



Artificial Turf Policy Study

Parks and Recreation Commission
Study Session

June 10, 2026



Agenda



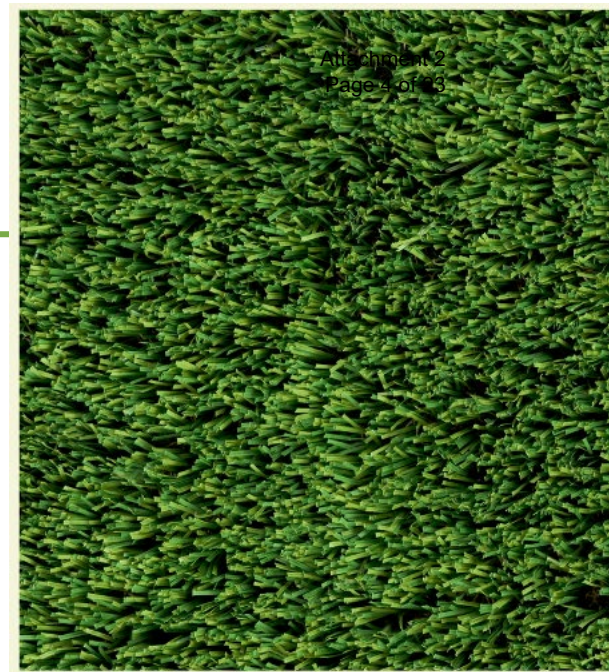
Project Overview and Timeline

- Funded with FY 25/26 Budget as a Study Issue: \$150,000
- Project team: Led by ESD, supported by DPW, LRS, and CDD
- Council Study Session Scheduled for July 28, 2026



Policy Study Scope (ESD 24-01)

- Background:
 - Community concern was raised over environmental and health impacts of artificial turf, ESD 24-01 was sponsored in response to this
 - ESD 24-01 detailed a comparative analysis between artificial turf and natural grass, including costs for both public and private use
 - Council asked for analysis of operations and maintenance of current natural grass fields with recommendations for optimal maintenance practices to be included in 24-01



Policy Study Scope (ESD 24-01)

Included in Study Scope

- Comparative analysis of artificial turf and natural grass
- Using only currently available research (literature review)
- Analysis of current maintenance practices and evaluate optimal practices
- Survey of community sentiments

NOT Included in Study Scope

- Any sampling or testing of surfaces
- A full analysis of recreational playing time demands and field availability
- Any modeling or quantification of environmental or health impacts of surface types

Sunnyvale Parks

- Purpose of the City of Sunnyvale's Parks is to provide:
 - ◆ Recreational opportunities
 - ◆ Open space
 - ◆ Community gathering places
 - ◆ Environmental benefits
 - ◆ Connections throughout the city for residents of all ages
- 52 rentable fields across 9 city parks and 16 school sites. All are maintained by Parks staff, with fields for a variety of recreational uses.
- Many fields are exceeding the recommendations for annual hours of play on natural grass fields





Community Engagement Results

Community Engagement

Focus Group

- Jan. 27, 2026
- 8 attendees
- Invitation only to representatives of sports and environmental groups

Online Survey

- Available from Jan. 29 to March 6, 2026
- 850 responses submitted

Farmers Market Tabling

- Feb. 7, 2026
- ~40 attendees
- Attendees were asked to provide feedback on pre-written statements

Communitywide Workshop

- Feb. 10, 2026
- 31 attendees
- Attendees rotated through discussion topics: playing time, environmental, health, and field maintenance

Communitywide Workshop

People were divided into tables, each table hosted a discussion on a topic, and attendees had the chance to go to each table.

Playing Time

- Prioritize Sunnyvale Residents
- Maximize general use of natural grass space over open space used for sports
- Maximize playtime on existing natural grass fields

Environmental Factors

- Concerns for artificial turf regarding plastic pollution, heat island effect, and recyclability
- Concerns for mowing and fertilizer and pesticide use impacts of natural grass
- Loss of ecosystem biodiversity

Health Factors

- More concerns for artificial turf than natural grass (chemicals, heat, and bacteria exposure)

Maintenance

- More concern for natural grass than artificial turf
- General call for better maintenance practices to maximize playability

Community Survey Results

Overview

850 individual responses, 37 days

60% indicated “very/moderately concerned” about environmental and health impacts of AT

26% indicated “not concerned” about environmental and health impacts of AT

29% indicated “very/moderately concerned” about the environmental impacts of natural grass

40% said “artificial turf should generally be restricted”

38% said “artificial turf should generally be allowed”

20% said “artificial turf should only be allowed for specific use cases”

Community Survey Results

739 Responses indicated they live in Sunnyvale

Artificial turf should generally be restricted	43%
Artificial turf should generally be allowed	34%
Artificial turf should be allowed only for specific use cases	20%

789 Users of Sunnyvale Public Fields	Sports League (72)	Both (320)	Recreation (394)
Artificial turf should generally be restricted	17%	19%	41%
Artificial turf should generally be allowed	64%	62%	36%
Artificial turf should be allowed only for specific use cases	19%	20%	21%

Community Survey Results

112 Responses indicated they have AT on their Property

- 78% would not replace it
- 70% think a City policy should generally allow Artificial Turf
- 18% indicated they would replace it if they could
- Reduced water use and lower maintenance were the top reasons for installing it



Research Findings

Environmental and Human Health Impacts

Environmental Impacts Artificial Turf

- Plastic pollution
- Chemical leaching
- High-carbon footprint from production and disposal
- Contributes to urban heat island effect

Environmental Impacts Natural Grass

- High water usage
- Potential for high chemical use
- High carbon footprint from maintenance operations

- Minimal data is available to correlate human health impacts from these environmental factors
- When taking into account hours of play for natural grass and artificial turf, one study found environmental impacts for unfilled artificial turf were lower on a per hour of play basis.
 - ◆ At 800 hours for natural grass and 1,600 hours for artificial turf, the impacts were equal.

Environmental and Health Impacts

	Artificial Turf	Natural Grass
High Water Usage		✓
Chemical Exposure and Leaching	✓	✓
Increased Heat	✓	
Microplastic Pollution	✓	
GHG Impacts	✓	✓
End of Life/Disposal	✓	
Personal Health/Injury	✓	✓

Cost Comparisons

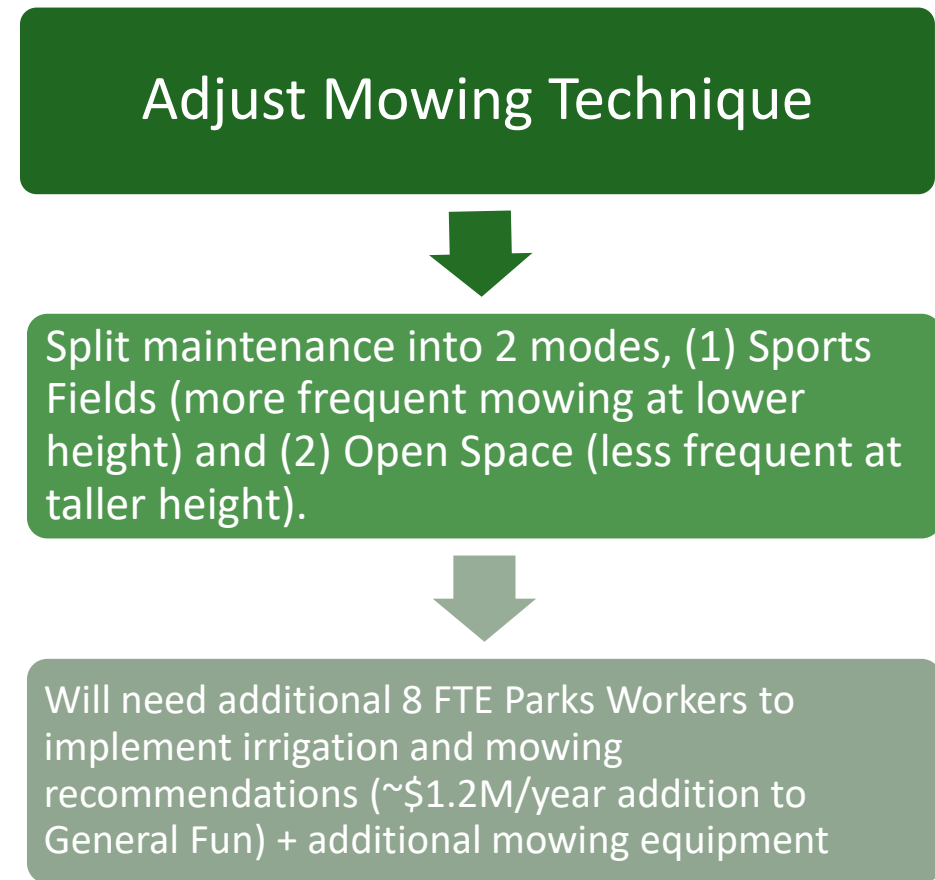
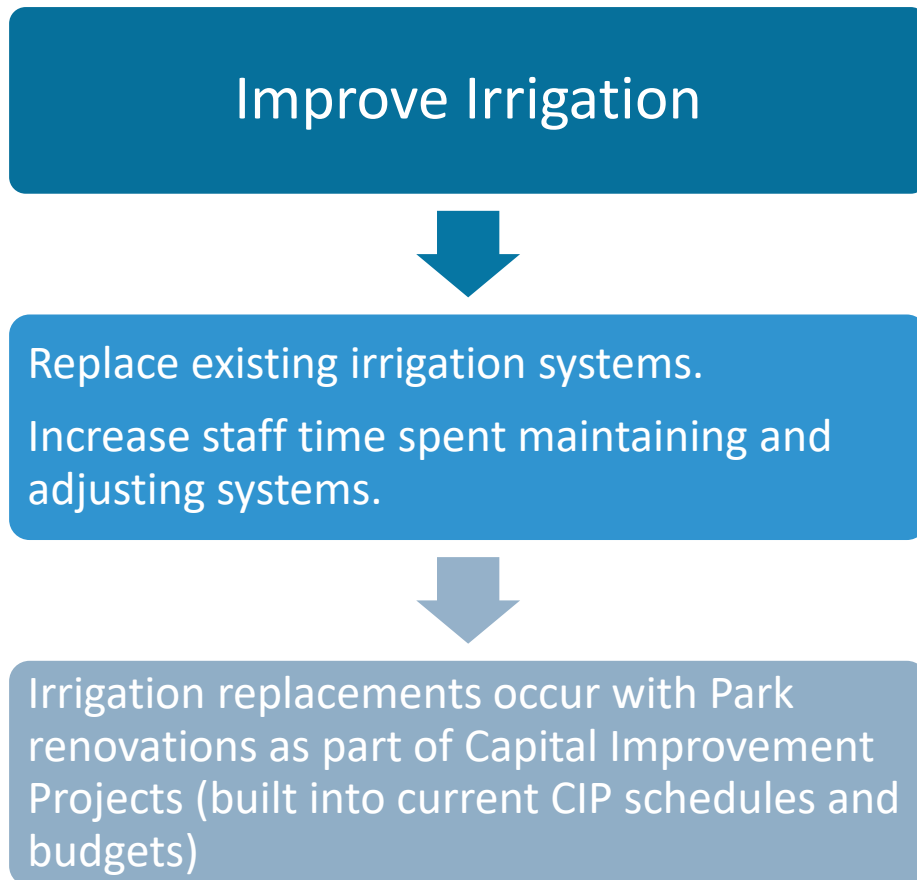
Data reflects case study of fields in the City of Los Gatos

Comparison of Natural Grass Field and Artificial Turf Life Cycle Costs (20 Year Cycle)

Natural Grass Field (148,500 SF Turf)		Artificial Turf Field (148,500 SF Turf)	
Initial Major Renovation Construction Cost	\$750,000	Initial Major Renovation Construction Cost	\$2,100,000
Refurbishing/Rest Cost - 5 times over 20 years	\$475,000	Refurbishing Cost	\$975,000
Average Annual Maintenance Natural Grass	\$57,360	Average Maintenance Synthetic Turf over 20 Years	\$30,770
20 Year Maintenance Costs	\$1,365,000	20-Year Maintenance Costs	\$606,600
20-Year Total Maintenance + Capital	\$2,590,000	20-Year Total Maintenance + Capital	\$3,681,600
Average Maintenance Cost/Year over 20 Years	\$68,250	Average Maintenance Cost/Year over 20 Years	\$30,330
Avg. Annual Cost: Capital + Maintenance	\$129,500	Avg. Annual Cost: Capital + Maintenance	\$184,080
Natural Grass Field Use		Artificial Turf Field Use	
32 weeks @ 2 hours per day on weekdays and 5 hours per day on weekends less 15% rain dates		40 weeks @ 6 hours per day on weekdays and 10 hours per day on weekends	
Average Available Play Hours Per Year	640	Average Available Play Hours Per Year	2000
Hours per Year minus 15% for Rain	544		
Hours per Year * 20 years	10,880	Hours per Year * 20 years	40,000
Total Average Available Play Hours in 20-Year	8,880	Total Average Available Play Hours in 20-Year	39,000
Cost per Use	\$292	Cost per Use	\$94
<i>(Total Maint. + Capital)/(Total Permitted Hours in 20-Year Cycle)</i>		<i>(Total Maint. + Capital)/(Total Permitted Hours in 20-Year Cycle)</i>	

Maintenance Recommendations to Improve Field Quality

The following recommendations will improve the quality of the natural grass fields, but not increase playing time





Recommendations + Next Steps

Recommendations

*Report includes 10 Recommendations + Decision Tree
Highlights from the 10:*

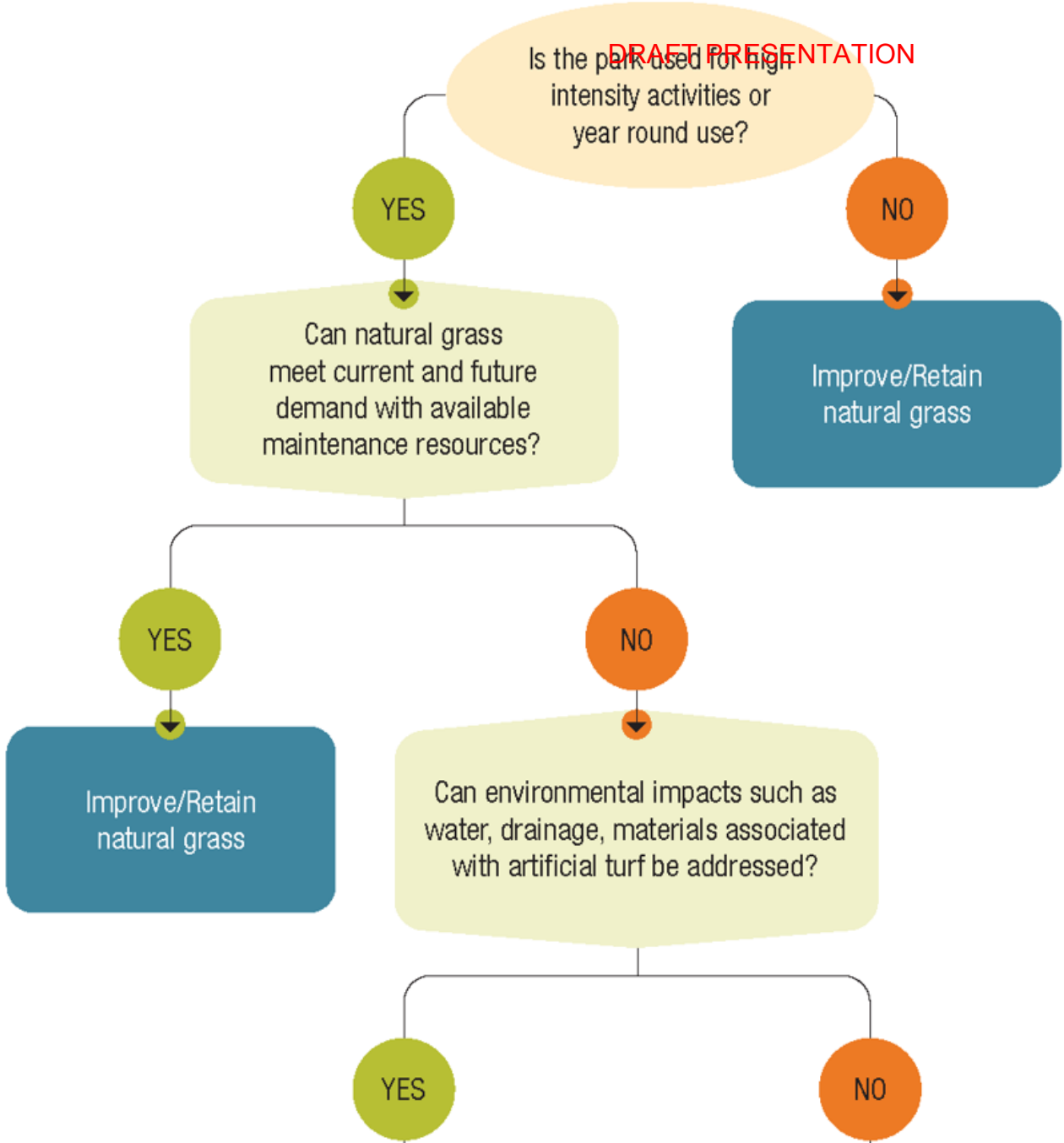
Prioritize and conserve natural grass; pilot organic turf management.

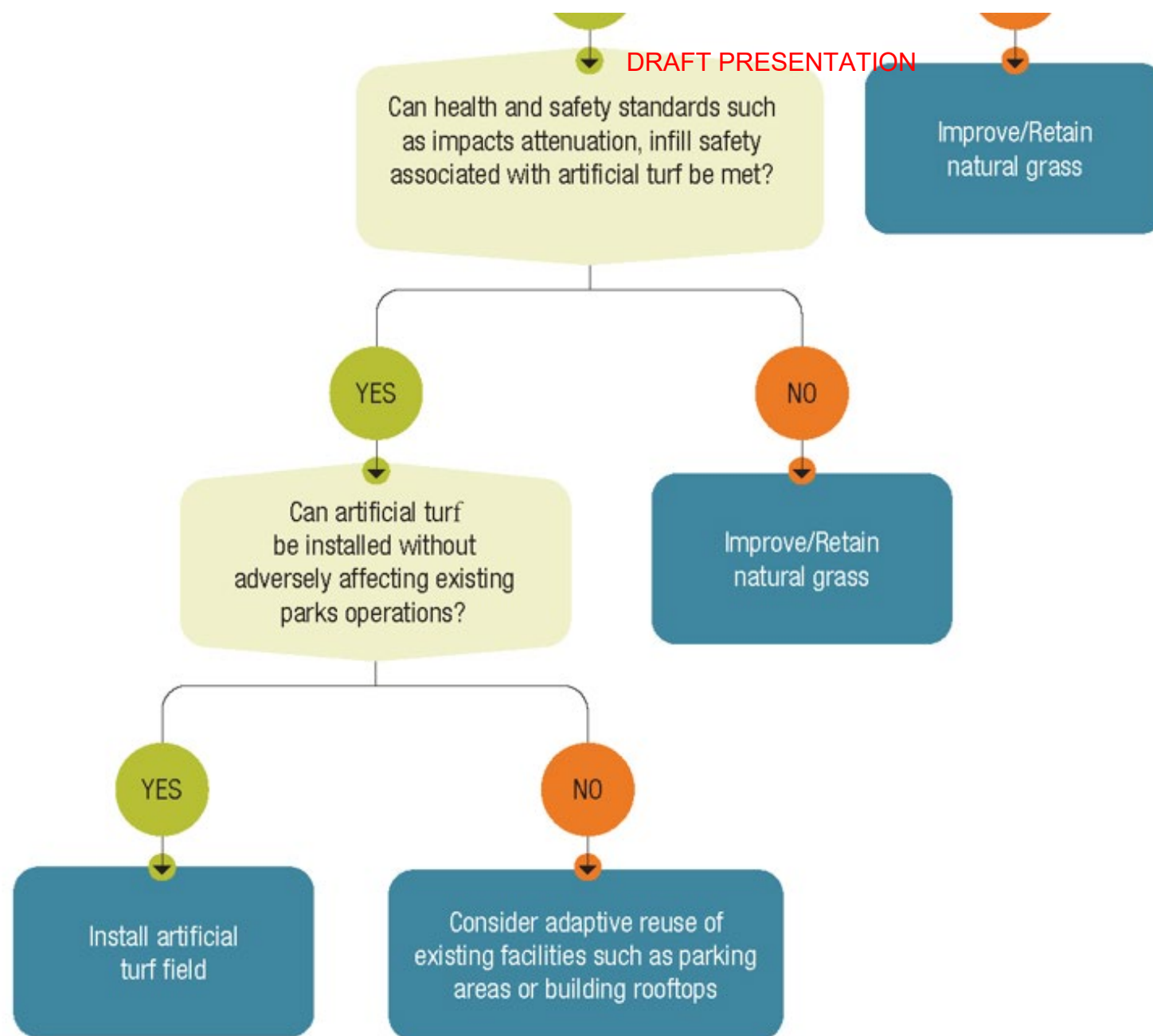
Consider artificial turf only when high-use field determined necessary; conduct life-cycle analysis for each project prior to moving forward with artificial turf. Consider adaptive reuse as well.

When using artificial turf, implement best management practices to minimize environmental pollution and health impacts.

Consider a framework for private property regulations that aligns with regional water district policies around artificial turf; could focus on certain regulations like stormwater management or drought-tolerant landscaping.

DRAFT





Next Steps



Collect input from:

- *Parks and Recreation Commission (6/10)
- *Sustainability Commission (6/15)
- *Planning Commission (6/22)



Present to City Council at Study Session (7/28) to receive input on report recommendations



Thank You!

Contact: green@sunnyvale.ca.gov
for questions or comments