

Development Community Perspectives on Water Efficiency in New Construction

Authored by Amelia Nuding, WRA | January 2018

Western Resource Advocates (WRA) and the Colorado Association of Home Builders (CAHB) collaborated on an effort to better understand builders' and developers' perspectives on water efficiency in new construction. In May 2017, the two organizations convened a group of about 20 builders, developers, and real estate professionals in Northern Colorado.

The conversation was structured around a set of survey-type questions, reproduced below. The group's responses are reflected in each "Summary of Responses" which capture the majority of viewpoints expressed during the conversation. After each summary, a "WRA Recommends" section provides ideas related to the "Summary of Responses" that can help to focus the efforts of water utilities and land use planners. WRA's suggestions align with many development-community perspectives, but were not part of the conversation.

Although viewpoints undoubtedly vary among communities, the responses reflected below still can be illuminating when considering how to better integrate water efficiency into new construction. Additionally, these questions could be a useful starting point for initiating dialogue about water efficiency between the development community, the local land-use authorities, and water providers.

TERMINOLOGY

The terms "system development charge," "connection charge" and "tap fee," among others, all describe the one-time charge that covers the cost of connecting to the water system, as well as the cost of the infrastructure and water resources that were developed to support the new connection.

Question 1

Which water conservation measures that go beyond current requirements would be most and least preferred?

- a. Installing water conservation measures in the interior structure
- b. Installing water conservation measures in the outdoor landscaping
- c. Marketing water conservation features to new home buyers in the sales process
- d. Improving buyer notification and education at closing, such as providing estimates of water cost savings
- e. Participating in a Water Efficiency Rating Score program for new homes



Summary of Responses

The most preferred conservation measure was (c) marketing water conservation features to new home buyers in the sales process. It was noted, however, that significant effort would be needed to educate realtors for this to be an effective option. Options (b) and (e) also were strongly preferred. Outdoor landscaping conservation measures were widely acknowledged to be the greatest water saver, and therefore were deemed more important than indoor water conservation measures. Water Efficiency Rating Scores¹—similar to energy efficiency rating scores—were favorably viewed because they offer an objective measure of the water savings and therefore provide a level playing field to all home builders.

The least preferred options were (d) because it occurs too late in the process and is too uncertain, and (a) because the water savings were presumed to be too small.

WRA Recommends

Water utilities and land use planning departments can focus their water conservation efforts in new construction on outdoor landscapes. For example, requiring or incentivizing soil amendments, highly efficient irrigation systems, and lower water-using plants in all or part of the landscaped areas, and educating customers about landscape maintenance all can be effective in ensuring water efficient landscapes.

Question 2

What factors drive the structure of your standard landscaping package offered with new homes (e.g., front/back, turf or plant type, irrigation system types, soil amendment, mulching, etc.)?

- a. Landscaping requirements of local government
- b. Marketing, curb appeal
- c. Competition
- d. Cost of providing landscaping
- e. Value of landscaping included in the home appraisal
- f. Allowing homeowners the opportunity to create sweat equity
- g. Other

Summary of Responses

The primary drivers of standard landscaping packages are local government requirements, which typically require the front yard to be landscaped. Curb appeal is significant factor as well, and the builders' perception is that no one wants to buy a new home without a landscaped front yard. It was noted that customers rarely change the landscaping of the new home; they care most about simplicity, and do not care very much about plants or irrigation system details.

¹ Residential Energy Services Network. 2018. "RESNET Developing A Water Efficiency Rating Index Standard - HERSH2O." Accessed February 2016.
http://www.resnet.us/professional/about/resnet_to_develop_water_efficiency_rating_system



WRA Recommends

Water utilities and land use planning departments can look to their landscaping regulations to drive water efficient landscape choices. This could include requiring soil amendments, mandating installation of irrigation systems that use rotor heads instead of spray heads, and specifying plant material. Additionally, providing landscape templates and demonstration plots that feature a variety of non-turf options can make it easier for developers and builders to install water efficient landscapes.

Question 3

What problems or concerns might you have with lower water-using landscapes installed in your projects?

- a. Too costly
- b. Too time consuming
- c. Lack of experience in managing landscape installation
- d. Lack of qualified landscapers
- e. Lack of certainty in meeting landscape specifications
- f. Lack of flexibility in meeting landscape specifications
- g. Unappealing to customer/buyer
- h. Not fully valued in the home appraisal

Summary of Responses

The three primary concerns were (c) lack of experience in managing landscape installation, (g) unappealing to customer/buyer, and (h) not fully valued in the home appraisal. Cost, however, was not a major concern. The average cost of a basic turf landscaping package is \$4,000 to \$5,000. A xeriscape yard costs approximately \$2,000 more.

WRA Recommends

Water utilities and land use planning departments can help developers by providing a list of quality landscape designers and installers that are experienced in xeric and low water-use landscapes. Additionally, model homes with efficient landscapes can be highlighted for residents and customers through websites, marketing materials, and new developments.

Question 4

How is landscaping valued in the appraisal process? Would the financial savings from water efficiency be meaningful?

Summary of Responses

Appraisals are conducted only after the landscaping is done, and good landscaping can add curb appeal, but a significant financial investment in landscaping doesn't always translate to an increased home appraisal value. Residential appraisers often don't want to deal with the assumed value of water



efficiency. Energy efficiency features in new homes have existed for much longer, yet they still are difficult to properly value. To meaningfully appraise the value of water efficiency features in a new home would require educating financial institutions, real estate professionals, and buyers, which is a significant task.

Question 5

Which incentives related to water efficiency of landscapes in new developments would be most and least preferred?

- a. An immediate credit in the water development fees
- b. A deferral of payment of the water development fees (e.g., until Certificate of Occupancy is issued)
- c. Density bonus
- d. Priority inspections
- e. Technical assistance
- f. Guarantee of a number of future building permits at the current water development fee rate
- g. Other

Summary of Responses

The most strongly preferred incentive option was (f), guaranteeing that the development fee rate would remain the same for a number of future building permits. The certainty of fees is greatly valued by developers because the timeline of the projects is not always known. Also, if fees increase the subsequent year, then developers also realize some cost savings. Other highly appealing incentives included (a) a credit (i.e., discount) in the development fee, and (b) a deferral of payment of the fee. Both of these options offer cost savings to the developers. The other three options listed—(c), (d), and (e)—were appealing to the group, but not as strongly as (a), (b), and (f).

WRA Recommends

Water utilities and land use planning departments can design their water development fees to incentivize water efficiency in outdoor landscapes in several ways. The cost of the fee could be fixed when applied to a set of future construction projects in exchange for installing water efficient landscapes that go beyond code requirements. Alternatively, the fee—or a portion of the fee—could be reduced in proportion to the estimated water savings of a new development. This technique has been documented by a few communities, and profiled in WRA's report, "Water Connection Charges: A Tool for Encouraging Water Efficient Growth."² Another option is to delay the timing of when the fee payment is due. For example, instead of the payment being required to secure a permit, it could be due at the time that the Certificate of Occupancy is issued.

2 Western Resource Advocates. 2015. Water Connection Charges: A Tool for Encouraging Water Efficient Growth. Available at <https://westernresourceadvocates.org/publications/water-connection-charges-a-tool-for-encouraging-water-efficient-growth/>



Question 6

What other comments and perspectives do you have on this topic?

Response

Integrating water conservation in new construction should be mandated by the municipality or demanded by the buyer. All of the necessary products to realize greater water efficiency already exist.

WRA Recommends

Water efficiency should be required or incentivized by the water utility and land use planning department.

Response

The raw water dedication is oversized. Developers should not be required to provide more water than is used by the homeowner. Less water required means less water must be obtained or paid for by the developer. Correlating the raw water requirement (or the water supply requirement) with the projected volume of water used should be a common practice. Too often these numbers are very different.

WRA Recommends

Fee calculations and reasons for requiring a given amount of water should be very transparent. Additionally, the volume of water required and associated fees should be reviewed periodically (for example every one, three or five years) and be correlated with actual need. A clear explanation should be available to the development community.

Response

There is a need to write variances in some communities to address these oversized requirements. Unfortunately, the ability to submit variances is not available everywhere.

WRA Recommends

Fee variances should be allowed for alternative water dedication requirements, or that the fee structure reflect the projected water usage of new projects, to encourage efficiency.

Question 6 continued on next page



Response

Any move away from flat fees for residential homes is desired. Flat fees are a disincentive against smaller lots, and this poses affordability concerns. Adjusting fees by lot size and/or landscape type is a good option. For example, smaller lots and landscapes that use less water would be associated with lower fees.

WRA Recommends

Fees should be structured to incentivize lower water-using landscapes by scaling the fees in proportion to the projected water usage.

Response

Homeowners need information about how to manage and maintain their landscapes up front. Long-term water reductions will only be achieved if the management issue is addressed.

WRA Recommends

New homeowners should be provided with an information packet and resources for additional information and assistance, so that they better understand how to manage their irrigation systems and properly maintain their landscapes.

It is evident from these builders' and developers' perspectives that local regulations are the primary driver of the design—and resulting water efficiency—of outdoor landscapes in new construction. There was clear willingness to go beyond the code requirements as long as appropriate compensation or incentives are provided, such as fixed fees applied to developments built in the future, discounted fees, or delaying the time at which fees are due. There was also a clear desire for homebuyers to be educated about the value of any water efficiency measures installed, and about how to properly maintain and manage water efficient landscapes to ensure water savings are realized post-occupancy.

For more information, contact

Amelia Nuding: amelia.nuding@westernresources.org

www.westernresourceadvocates.org



PROTECTING THE WEST'S LAND, AIR, AND WATER