

Estrella Vista HOA Water Conservation Plan



**Estrella Vista Homeowners Association
Goodyear, Arizona**

Adopted 04/01/2024

TABLE OF CONTENTS

PURPOSE	1
BACKGROUND	1
VISION	2
MISSION	2
OBJECTIVES	2
GOALS	3
ACTION STEPS	4
MILESTONES	5
EVALUATON	5
ADDENDUM 1	6
Association Area Designation	6
ADDENDUM 2	7
Association Area Designation Map	7
ADDENDUM 3	8
Conversion Costs	8
ADDENDUM 4	9
Yearly Reduction Estimates - Turf & Grass	9
ADDENDUM 5	10
Yearly Reduction Estimates - Trees & Shrubs	10

ESTRELLA VISTA HOME OWNERS ASSOCIATION WATER CONSERVATION PLAN

PURPOSE

This document is intended to provide an outline for the steps the Estrella Vista Homeowner's Association intends to take to reduce its water consumption and costs over the next five to ten years. The plan contained within is structured to be more of a guide than a policy. Current and future Board of Directors will need to be diligent and perform a cost analysis before beginning any conservation steps to ensure sufficient funds are available and make the necessary adjustments to this plan.

BACKGROUND

Over the past several years, water costs to maintain the Association's landscaping has been the Association's highest expenditure and has accounted for over half the annual budget. In this short time the Association has seen a drastic increase in the amount of water used to keep our turf and vegetation healthy. As a result of this increased water usage our annual cost of watering the turf and vegetation has increased accordingly. Several factors, such as reductions in annual rainfall, hotter than normal summers, and increasing water rates have all had impact in this annual cost increase.

During years 2022 – 2023 we saw our annual water costs exceed \$146,000 against a budget of \$117,000. Recent news reports and notifications from State, City, and other water suppliers suggest our rates could double in the next 3-5 years. This even more drastic rate increase could foreseeably increase our costs for turf and vegetation maintenance to nearly \$300,000 annually. This water usage increase would in turn force our quarterly dues to drastically increase as well. Recently, the Arizona Department of Water Resources established a goal to encourage planned communities to reduce grass or turf watering by 30 percent since grass alone consumes most of the water resources. Using this 30 percent goal as our initial guide, the Board began working with its management and landscaping companies to develop a water conservation plan to reduce the anticipated annual water consumption and costs.

To give some idea of what this plan entails: The Association is currently responsible for watering and maintaining about five (5) acres of turf or grass areas within our community. A 30 percent reduction would require at least 2 acres of turf or grass to be removed and replaced with granite. This would be spread out over several years for the 9 separate areas of turf the association has, with the least used turf areas (i.e. flood basins) having the highest priority for complete removal, and the most used turf areas (i.e. playgrounds) having the least priority for partial turf removal.

VISION

To control, minimize, and reduce the Association's future financial expenditures

MISSION

Reduce the amount of landscaping that is water dependent

OBJECTIVES

TURF MANAGEMENT: The overall objective is to reduce the amount of turf or grass areas the Association maintains by at least 30 percent over the next five years with an additional 20 percent reduction in years six through ten under the following guidelines

- Turf areas primarily used for flood retention basins - Complete removal of all grass or turf and all curbing from the area. The area where the turf or grass was removed will be replaced with granite. No bushes, trees, or other vegetation will be planted in the removed turf area. However, underground plumbing for drip irrigation will be installed for future use before the granite is distributed.
- Turf areas adjacent to playgrounds – Partial removal of grass or turf from areas that are adjacent to playground equipment, tables, or ramadas. The area where the turf or grass will be removed will be replaced with granite. No bushes, trees, or other vegetation will be planted in the removed turf area. However, underground plumbing for drip irrigation will be installed for future use before the granite is distributed.

TREE MANAGEMENT: Reduce the number of trees maintained by the Association by approximately twenty (20) percent over the next ten years from current level of 459 trees. The reduction will be accomplished primarily through attrition by electing not to replace any tree that needs to be cut down due to disease, storm damage, or other reason determined by the Board of Directors. The Board will retain the right to decide to replace a tree if it deems one aesthetically necessary.

SHRUB MANAGEMENT: Reduce the number of shrubs or bushes maintained by the Association by approximately thirty (30) percent over the next ten years from current level of 1000 (estimated) shrubs or bushes. The reduction will be accomplished primarily through attrition by electing not to replace any shrub or bush that needs to be removed due to disease, storm damage, or other reason determined by the Board of Directors. The Board will retain the right to decide to replace a shrub or bush if it deems one aesthetically necessary.

GOALS

YEAR 1

- Area 1 - Complete removal of turf area and curbing in flood retention basin near W. Durango St. and S.156th Dr.
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 4-5 percent mainly through attrition

YEAR 2

- Area 2 - Complete removal of turf area between cul-de-sacs on W. Durango St. and S. 156th Ave
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 4-5 percent mainly through attrition

YEAR 3

- Area 3 - Complete removal of turf area and curbing in flood retention basin near S. Goodyear Blvd W. and W. Papago St
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 4-5 percent mainly through attrition

YEAR 4

- Area 4 - Complete removal of turf area and curbing in flood retention basin near S. Goodyear Blvd W. and W. Yuma Rd
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 4-5 percent mainly through attrition

YEAR 5

- Area 5 - Partial removal of turf area adjacent to pool and playground 4 near W. Sonora St
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 4-5 percent mainly through attrition

YEAR 6

- Area 6 - Partial removal of turf area adjacent to basketball court and playground 2 near W Rio Vista
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 2-3 percent mainly through attrition

YEAR 7

- Area 7 - Partial removal of turf area adjacent to playground 1 near W. Mead Ln and S. 156th Ave
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 2-3 percent mainly through attrition

YEAR 8

- Area 8 - Partial removal of turf area adjacent to playground 3 near W. Mojave St and S. 156th Ln
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 2-3 percent mainly through attrition

YEAR 9

- Area 9 - Partial removal of turf area adjacent to playground 5 near W. Yavapai St
- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 2-3 percent mainly through attrition

YEAR 10

- Reduce number of trees throughout community by 2-3 percent mainly through attrition
- Reduce the number of shrubs and bushes throughout community by 2-3 percent mainly through attrition

ACTION STEPS

Before initiating or taking action to achieve any of the Association's Water Conservation Plan's Objectives or Goals, the following steps should be completed.

- Board reviews Conservation Plan and determines which area(s) to remove turf or landscaping
 - Board will select only one area at a time to begin work
 - Board will prioritize area to be completed first if multiple areas are selected
- Board informs Management Company of decision
- Management Company contacts landscaping contractor to gather proposal for work requirements and costs
- Landscaping Company forwards proposal to Management Company
- Management Company meets with Board to review proposal
- Board approves or disapproves proposal
 - If disapproved, Board informs and provides Management Company with reasons for disapproval
 - Management Company informs Landscaping Contractor of decision and requests new proposal, if requested by Board

- Landscaping Contractor submits new proposal to Management Company who will meet with Board to review new proposal
 - If approved, Board ensures budget for the project is available before beginning work
 - Management Company informs Landscaping Contractor of decision and coordinates work schedule
 - Management company informs Board of landscaping contractor's schedule before work begins and provides Board with a weekly update of work progress
 - Management Company will inform Board of any significant work issues affecting costs, property damage, or other work stoppages as they arise
- Board evaluates work on selected area after completion
 - Board ensures all work is completed in the selected area before beginning work on another area

MILESTONES

- **Turf Removal**
 - Each major Action Step completed will be considered a milestone achievement
 - Detailed or in-progress milestones for turf removal will be determined for each area before work begins
- **Tree and Shrub Removal**
 - The removal of 2 percent of trees per year from the current total number of trees will be considered a milestone achievement
 - The removal of 5 percent of the shrubs and bushes per year from the current estimated total number of shrubs and bushes will be considered a milestone achievement

EVALUATON

- Management Company will be responsible for monitoring and evaluating work progress on a weekly basis and reporting progress to the Board
- Board will be responsible for evaluating work after completion for each turf area removal before beginning work on another area
- Board will evaluate progress on achieving the goals for tree and shrub removal at the scheduled open board meetings

ADDENDUM 1
Association Area Designation

AREA 1 – Turf area in flood retention basin near W. Durango St. and S. 156th Dr.

AREA 2 – Turf area between cul-de-sacs on W. Durango St. and S. 156th Ave

AREA 3 - Turf area in flood retention basin near S. Goodyear Blvd W. and W. Papago St

AREA 4 – Turf area in flood retention basin near S. Goodyear Blvd W. and W. Yuma Rd

AREA 5 – Turf area adjacent to playground 4 and pool near W. Sonora St

AREA 6 – Turf area adjacent to playground 2 and basketball court near W Rio Vista

AREA 7 – Turf area adjacent to playground 1 near W. Meade Ln and S. 156th Ave

AREA 8 – Turf area adjacent to playground 3 near W. Mojave St and S. 156th Ln

AREA 9 – Turf area adjacent to playground 5 near W. Yavapai St.

ADDENDUM 2
Association Area Designation Map



ADDENDUM 3
Conversion Costs

Estrella Vista										
Conversion Estimates										
	Cost to Convert	Water in Thousand Gallons	Savings in Thousand Gallons	Water in Dollars	Year 1 Savings	Year 2 Savings	Year 3 Savings	Year 4 Savings	Year 5 Savings	Total
5.38 Acres		12,604.00		\$94,529.00						
-10%	\$76,192.35	11,292.00	1,312.00	\$84,689.00	\$9,840.00	\$10,824.00	\$11,906.40	\$13,097.04	\$14,406.74	\$60,074.18
-20%	\$152,384.70	9,980.00	2,624.00	\$74,850.00	\$19,679.00	\$21,646.90	\$23,811.59	\$26,192.75	\$28,812.02	\$120,142.26
-30%	\$228,577.05	8,714.00	3,890.00	\$65,362.00	\$29,167.00	\$32,083.70	\$35,292.07	\$38,821.28	\$42,703.40	\$178,067.45
Approximate ROI in Year 6										
* Savings are based on assumed 10% annual increases										
**Cost to convert based on rough numbers. If an actual bid is requested we will take more detailed measurements.										

ADDENDUM 4
Yearly Reduction Estimates - Turf & Grass

Grass / Turf				
Year	Turf Area (Acres)	Reduction Rate (est)	Area Reduced (est)	Cumulative Area Reduced (est)
1	5.00	0.050	0.25	0.25
2	4.75	0.025	0.13	0.38
3	4.63	0.175	0.83	1.21
4	3.79	0.125	0.58	1.78
5	3.22	0.050	0.19	1.97
6	3.03	0.075	0.24	2.22
7	2.78	0.050	0.15	2.37
8	2.63	0.050	0.14	2.51
9	2.49	0.050	0.13	2.64
10	2.36	0.000	0.00	2.64
11	2.36	0.000	0.00	0.00
Total Reduction	2.36	0.527	2.64	0.00

ADDENDUM 5
Yearly Reduction Estimates - Trees & Shrubs

Trees		2%		3%		
Year	Number of trees	Reduction Rate	Trees Reduced	Number of trees	Reduction Rate	Trees Reduced
1	459	0.02	9	459	0.03	14
2	450	0.02	9	445	0.03	13
3	441	0.02	9	432	0.03	13
4	432	0.02	9	419	0.03	13
5	423	0.02	8	406	0.03	12
6	415	0.02	8	394	0.03	12
7	407	0.02	8	382	0.03	11
8	398	0.02	8	371	0.03	11
9	391	0.02	8	360	0.03	11
10	383	0.02	8	349	0.03	10
11	375	0.00	0	338	0.00	0
Total Reduction	375	0.18	84	338	0.26	121
Shrubs		4 % / 2 %		5 % / 3 %		
Year	Number of shrubs	Reduction Rate	Shrubs Reduced	Number of shrubs	Reduction Rate	Shrubs Reduced
1	1000	0.04	40	1000	0.05	50
2	960	0.04	38	950	0.05	48
3	922	0.04	37	903	0.05	45
4	885	0.04	35	857	0.05	43
5	849	0.04	34	815	0.05	41
6	815	0.02	16	774	0.03	23
7	799	0.02	16	751	0.03	23
8	783	0.02	16	728	0.03	22
9	767	0.02	15	706	0.03	21
10	752	0.02	15	685	0.03	21
11	737	0.00	0	664	0.00	0
Total Reduction	737	0.26	263	664	0.34	336