



ADMINISTRATIVE REPORT

TO: PARK AND RECREATION COMMISSION

FROM: PARKS AND RECREATION DEPARTMENT

PREPARED BY: MIKE BLONDINO, PARKS AND LANDSCAPE MANAGER

MEETING DATE: MARCH 5, 2014

SUBJECT: WATER CONSERVATION STRATEGIES

RECOMMENDATION

Provide staff input on recommended water conservation strategies resulting from anticipated drought conditions.

BACKGROUND

The lack of sufficient rainfall during the current and previous winter seasons has led the Governor and many water officials to declare a drought state throughout California. While the entire state is impacted, decisions about water use policies are often made at a regional level or by individual agencies that manage water distribution systems. The supplier of water for San Mateo is California Water Service whose service area also includes San Carlos and South San Francisco. California Water receives its supply of water from the City and County of San Francisco's Regional Water System which is operated by the San Francisco Public Utilities Commission.

In mid-February staff members representing the City Manager's office, Parks and Recreation, Public Works and Community Development departments met with representatives of the local Cal Water office to discuss the current state of water utilization policies. Although no formal action has been taken by the board of directors, the information provided by Cal Water staff is that customers will be asked to make a 10% voluntary reduction in water usage this year. It was noted however, that both the "10%" and the "voluntary" directives could change in the future if conditions warrant.

The two largest consumers of water within city operations are the Waste Water Treatment Plant and Landscape Resources irrigation. The Landscape Resources Division manages miles of irrigation pipe that is used to distribute approximately \$471,000 worth of water per annum to irrigate

athletic fields, passive turf, shrub beds, and median islands. Over the past several years, staff has actively monitored and managed water usage, mostly as an attempt to control the escalating cost. This coming year in particular with drought conditions taking place the Landscape Resources Division has developed a strategy for effectively managing water resources now and into the future. The strategy is based upon prioritizing park and landscaped areas to identify effective placement of water. This approach is looking to achieve three major goals:

-  To conserve water
-  To be budget conscious (as there has been a 50% increase in cost over the last 4 years)
-  To be more environmentally sustainable

The Landscape Resources Division has developed a comprehensive program for every landscaped area managed by the City. Every area of each park or island has been assessed and placed into a category that allows for water resources to be strategically allocated by priority. By managing water resources in this manner we hope to achieve a park system where the highest priority assets receive the most water.

Priorities have been established by considering how a space is used, its aesthetics and the value of the investment, i.e. its cost to renovate or replace in a different manner were it to be completely lost. High use areas like athletic fields, permit picnic areas, and programmable spaces will be maintained as green and healthy.

Ornamental turf, turf that is in a low impact area and/or passive turf will be maintained as yellow; grass will still be alive and watered but it will be stressed and not looking at its best throughout the summer season. Contoured edges on turf areas might show yellowing, as the irrigation system would be adjusted so that less water falls onto hardscape surfaces. Shrub beds will be maintained using minimal amounts of water to keep the plants alive.

The lowest priority is the areas defined in the brown category. These are areas where the turf is rarely/not used, areas where we feel there should not be turf, or areas that will return to full health in the autumn/winter time. Refer to Attachment 1 which lists various areas within each park and identifies the recommended levels of water usage by color.

Many patrons are not aware that most parts of Central and King Parks are irrigated through on-site wells. There is some minimal domestic water use for restrooms and drinking fountains at both parks; however the turf and shrubs are irrigated by well water. Staff is recommending applying similar water conservation practices in both parks. Staff is currently working with a consultant to do sonic testing of Beresford Park with the goal of finding whether there is a sustainable source of water to drill a well. We will know more about the likelihood of water on the site in the next few months, but if we are able to find a favorable well water source we would look to the City for future funding to drill the well and install the pump system. This would lessen our dependence on domestic water at that site making it more sustainable. In our February meeting with Cal Water we also had a preliminary discussion to explore other city owned land for placement of wells that

can be used by both of us. There has been some discussion at the City about upgrading the Waste Water Treatment Plant so that reclaimed water could be used for irrigation; however, any such supply is not anticipated in the immediate future.

Any future projects that have irrigation involved in areas we oversee will need to meet AB 1881 standards, which were set forth by the State of California several years ago as a way to conserve water, with those areas be audited for compliance upon completion. For example, when planting new shrubs in any area they must be drought tolerant with reference to the WUCOLS (Water Use Classification of Landscape Species) listing.

Staff will also continue to monitor water usage by actively undertaking repairs on broken irrigation lines, valves or heads when those are discovered. All of our large parks (and many smaller ones as well) have automated irrigation controllers (Calsense) that automatically control the flow of water based on weather conditions and will shut down the system and alert staff when there are line breaks. Staff is also undertaking renovations to irrigation systems within some median areas, replacing traditional spray heads with drip irrigation.

Several of the recent playground upgrades included integrated sand/water features providing opportunities for children to mix the two. Most water/sand features in the parks do not have a system to reduce the hours of use, so they will be turned off. The spray ground at Ryder Park is on a controller that can have the time or days reduced. The staff recommends that Ryder Park spray ground be turned on only for weekend and holiday use.

Golf Course Operations

With the exception of the greens areas, all the fairways, roughs and tee boxes at Poplar Creek are irrigated by on-site well water. Because of the need to maintain the quality and playability of the greens for both player satisfaction and revenue generation, staff does not anticipate any changes to water usage at the golf course.

Recreation Division

The Recreation Division oversees the operation of 6 Recreation Centers and 2 Pools. The Recreation Centers have water use for restrooms and cleaning purposes. These are difficult areas to minimize water usage as they have to do with sanitization of the facilities and hygiene safety of the patrons and staff. The two pools sites, which are open only in the summer, will continue to maintain their operations. Staff will be posting signs in the showers requesting that patrons limit the length of showers to help conserve water.

Impacts

The most significant impact will be a loss in park, median, or public facility aesthetics. In some cases patrons may be upset or concerned about the appearance of the areas. The City has begun to work on an overall citywide education program about the environmental and budget concerns of the Department and to date; most patrons are very understanding and supportive.

It is anticipated that with the actions outlined above we will be able to meet the 10% voluntary reduction target. If further conservation is needed (15% – 20%) we would then start targeting areas currently identified in the stressed or “yellow” category for additional reductions. Our goal is to minimize the complete loss of any landscaped area.

The positive impact is that the Department is taking a pro-active position around water conservation and resource management. By strategizing ahead of time we can plan to utilize this ever-diminishing resource to its maximum potential.

BUDGET IMPACT

With possible increases to water cost of 10% – 25% in the coming years from Cal Water the conservation plan could help off-set those.

NOTICE PROVIDED:

Regular Commission notification processes.

ATTACHMENT

Attachment 1: 2014 Landscape Resources Water Strategy

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ATTACHMENT 1

2014 Landscape Resources Water Strategy

Site	Notes
Bay Meadows Park - Soccer Field turf	
Bay Meadows Park - No mow turf	
Bay Meadows Park - Non soccer field turf	
Bay Meadows - Shrubs	
Bay Tree Park - Shrubs	
Bayside Joinville Park - Reserved Picnic area	
Bayside Joinville Park -Baseball/Soccer Field turf	
Bayside Joinville Park - Play area turf	
Bayside Joinville Park - Pool Entrance	
Bayside Joinville - Inside Pool turf	
Bayside Joinville Park - Off-Leash Area	
Bayside Joinville Park - Shrubs	
Bayside Joinville Park (Gayle's Lawn)	Chipped
Bayside School - Soccer Field turf	School District Water
Beresford Park - Upper Beresford	
Beresford Park - Chanteloup Field	
Beresford Park - Reserved Picnic areas	
Beresford Park - Turf by batting cage	
Beresford Park - 28th Ave to Comm Garden turf	
Beresford Park - Alameda Turf	
Beresford Park - Rec Center turf	
Beresford Park - Playground turf	
Beresford Park - Shrubs	
Borel/Shafter - Open Space	
Casanova Park - Main Lawn	
Casanova Park - Turf by restrooms	
Casanova Park - Shrubs	
Casanova water feature	Off
Central Park - Circle area turf	
Central Park-Fitzgerald Field	
Central Park: Japanese Garden	
Central Park - Laurel Avenue turf	
Central Park - 5th Avenue turf	
Central Park - 9th Avenue to Rose Garden	
Central Park - Playground turf	
Central Park - Shrubs	

2014 Landscape Resources Water Strategy

Site	Notes
City Hall - Ferns	
City Hall - Maple bed	
City Hall - Roses	
City Hall - Rhododendron	
City Hall - Other Shrubs	
City Hall - O'Farrell turf	
City Hall - 20th Ave turf	
City Hall - Back turf	
Concar Park - Turf	
Concar Park - Shrubs	
East Hillsdale Park - Turf	
East Hillsdale Park - Shrubs	
Fiesta Meadows Park - Soccer Field turf	
Fiesta Meadows Park - Perimeter turf	
Fiesta Meadows Park - Shrubs	
Fire Station 21 Shrubs	
Franklin Templeton - Turf	Perimeter 5-6' easement only
Gateway Park - Turf	
Gateway Park - Shrubs	
Gateway - 3rd and Humboldt Turf	Chipped.....Art piece going in there
Harborview Park - Baseball Field turf	
Harborview Park - Reserved Picnic Area turf	
Harborview -Shrubs	
Harborview water feature	Off
Hayward Park - Turf	
Hayward Park - Shrubs	
Hillsdale Library	TURF REMOVED-Tree to be planted
Indian Springs Park - Reserved picnic area turf	
Indian Springs - Shrubs	
Indian Springs restroom hill	TURF REMOVED-Shrubs added

2014 Landscape Resources Water Strategy

Site	Notes
King Park - Soccer/Baseball Field turf	
King Park - Reserved picnic area turf	
King Park - All passive turf/Monte Diablo	
King Park - Shrubs	

Lakeshore Park - Ballfield (infield and outfield)	
Lakeshore Park - Reserved Picnic area turf	
Lakeshore Park - Circle turf	
Lakeshore Park -Baseball practice area turf	
Lakeshore Fire station turf	TURF REMOVED/CHIPPED
Lakeshore Park -planted area near street	TURF REMOVED/CHIPPED
Lakeshore Basketball turf	

Laurie Meadows Park -Sports Field turf	
Laurie Meadows shrubs	
Laurie Meadows Park - Periphery turf	

Laurelwood Park -All turf	
Laurelwood Shrubs	
Laurelwood water feature	Off

Los Prados Park -Main turf	
Los Prados Park - Small turf	
Los Prados Park - Off-Leash Area	
Los Prados Park - Shrubs	
Los Prados North behind backstop	
Los Prados turf -fence apts on Nth side	Chipped
Los Prados South entrance parking lot turf	Chipped
Los Prados triangle turf/tennis courts	Chipped

Mariners Island Park - Baseball Field turf	
Mariners Island second field turf	
Mariners Island Park - Playground turf	
Mariners Island Park - Shrubs	

Paddock Park -Turf	
Paddock Park -Shrubs	

Parks/Corp Yard Turf	
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Parkside Aquatic -Turf	
Parkside Aquatic - Shrubs	

Ryder Park Reserved picnic area/playground	
Ryder Park - Turf from park towards St Tim's	
Ryder Park - Turf near gurgle and bridge	
Ryder Park - Shrubs	
Ryder Spray park	Reduced days/hours
Ryder water feature	Off

2014 Landscape Resources Water Strategy

Site	Notes
Senior Center -Turf	
Senior Center - Shrubs	
Shoreview Park - Ballfield Field turf	
Shoreview Park - Reserved picnic area	
Shoreview Park - Turf in front of Rec Ctr/BB court	
Shoreview Park - Shrubs	
Sunnybrae Park -Turf	
Sunnybrae Park - Shrubs	
Trinta Park - Ballfield (infield and outfield)	
Trinta Park -Passive turf	
Trinta Park - Shrubs	
West Hillsdale Park - Turf	
West Hillsdale Park - Shrubs	
Medians	
42 Avenue West (Harriet)	
3rd and Norfolk Palms	
3rd and Norfolk Street Trees	
42nd and El Camino	
Alameda 92N	
Alameda Trees and Shrubs S 92	
Aragon Median (Statue on El Camino)	Chipped. Water for Redwoods 1 per wk
Armada	
Baywood: 3rd/Parrot	
Baywood: Fairfax/Irving	
Baywood: Franklin/Fairfax	
Baywood: Georgetown/Virginia	
Baywood: Nevada/Kentucky	
Betina Shrubs	
Carmel Circle	
Clark/El Camino Lawn only	Chip turf? Water for trees 1 per week
Delaware - 16th Avenue to Concar	
El Camino - 2nd Avenue to 5th Avenue	
El Camino - 28th Avenue - 31st Avenue	
Hayward Island	
Hillside Court	
Humboldt/4th	
Indian Springs shrubs near restrooms	

2014 Landscape Resources Water Strategy

Site	Notes
Medians	
J Hart Clinton - grasses	
J Hart Clinton Trees	
Mariners Island	
San Mateo Village	
Saratoga /Concar/Delaware	
Sextant Ct	
Trader	
Viewridge	
West Hillsdale @ CSM	
Wooster	

Green - Days of watering depend on soil type and infiltration rate. This is how fast water will be absorbed into the root zone depending on the soil type.

Yellow - Allowable Stress....A percentage of ET that can still produce an acceptable plant quality. A department decision of adjustments that must be closely monitored by staff.

Brown- Managed between OWP and PWP. Occasional Wilting Point (OWP) Plants can still extract moisture from the soil. Permanent Wilting Point (PWP) Plants can no longer extract moisture from the soil.

The key to both Yellow/Brown is monitoring by staff at increase levels so that plant material is not lost.

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