City of San Antonio

Agenda Memorandum

File Number:21-2383

Agenda Item Number: 4.

Agenda Date: 3/25/2021

In Control: Community Health and Equity Committee

DEPARTMENT:

DEPARTMENT HEAD:

COUNCIL DISTRICTS IMPACTED: Citywide

SUBJECT: A briefing on the San Antonio Soil Carbon Project presented by the Greater Edwards Aquifer Authority.

SUMMARY:
The USDA Natural Resource Conservation Service (NRCS) approached the Parks and Recreation Department regarding a partnership to sample and analyze soils within city parks for carbon levels. The Greater Edwards Aquifer Alliance (GEAA), a project facilitator, will provide an overview and explain how the project may lead to the implementation of a mitigation strategy from the Climate and Adaptation Plan (CAAP). The strategy focuses on the use of public green spaces to remove carbon dioxide from the atmosphere and store it within their soils.

BACKGROUND INFORMATION:
Research shows that soils may be an effective mitigation strategy for climate change. While it is well known that trees and vegetation can remove and store carbon dioxide, current research indicates that *healthy* soils may remove and store three (3) times more carbon dioxide than above ground vegetation.

This mitigation strategy was identified in the SA Climate Ready Climate Action and Adaptation Plan (CAAP), approved by City Council on October 17, 2019, and serves as a pathway to meeting the City's commitments to climate action as outlined in City Council's resolution of support for the Paris Climate Agreement on June 22, 2017.

From the initial 2018 outreach of a committee member on the CAAP's Water and Natural Resource Technical Committee to the State's NRCS office; and with facilitation by GEAA's staff, the City was offered a free-of-charge service to evaluate soils in randomly selected City parks for their current soil carbon levels and soil percolation rates. The NRCS is the federal agency that was responsible for the national soil carbon assessment initiated on agricultural lands in 2010. Recent federal legislation now allows the agency to work with urban areas to assist in meeting national goals of increased water quantities, improved water quality, and reduced flood damages. San Antonio is the first Texas city to use this service.

After the data is collected and analyzed, the NRCS will provide the City recommendations for improving soil health that can lead to increasing their ability to pull additional carbon dioxide from the atmosphere, thus

improving air quality. These same recommendations will also increase soil capacity for storing stormwater, which will reduce runoff and peak flood flows. By improving soil and vegetation management practices and monitoring soil carbon levels and soil percolation rates, the City will be able to quantify any improvements and determine if such practices are cost effective for San Antonio in meeting its goals.

ISSUE:
It is anticipated that soil sampling within City-owned properties may begin summer of 2021. The project facilitator determined it would benefit the program to provide an overview to the Community Health & Equity of the program's potential for improving overall community resilience and quality-of-life for all residents in San Antonio.

ALTERNATIVES:
This item is for briefing purposes only.

FISCAL IMPACT:
There is no fiscal impact.

RECOMMENDATION:
This item is for briefing purposes only.