



## MEMORANDUM

**TO:** CITY COUNCIL

**FROM:** GEOFF ENGLISH, PUBLIC WORKS DIRECTOR

**BY:** RON SIMPSON, STREETS AND LANDSCAPE SUPERVISOR

**SUBJECT:** CONSIDERATION OF APPROVAL OF CITY LANDSCAPE AREA WATER CONSERVATION PROGRAM

**DATE:** MARCH 24, 2015

### RECOMMENDATION:

It is recommended the City Council approve the Parks and Recreation Commission's recommendation to implement water conservation and turf removal measures for the City's parks and landscape areas, with a modification to allow for approximately 4,000 square feet of turf at the Meadowlark Drive entrance to the Foremaster residential development on Oak Park Boulevard.

### IMPACT ON FINANCIAL AND PERSONNEL RESOURCES:

The City Council allocated \$200,000 from the City's Water Neutralization fund for the proposed irrigation modifications for City parks and landscape areas.

### BACKGROUND:

On January 17, 2014, Governor Brown issued a proclamation declaring a Drought State of Emergency for the State of California. Local urban water suppliers and municipalities are called upon to implement their local water shortage contingency plans immediately in order to avoid or forestall outright restrictions that could become necessary later in the drought season. The City implemented its contingency plan and permanent mandatory conservation measures in 2010. Additionally, a statewide water conservation campaign calls on Californians to reduce their water usage by 20 percent.

At the June 10, 2014 City Council meeting, staff presented comprehensive strategies to address the City's long-term water supply needs. These strategies included a list of water conservation programs including the funding of a project to implement water conservation changes to the City's parks and landscape areas.

On Wednesday, March 11, 2015, the Arroyo Grande Parks and Recreation Commission reviewed, made minor modifications and unanimously recommended approval of the proposed water conservation and turf removal measures for the City's parks and landscape areas.

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**ANALYSIS OF ISSUES:**

The Landscape Irrigation Retrofit Program for City-owned property is part of a comprehensive conservation program to reduce the City's water demand. Other City retrofit programs include the following:

Summary of Water Conservation Programs

- Plumbing Retrofit Program
- Cash for Grass Rebate Program
- Water Efficient Washing Machine Rebate Program
- Smart Irrigation Controller and Sensor Program
- Large Area Irrigation Retrofits
- Landscape Irrigation Retrofit Program
- Public Education Program
- System Water Loss Mitigation Project
- City Landscape Irrigation Retrofit Program
- Water Use Survey Program

The City Landscape Irrigation Retrofit Program provides funding for a comprehensive effort to reduce water use at City parks and landscape areas. The proposed program involves turf removal and irrigation retrofit projects. Turf removal areas are proposed for re-landscaping with drought tolerant landscaping or other landscaping alternatives.

Since 2009, the City has contributed to Large Area Irrigation Retrofits for commercial, institutional and homeowner association (HOA) water users. To date, the City has retrofitted the following properties:

- Oak Park Blvd Landscaping
- Woodland Pocket Park
- Strother Park
- St. Patrick's School
- Sunrise Terrace Mobile Home Park
- Paulding School
- Ocean View School
- Vista Del Mar HOA
- Wildwood Ranch HOA
- Five Cities Center
- Kmart Center
- Cemetery District
- Rancho Grande Park

The City Landscape Irrigation Retrofit Program is also important because beginning in FY 2014-15, water costs for City parks and landscape areas will be charged to the General Fund. Previously water costs were borne by the Water Fund. It is estimated that this program generates a water savings of approximately 14 acre-feet per year.

Staff has developed a list of proposed turf removal and irrigation modifications at each City facility. (Attachment 1) Arroyo Grande in Bloom has been consulted on the re-landscaping designs and final design plans and supports the proposed landscaping modifications.

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City staff recommends that the City Council approve one modification to the recommendation by the Parks and Recreation Commission. Staff recommends that approximately 4,000 square feet of turf at the Meadowlark Drive entrance to the Foremaster residential development on Oak Park Boulevard. A significant amount of turf is proposed for removal at this location however we recommend that turf remain at the entrances to help define and highlight the entrance to this residential development referred to commonly as the Foremaster Tract. Staff is concerned about the growth of vegetation that could potentially create a visual obstacle for motorist turning out of the development onto Oak Park Boulevard. In addition, residents from this development have expressed an interest in keeping some turf at this entrance to the development.

**ALTERNATIVES:**

The following alternatives are provided for the Council's consideration:

1. Approve the proposed water conservation and turf removal measures;
2. Direct changes to the proposed turf removal areas and irrigation retrofit projects; or
3. Provide staff other direction.

**ENVIRONMENTAL REVIEW:**

No environmental review is required for this item.

**ATTACHMENT:**

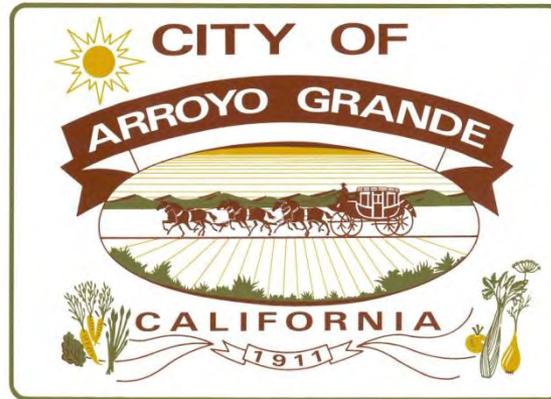
Proposed list of proposed irrigation modifications for City parks and landscape areas

**PUBLIC NOTIFICATION AND COMMENTS:**

The Agenda was posted in front of City Hall on Thursday, March 19, 2015. The Agenda and staff report were posted on the City's website on Friday, March 20, 2015. No public comments were received.

**Attachments:**

1. List of recommended turf removal and irrigation modifications at City parks and landscape areas.



# City of Arroyo Grande

## Public Works Department 2014 Water Audit of City Properties

# Berry Gardens



## **Recommendation:**

Remove all turf (2730 sf.) and replant with drought tolerant plants and a drip system. Convert basin spray heads to a drip system and plant more trees and shrubs.

**Current water use 10,395 gallons per month.  
After recommendation, around 5,790 gallons per month.**

# Council Chambers



## Recommendation –

Front – Remove turf (247 sf.) and replace with drought tolerant/low maintenance vegetation. Convert irrigation system to drip. Cover bare areas with bark. Current spray irrigation system uses **2,121 gallons per month**.

Rear area- Remove turf area (1000 sf.) and replace with decomposed granite. Install picnic tables.

## Current irrigation inventory

Front – Station # 1 – 4 H, 10F sprays  
11 min, 4 days

Turf 19'x13'

Station # 2 - 2H, 4Q, 15 F sprays  
12 min, 4 days

Rear – Station #1 3F, 5H, 15F sprays  
35 min, 3 days

# Diana Place



## Recommendation –

Replace existing heads with MP rotors.

Current water use 8,640 gallons per month.

After recommendation, around 6,048 gallons per month.

## Current turf irrigation inventory

Station # 1 4Q, 2H, 2F 25min, 3d

Station # 2 3Q, 3H, 1F` 25min, 3d



# Dower Park



## **Recommendation –**

Eliminate one sprinkler head in corner behind sign and replace remaining sprinkler heads with MP rotors. Adjust to appropriate moisture.

**Current water use 7,430 gallons per month.**

**After recommendation around 4,109 gallons per month.**

## **Current turf irrigation inventory**

8H

30'o.c.

45 min, 3d

# Fire Station



## Recommendation –

Spray out and remove (1315 s.f.) of turf. Replace existing spray heads in turf with MP rotors. Replant turf areas with drought tolerant plants and 6” cobbles. Station # 4 would need to be converted to a drip system. The area in front of the sign can be cobbles, matching the entrance to the Miner’s center. Plant various succulents similar to what is planted on the bridge at Tiger Tail.

**Current water use 26,729 gallons per month.**

**After recommendation, around 13,653 gallons per month.**

## Current turf irrigation inventory

Station # 3	6F, 25H	18’ o.c.
Station # 4	19H	

# Foremaster

## Recommendations –

**Parks and Recreation Commission**– Remove all turf (14500 s.f.) from Foremaster tract and replace with drought tolerant/low maintenance shrubs and trees. Something that seasonally flowers, similar to Poplar basin along Courtland Ave... Convert irrigation to drip. Provide a DG driveway for the Utilities Department for well #9. Bark between plants.

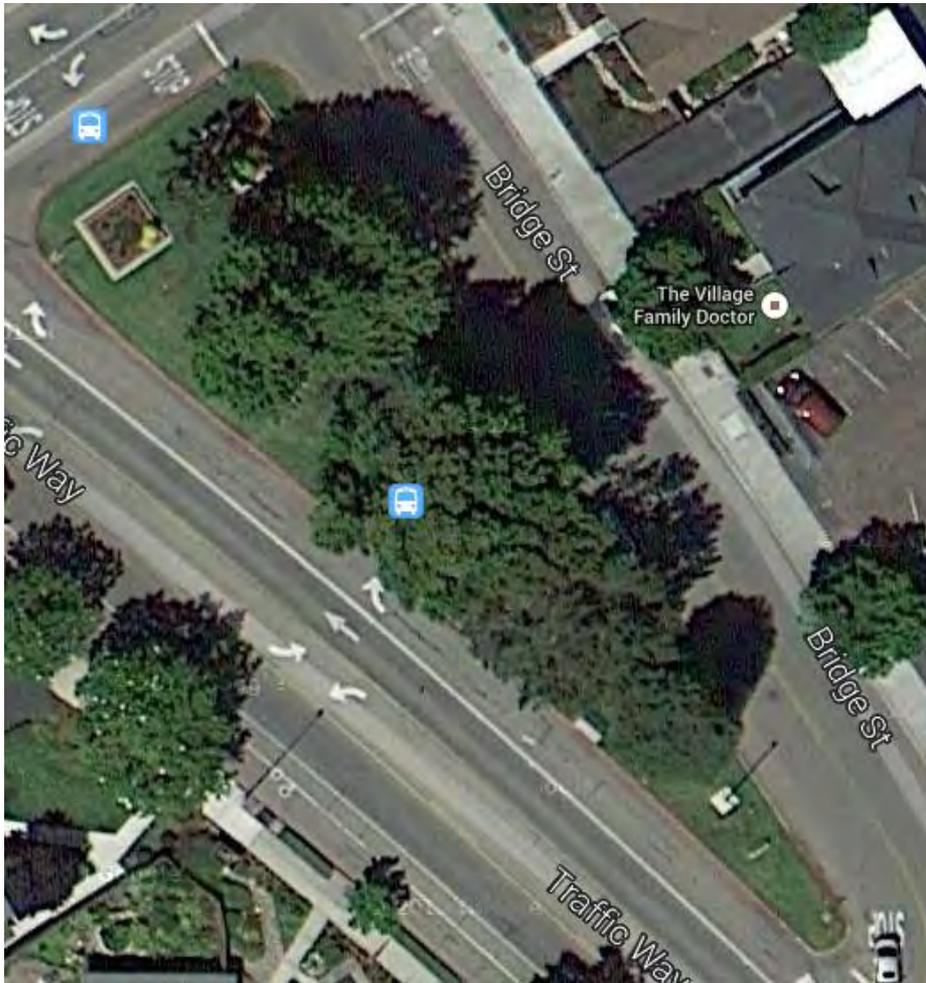
**PW Staff**– Same as the above recommendation except leave a small turf area on either side of the entrance to the neighborhood. Convert the remaining heads to MP rotors and adjust to optimum moisture. Current gallons per month **43,382**. Would expect a saving of about 18,000 gallons a month after conversion.

### Current irrigation Head inventory

STA #1	9 PGP's	16' O.C.
STA #2	22 sprays	15' H
STA #3	32 sprays	4Q, 23H, 5F
STA #4	13 PGP's	22' O.C.
STA #5	12 PGP's	25' O.C.
STA #6	26 sprays	2Q, 23H, 1F 12' O.C.



# Hart-Collet



## Recommendation –

Remove every other sprinkler head around the curb edge (22 heads) and replace with MP 3000 rotors. Replace center heads (17 f) with MP2000. Adjust time for appropriate moisture

**Current water use 62,049 gallons per month.**

**After recommendation, around 37,732 gallons per month.**

## Current turf irrigation inventory

Station # 2	5F, 26H
	25m, 4d
Station # 3	12F, 18H

# Kingo Park



Remove turf from parkways (station #1 and #2). Convert to drip for existing trees and new shrubs. Install DG along parkway. Remove turf behind fountain between concrete and wall (station # 9). Convert station #4 to MP3500 rotors. Total potential water savings of up to **39,413 gallons per month** minus whatever emitters are used for new plants and existing trees.

## Current irrigation inventory

Station # 1	35 heads			
Station # 2	33 heads			
Station # 3	4 heads	I25 orange		
Station # 4	7 heads	35' o.c.	I25 orange	
Station # 5	4 heads		I25 orange	
Station # 6	drip –		fountain and sign	
Station # 7	3 heads		I25	35'-40'-50'
Station # 8	5 heads	44' o.c.	I25 orange	
Station # 9	17 heads	2F, 9H, 6Q		
Station # 10	2 heads		35 o.c.	I25 38ft
	wall			
Station # 11	5 heads	44 o.c.	I25 orange	

# Loomis



## Recommendation –

Remove turf (1070 sf.) and plant with drought tolerant plants (similar to village entrance at Shell station). Provide drip to existing trees and new plants. Bark in between plants.

**Current water use 5,364 gallons per month.**

**After recommendation, around 1,900 gallons per month.**

## Current turf irrigation inventory

Station # 1 1F, 10H, 6Q

15 min, 3d

# Newport Ave.



## Recommendation –

Spray out and remove turf (5160 sf.) and install a drip system. Plant with various drought tolerant plants and ground cover. Chip open areas with chips from corp. yard.

Replace older leaking Toro 600 stream sprays and PGP's with MP 3000 rotors.

**Current water use 17,718 gallons per month on turf area**  
**After recommendation, around 10,630 gallons per month.**

## Current turf irrigation inventory

Station # 2	6F	15min, 3d
Station # 3	6H, 1Q	
Station # 4	6F, 7H	

# Old City Hall



## Recommendation –

Convert existing spray heads on larger lawn to MP 1000 rotors.

Completely remove turf in both small areas. Add drought tolerant plants and convert to drip.

Potential water savings of 3,154 gallons per month

## Current turf irrigation inventory

Station # 2 3H, 4Q

30x8 and 11x21

# Olohan Alley



## Recommendation –

Convert Kiwanis lawn and Mason St lawn to MP 1000 rotors. Remove turf at Bridge St entrance and fill with DG. Existing tree has a root zone watering system already in place. These three turf areas currently use **19,974 gallons per month**. If converted, usage should drop to about **9,472 gallons per month**. A savings of up to **10,502 gallons per month**.

## Current turf irrigation inventory

Mason bridge lawn	3F, 4Q, 6H	7m, 4d
Bridge St. lawn		1F, 4Q, 4H
	6m, 4d	
Kiwanis lawn		3F, 4Q, 4H
	10m, 4d	
		1F, 2Q, 6H

# Oro Park



## Recommendation –

Take out 16'x10' triangle of turf (80 sf.) along drive way and replace with concrete. Change out all heads to MP 3000's rotors. Cap and remove every other spray head. Adjust time for moisture control/optimum watering.

**Current water use 16,486 gallons per month.  
After recommendation around 10,500 gallons per month.**

## Current turf irrigation inventory

Station # 1	1F, 3H, 1Q	
Station # 2	1F, 5H, 1Q	
Station # 3	7H, 3F	15' o.c.

# Parkside Park



## **Recommendation –**

Convert all heads to MP2000 rotors. Eliminate Station # 3 (500 sf.) of turf and replace with DG or bark. Adjust watering time for optimum moisture.

Eliminate all irrigation inside of fence area around pond. Remove red fescue grass outside of basin and replace with drought tolerant plants and convert to drip.

Current water use is 28,583 gallons per month. After conversion 15,720 for a potential savings of 12,862 gallons per month.

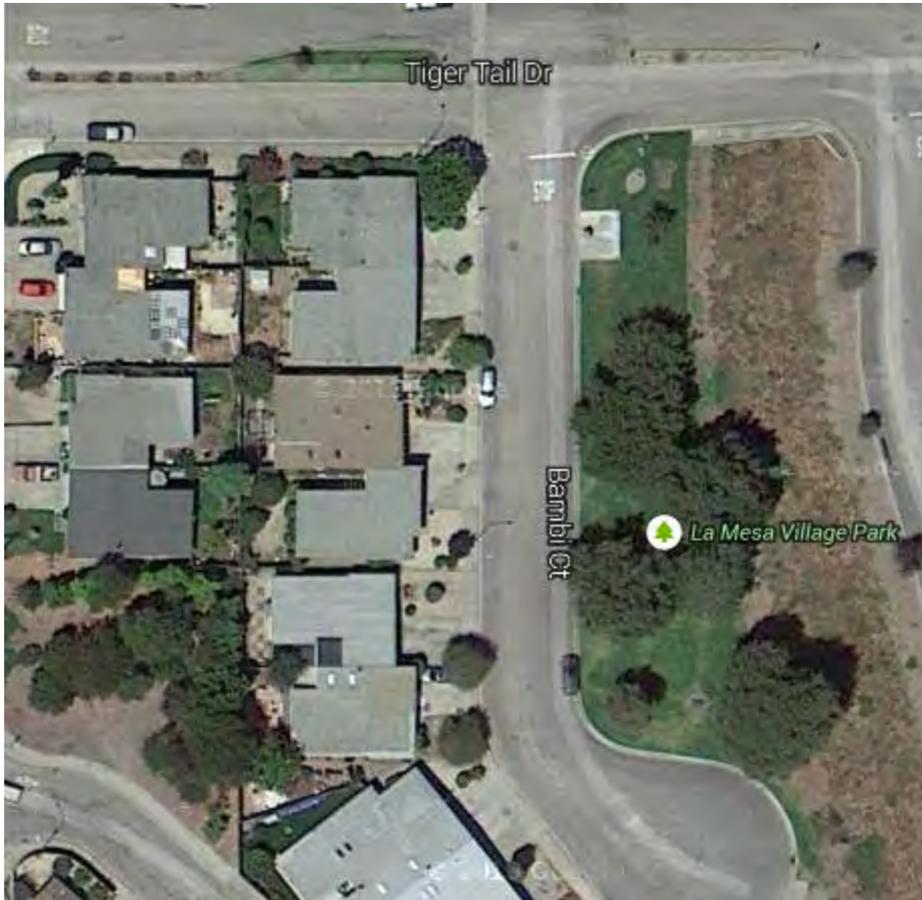
# Parkside Park



From this  to this 



# Tiger Tail Park



## Recommendation –

Remove turf (825 sf.) on island and replace with plants growing on the rest of the planter. Extend existing drip system. Remove south side of station # 2 and under Oak tree (1120 sf.) and replace with DG. Replace existing spray heads with MP 2000 and MP 3000 rotors. Full heads can be replaced every other one. Some of the half heads on curb can be removed because of overlap.

**Current water use 50,224 gallons per month.  
After recommendation, around 38,834 gallons per month.**

## Current turf irrigation inventory

Station # 1	8H	
Station # 2	11H, 8F	22 ft. o.c.
Station # 3	24F, 12H	

# Woodland Dr.



## Recommendation –

Remove a 6' collar of turf (3342 sf.) around the whole perimeter of the park area. Replace removed turf with compacted DG and eliminate 2 sprinkler heads in corners. Move existing heads to the new edge of the turf. Woodland Park has had issues of bad coverage because the heads were improperly spaced. So the park has had to be over watered to get uniform moisture and an even green appearance. This will solve the issue.

**Current water use 6,579 gallons per month. (March – October)**

**After recommendation, around 4,276 gallons per month.**

## Current turf irrigation inventory

Station # 1 3F, 2Q, 10H

38' oc.

PGP#4 nozzles

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