

Understanding the Varying Viewpoints of the Water Utility Provider and Landscape Contractor

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Introduction

Water agencies in the Western States typically experience more than a 200% increase in water use during the summer months due to landscape irrigation. Fostering effective partnerships between water purveyors and landscape contractors is critical to reduce demand of this resource. For many water purveyors, it remains difficult to get the landscape contracting community to participate in programs and support services targeted toward landscape water conservation. Conversely, although free rebate money and support services are available, many landscape contractors avoid working with their local water supplier – even though this could strengthen their water management skills and increase sales opportunities. Why is this occurring?

This paper explores the viewpoints, goals and objectives of each party and examines the common barriers, as well as avenues to cooperation. Specific examples are used that highlight the growth and success of the landscape water conservation programs at the City of Santa Rosa.

For this study, the region of surveyed water purveyors and landscape contractors included areas within the Greater San Francisco Bay Area. The region typically exemplifies a Mediterranean climate with hot dry summers and mild, wet winters. Rainfall amounts average 30” between November – April, while summer temperatures range from 70 – 90 degrees.

Methodology

In order to obtain viewpoints from the landscape contractor, a fifteen question survey was developed. Hard copies, including a postage paid, return envelope were mailed to 295 landscape contractors throughout the Greater San Francisco Bay Area. Forty surveys were completed. Fifty surveys were also sent out via e-mail to water purveyors throughout the Greater Bay Area. Nine purveyors responded with answers. Questions were targeted toward the large landscape (commercial) programs although some data does include residential landscape programs.

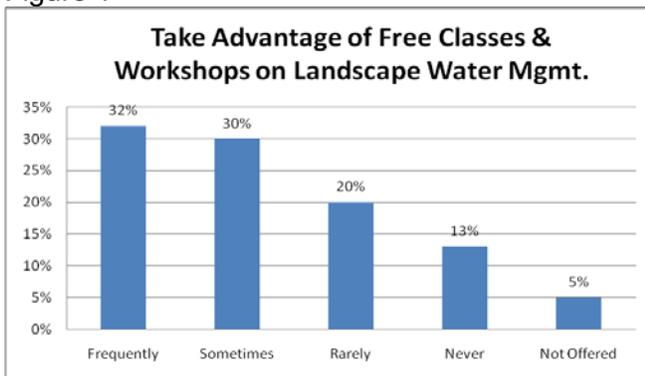
Results and Discussion

The landscape contractors who completed the survey represent a broad range of company size. Of the responding companies, 38% employ less than 5 people, 32% employ 5-25 people, and 30% employ 26 or more people. The water purveyor respondents included large water wholesalers and small to moderate water retailers. These respondents represent approximately 50% of all water purveyors throughout the Greater Bay Area and their corresponding geographical footprint.

The following results are calculated based on respondents who answered each respective question. Some questions allowed for multiple answers. Discussion points are provided to highlight learning opportunities:

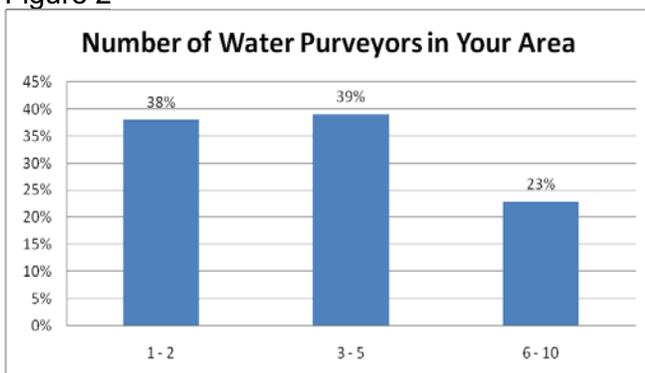
Of the landscape contractors who completed the survey, 62% attend free water management classes and workshops offered by the water purveyor while only 18% never attend (see figure 1). With adequate outreach and marketing efforts, water purveyors attract most of the landscape contracting community through offering educational events developed specifically for water management in the landscape. These events also provide an added opportunity to establish and strengthen relationships between the water purveyor and landscape contractor:

Figure 1



The Greater Bay Area is host to a large number of landscape contractors. Because of the relatively close county lines, even a small landscape maintenance contractor may service an area that encompasses several counties and multiple water purveyors. Of the landscape contractors who completed the survey, 62% have 3 or more water purveyors in their service area (see figure 2):

Figure 2



Having multiple water purveyors within the landscape contractor's service area demands more time on the landscape contractor's part in order to understand, track and implement the varying services and rebate programs offered by water purveyors. This potentially unbillable time could lead to a lack of participation by the landscape contractor (see Figure 5). Water purveyor efforts to create regionalized rebate programs could simplify the

compliance process which would decrease the time required by the landscape contractor and therefore increase program participation.

Of the landscape contractors who replied to the survey, 61% assist their customers in taking advantage of irrigation hardware rebate programs (see figure 3a); 52% stated that they take advantage of the turf removal rebate programs provided by the water purveyor (see figure 3b).

Of the water purveyors who replied to the survey, 67% offer a rebate for large landscape upgrades (see figure 4a) while only 33% offer a turf removal program (see figure 4b):

Figure 3a

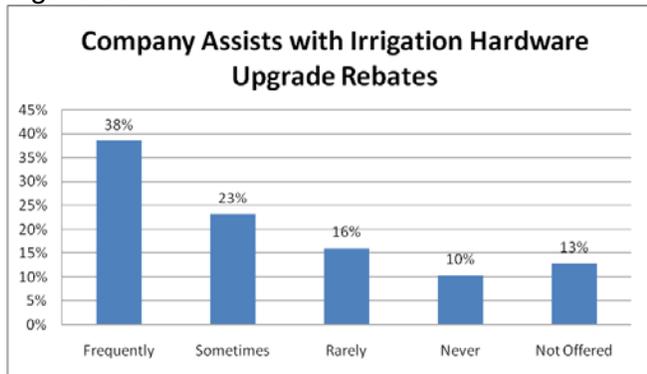


Figure 3b

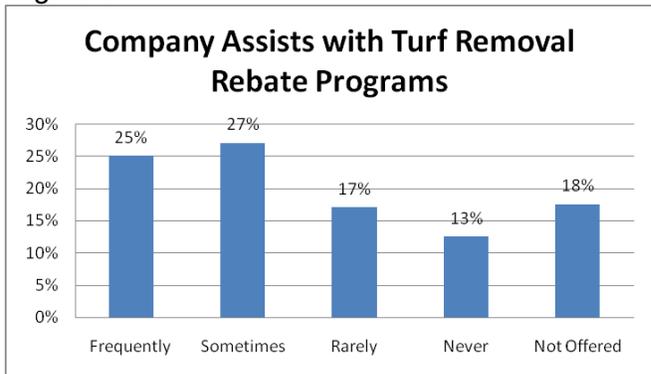


Figure 4a

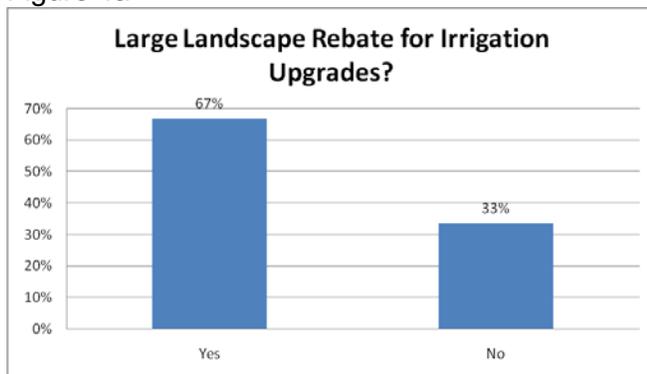
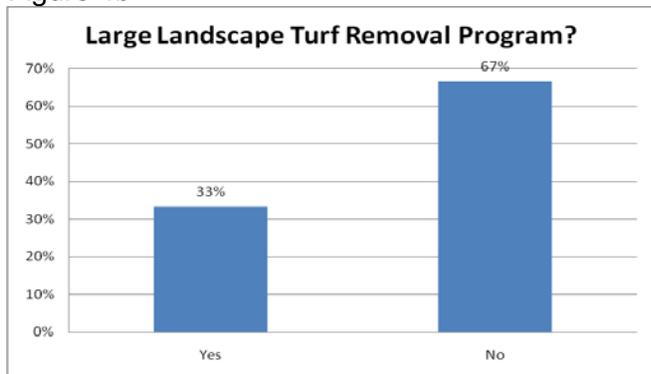


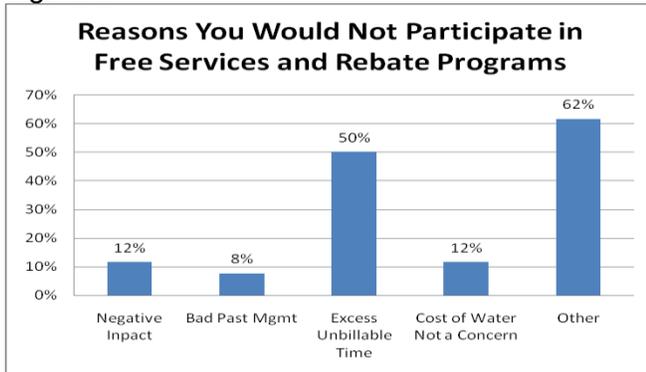
Figure 4b



Irrigation hardware rebate programs are both offered and taken advantage of the majority of the time. However, it is interesting to note that while there is a much smaller availability of turf removal programs offered by the water purveyor, over half of the landscape contractors are taking advantage of these programs. Implementing and marketing a turf removal rebate program is likely to increase landscape contractor participation. Additionally, early results from the City of Santa Rosa’s Green Exchange Program show that more cost-effective water savings can be achieved as a result of implementing a turf removal program vs. implementing irrigation upgrades.

The landscape contractor survey listed several reasons why landscape contractors would not participate in free services and rebate programs (see figure 5):

Figure 5



Unbillable time was the #1 reason why landscape contractors would not participate in free services and rebate programs. The less time-consuming that a rebate program can be in terms of contractor compliance, the more likely there will be landscape contractor participation. In addition, a landscape contractor may want to consider charging for their time to assist the customer in taking advantage of a rebate.

The most cited “other” category comment was that the customer was not willing to spend money on upgrades. In terms of the customer’s unwillingness to spend money on upgrades, any tool or educational service that the water purveyor can provide to assist the landscape contractor in illustrating the value of the investment in implementing landscape and irrigation upgrades will be of help to both the landscape contractor and the customer. An example of this type of tool will be displayed in the case study section.

Of the landscape contractors who replied to the survey, 45% reported that they spend 10% to 25% of their time training and implementing landscape water management practices (see figure 6a). Additionally, 46% of landscape contractors are using rebate programs and water use consumption analyses to sell extra work (see figure 6b). Extra work typically refers to any work that is not part of the regular maintenance contract. This usually includes irrigation upgrades, turf renovation and turf removal:

Figure 6a

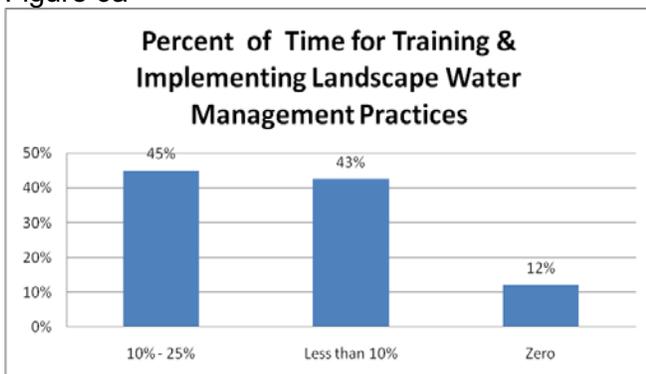
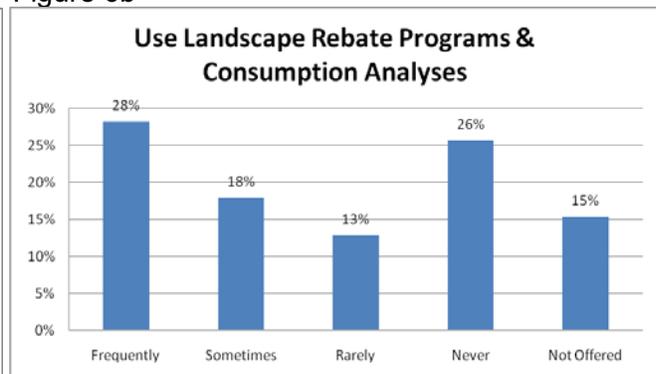


Figure 6b



Water management is gaining acceptance and momentum within the landscaping industry. Landscape contractors are beginning to commit company resources to training in water management as well as utilize their water purveyor(s) to increase business results.

Survey Summary

Based on these survey results, landscape contractors will participate more in services and programs offered by the water purveyor if: they know about the free classes and workshops that are offered on water management; the programs are designed to minimize time needed for compliance; both irrigation hardware and turf removal rebates are available; water consumption analysis tools are offered that assist the landscape contractor and their customers in measuring the investment value of implementing water conserving landscape renovation and irrigation upgrades.

Traditional water purveyor conservation programs focus primarily on ways to assist the water customer. In order to be successful, programs in landscape water conservation should also consider the landscape contractor. The following is a water purveyor case study that incorporates a programmatic approach which addresses both the water customer and the landscape contractor (see Table 1).

Case Study

Santa Rosa is located approximately 50 miles north of San Francisco in the County of Sonoma and has a population of approximately 158,000 people. There are a total of 1,832 dedicated irrigation meters and roughly 400 commercial mixed use meters within City limits. Santa Rosa water use reaches its peak during the summer months of June through September when half of water consumed is used to irrigate urban landscapes. Water use during the winter months averages 13 million gallons per day (mgd) while water use during the summer months increases to as high as 33 mgd. As a result, water use is the highest during the month of July and is considered to be the “peak demand” month.

The City of Santa Rosa (City) has implemented several policies and programs throughout the years as a way to focus on reducing peak demand and improve outdoor water use efficiency. In 2007, the City implemented landscape water budget based tiered rates. Budgets for all dedicated irrigation meters are calculated using landscape square foot measurements and real-time evapotranspiration (ET) data for the billing period. Tiered rates are based on the amount of consumption in relationship to the landscape water budget. Also in 2007, the City requested voluntary conservation due to supply impairment conditions. (This may have contributed to higher program participation rates.)

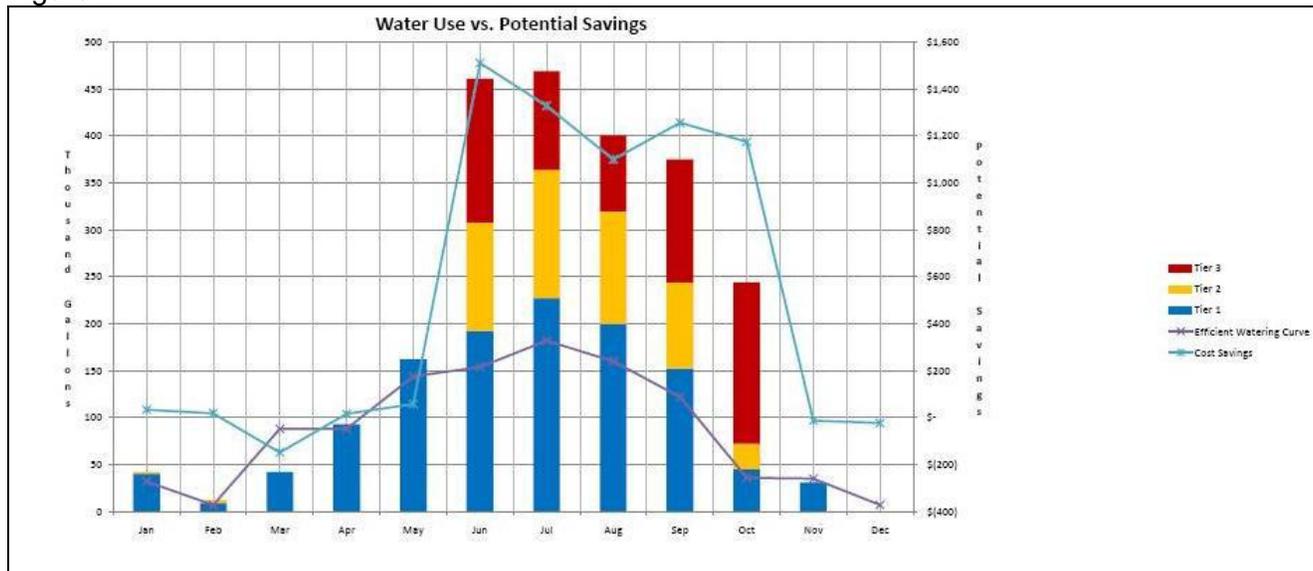
A rebate program called the Green Exchange was also implemented by the City in 2007. The program offers cash incentives for turf removal and/or irrigation efficiency improvements for residential and commercial properties. Both a pre and post inspection is required for program compliance. A rebate check is sent to the customer upon successful completion of the project. In prior City programs, a rebate was given after the customer had complied with a required amount of water consumption savings (i.e., irrigating below water budget) for a period of one year. This placed much of the responsibility and more investment in time needed for compliance on the part of the landscape contractor and water customer. The Green Exchange Program does not require a water savings requirement or a monitor period

in order to qualify for a rebate. Providing the money up front has increased program participation as compared to prior programs; which has also been validated by other water purveyors. Additionally, the pre and post inspection requirements serve as an opportunity for relationship building between the landscape contractor, their customer and the City's water conservation staff.

As part of an implementation plan to support the City's Water Waste Ordinance that was adopted in 1999, the City's Water Conservation Program developed a "Water Watch Patrol." In 2007, the City initiated the Water Watch Patrol in response to a request for voluntary conservation by the City's wholesaler, the Sonoma County Water Agency. While the service was created to identify and notify customers of water waste, it has proven to be an effective tool for identifying irrigation related water waste (which is almost always the source of the problem). While a report of water waste can be considered a "slippery slope" for the landscape contractor and water purveyor, it is the City's position to be supportive rather than punitive, even if the water waste is a result of excessive controller programming or a poorly maintained irrigation system. It is an opportunity to both establish a working relationship with the landscape contractor and to offer the customer a free irrigation audit in order to help eliminate the water waste. Any audit then serves a dual function of education and outreach, and as a pre-approval for participation in the Green Exchange rebate program. This has increased the number of irrigation audits performed and rebate program participation.

The City's Water Conservation Program has offered free large landscape audits since its inception. These audits are performed by qualified staff members who are all Certified Landscape Irrigation Auditors through the Irrigation Association. Many of the staff members have a strong working knowledge of irrigation product technology and can assist the landscape contractor and water customer with site specific recommendations. During the audit, a consumption analysis showing annual actual vs. budgeted consumption is provided and discussed. Potential savings that could be achieved by irrigating to budget is broken out by tier in a spreadsheet and graph (see figure 7).

Figure 7



Some additional landscape services offered by the City’s Water Conservation Program that have helped build a comprehensive landscape program include:

- Turf-Time lawn watering information. This information is updated weekly to reflect current lawn and shrub watering requirements for the Santa Rosa area, and information is available via a recorded phone message and a web page.
- Landscaper Training Program. The City co-developed the “Qualified Water Efficient Landscaper” program (QWEL). Designed to educate the professional landscaping community on landscape water management, this program is recognized by WaterSense as a water auditor course and is available in both English and Spanish (www.qweltraining.com).
- Workshops and classes on water management. Topics have included irrigation efficiency, Smart controllers, drip irrigation and low water use plant selection.
- Monthly water use vs. water budget information. This information is printed on each customer’s dedicated irrigation bill; referred to as a “report card.”
- High water use customer calls. Courtesy calls are placed to customers whose dedicated irrigation meter account shows excessive tier three consumption.
- End of Year analysis for dedicated irrigation customers. This analysis illustrates how much the site was above budget in gallons and dollars. A letter and chart is sent to each customer to encourage the customer to take advantage of the free audit service and invest those dollars in sustainable improvements.

Table 1 illustrates which party (water customer and/or landscape contractor) the City water landscape programs assist:

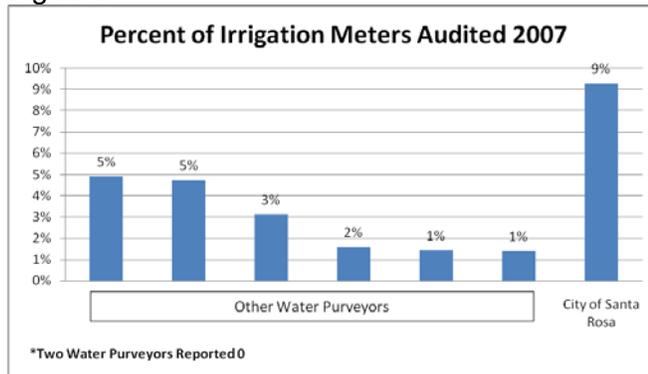
Table 1

Water Customer	Landscape Contractor
Turf-Time	Turf-Time
Residential Workshops	Contractor Workshops
Green Exchange Program	Green Exchange Program
Consumption Analysis	Consumption Analysis
Irrigation Audits	Irrigation Audits
Water Use Report Card	QWEL
High Water Use Calls	
End of Year Analysis	

The combination of rate structure, programs and services offered at the City are producing excellent results:

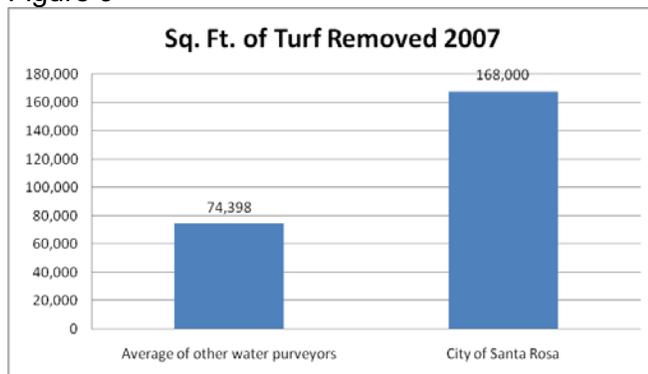
In 2007, the City's Water Conservation staff audited 9% of all dedicated irrigation meters. This is roughly 2 to 9 times the amount of audits that were performed in 2007 by other water purveyors in the surveyed area (see figure 8).

Figure 8



In 2007, the City's turf removal program resulted in the removal of 168,000 square feet of turf removed. The average square feet of turf removed by other water purveyors in the surveyed area was 74,398 (see figure 9).

Figure 9



Having real-time ET landscape water budget based tiered rates drives interest in the City's Water Conservation Program. A site specific landscape water budget allows an accurate analysis of water consumption and, as already illustrated, can show the potential cost savings as a result of irrigating to budget. This analysis, combined with the increase in water costs due to tier two and tier three consumption, has created more customer demand for programs and services.

Prior to the introduction of the tiered rate structure, the total number of large landscape audits averaged 15-20 per year. After the introduction of the tiered rate structure in 2007, 170 large landscape audits were performed by the City.

The success of the City's turf removal program illustrates the combined effect of the City's efforts to improve outdoor water use efficiency and design programs that attract both the water customers and landscape contractors.

Conclusion

Landscape water management is gaining prominence in the landscaping industry. In order for the landscape contractor to be successful, they need the technical water management skills and they also need to know how to sell water management and water conservation related landscape and irrigation upgrades. Time is money and increased sales drive success for their bottom line.

Landscape services and programs offered by water purveyors that take the water customer (decision maker) and the landscape contractor's paradigm into consideration will be most successful. Providing free rebate money up front and a rate structure to encourage the change will help transform the market. Creating regionalized programs will minimize the time needed for program compliance. Implementing a turf removal program will not only attract both water customer and landscape contractor participation, but also it is likely to achieve more cost-effective water savings than an irrigation hardware rebate.

All of this combined with outreach efforts designed to build supportive relationships with all stakeholders will provide a win win win combination. The customer is going to save money on their water bills and have a healthier landscape; the water purveyors will be saving water from unnecessary water usage, reduce peak demand and minimize potential runoff pollution from fertilizers and other contaminants entering into the storm drains; and the landscape professionals will bring a new revenue stream into their company while protecting the environment and a valuable resource.

Acknowledgements

Thank you to all of the landscape contractors and water purveyors who were kind enough to take the time to complete the surveys that were used in this report. Many thanks to Stacie Hatfield for her excellent assistance with the statistics and graphs and to Janette Morris for her help with final editing. A special thanks to Sean McNeil and Daniel Muelrath for their expertise, guidance and support with content review and refinement. Additional thanks to the following individuals: Randall Barron, Jennifer Burke, Gail Chavez, B Jay Turpel, Glen Wright and all of the City of Santa Rosa Water Conservation Interns.