
CITY COUNCIL REPORT

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FROM: John A. Trujillo
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SUBJECT: PARKS TURF COMPOST STUDY

This report provides information to the Transportation and Infrastructure Subcommittee on the implementation of a pilot study by the Public Works and Parks and Recreation departments, and Arizona State University (ASU), on application of compost to turf in City of Phoenix parks.

THE ISSUE

In January 2015, the Public Works Department established a pilot Compost Facility at the 27th Avenue Transfer Station to divert food scraps collected at City-sponsored special events, beginning with Super Bowl XLIX. In addition to food scraps from special events, the compost produced at the pilot facility includes residential yard waste clippings, parks and landscaping clippings, and food scraps from two local grocery stores. The compost produced at the pilot facility meets US Composting Council's Seal of Testing Assurance (STA) standards.

In the summer of 2015, staff launched the Turf Compost Study through a partnership with the Parks and Recreation Department and Resource Innovation and Solutions Network (RISN). Working with the Parks and Recreation Department, nine City parks were selected based on their use, type of soil, and irrigation method. Four parks are designated as study parks, containing a study area where compost is applied and a control area where traditional turf management practices are applied. Five parks are designated as demonstration parks with compost application throughout.

Study Parks

- Paradise Valley Park
- Smith Park
- Tramonto Park
- Encanto Park

Demonstration Parks

- Cesar Chavez Dog Park
- Margaret T. Hance Dog Park
- Calvin Goode Plaza
- Cesar Chavez Plaza
- City Hall Employee Memorial Plaza

The study calls for two compost applications annually – in the fall and spring. In the days prior to each compost application, ASU conducts sampling and testing of the turf at each park to measure changes in the soil. During the first year of the study, sampling and testing provided baseline data from one growing season. In addition, during the

first year, Parks and Recreation developed a process to ensure consistency with each application, the Public Works and Parks and Recreation departments also coordinated installation of signage to educate residents about the study.

In the first year of the study, Parks and Recreation Department staff applied 449 cubic yards of compost across 8.21 acres at the nine participating parks. Preliminary visual observations appear to indicate the compost has improved turf quality; however, at least two more growing seasons are required to provide any conclusive evidence of changes to the soil (see attached Executive Summary). In addition to conducting the scientific sampling and analysis, in the second year of the study, ASU will conduct enhanced visual assessments with regular photographic documentation of the turf appearance throughout the year.

OTHER INFORMATION

In 2013, the City Council adopted the goal of diverting 40 percent of materials from the landfill by the year 2020. In addition to diverting materials from the waste stream, this pilot study enhances the developing circular economy by utilizing residential yard waste clippings, pilot program food scraps and tree trimmings to make the compost that is then used in the parks as a soil amendment. The City's full-scale compost facility will begin operations in spring 2017 and is expected to increase compost availability for additional City parks.

RECOMMENDATION

This item is for information and discussion.

Attachment

Parks Turf Study Executive Summary