximately \$32,000 in CY19. If the trackless unit is effective, DPW will seek to replace one leaf loader with a trackless unit in 2020 at a cost of approximately \$178,000. DPW would then request the replacement of the four remaining leaf loaders over the course of three budget years, from 2021-2023, so that by fall of 2023 DPW would have a full contingent of newer leaf equipment responsible for picking up the 80% of the total leaves that are collected annually with its aging leaf loaders. A picture of the new trackless leaf loader is below.



Hours of Operation

To optimize leaf pick-up during good weather, DPW recommends budgeting for 10-hour workdays Monday through Friday, 10-hour workdays on five Saturdays during the program, and the day following Thanksgiving. The additional hours for both the 51-full time and 12 temporary DPW employees would be paid at overtime rates at a cost of \$157,365 to the operating budget in CY20 and beyond. Additional hours worked during good weather allows DPW to minimize program conflicts that occur as winter weather strikes.

Other Options

The free bagged leaf pickup program that takes place from the last week in October through mid-December remains unchanged and still provides residents with an opportunity to dispose of leaves once the bulk curbside program has ended. Residents will also be encouraged to mulch, compost and use leaves in flower and plant beds as an environmentally responsible method of disposing of leaves. DPW and the Communications Division will prepare environmental marketing materials in 2019 for our residents, with the hope that many will use this as a viable option, and then get input from the City's Sustainability Task Force in the future for additional marketing efforts. Increased usage of these options has the potential to reduce future program costs related to DPW's leaf pick-up program.

FISCAL IMPACT:

CY19 Operating Budget increase of \$274,000