

**MOORPARK CITY COUNCIL
AGENDA REPORT**

TO: The Honorable City Council

FROM: Jeremy Laurentowski, Parks and Recreation Director

BY: Jessica Sandifer, Senior Management Analyst 

DATE: October 14, 2015 (CC Meeting of 10/21/15)

SUBJECT: Consider Update on City's Water Conservation Efforts

BACKGROUND

On July 1, 2015, staff presented the Drought Action Plan (DAP) to the City Council for adoption. The DAP outlines various actions the City will take to meet the State Water Resources Control Board (SWRCB) mandated water conservation reduction target of 32%. The DAP not only outlines how the City should conserve water within City operations but also how to promote water conservation City-wide.

DISCUSSION

The purpose of this report is to update the City Council on the status of various action items that have been implemented following the July 1, 2015 approval of the DAP.

STATUS: Action Item A.2.a - *Turf Conversion Projects (Parks)*

Phase I of the turf conversion projects at the City's parks has been completed, with the exception of Miller Park and College View Park. The turf areas outlined in the DAP have been removed and replaced with bark mulch, and the irrigation systems have been modified to ensure that the trees get supplemental water as needed to maintain their health. The total acreage of turf removed is approximately 19.36 acres, representing 37% of all the turf acreage in the various City parks. Miller Park and College View Park only need bark mulch installed to complete this phase of the work.

Due to the forecasted El Nino weather pattern expected to hit Southern California during the winter, staff is taking precautions and preparing measures to ensure that the newly placed bark mulch does not migrate offsite. For instance, drought tolerant plant material is being installed on slope areas and in parkways adjacent to sidewalks and streets. In

addition, area drains are being installed with cobble to act as a barrier, while allowing storm water to migrate into the drainage structures. Staff is also stocking up on erosion control devices, such as straw waddle and sand bags in case extreme weather necessitates the installation of this material.

Phase II of the turf conversion project consists of replacing the converted turf areas with drought tolerant and/or California native plant species, or other recreational amenities. In addition to the plant material already installed to prevent erosion and minimize storm water concerns, staff has had an opportunity to initiate two volunteer projects that consisted of planting California native plant species to start this process. On September 12, 2015 thirty-eight volunteers planted 175 shrubs at Glenwood Park and on October 10, 2015 six volunteers planted ninety shrubs at Tierra Rejada Park. Volunteer Day is a program that was initiated by the City's recreation division. The program's objective is directed at engaging the teen population, however, all individuals are welcome and anyone may sign up to participate in this program. The next Volunteer Day is scheduled at Country Trail Park on November 4, 2015.

Staff has not begun the process of preparing options for recreation amenities within the converted turf areas for review by the Parks and Recreation Commission or the City Council. Staff will prepare a series of options for each park prior to the future development of these areas.

STATUS: Action Item A.2.b – *Landscape Maintenance Districts and City Facility Landscape Renovations*

The turf conversion in the LMD zones is scheduled to begin at the end of October. Because the turf conversion activities in these areas will be the most noticeable, staff has prepared and placed signs in LMD zones around the City, so that the public can be made aware of the pending water conservation activities. As with the parks, all of the water has been turned off to the affected areas and irrigation will be modified to ensure the health of the urban forest.

Staff's preliminary estimate for the Phase I work in Zones 7, 15, and 22 was \$559,000 or approximately \$2.15/ sq.ft. Initially, the higher cost of the turf conversions in these LMD areas was due to the desire to fully remove the turf and several inches of subgrade below the turf so that the mulch can be installed level with the surrounding finished surfaces, such as curbs and sidewalks. In consideration of time and financial constraints, staff modified the Phase I scope of work to include killing the grass and allowing the dead grass to remain in place, modifying the irrigation so that only the trees are watered, and placing bark mulch only around the trees. The modification to the Phase I scope of work allowed the City to realize significant financial and water savings. The dead turf and associated subgrade will be removed as a part of the larger renovation projects completed in Phase 2 of this work.

Staff's original concept was to remove all turf and high water use landscaping, such as red fescue, in all LMD zones. However, due to the costs associated with these removals, and the need to finalize the landscape plans for certain LMD areas, such as the Tierra Rejada Road corridor, the Phase I removals in several landscape maintenance districts are only partial turf removals, particularly LMD Zones 2, 5, and 10. The turf removals at the remaining City facilities included 100% of the turf area.

It should be noted that several improvement projects were included in the Phase I work. A portion of LMD Zone 12 includes the median islands on Tierra Rejada Road between Spring Road and Hwy 23. Due to the excessive irrigation runoff from the overhead spray irrigation system and the restrictions imposed by the SWRCB, staff is replacing the spray irrigation system with a drip irrigation system. In addition, several areas of red flax have declined due to a localized rat infestation. This is the second occurrence where rats have been an issue in this area. Staff will be replacing the flax with *Rhaphiolepis i. 'clara'*, a moderately drought tolerant plant that is consistent with the streetscape design within LMD Zone 12. The rats have only infested the red flax, as the plant material is dense and appears favored by the rats for burrowing and nest making. Staff believes that the change in plant type will eliminate the problem. In addition, staff recommends installing a drip irrigation system and replacing the turf along Poindexter Avenue in LMD Zone 16 also with *Rhaphiolepis i. 'clara'* to maintain consistency with the existing plant material on Poindexter Avenue. The turf conversion at the Ruben Castro Human Services Center includes the installation of decomposed granite in place of the turf and the turf conversion at the Civic Center includes the addition of several trees within the parking lot area and the installation of wood chips. The City Council approved this work on August 19, 2015 and staff anticipates completing Phase I of the turf conversion in the LMD's by the end of November.

Phase II of the landscape renovations is underway. Staff is preparing Requests for Proposals for Landscape Architects to prepare plans for the replacement of the removed landscaping with drought tolerant and low water use plants.

Staff directed that all water be turned off at the areas proposed for future turf conversion so that water savings can begin immediately, with the exception of LMD Zones 2, 5 and 10. As discussed during previous City Council meetings, the predominant tree within these LMD zones is the Coast Redwood, which requires a substantial amount of supplemental irrigation water to thrive. Due to the fact that many of these trees are already exhibiting health issues due to environmental stress conditions, staff did not recommend further reducing the irrigation water within these LMD zones until a plan has been developed to renovate the Tierra Rejada Road corridor, and a supplemental irrigation system has been designed for the existing redwoods. However, staff is confident that the trees within the remaining LMD areas will not decline due to the elimination of supplemental irrigation water.

Conclusion:

To date, staff's efforts in implementing the DAP have yielded encouraging results. Staff has received a summary and comparison of all the City's water accounts from Ventura County Water Works District No. 1 (VCWWD). The results of Action Items A.2.a and A.2.b has enabled the City to realize a 53% reduction in water use for City parks, facilities, and landscape areas between the months of June through September, 2015, as compared to the water use during the same billing period in 2013. This equates to savings of 64,591 hundred cubic feet (HCF) of water or 48,314,068 gallons. As a reminder, in response to the Governor's April, 2015 Executive Order, the State Water Resources Control Board (SWRCB) has mandated a water conservation reduction target of 32% by February, 2016. To date, the City has exceeded the conservation goal.

It should be noted that Villa Campesina and Arroyo Vista Community Park (AVCP) utilize well water and are not subject to the 32% reduction goal mandated by the SWRCB, and therefore were not included in the DAP. However, as a reminder, in 2014, the Fox Canyon Groundwater Management Agency (FCGMA) adopted Emergency Ordinance E (Ordinance), which established Temporary Extraction Allocations (TEA) based on average annual reported extractions. The Ordinance called for a phased reduction in groundwater extractions of 20% beginning on July 1, 2014. If the City failed to reduce their groundwater extractions by the prescribed amount, they will be subject to an extraction surcharge for the amount of water that was extracted over the TEA. The first reduction reduced well water extractions by 10%. Further reductions of 5% have occurred every 6 months, arriving at the full reduction of 20% in January 1, 2016.

The City of Moorpark's TEA was established at 66.0 acre feet of water, resulting in a ground water allocation of approximately 53 acre feet in 2016 for operations at AVCP. The average well water use during a normal year is approximately 72 acre feet/year. However, over the last several years, the City used approximately 100 acre feet of water to irrigate the sport fields at AVCP due to turf renovation practices. In order to achieve the reduction goal mandated by the Ordinance, the City would have to reduce water use at AVCP by approximately 50%.

In July, 2015, staff received a water use summary from FCGMA and has had an opportunity to compare the City's water use from January through June of 2015 to the same billing period in 2014. To date the City has reduced well water use at AVCP by approximately 60% and has exceeded the well water extraction reduction target without incurring surcharges. Staff believes that a significant portion of the water savings is due to the variable frequency drive systems that were installed in 2014 to help alleviate many of the irrigation system inefficiencies at AVCP.

FISCAL IMPACT

The total cost of the Phase I turf removals at the City parks is \$123,169, plus a project contingency of \$18,476 for a total cost of \$141,645. The total estimated cost for the Phase I turf removals in the LMD's, including the additional work scope, is approximately \$309,625 which includes a project contingency of \$28,839. The total turf conversion Phase I project costs for both the parks and LMD areas is \$451,270. Due to transferring some areas of the work scope (i.e. turf and dirt removals) from Phase I to Phase II, staff was able to reduce the total Phase I project cost by \$1,653,104. Staff feels that the modifications allow staff to take a more careful and phased approach to the Phase II work scope in the turf conversion areas, potentially allowing for greater financial savings in Phase II.

As of the writing of this report, staff has not received official approval from the Metropolitan Water District (MWD) regarding the turf removal rebates. However, staff has been notified by MWD that they are including all parkways and streetscapes, including median islands, as one turf removal area, subject to the \$50,000 project cap. The results of this requirement suggests that there will be significantly less funding available to offset the costs of the turf conversion projects. The parks and miscellaneous City properties are still being treated as individual sites, so it does not appear that the rebate amounts for these areas will be reduced. However, staff has also been informed by MWD that the red fescue within the streetscape areas along Tierra Rejada Road does not qualify for turf removal rebates. Staff is aware of several homeowners associations that have received rebates for red fescue and has questioned MWD regarding their denial of the rebate applications. MWD has stated that each project is assessed on an individual basis and due to the high number of applications they have limited the release of turf rebates to only include projects that include the removal of turf grass.

Staff has also discussed the issue of the \$50,000 rebate cap for the streetscapes, as many of the streetscapes in the City are within a particular LMD and funded individually by the LMD assessment for a particular area, and not the General Fund. MWD agrees that this may be an area of contention and has allowed staff to file a formal protest regarding this matter. To date, staff has not received notice from MWD regarding this issue.

STAFF RECOMMENDATION

Receive and file report.