



CITY COUNCIL STAFF REPORT

NEW BUSINESS

DATE: July 2, 2014

SUBJECT: DISCUSSION OF WATER CONSERVATION GOALS and FIVE NEXT STEPS TOWARD MAKING PALM SPRINGS A MODEL WATER EFFICIENT CITY

FROM: David H. Ready, City Manager

SUMMARY

In 2009, the City of Palm Springs set an ambitious goal to reduce overall water use by 20% by 2015 as part of its "Palm Springs Path to a Sustainable Community" plan. Progress has been made in recent years, particularly with the implementation of the City energy and water efficiency contract through the Chevron project which is estimated to deliver an estimated 25% water use savings for municipal uses which will help the City meet its five year target for water conservation. However, with water supplies declining and continuing drought conditions, we can and must do more to ensure an adequate water supply for future generations.

In response to the Governor's declaration of a statewide drought emergency earlier this year, Mayor Pougnet set an aggressive preliminary reduction target equal to 50 percent of City government water use and asked local citizens and businesses to reduce water use 30 percent by 2020. Additionally, he's calling upon water suppliers and consumers to commit to taking immediate water conservation actions.

A City Council Sub-Committee of Mayor Pougnet and Councilmember Lewin has met with a committee of the Desert Water Agency to begin discussing and considering ways the City and agency could work together to reduce water use. The Sub-Committee also tasked staff to take immediate steps to reduce City water use.

On May 7th, the City Council reviewed a summary of existing City water conservation efforts and several "best practices" from other cities. They directed staff to review the

City's water efficient landscape ordinance and make recommendations for increasing the levels of conservation.

A special joint meeting of the Planning Commission, Architectural Advisory Committee and Sustainability Commission was convened in mid-June to consider water use and conservation best practices. From that meeting, a "water task force" comprised of two members from each of those bodies, and the Parks and Recreation Commission was initiated to assist staff in formulating and reviewing plans to achieve the City's water use reduction targets. Additionally, we will request two members of the Palm Springs Neighborhood Involvement Committee to join this working task force.

With the Council Sub-Committee and Commission/Neighborhood Task Force now fully engaged, staff is seeking action to formally adopt water conservation goals and approve a set of five next steps toward making Palm Springs a model water efficient City. Specifically, while staff has already begun work on several of these areas, the step calling for revisions to policies, codes and ordinances requires focused time, resources and stakeholder input and review. Moreover, specialized technical knowledge and expertise may be sought out as we develop policy proposals.

Outlined below is a draft set of "five next steps" toward greater water conservation. At the City Council, staff will present a work plan including specific tasks, estimated timelines and deliverables to focus efforts in the near term.

RECOMMENDATION:

- 1) Direct staff as appropriate

BACKGROUND

The State of California began 2014 in the midst of what is being called the "worst drought in modern history". Due to continued dry local weather conditions, water supply reservoir levels across the state remain very low. Furthermore, the lack of rain has resulted in less water naturally replenishing the groundwater basins throughout the state. Moreover, depending on water from elsewhere to sustain us is expensive, unpredictable and unreliable.

Palm Springs and the surrounding watershed rely on artificial recharge from the Colorado River to maintain groundwater levels, either directly from the river or through trading State Water Project entitlements to obtain water from the river. However, even though the Desert Water Agency (DWA) and Coachella Valley Water District (CVWD) are legally entitled to the Colorado River through 2035, there is not likely to be enough water in the Colorado River to meet all of its entitlements. In addition, deliveries of

State Water Project water are not guaranteed. While 100% of the water requested in 2006 was eventually delivered, deliveries for every year since have been significantly reduced. For the first time in its 54-year history, the State Water Project will provide no water to urban residents or farmers this year.

Earlier this month, a U.S. Geological Survey report determined that as groundwater pumping has led to declines in the Coachella Valley's aquifer, the surface of the ground sank by between nine inches and 2 feet from 1995 to 2010 in parts of Indian Wells, La Quinta and Palm Desert.

The USGS study showed while the local water agency's efforts "are working to stabilize the land surface in that area continued monitoring is needed because pumping from wells is still leading to declines in groundwater levels elsewhere." The USGS report noted that groundwater levels continued to decline to record-low levels in some areas of the valley, and therefore, the magnitudes and rates of land subsidence documented by this study could be expected to continue.

An earlier 2013 Desert Sun analysis of records for water wells across the Coachella Valley found that water levels fell from an average of 104 feet below ground in 1970 to 159 feet below ground in 2013, an average decline of 55 feet. It noted that while groundwater recharge ponds have helped, water levels have continued to decline in some areas, most sharply in the middle of the valley where there are many grassy subdivisions and golf courses. Locally, the consequences of groundwater pumping and declines in the aquifer continue to raise concerns.

The Coachella Valley and Palm Springs water supply is vulnerable as long as it depends on replenishment from outside sources. Water conservation and reuse strategies ultimately reduce impacts on the entire system to achieve the most use from the least amount of water with the least impact.

In the Coachella Valley, as much as 80% of groundwater is used to irrigate landscaped areas. Appropriately, attention in recent years has focused on measures designed to improve efficiency in these irrigated landscapes.

The Water Conservation in Landscaping Act of 2006 (AB 1881, Laird) required adoption of a Water Efficient Landscape Ordinance for improving the efficiency of water use in new and existing urban irrigated landscapes in California by January 1, 2010. While Palm Springs elected in 2010 to adopt the state's Model Ordinance by statute, the City Council has requested staff - working with the appropriate Commissions and stakeholders to further reduce water waste, increase water conservation measures and reuse, examine best practices and assertively revise the current ordinance to exceed state and other local agency requirements achieving a higher water conservation goal for Palm Springs.

ANALYSIS AND RECOMMENDATIONS

Palm Springs has already taken a leadership position toward water conservation and reuse, including the following:

- \$1 million for water-saving projects in City facilities through a new performance contract with Chevron that reduces water use by up to 28 percent. Installation of new irrigation controls systems at most City properties connected to a wireless central computer allows for accuracy of data collection.
- Added two central irrigation monitoring stations that measure soil conditions including moisture, temperature, wind, evaporation and weather installed at Demuth and Victoria park in order to automatically align watering with weather conditions.
- New irrigation control valves installed through Chevron project sense and monitor water pressure and automatically shut off when there are pressure irregularities indicating vandalism, a break, a turnoff or a leak. The system will send an alarm to notify staff wirelessly of the exact location within seconds.
- Airport landscape plan will convert 50% of total turf to desert and native landscaping.
- \$150,000 in cash incentives for turf removal for fiscal years 2012- 2014 includes \$500 for single family and \$2500 other properties.
- Installation of new irrigation infrastructure to separate planting zones at major City buildings to ensure efficient watering.
- High efficiency dual flush and low flow toilet rebate and replacement program.
- Free Shower Timers and low flow faucet aerators provided for commercial and residential.
- Water efficiency projects covered in the City of Palm Springs PACE program.
- City joined the nationally recognized "Tap It" program to encourage businesses to provide tap water and to promote tapped water use.
- City webpage dedicated to providing water conservation tips, education and support materials for commercial and residential entities (including a 20 gallon challenge outreach program) at www.yoursustainableCity.com.
- The City joined the EPA Water Pledge program as a local government partner in 2009 and continues to seek federal resources to help reduce water use.

However, additional and more aggressive water saving City projects could include the removal of turf and conversion to water efficient landscaping for all City facilities, medians and parkways, reducing water use significantly while demonstrating leading water efficient landscape practices. To the extent feasible, conversion of City parkland to desert landscape starting with buffers adjacent to sidewalks and streets will further reduce water waste and increase efficiency.

City water use in 2013 totaled 1.1 billion gallons of water, with approximately 59 percent of that total being "reclaimed wastewater" which flowed from the sewage treatment plant to Demuth Park, the City-owned Tahquitz Creek Golf Course and other grassy areas.

The City contracts with Veolia Water North America to operate the City-owned, 10.9 million gallon per day (mgd) wastewater treatment plant, five pump stations and sewer collection pipelines. While many public facilities and the majority of the golf courses are connected to recycled water system, the current capacity and existing "purple pipe" infrastructure is not able to serve 100% of the recycled water needed to eliminate the use of groundwater for golf courses and public landscape irrigation in Palm Springs.

As recycling wastewater is an important water conservation strategy for Palm Springs (which significantly reduces the amount of potable water used for irrigation) a review of the potential for re-use of water from swimming pool drainage into the waste water system may also be a worthy strategy to increase the amount of recycled water.

At the same time, it is important to expand public education efforts to promote water conservation, raise awareness about sustainable supply and incentivize conservation behavior. Expanding water efficiency rebate programs and targeting rebates to work with the largest water users will help maximize return on investment.

Five Next Steps to Help Make Palm Springs a Model Water Efficient City

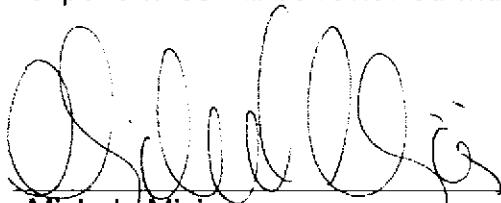
1. Re-Set Water Conservation Goal to Reduce City water use by 50% and reduce water use City-wide by 30% by 2020.
2. Implement model legislative/administrative water efficiency practices
 - a. Review and revise City policies, codes, ordinances and programs to allow for and incentivize best practices and innovation in water conservation.
 - b. Eliminate water waste at City owned facilities and model best practices by developing and implementing specific management plans to conserve water and increase usage efficiency in all City facilities and operations.
 - c. Prioritize implementation of projects and practices that improve water use efficiency for the City's largest consumptive uses – parks, golf courses and wastewater treatment.
 - d. Eliminate turf at City Hall by 2015.
 - e. Replace 100% of non-essential turf at City owned facilities, medians and parkways with desert efficient landscape.
 - f. Reduce turf in City owned parks.
 - g. Revise the water efficient landscape ordinance to prevent water runoff, reduce water use by at least 30%, incorporate a water efficient plant palette, increase re-use of existing water supply and incorporate a definition for water waste.

3. Maximize incentives and promote wise water use and conservation via public information and education.
 - a. Create a branded, centralized resource for one-stop access to water efficiency guidelines, water conservation news and information, regulations, rebates and discounts, water efficient plant list(s) and water conservation tips.
4. Engage large water users in long-range water resource planning and conservation.
 - b. Convene large water users, vendors and suppliers to commit to water efficiency goals and identify steps to reduce water use and increase re-use.
 - c. Allocate \$250,000 for water rebates and discounts focused on the reduction of water use among the largest water users to maximize ROI.
5. Reduce water waste, increase re-use and expand supply of recycled water
 - a. Strengthen water waste requirements and enforcement.
 - b. Examine opportunities and feasibility for water re-use including potential for requiring swimming pool drainage water to drain into waste collection system
 - c. Work with DWA to develop a pathway for connection of 100 percent of all golf courses and public facilities in Palm Springs to recycled water.

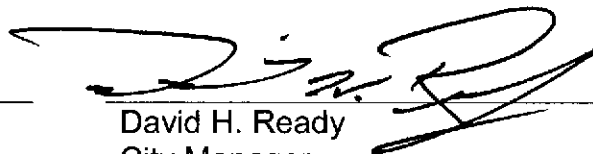
Staff will be providing a "work plan" which outlines these five next steps and requests City Council support and direction to continue working with the City Council Sub-Committee, and the Commission/Stakeholder Task Force to make final recommendations.

FISCAL IMPACT:

As recommendations are brought forward for City Council consideration, a cost analysis will accompany each suggested policy or program from both a City and individual resident perspective. Immediately, there may be an expenditure of under \$25,000 for expertise and technical services associated with the proposed work plan. Any such expenditures will be reviewed with the City Council Sub-Committee.



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