

Regarding the proposed contract with the University of Arizona Cooperative Extension, Maricopa County, for implementation of AMWUA’s Smartscape Program and related landscape professional training and certification efforts

Background

In most areas of the U.S., irrigation of landscapes is the largest single category of average and peak water use in the urban environment, approaching as much as 80% of water consumed by the average single-family household. Water conservation programs have already achieved substantial results indoors through technology, regulations, standards, and educational efforts. For these reasons, AMWUA and its members often emphasize programs aimed at reducing outdoor water consumption. While individual member efforts in this area primarily target the homeowner, AMWUA’s Regional Conservation Program places its focus on landscape and nursery professionals, trades whose influence reaches across municipal boundaries. These professionals are often responsible for the design, installation, and maintenance of both residential and commercial landscapes. Even when they are not directly responsible for a landscape, they are perceived as trusted experts and are sought out for advice.

According to Freeman Associates *Action Plan for Sustainable Practices – Implementation Strategies for the Residential and Business Sectors in the Greater Toronto Area* (November 2006), these stakeholders are a key component of any initiative targeting the residential landscapes – they know the market, have direct, one-on-one contact with customers, and reach a large portion of the target audience. They are an excellent resource for providing first-hand knowledge directly to the consumer, and they have the potential to significantly influence landscape material selection and water management.¹ In June 2007, the California Urban Water Conservation Council released the *Statewide Market Survey: Landscape Water Use Efficiency Final Report*. Among the report’s recommendations was to provide targeted training to landscape professionals. The authors noted that a two-step flow of communication (such as providing information to the landscaper who in turn influences the homeowner) may be a more effective way of disseminating conservation information in a way that will result in a change in behavior.

Since the early 1980’s, AMWUA’s Conservation Committee has engaged the landscape industry, cultivated partnerships with trade associations, and built relationships with leaders in the industry. Working with industry representatives, the University of Arizona Cooperative Extension, and others, AMWUA develops, promotes, implements, and sponsors training and supporting materials that educate landscape professionals regarding sustainable landscaping in our desert environment and the vital role they play in the management of our water resources.

¹ According to “Action Plan for Sustainable Practices – Implementation Strategies for the Residential and Business Sectors in the Greater Toronto Area,” Freeman Associates, November 2006, residents rated landscape designers, architects, and contractors as their most trusted source of advice on landscape design and maintenance (49%), followed by nursery/garden center staff (23%).

As other agencies are beginning to identify the potential of such programs, AMWUA is working to strengthen and grow these programs to meet the current and future needs of member water management efforts. The Regional Conservation Program Five-Year Plan includes goals to expand proven training programs, to sponsor nationally recognized advanced training and certification to the Valley, to continue to develop and provide intermediate-level training, to more aggressively promote the benefits of training and certification to the industry, and to create consumer demand for trained and certified landscape professionals. These efforts are also of significant interest to AMWUA's partnering agencies and professional associations.

In order to continue to maximize the effectiveness of limited AMWUA and member city resources, particularly staff time, the AMWUA Conservation Committee proposes to contract with Cooperative Extension in Maricopa County to accomplish the aforementioned goals, making the most efficient use of resources and partnerships, advancing the regional program, and increasing support of individual member conservation efforts.

Cooperative Extension is well-positioned to deliver Smartscape training and related programs. It is the Cooperative Extension's mission to bring research-based information into communities to educate and solve local problems. For 80 years Extension has been delivering educational programs to the people of Arizona. In the past few years, in Maricopa County, Cooperative Extension has placed increasing emphasis on urban landscapes and water management. In 2008, a Water Resources Extension Agent was hired to address urban water management issues in Maricopa County. As University of Arizona faculty, this Extension Agent will oversee the Extension staff implementing the Smartscape program. The Extension Agent will also be responsible for working with AMWUA to develop an advisory committee that will guide the programming in coordination with Cooperative Extension faculty and staff.

There will still be involvement required of AMWUA staff (including contract management, program oversight, and serving in an advisory capacity) and member and partnering agency staffs (serving in an advisory capacity and as speakers, in some cases); however, placing the day-to-day implementation of the Smartscape program in the hands of Extension will allow AMWUA staff, member city staff, and partnering staffs to develop other aspects of the regional program without sacrificing existing program elements that are highly visible and effective. This includes accomplishing additional goals identified in the Five-Year Plan, including ensuring that Irrigation Association (IA) training and certification continues to be offered in the Phoenix area affordably, promoting landscape professional training and certification programs to the industry, creating consumer demand for trained and certified landscape professionals, and identifying and implementing new regional conservation efforts.

The proposed contract with the Cooperative Extension involves four elements of the Regional Program's landscape professional training and certification focus: Smartscape, Advanced Smartscape, Irrigation Association training and certification, and promotional efforts.

Element 1 – Smartscape

Smartscape is a comprehensive, twenty-hour training program that instructs landscape professionals in the fundamentals of design, installation, irrigation, and maintenance of low-

water-use landscapes. The need for efficient water use, the regulatory environment, methods of water conservation in the landscape, and the principles of Xeriscape are key components of the program.

Developed collaboratively by Tucson Water, AMWUA, the University of Arizona Cooperative Extension, the Arizona Nursery Association, the Arizona Landscape Contractors Association, and industry representatives, Smartscape was launched in both the Tucson and Phoenix area in 1994. Since that time, more than 800 landscape professionals have become certified Smartscape graduates in the Phoenix area, influencing both commercial and residential outdoor water use through their practices and the information and practices they transmit to their colleagues and customers. Smartscape has become a recognized certification program within the state and is valued by the industry and increasingly by the public. Several other areas in the state are investigating the program, and it has drawn significant interest from other states, including Nevada, seeking to implement similar efforts.

In the Phoenix area, Smartscape is currently coordinated and administered by AMWUA staff. Member city staff and Cooperative Extension staff assist on-site at workshops and present a number of the sessions. SRP provides facilities for the workshops, and partners promote and endorse the event.

Objective: Increased program implementation

Administration of Smartscape is time intensive. Finite AMWUA staff time limits implementation of the program. In February 2000, facilitated planning sessions for the Regional Conservation Program resulted in a report identifying AMWUA staff time as a “significant issue” and recommending that the Smartscape program be administered through the Cooperative Extension. Instead, implementation of Smartscape was reduced from twice a year to once a year, where it has remained.

One Smartscape series per year does not meet existing demand; each year, the single series is filled to capacity and more people are added to the wait list. This isn’t surprising, considering that Arizona’s green industry provided direct employment to 30,300 hired workers in 2007.² Future demand for the training program is expected to grow as population increases and drought continues to be a concern to both the industry and the public.

Since 1990, University of Arizona Cooperative Extension in Pima County has administered a successful Smartscape program in the Tucson area through a contract with Tucson Water. Contracting with Maricopa County Cooperative Extension will guarantee implementation of Smartscape twice a year, doubling current capacity and allowing additional program development. This will also allow one series a year to be hosted in various locations around the Valley to make the program more accessible.

² USDA National Agricultural Impact Service Arizona Field Office, “The Economic Impact of Arizona’s Green Industry 2007 Industry Report,” Arizona Nursery Association and Arizona Landscape Contractors Association, Phoenix, Arizona, 2007

Objective: Statewide program consistency

Smartscape is intended to be a statewide program; a landscaper who has completed training in Tucson should receive the same core curriculum as the landscaper in Phoenix. However, the disconnect between Tucson's program and AMWUA's has resulted in some disparity over the years. As other areas of the state seek to bring Smartscape online, these disparities will inevitably increase, jeopardizing the quality and value of a program in which AMWUA members have invested heavily. AMWUA's regional program plan calls for devising and instituting a mechanism that will ensure the program maintains its consistency and integrity.

The Maricopa County office will coordinate with the Pima County office to ensure continuity in the program between the two Extension offices. Maintaining consistency of the program as it expands within Maricopa County and across the state will be more efficiently achieved through a well-defined partnership with Cooperative Extension.

Objective: Continued program relevancy

The landscape industry has seen significant changes over the decade and a half Smartscape has been in place. In 1994, instruction on marketing a low-water-use landscape was necessarily a key piece of the program's curriculum; since that time, however, Xeriscapes have become much more common and accepted, rendering that piece of the curriculum less significant. The 1994 curriculum didn't envision the "smart" irrigation controllers that are rapidly becoming more accessible to the average homeowner; these controllers can substantially reduce outdoor water use and should be part of the program. To maintain its relevancy and value, Smartscape must adapt to the times.

As part of a nationwide educational network of scientists and educators who help people solve problems and put knowledge to use, the faculty and staff of Extension are well suited to ensure that the program they helped develop continuously evolves to incorporate emerging technologies and research that advance water efficiency. In fact, it may be possible in the future to adapt Smartscape to an online format through the University of Arizona Outreach College, further expanding the availability of the program.

Element 2 – Advanced Smartscape

Advanced Smartscape was developed in the Phoenix area as 30 hours of intermediate-level training intended to fill the gap between the introductory Smartscape series and the national Irrigation Association certification courses. The initial module of classes, launched in 2006, comprised irrigation design, installation, and maintenance. A second module covered troubleshooting, auditing, budgeting and scheduling, and "smart" irrigation technologies. These classes addressed irrigation issues in more depth, encouraging better irrigation management and the use of new technologies to reduce water consumption in the landscape.

Partnering organizations in the development and implementation of the advanced series included AMWUA, SRP, BOR, the Cooperative Extension, the Arizona Nursery Association, the Arizona

Landscape Contractors Association, the Arizona Association of Community Managers, and the Cactus and Pine Golf Course Superintendents Associations.

Advanced Smartscape was administered in the Phoenix area by SRP and AMWUA staff. Member city staff and Cooperative Extension staff assisted on-site at workshops and presented a number of the sessions. SRP provided facilities for the workshops, and partners promoted and endorsed the events.

Objective: Increased program implementation

Although AMWUA’s Conservation Committee had identified the need for these classes years earlier, it was SRP’s contribution of staff time that made it possible to develop and implement them. The level of staff commitment could not be maintained, however, and the program was suspended. The classes were extremely well-received, quickly filling to capacity and consistently resulting in wait lists. The demand for these classes continues, despite the delay in scheduling.

Contracting with Maricopa County Cooperative Extension will guarantee implementation of Advanced Smartscape training, once established, at least once a year, without sacrificing other program elements.

Objective: Statewide program consistency

In the time since these classes were launched, independent development of advanced Smartscape training began in the Tucson area. A pilot series was implemented, and the Pima County Cooperative Extension is working to evaluate and refine the training. To function as a statewide program, it will be necessary to invest time in coordinating advanced training with the Pima County Extension office before implementing the program. Inconsistent training, again, calls into question what a consumer can expect of a Smartscape trained professional, potentially undermining the value of the program.

The Maricopa County office will coordinate with the Pima County office to ensure continuity in the program between the two Extension offices and reduce possible disparities when it is adopted by other regions.

Element 3 – Irrigation Association Training & Certification

The Irrigation Association (IA) is a non-profit organization that supports the irrigation industry by promoting “smart” water management skills and techniques for agriculture, turf, landscape, and golf. The IA began its professional certification programs to help homeowners and businesses identify qualified and competent irrigation contractors and designers. To become certified, applicants must pass a comprehensive exam covering general irrigation subjects as well as specialty areas and agree to follow a code of ethics. To maintain active certification, specialists must take continuing education classes. Several IA certifications have earned the EPA WaterSense label, including: Certified Irrigation Contractor (CIC), Certified Irrigation

Designer (CID), and Certified Landscape Irrigation Auditor (CLIA). These certifications are nationally recognized and well regarded.

Objective: Sponsor advanced landscape irrigation training and IA certification exams

In 2006, working in partnership with SRP, AMWUA embarked on an endeavor to bring IA training and certification to the Phoenix area on a regular basis and to offer it more affordably. In part, this effort was driven by municipal need to educate parks and recreation personnel. (At the time IA training and certification was often cost prohibitive, requiring travel out of state, overnight stays, and substantial fees for the training and exam.) SRP and AMWUA sponsored certification exams and, thanks to a grant from BOR, training classes at half the usual fee. The effort was extremely successful; demand exceeded capacity each time training was offered.

Ewing Irrigation, closely aligned with the IA, began offering similar training out of their facilities. Rather than duplicate efforts, SRP and AMWUA forged a partnership with Ewing in mid-2008. Ewing hosts the specific training and certification exams that we request and offers reduced class fees. AMWUA and SRP sponsor and promote the training, significantly cutting staff time and funding while still increasing and supporting affordable training.

While the objective of sponsoring advanced irrigation training and offering IA certification exams locally has been achieved, AMWUA staff relies on SRP staff to maintain the relationship with Ewing and to ensure this objective continues to be met. It is in AMWUA's interest to actively participate in the partnership. Contracting with Extension will expand efforts to promote the training and certification, and reduced program administration will allow AMWUA staff to focus on the partnership with Ewing and ensure that program objectives are consistently fulfilled.

Element 4 – Promotion

While the desirability of pursuing regulation requiring irrigation certification and licensing may be debated, encouraging voluntarily trained and certified landscape professionals is difficult to oppose. Marketing to the industry, landscape professionals are encouraged to build skills that will increase landscape water use efficiency, providing an opportunity to distinguish themselves from their competition, to provide their customers with quality service, and to take personal responsibility for a resource critical to the industry. Promoting trained and certified professionals to the consumer encourages the homeowner to seek out these professionals, creating demand for them, while encouraging more water-efficient landscapes.

Objective: Promote the benefits of training and certification to the industry and create consumer demand for trained and certified landscape professionals.

At this time, AMWUA's efforts to promote training and certification to the industry and to encourage the public to seek out professionals who are trained and certified – thereby creating demand and providing further incentive to the professional to pursue training and certification – is limited. There is some promotion through AMWUA brochures, the AMWUA website,

and event exhibits, but this is not sufficient to create a groundswell, and the regional program plan calls for efforts in this area to be increased.

Contracting with Extension to implement Smartscape and Advanced Smartscape will allow AMWUA staff to focus on creating a collaborative promotion of local and national training and certification programs for the industry and to promote trained certified professionals to the consumer in a parallel effort. Cooperative Extension will assist with the development of the marketing effort and in supporting it.

Participation by the Arizona Nursery Association, the Arizona Contractors Association, SRP, and many other partners will not only ensure the best use of resources, it will be central to the success of the effort.

Elements of this promotion will include:

- development of a Smartscape website to promote the program and to provide the public with a database of Smartscape graduates.
- development of guidelines to allow Smartscape graduates to market themselves as such, including how businesses may use the logo, etc.
- collection of information on local and national opportunities for landscape training and certification, including the role each plays and where each fits in the educational hierarchy.
- development of a basic marketing campaign, materials, and website to educate professionals and consumers.

This effort is envisioned as a simple message with marketing materials that can be inexpensively replicated and utilized by a diverse group of trade associations, businesses, government agencies, and the University, providing a call to action (to hire a trained/certified landscape professional or to become one, as the case may be) and driving people to a website that assists them in completing that action.

The website will promote the benefits of trained, certified professionals to both the industry and the consumer and educate both on what different programs and certifications provide. It will serve as a portal, linking to websites of the featured training and certification programs, such as Smartscape, the Irrigation Association, the Arizona Certified Nursery Professionals, the Arizona Certified Landscape Contractors, and others. There will be a focus on Smartscape, since this is a program unique to us, and Irrigation Association training, due to the national recognition it has, the fact that its focus is irrigation, and AMWUA's partnership with IA, Ewing, and EPA WaterSense.

The key to the success of this effort will be to ensure that the message and materials can be affordably utilized by many different organizations, thereby creating a widespread, consistent message that the public frequently encounters, driving them to one central location for the information, reducing competing messages and information, and effectively reducing the static to allow one clear message to surface.

Funding

The AMWUA Conservation Committee has identified Smartscape and related landscape training and certification efforts as a priority of the Regional Conservation Program. In light of this, the Committee has allocated \$30,000 per year from the FY09 and FY10 Regional Program budgets to fund a two-year contract with the University of Arizona Cooperative Extension, Maricopa County. (A two-year commitment is effectively the minimum in order to contract for a qualified person to implement the program.) Per the contract, the Cooperative Extension will meet the objectives outlined above. At the end of the term, the deliverables will be evaluated and a subsequent contract considered.

Development of websites for Smartscape and for promoting trained and certified landscape professionals will most likely require grants.

Contract Oversight

An advisory committee, comprising representatives of the sponsoring agencies, will be informed of and consulted regarding program development and implementation. The contract administrator will have the authority to review the program of work and materials to ensure that the program continues to meet the objectives of the contracting agency.

Evaluation

Cooperative Extension will secure evaluations from participants of all workshops and conduct a 6-month follow-up of participants to determine if workshop information has been applied and how.

Deliverables

Cooperative Extension will provide biannual reports of contract activities, lists of program graduates and contact information, summaries of individual workshop evaluations, and summaries of six month follow-up surveys.