

Committee Report

Environment Committee



Committee Meeting Date: September 10, 2024

For the Metropolitan Council: September 11, 2024

Business Item: 2024-244 SW

Turfgrass Irrigation Efficiency Project with University of Minnesota Turfgrass Science Program, Contract 151103, Amendment Five

Proposed Action

That the Metropolitan Council authorize its Regional Administrator to execute the contract amendment for contract 151103 with the University of Minnesota for continuation of educating citizens of the Twin Cities metro area about lawn water conservation by reinforcing current outreach efforts and creating new educational materials for homeowners in the form of online videos, signs, pamphlets, and in-person workshops. This amendment will be for a total amount of \$418,997.00 for a contract duration of three years for a total contract not-to-exceed value of \$1,388,947.00. The University of Minnesota's proposed funding request is attached to this memorandum.

Summary of Environment Committee Discussion/Questions

- CM Cederberg asked: Is the goal to complete the testing of the new seed mix in 3 years with the outcome being a strong recommendation to on what seed mixes to use to have more tolerant grasses?
- Staff responded: Yes, that is correct. The goal is 2 to 3 years to get the seed mixes out there.
- CM Wulff asked: They were already doing research on different seed mixture, is this just building upon what they were already doing or are they starting over?
- Staff responded: It's building upon it. It is going to be an advancement and improvement to what they are already doing.

Motion by CM Wulff seconded by CM Morales. Motion carried.

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District(s), Member(s): All
Policy/Legal Reference: Minnesota Legislature, Clean Water Funds
Staff Prepared/Presented: Greg Johnson, 651-602-1016
Division/Department: Environmental Services/Water Resources

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Background

Landscape irrigation accounts for nearly one quarter of all residential water use, totaling nearly thirty billion gallons per year in the region. As development proceeds, more turfgrass irrigation will result in significant increases in summer water use. The Metropolitan Council is partnering with the University of Minnesota Turfgrass Science Program to investigate and promote methods for increasing turfgrass irrigation efficiency. Through research, demonstration sites, certification programs, and outreach efforts, we seek to teach residents how they can save water, improve lawn health, and help their communities save money by reducing the need for additional water infrastructure. The first contract in 2016 was for \$122,592.00 and has previously been amended three times for an additional \$847,358.00. This funding has allowed us to collect data and define the problem, as well as begin to focus our outreach and education efforts with the public. We seek to expand our outreach efforts and water conservation solutions with this funding to provide the following objectives for this contract amendment:

1) Public outreach - The UMN turfgrass team, led by their lawn water conservation educator Gary Deters, engages the public through in-person events such as neighborhood gatherings, county fairs, city festivals, and the Minnesota State Fair. In 2023, the team educated metro region residents at 25 of these events. They delivered approximately 3,000 copies of turfgrass management outreach materials at these events. These services will continue with attendance at approximately 25 events annually for the next three years.

2) Lawn leaders - In 2023, the team piloted an outreach approach that trains metro region

residents to host small workshop-type events in their own neighborhoods. These “Lawn Leaders” could be Master Gardeners, Water Stewards, or even knowledgeable people who love to teach other people about sustainable lawn care. Building off the 2024 process, during the project period we will continue to train Master Gardeners and other interested residents to lead these sessions. They will target between 5-10 new participants each year from 2025 through 2027.

3) Lawn water conservation solutions - Perhaps the most impactful practice that metro region residents can do to reduce water use on their lawn is to use a drought tolerant mixture of grass species. While this recommendation is easy to make, it is difficult to implement. The University of Minnesota will accomplish this by seeding a replicated turfgrass species mixture trial at four possible Twin Cities metro area locations (note - *these could change based on input from stakeholders and the Metropolitan Council*):

- (1) St. Paul campus of the University of Minnesota
- (2) Minnesota Landscape Arboretum in Chaska
- (3) UMORE Park in Rosemount, MN
- (4) A publicly accessible space in the eastern suburbs.

Each trial will consist of at least 25 different seed mixtures, along with monocultures of each included species. The University of Minnesota will design the seed treatment list in such a way that optimum mixtures can be determined, even if the optimum ratio is not among the tested set of treatments. The seed mixes that provide the best results in terms of drought tolerance and appearance will be provided to local seed distributors, and their sales data (quantities sold) will be monitored by the University of Minnesota as an example of one metric that Met Council staff will use to gauge the success of this program.

Rationale

The Water Supply Planning Unit seeks to improve water efficiency throughout the Twin Cities metropolitan area. Turfgrass irrigation has been growing significantly since the 1990s, increasing the need for water supply wells that are only used during short-term periods of peak demand. Our research has shown the need for improvement in irrigation practices. For example, over 40% of our survey respondents irrigate every other day, which far exceeds what is needed by turfgrass. The severe droughts during the summers of 2022 and 2023 have focused attention on the need for communities to increase irrigation efficiency and to promote the use of more water efficient turfgrass species. Reducing turfgrass irrigation through public outreach and the implementation of low input turfgrass have the greatest potential to reduce peak summer water demands across the Metro Region when compared to any other water conservation method. Therefore, it is critical for the region to understand the benefits of efficient turfgrass irrigation to help preserve our natural groundwater and surface water resources and allow for additional growth in the region.

Thrive Lens Analysis

This action advances the Thrive 2040 outcomes of Stewardship and Sustainability and the water sustainability goal of the Water Resources Policy Plan. Increased turfgrass irrigation efficiency will help protect our aquifers and reduce water utility rates in the long term. Communities are increasing their adoption of water efficient irrigation practices as a result of this project, which is making a difference in decreasing the rate of growth of water demand in developing communities. This project is helping shape the development of the Master Water Supply Plan Update in the next three years.

Funding

The Turfgrass Irrigation Efficiency project is funded by Clean Water, Land and Legacy Amendment funds through the Minnesota Legislature. These funds are intended to implement projects that address emerging threats to the drinking water supply; provide cost effective regional solutions; leverage interjurisdictional coordination; support local implementation of water supply reliability

projects; support the growing needs of community water suppliers facing challenges; and prevent degradation of groundwater resources in the metropolitan area.

Small Business Inclusion

There are no direct impacts to small businesses with the proposed action.

