



Julie Saare-Edmonds, Water Use Efficiency
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March 12, 2016

RE: Comments submitted by G3LA, LLC d/b/a G3, Green Gardens Group to the Independent Technical Panel on Demand Management Measures: Recommendations Report to the Legislature on Landscape Water Use Efficiency Dated 2/13/2016

Dear Julie:

Thank you for providing and opportunity for G3, Green Gardens Group (G3) to provide comments on the Public Draft Report dated 2/13/16.

Section 3: ITP Vision Statement

P5. Pp1 – The drought in CA is not unprecedented (per tree ring analysis), what is unprecedented is the outdoor landscape water demand – development of water-thirsty landscapes outstripping local supply and a populous largely disengaged from the management of landscapes contribute to the inefficient use of potable water on landscapes at a time when potable water supplies are under pressure from drought.

P5 pp2. First line – Functional and attractive landscapes are essential to our quality of life and water and air quality, providing places to recreate and relax, cooling the environment around buildings, offering wildlife habitat, carbon sequestration, flood control, and creating places of beauty.

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P5. Pp3 Reorder these:

Rainwater use efficiency should be first on the list, as that is what makes the new norm the watershed approach to landscaping. 1) Rainwater 2) Plants 3) Outdoor water measuring.

P.5 pp4 Since landscapes, unlike bathrooms, showers, laundries, and sinks are dynamic systems, it should be recognized that existing landscapes constantly are being reshaped and altered to some degree by the management (maintenance), seasonal enhancements, and 10-20 year cycles (or sooner, when properties are sold) of refreshment and retrofit. So, to mention "financially practical and at a pace that allows for public awareness and acceptance" doesn't acknowledge that the private sector actively is investing in landscapes.

Add to bottom of pp4: Water quality regulations require landscape management, and rain gardens have been installed around the country for years.

P.6 pp3 What is the pre-drought level reference? A watershed wise landscape that builds healthy soil by adding organic matter, utilizes local native plants and maximizes Rainwater Use Efficiency (RUE), easily can reduce the Landscape Water Requirement (LWR) by 50-55% in comparison with Reference ETo, resulting in a far greater actual reduction in potable water use due to the reduced emphasis on irrigation.

$LWR = ETo \times PF \div IE$: If $PF_{new} = 25-30\% \times ETo$, and $PF_{turf} = 80\% ETo$, then we already have reduced LWR by 55-50%.

Climate-adapted native plants, eschew water in the summer, and require it in the "shoulder" and winter months when days are shorter. This is especially true if rains are delayed. If rains arrive in the shoulder months, then each 1" of rain captured essentially reduces LWR by a ratio of 1"/PWR, where PWR is Plant Water Requirement, or $(ETo \times PF)$.

If the average established landscape is irrigated with an $IE = 50\%$, then any reduction in LWR is enhanced by RUE and the resulting elimination or reduction of irrigation applied to the landscape.

HOWEVER, and this is the essential point to the Watershed Approach, such savings are not achievable without the addition of the organic matter and the rainwater capture, as the dynamic system requires all three inputs to perform at this optimal level.

P.7 footnote 2 - Gallons per SF/day would be better represented as Inches per year for landscapes. This way, it can be easily compared to irrigation, ET data, and MWEL. Without standards for design and RUE, we cannot figure out how there is an ACTUAL sustained SAVINGS of 71" per year per SF in all gardens that simply removed turf and replaced with "water-wise plant material." This is particularly true since the term water-wise is not defined.

Section 4: Voluntary Turf Replacement

P8. Title: ~~VOLUNTARY TURF REPLACEMENT~~ LANDSCAPE CONVERSION
Recommendation #1 - ~~Turf Replacement~~ Landscape Conversion Incentive Program - The existing title implies that the presence of turf grass is in itself the problem to be solved by removal, but the real issue is the MAKING of landscapes using the Watershed Approach.

P8 pp3. The presence or absence of turf removal rebates pales in comparison with the lack of common standards and messaging that landscape conversions need to follow the Watershed Approach. Nevertheless, ~~the stop and start nature of turf replacement programs~~ the lack of a common message, standards and clear landscape regulation/codes undercuts the development of strong practices and a capable workforce to accomplish the replacement.

P.9 #1.pp2. This tax credit should apply to both single-family residential and commercial and multifamily properties.

Move the following to a more prominent place in the list:

On-site stormwater capture via rain gardens, bio-swales, dry streambeds are to be installed ~~where possible~~ everywhere, except where local regulation prohibits.

Section 5: Improvements in Existing Landscapes – Recommendation #1

P.10. We enthusiastically support the requirement of an irrigation system evaluation as part of home inspections for single-family properties. Since more than 50% of a CA single-family home's water is utilized in the irrigation and outdoor watering system, environmental conditions have continuing adverse effects on irrigation systems, and homeowners are disengaged from the function, design, and management of their irrigation system, this type of "outdoor plumbing" inspection seems necessary, at least upon sale of the home.

It should be noted that WaterSense program Certified Irrigation System Auditors are qualified to provide such evaluations and written opinions, so that inspectors can subcontract the landscape evaluations to others, thereby growing the demand for people knowledgeable in irrigation systems and landscape evaluation.

New homeowners could opt for a 6 month landscape conversion alternative, in which the irrigation system inspection could be deferred to a WELO inspection upon completion of the renovation in 6 months time.

P.11 #3 – We believe that leaks should be MANDATORY repairs upon sale, unless the homeowners enter into an agreement to do a landscape conversion. This is true especially for any lines that are under pressure – automatic refill on swimming pools, pressurized lines to valve manifolds.

We also believe that there should be MANDATORY pressure regulation upon sale. This is necessary whether or not there is a landscape renovation. Pressure to the exterior pressurized lines should not exceed most manufacturers' recommendations for low flow irrigation valves (50 PSI?). If the pressure exceeds this recommended level, then a master pressure regulator is installed as a retrofit on sale.

(b) #2-3: There should not be an exemption for items 2-3. Items 1 & 4 may continue to be exempt.

Section 5: Improvements In Existing Landscapes Recommendation #2

P.13pp1. How is an acre landscape determined? Is it per meter, per customer name, per account?

P12pp3. We agree with this analysis and want to make sure that WaterSense program Certified Irrigation System Auditors are qualified and recommended to provide audits, surveys and irrigation water use analysis, regardless of licensure requirements.

P.13pp1. If the smog check comparison holds, the state is compelling the property owner to prove that their landscape complies with local regulation, and if not, they are given a time period in which to comply. The smog check company reports to the state database. In order for this to be administered, a state-wide database would have to be maintained. It is unlikely that local agencies will not be able to comply with this reporting, data management, etc.

P.13 (d) The Department, in consultation with the CUWCC, the CLCA, and the WaterSense Professional Certifying Organizations operating in the state of CA, shall create a template for an irrigation inspection report form... The WaterSense CPOs are training professionals to conduct the audits, etc., so they should be included in the determination of the format and forms necessary for compliance with any relevant regulations

Section 5: Improvements in Existing Landscapes Recommendation #3

P16 Purpose Statement: Throughout this recommendation there is a reference to sustainable landscapes without the use of the Watershed Approach. The two must go hand-in-glove in order for it to be clear what are the standards and message of the sustainable landscape (which in and of itself as a term, has no meaning).

P.16 #1 Retrofitting to sustainable landscaping using the Watershed Approach within ~~20~~ 10 years. 20 years is too long for the retrofit to serve as an example to the rest of the public, if we want the public to be making these changes within 20 years.

P.16 #4 Said compliance should include mandatory rainwater and/or stormwater capture ~~where site conditions permit everywhere, except where local regulations prohibit~~ .

P.16 #4 Require educational training for State-employed landscape managers on irrigation efficiency, water budgets, rainwater capture, soil health, and landscape management that includes sustainable landscaping using the Watershed Approach as the focus.

Education of this kind exists in the **WaterSense program Certified Watershed Wise Landscape Professional.**

P.17 #6 Require State agencies to review and give preference to the most qualified landscape managers who show competency in the Watershed Approach through certification bidding on new projects/contracts...

Section 6: State MWELO Recommendation #1

P.19 Applicability /Language – ...or renovations to the building with a valuation equal to or ~~exceeding \$200,000.00~~ \$100,000.00 requiring a building permit.

P.21 Public Education/Language - Information available shall include detailed specifications on how to hire qualified, trained and/or licensed landscape architects, contractors, designers, and ~~maintenance workers~~ landscape managers and the benefits of using such professionals.

It is critical that the Watershed program Certified Professionals are included in the list of qualified professionals, as they are the only professionals specifically trained in auditing and evaluating irrigation systems.

Section6: State MWELO Recommendation #3

P.27 #1 The establishment of a training and certification is REDUNDANT to the fact that in the state of CA, the minimum training and qualification required is now licensure. So, this training would EXCLUDE landscape managers, designers, and qualified landscape architects who are not licensed individuals,

creating an exclusive group where the ITP clearly intends to create a more inclusive professional environment.

Certified Watershed Wise Landscape Professionals are qualified individuals for performing the work described. Their names are maintained on a statewide searchable database as well as on the WaterSense searchable database. They must maintain annual CEUS by taking classes, practicing the Watershed Approach in their work, and preparing case studies.

P27 #2 beautifully apply water efficient California-friendly landscaping using the Watershed Approach. (Otherwise, California-friendly has no meaning.)

Section 7 – Complementary Policies & Regulations: Recommendation #2 Permits Required for Irrigation Installation

We support this idea of requiring permits for the installation of irrigation systems, just as permits are required for installing and re-piping interior plumbing. With 50% of residential water used in outdoor irrigation and watering systems, the exterior systems should be equally compliant with interior systems.

Section 7 – Complementary Policies & Regulations: Recommendation #5 Plant Labeling

We oppose the inclusion of this recommendation, as it does not improve water use efficiency and is in direct conflict with the idea of expanding a knowledgeable, qualified work force and implementing the Watershed Approach in landscapes. Landscape professionals, including WaterSense program Certified Irrigation Auditors, who are responsible for inspecting and auditing sites for MWELO compliance, are knowledgeable in plant material. Therefore, labeling on site is not necessary.

Additionally, the creation of potentially thousands of plastic labels and deployment in landscapes throughout CA, appears to be in conflict with the State's goals of reducing plastic pollution and utilizing landscapes as pollution-reducing Best Management Practices.

This is overly burdensome for the nursery industry, the landscape design and installation community, and the project managers who must remove the labels/tags after installation (they would usually be removed during installation).

Inspectors who require assistance on plant material need to hire or subcontract with qualified Certified Watershed Wise Landscape Professionals or the equivalent.

Section 8: Workforce to Accomplish the Transformation:
Recommendation #1 Certification of Professionals

The entire recommendation of such a certification ignores the CA state laws requiring licensure of landscape architects, contractors and engineers. By proposing standards for the Watershed Approach, the ITP creates a state-wide definition of the Minimally Acceptable Landscape in the state of CA. Local jurisdictions are responsible for taking the standards and enforcing them through permitting, design review, inspection, and the prohibitions on the application of site drainage, health, safety and welfare, etc.. The standards are set by the State with the local jurisdiction interpreting and enforcing.

This is the same process by which MWELo is implemented and enforced. The difference is that landscape designers, landscape managers, and qualified, but unlicensed, landscape architects are not included specifically in the MWELo language. Inclusion of these unlicensed, yet qualified, professional classes would create the opportunity for organizations to expand or create relevant certifications. The whole workforce would have to acquire certifications in order to remain relevant in the marketplace AND in order to meet the standards set by the State and enforced by the local jurisdiction.

Thus, such a proposed certification is not necessary if the ITP sets the standards, specifically allows all qualified individuals (including WaterSense program Certified Watershed Wise Landscape Professionals), and defers to the local jurisdictions for implementation and determination of qualification.

P.48 pp2 Design and approval of landscape designs includes aspects of site drainage and slope that when aligned with the Watershed Approach (i.e., to

~~enhance on-site rainwater infiltration-retention), requires qualifications that need to be substantiated by an authoritative State agency or directed non-profit organization with State agency oversight the responsible local jurisdiction. This certification is also necessary as there are health and safety considerations when designing water wise landscapes such as minimizing standing water for mosquito abatement, slope for site drainage, trip and fall hazards in public spaces, etc.~~

P.48 pp3 It currently is not DWR's responsibility to review the eligibility criteria for approvals of landscape designs and ...the approval of irrigation system permits. It is the local jurisdiction's responsibility to comply with guidance on standards and minimum qualifications.

Irrigation system permits, inspections, and approvals currently may be provided by individuals qualified by the WaterSense certifying organizations for Irrigation System Auditors, Designers, etc. There currently are thousands of practicing professionals with one or more of the WaterSense certifications. These certifying organizations require continuing education units, examination, etc. The ITP should be looking to strengthen existing certification programs rather than creating new organizations from whole cloth.

Additionally, most unlicensed landscape professionals do not work under licensed professionals. They are predominantly independent operators with business licenses in the local jurisdictions in which they operate.

P.48 pp3 We agree that there needs to be a "clearer point of entry for landscape design professionals from this certification process or another means to have their qualifications validated for participation in the MWEL0 and other applicable processes to aid in compliance with MWEL0." One way this could be achieved is to create a State business license requirement for landscape professionals. Every landscape professional would have to either be a licensed architect, contractor, or engineer or maintain an annual business license with the State. This would provide a method of tracking and legitimizing the practicing, but unlicensed, professionals in the state.

P.49 Purpose Statement – The State of CA should require WaterSense Label certification in water-efficient landscaping for all businesses that maintain a State business license and are in the business of the design, install....

P.49 Items #1-5 are not necessary for a new certification process. If the WaterSense Label certification is utilized then, the following should replace the current recommendation language:

1. Identify and review current WaterSense certification programs and identify what is working, what is not working and where the gaps are in the certifications for compliance with the Watershed Approach.
2. Verify the WaterSense certification criteria required for creating the program along with continuing education requirements needed for ongoing certification and the tracking of those CEUs.
3. Work with the Department of Consumer Affairs to implement the state-wide landscape business license.
4. Update MWELo to cite the business license and WaterSense certification(s) eligible for approval of landscape planning, documentation and permits.
5. Refer local jurisdictions to online databases maintained by the WaterSense professional certifying organizations to ensure that appropriate certifications are in place when enforcing MWELo.
6. Create an annual reporting requirement of each of the WaterSense certification programs operating in the State of CA.

Section 9: Public Perceptions & Social Norms: Recommendation #1: Defining Professionals

P.52 pp1 It must be made clear that this information applies only to SAVE OUR WATER because currently the Contractors' State Licensing Board, Dept. of Consumer Affairs, Landscape Architects Technical Committee, Board of Architects, and American Society of Landscape Architects all publish information about the various qualifications required of licensed landscape professionals in the state of CA. There are copious documents discussing how to hire professionals targeted at residential landscape owners. Thus, the introduction to the first paragraph is not true.

The first 4 sentences of the first paragraph should be struck from the document because they are either untrue or only partially true, and they serve to confuse the legislature about the legality of unlicensed operators. Legality is not determined by licensure, even in such a highly regulated industry such as the landscape industry.

P.53 The roles of landscape professionals should be removed from this list of recommendations. If DWR is to convene any kind of working group on the topic of social norms, it needs to be inclusive of all representatives of the landscape industry to include stormwater strategy advisory committee, SWRCB, Cal Recycle, NGOs, etc.

The campaign will also identify and make available to homeowners, examples of properly design and installed landscapes using the Watershed Approach for each of the state's climate zones.

Yours sincerely,

A handwritten signature in black ink that reads "PBerstler". The letters are cursive and somewhat stylized.

Pamela Berstler
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