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RESIDENTIAL REAL ESTATE

Massive residential development south of Denver pioneers water demand management

A massive residential development uses artificial turf, rock landscapes and designated water budgets for residents.

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When it comes to water, Harold Smethills doesn't use the word "conservation."

"We don't believe in conservation. We don't believe in it at all, because conservation means you have something you shouldn't have had," Smethills said.

Instead, the chairman of Sterling Ranch Development, located south of Chatfield State Park in Douglas County, thinks of himself as leading water demand efforts.

More than a decade after the 3,400-acre master-planned community was approved for development, residents of its approximately 1,600 homes built or under construction are using less water than anticipated.

Driving around Sterling Ranch's many neighborhoods in a blue golf cart, Smethills points out the residents who have opted for artificial turf instead of grass. Rather than thinking of grass as a full carpet, he likes to think of it as a throw rug. He points out the rock landscapes and plants native to Colorado in front of homes and in common spaces.

Heather Calme, director of builder standards at the Sterling Ranch Community Authority Board, said this landscaping has been intentional from the beginning. New homeowners can take a class to learn about their home's dual indoor/outdoor water system, and the designated water budget for the size of their lot.

Residents are provided with a list of 150 pre-approved plant species that grow well in the area with minimal water and are resistant to drought – the result of a five-year demonstration Sterling Ranch conducted on 15 plots with Denver Botanic Gardens. If they want to use other plants, residents are required to go through a rigorous approval process and understand that species' water use.

All homes are also equipped with a smart sprinkler system from Denver-based Rachio that helps keep track of water usage.

"So many people turn on their sprinklers and have



Turf and xeriscaping are seen in a backyard at Sterling Ranch on June 16 in Littleton.

no idea where the water comes from, don't even really pay attention to the cost of it, but here, you know it's a valuable resource so we help them to make those smart decisions," Calme said.

Director of Development Susan Beckman put it another way: "What gets measured gets improved."

Getting residents on board by using less water has been easier than getting government agencies on board. According to Brock Smethills, president of Sterling Ranch Development, unincorporated Douglas County requires developers meet a water standard of 0.75 acre-feet per year, well above Sterling Ranch's numbers, unless approved for less.

And after gathering data over the past few years, Beckman knows the water usage numbers at Sterling Ranch are well below what the county first approved, which was 0.4 acre-feet per home per year.

Now, Beckman is going back to the county to get approval for much less: 0.26 acre-feet per single-family home per year, 0.17 acre-feet for paired homes or townhomes and 0.14 acre-feet for multifamily units per year.

If approved, the lower numbers would impact current and future residences in the development, which expects to grow to 12,000 homes for 30,000

Coloradans, according to its website.

These proposed amounts are based on 2018-22 water usage data in the development.

"We are confident with the analysis that we've done that we can reduce that water demand standard by a significant amount. And it's really enlightening to see how efficient the water usage is here," Beckman said.

Still, Brock Smethills said the Sterling Ranch community will probably beat its earlier water usage goals by 20% to 30% and further improvement is likely once the developers build out a rainwater harvesting program. The project will cost tens of millions of dollars, according to Harold Smethills.

Sterling Ranch will capture rainwater and store it in on-site detention ponds before reusing the water for open space and park irrigation. Additionally, homeowners at Sterling Ranch are also allowed two 55-gallon rain barrels on their property to use the water for their own irrigation.

"People in Sterling Ranch, they're not wanting for anything. They have beautiful yards, beautiful homes, and it doesn't feel like they're having to conserve," Beckman said.