



Turf Maintenance Updates

March 30, 2021



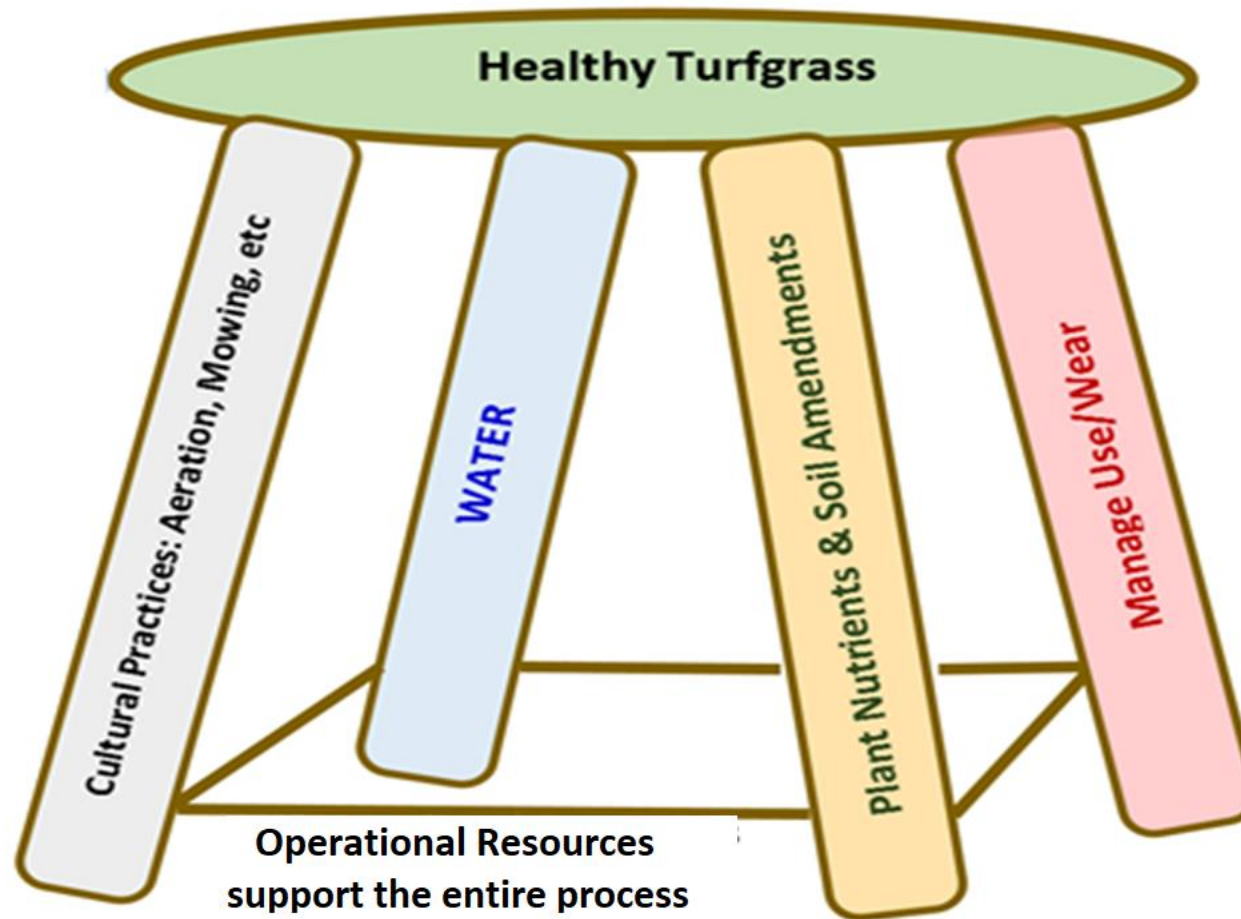
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Goal 4

Enhance El Paso's
Quality of Life Through
Recreational, Cultural and
Educational Environments.



Turfgrass Maintenance



Operational Improvement History From 2014 to Present

- Equipment:
 - Begin to replace equipment that had exceeded useful life
 - Addition of specialized maintenance equipment for Designated Sports Fields
- Operating Budget Increases:
 - Water rate increases
 - Growth of the system
 - Westside Sports and Blackie Cheshier Designated Sports Fields increased level care, but this funding is not part of the current FY budget due to the pandemic



Operational Improvement History From 2014 to Present

- Organizational Improvements:
 - Added Second Park Operations Superintendent
 - Added Playground Supervisor
 - Added Irrigation Supervisor
 - Added Resident Staff for Westside Sports Complex and Blackie Chesher
 - Combined Parks Maintenance Division to Streets & Maintenance Department resulting in better leverage resources



Process Improvement History From 2014 - Present

- Integration of Lean Six Sigma and Baldrige Principles to improve response time and focus on results in daily processes
- Move toward Centralized Computer Control in water conservation & management thru Rain Bird IQ/Maxicom
- Obtaining Accreditation (CAPRA) integrated contemporary more industry Best Practices



Ongoing Process Improvements

Parkland assets are being converted to the Cityworks Asset Management System, allowing for:

- improved workflow processing (E.g. task scheduling and reporting)
- improved monitoring of completed work and associated costs
- maintenance history
- Field staff will utilize iPads for onsite data management, rather than a paper system

Improved turf management training program for field staff:

- Formal Irrigation Training over Computerized Irrigation Controls through Rain Bird



Ongoing Process Improvements

Continued implementation of RainBird IQ
Cloud based system (formerly Maxicom)
at strategic locations:

- Increased Water Conservation
- Allows staff to remotely operate irrigation, discern and diagnose irrigation issues
- This is a high priority that needs to have continued funding



Previous Activities

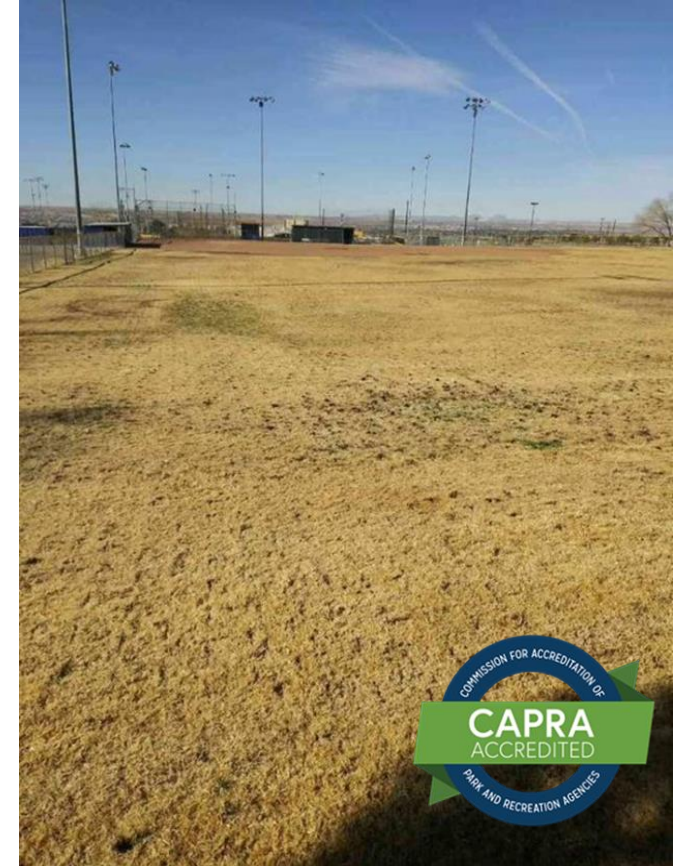
- From last Fall to the present our Team has continued to perform planned maintenance activities like:
 - Aerate to relieve compaction and increase water infiltration
 - Irrigate to plant needs based on climate and turf needs
 - Apply plant nutrients and soil amendments
 - No extended play on DGFs during winter months.



Current & Future Activities

January through April 2021

- Weed control
- Aerating
- Irrigating
- Feeding
- Mowing



Transition from Winter Dormancy to Spring Green-up to Active Growth



Key Requirements for Bermudagrass Green-up and Active Growth

1. Air Temperature does not play a direct role in green-up, but
2. Soil Temperature at a 6-inch depth triggers green-up
3. Day-Length is key for active growth



Soil Temperature at a 6-inch Depth: Key to Stimulating Green-up

When the soil temperature (at 6-inches) is consistently at or above 65 degrees (Fahrenheit); Bermudagrass starts to wake from dormancy and green-up.

- It is green, but devoting all of its energy to coming out of dormancy.
- At this point, it cannot recover from high use/wear.

2021 Soil Temperature Log

Week of	Ave Temp at 6 inches
2/1/2021	58.85 F
2/8/2021	58.46 F
2/15/2021	43.81 F
2/22/2021	48.71 F
3/1/2021	51.95 F
3/8/2021	59.25 F
3/15/2021	59.98 F



Day-Length: Key to active growth of Bermudagrass

- Bermudagrass begins active growth when the day-length is significantly greater than night
 - The 2021 Spring/Vernal Equinox (day and night are of approximately equal length) will occur on March 20th
 - We should see increased Bermudagrass activity after March 31st



Why is all of this important to me?

- Greenspace is limited in El Paso
- The park system's inventory of sites that are appropriate for Team Sports activities is even more limited
- Because of the Pandemic, current resources for the maintenance of turfgrass is not the same as before the Pandemic



Turf Acreage in El Paso's Park System

Total Turf Acres – 1,307

- Tier 1 (Designated Game Fields) – 160
- Tier 2 (Community, and some Neighborhood Parks) – 626
- Tier 3 and 4 (All other parks with turf) – 521



Permitted Use by Level of Care Tiers Driven by Demand



Tier 1

Designated Game Fields are permit-only use; also with exhaustive use during major tournaments

Tiers 2 and 3

Community Parks host 15-23% of total permits, and Neighborhood Parks host 25-33% of total permits.

Tiers 4 and 5

Smaller parks with unsanctioned organized team play

High Demand Exceeds our Sports Field Capacity and Impacts Sustainability

- Meeting High demand is a Customer Service Obligation and a Performance Goal
- High Demand on limited playing surface leads to excessive wear
- High Demand causes overflow into neighborhood parks and smaller parks, with impacts to those communities
- Our inventory does not support current demand for game and practice sites sustainably



All of these factors increase the potential for us to “Love a Field to Death”



Short Supply and its Effects of both Sanctioned and Unregulated Usage

- Permits:
 - Are one tool that aids in controlling use/wear, but because requests exceed sustainable capacity users move into neighborhood parks
- Time of use/wear:
 - The time of year and total time of use/wear greatly affects turf conditions
- Impacts from Hours of Use/Wear

Expected field conditions based on hours of field use per year

Field Conditions	Hours per Year
Sustain good field conditions	200 hours or less
Fair to good field conditions, some thinning turf and localized wear areas	400 to 600 hours
Significant turf loss, field surface damage, increased potential for athlete injury	Over 600 hours

Leaning Forward

We realize that due to the inevitable increased demand for park usage post-pandemic and the growth of our park inventory due to our economic vitality our obligation to provide exceptional services will continue to grow.

- As a result, Parks Maintenance will require additional organizational support in order to meet our obligation.
 - Staff
 - Equipment
 - Infrastructure



Thank You

