

SMART SPRINKLERS SAVE THE CITY OF GOODYEAR

Warren Rivera
Hannah Luke
Brienna Leonard

GROWING PAINS

- Goodyear has grown rapidly over the past few years.
- With an increase in residents and water usage, it has been a struggle to meet conservation goals.



OBJECTIVE

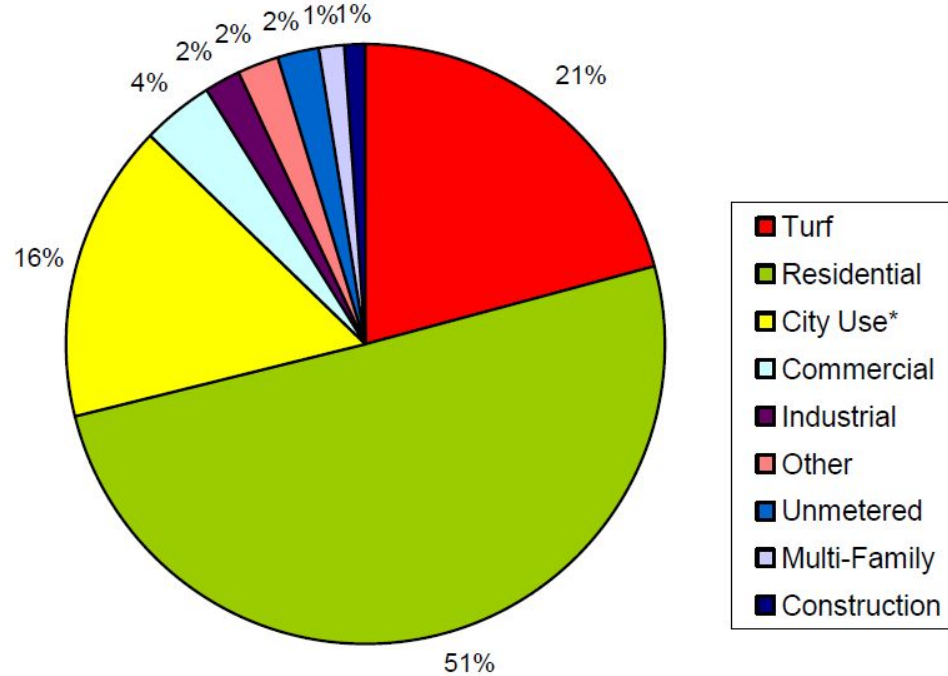
Goals we had going into this project:

- Reduce residential outdoor water consumption.
- Formulate incentives to encourage water conservation.
- Improve education and public outreach.



WATER USAGE - THE NUMBERS

Fig. 2. Water Use by Customer Type



LESS IS MORE

- Current Water rates:

RESIDENTIAL - WATER		
Monthly Rate Blocks	2016 Rates	2017 Rates
	<i>(per 1,000 gallons)</i>	<i>(per 1,000 gallons)</i>
<i>0 to 6,000 gallons</i>	<i>\$1.47</i>	<i>\$1.71</i>
<i>6,001 to 12,000 gallons</i>	<i>\$2.93</i>	<i>\$3.40</i>
<i>12,001 to 30,000 gallons</i>	<i>\$4.40</i>	<i>\$5.10</i>
<i>30,001 gallons and over</i>	<i>\$7.06</i>	<i>\$8.19</i>
<i>CAP fee</i>	<i>\$0.40</i>	<i>\$0.60</i>

AVERAGE JOE

- The average Goodyear resident uses aprx **7.3 kg of water/month**. Their bill is about 25 dollars.

- What if we could cut that in **half**?



INTRODUCING RACHIO



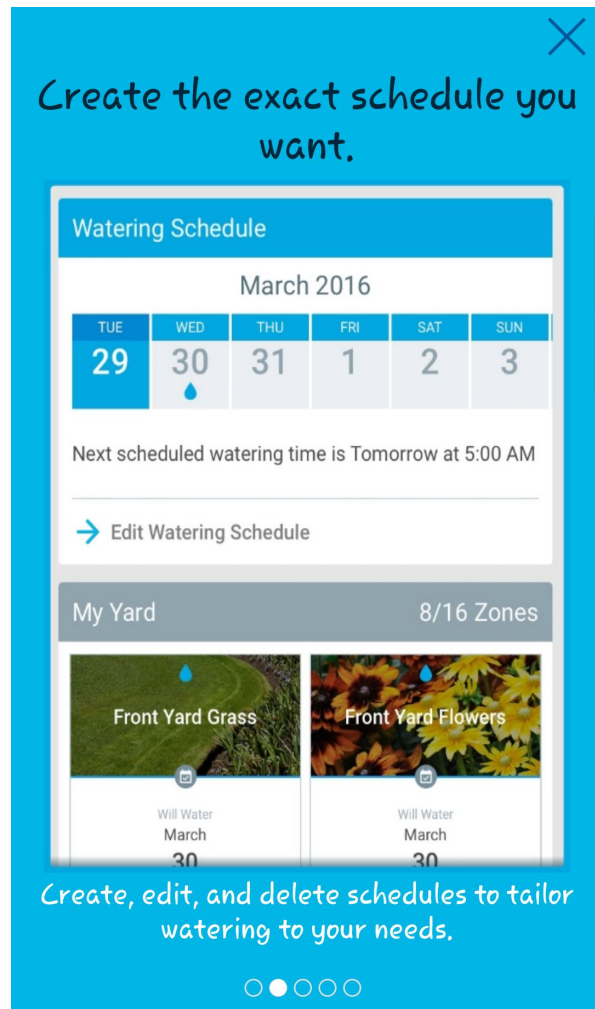
"WHAT SORCERY IS THIS?"

- Smart Sprinklers
- Rachio enables users to control and monitor the watering of their yard.
- Weather-sensitive: Rachio gathers local climate and forecasting data. It waters only as much as you need, when you need it.

THU MAR 30	
FRI MAR 31	
SAT APR 1	
SUN APR 2	
MON APR 3	
TUE APR 4	
WED APR 5	
THU APR 6	
FRI APR 7	
SAT APR 8	

GONE MOBILE

- Can be controlled completely from your iOS or Android device.
- Add details about your yard and its features, Rachio can automatically calculate watering.



Close button (X) in the top right corner.

Create the exact schedule you want.

Watering Schedule

March 2016

TUE	WED	THU	FRI	SAT	SUN
29	30	31	1	2	3

Next scheduled watering time is Tomorrow at 5:00 AM

[→ Edit Watering Schedule](#)

My Yard 8/16 Zones

Front Yard Grass

Will Water March 30

Front Yard Flowers

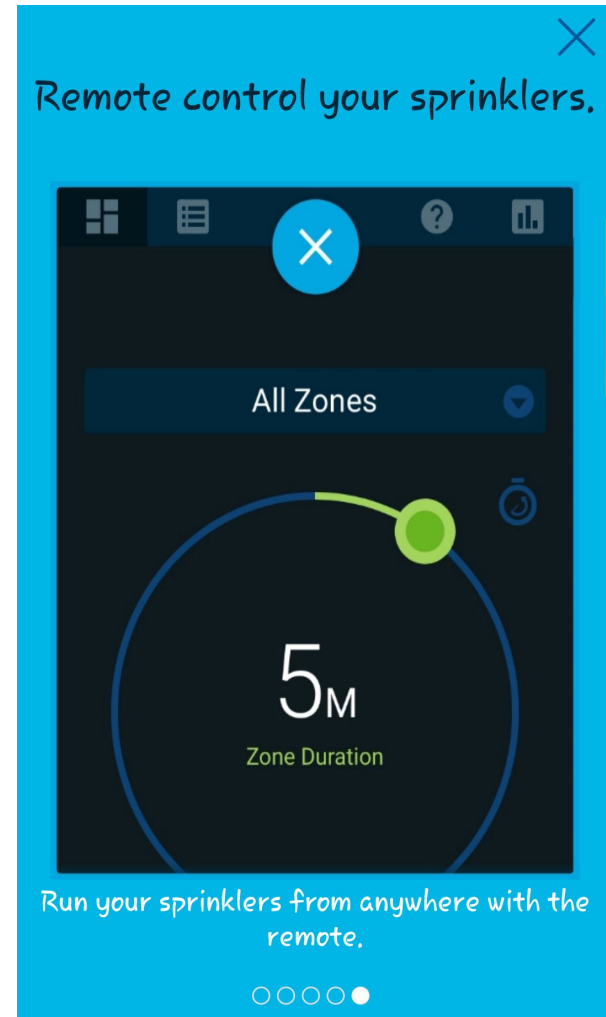
Will Water March 30

Create, edit, and delete schedules to tailor watering to your needs.

Progress indicator: 1 of 5 zones active (represented by a filled circle followed by four empty circles).

FEATURES GALORE

- Alexa/smarthome compatible.
- Watering Tracking.
- Precise watering for each sprinkler head.
- Can alert you of faulty valves, rain delays and more.
- Smart cycles breaking up watering, maximizing soil absorption and minimizing runoff.



SET 'ER UP

- Requires no special tools.
- Can be installed in 30 minutes.
- Comes with an expansive knowledge base and daily support from customer care.
- Connects to home wifi.



SO ABOUT THE WATER BILL...

- There are countless ways to reduce, but smart sprinkler controllers are a great way to start.
- Residents can feel incentivized and empowered to conserve.
- Rachio only needs to reduce the **average** Goodyear resident's water consumption by **19%** to qualify them for the first tier usage rates.

SO WHY RACHIO?

- Installation and use is simple.
- Cost effective (each unit is \$199.99 before discounts!)
- Residents shouldn't feel forced into complicated and abrupt changes.
- Green lawns and quality of life without water waste.
- Proven effectiveness in other cities around the US.



RACHIO IS EPA WATERSENSE CERTIFIED

- Can save an average single-family home ~8,800 gallons of water annually.
- Reduces irrigation water use by an average of 16 percent
- Adds legitimacy to the product



THE TECHNOLOGY EXISTS, SO LET'S USE IT

- Work with Rachio to implement a rebate program.
- Integrate smart sprinklers as part of the updated conservation plan.



SUCCESS WITH SMART SPRINKLERS

Woodbury, MN

- Subsidized the purchase and distribution of 100 Rachio smart irrigation controllers to residents that submitted an application and qualified.
- Each single-family home used approximately 74,490 gallons per year.
- The average annual savings upon implementing the smart controllers was approximately 37,074 gallons per year each or reducing water consumption by 50 percent.

CITIES LIKE CHANDLER, AZ + ALBUQUERQUE, NM + COLORADO SPRINGS, CO

- **City of Chandler**

- Offers rebate of up to 50% the cost of sprinkler unit

- **City of Albuquerque**

- Offers rebate of up to 25% the cost of sprinkler unit

- **City of Colorado Springs**

- Offers rebate of up to 50% the cost of sprinkler unit

REBATE PROGRAM

www.rachio.com/rebates

Rebate Lookup

Enter your Zip Code to Check for Local Rebates

EcoRebates Terms © 2017

<input type="text" value="Search by model number"/>	ZIP Code
	<input type="text" value="ZIP Code"/> <input type="button" value="Update"/>
	or <input type="button" value="↗ Use current location"/>



Search by model number (ESC to

Chandler, AZ 85225

4 products found

Filter



View Product

\$125 in rebates ^

Amount:

50% off up to \$250

Program:

Chandler - AZ

Buy After:

July 1, 2015



More Info

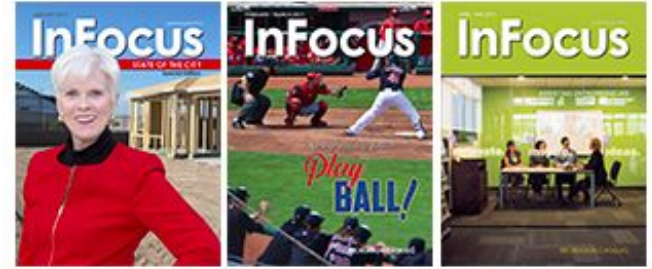
More Details v

REBATE APPLICATION PROCESS IN COLORADO SPRINGS, CO...

- Purchase smart sprinkler system.
- Complete an application.
- Return the completed application form and a copy of a legible purchase receipt.
- Applications are reviewed.
- Upon approval, rebate is credited to customer's utility account within about six to eight weeks.

<https://www.csu.org/Pages/weather-based-irrigation-controllers.aspx>

SPREAD THE WORD



- Running an article in the “InFocus” Community Magazine
- Informational booth at local events like the *Community Farmers Market*, the *Lakeside Music Festival*, & *Star Spangled 4th*.
- Send out informational emails to residents who are actively involved in the community.
- Utilize “Nextdoor” and other social networking platforms.

SOCIAL MEDIA



- Nextdoor is a private social network for your community and makes it easy to connect with your neighbors.
- The city of Goodyear also has it's own app as well as a Facebook page and Twitter account.
- With almost 70% of the American population active on the internet, we believe Nextdoor and other apps could be the quickest, easiest and most affordable way to spread awareness.

APPLICATIONS

- Can run concurrent to curtailment guidelines.
- Competitions among residents monthly/yearly prizes for watering under certain usage amounts.

