

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)





# Codification of Water Ratings

Doug Pushard





# The Residential Green Building Code Welcomes WERS





# City of Santa Fe – THE OLD WAY

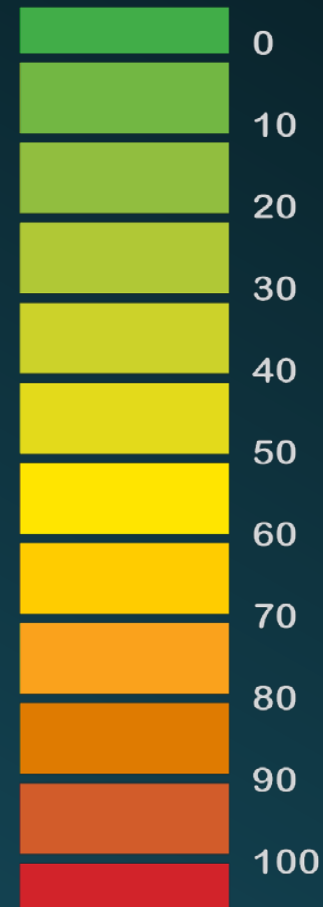
- Permitting Code (e.g. UPC, IRC) with ongoing inspections
- Green Building Code with limited inspections
  - 30+ pages, started in 2009
  - Landscape restrictions
  - Water fixture restrictions
  - Mandatory energy (HERS) rating numbers
  - Lower fee structure for buildings meeting green code
  - Multi-year process to update
- No relationship with Water Conservation efforts



# Home Energy Rating System (HERS)

- Started in 1995
- Rates a home's energy usage, so can compare one home to another
- 3<sup>rd</sup> Party verified
- Santa Fe integrated into Green Code in 2006
- Nationwide 2M+ homes have been rated

HERS Index





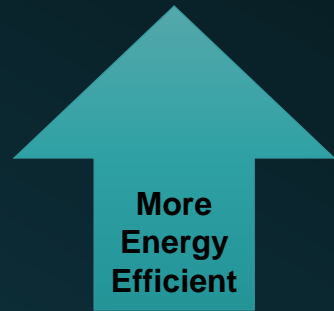
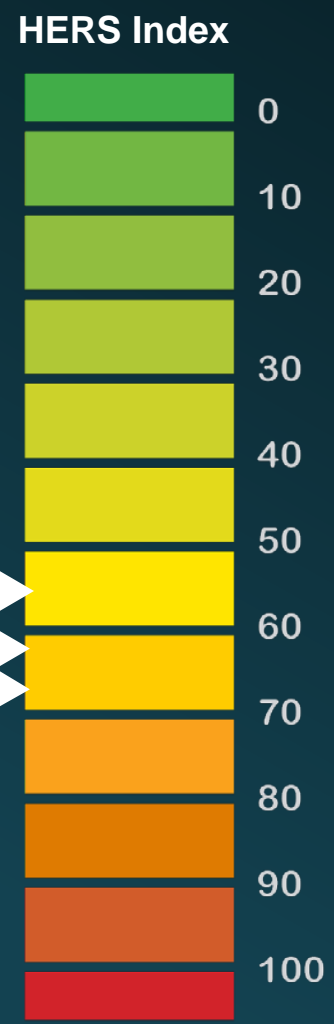
# Santa Fe Green Code 2016 Update

**Minus 1 point for every 100 SF over 3000, or portion thereof**

**JANUARY 2018 SANTA FE HERS REQUIREMENT**

**2016 SANTA FE HERS REQUIREMENT**

**CURRENT SANTA FE HERS REQUIREMENT**





# What is the Water Efficiency Rating Score?



New/Existing



Multi-Family



3rd Party

W1 Interior Fixtures and Appliances		**APPLIANCE WATER USE RATED BY THE MANUFACTURER									
Category	Model	Flow Rate (GPM)	Flow Rate (LPM)	Flow Rate (GPM)	Flow Rate (LPM)	Flow Rate (GPM)	Flow Rate (LPM)	Flow Rate (GPM)	Flow Rate (LPM)	Flow Rate (GPM)	Flow Rate (LPM)
A	Water (GPM)	2.20	8.33	2.20	8.33	2.20	8.33	2.20	8.33	2.20	8.33
B	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
C	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
D	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
E	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
F	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
G	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
H	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
I	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
J	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
K	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
L	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
M	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
N	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
O	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
P	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
Q	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
R	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
S	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
T	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
U	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
V	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
W	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
X	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
Y	Shower (LPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46
Z	Shower (GPM)	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46	2.50	9.46

Score = 0 to 100



WERS = 70



WERS = 50



# What does WERS do?

- Calculates ALL water of a property or multi-tenancy building
- Calculates all the different water sources and provides a way to model impact of different source water
  - Potable Water
  - Rainwater
  - Greywater
  - Blackwater
  - Stormwater
- Integrates water!
- Provides a water rating # for a home



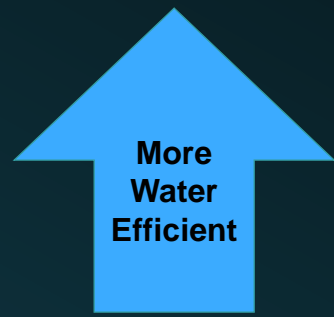
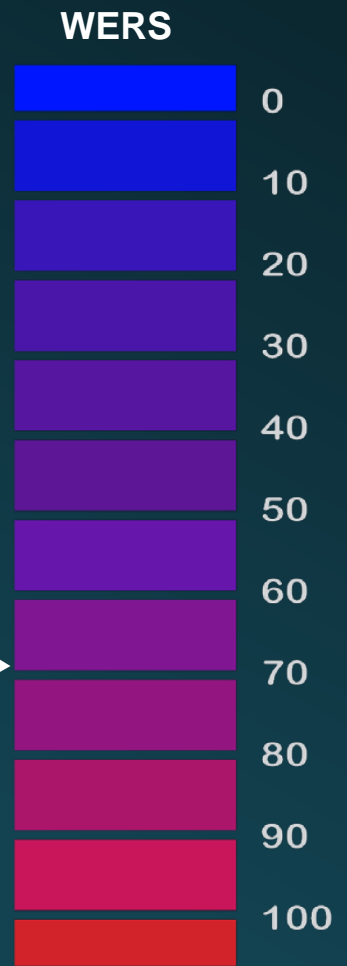


# Santa Fe Green Code 2016 Update

The new required score of 70 is very close to what you would get under the old green building code

Allows builders to get used to the system before increasing the efficiency requirement

Santa Fe WERS Requirement under new code





# City of Santa Fe – THE NEW WAY

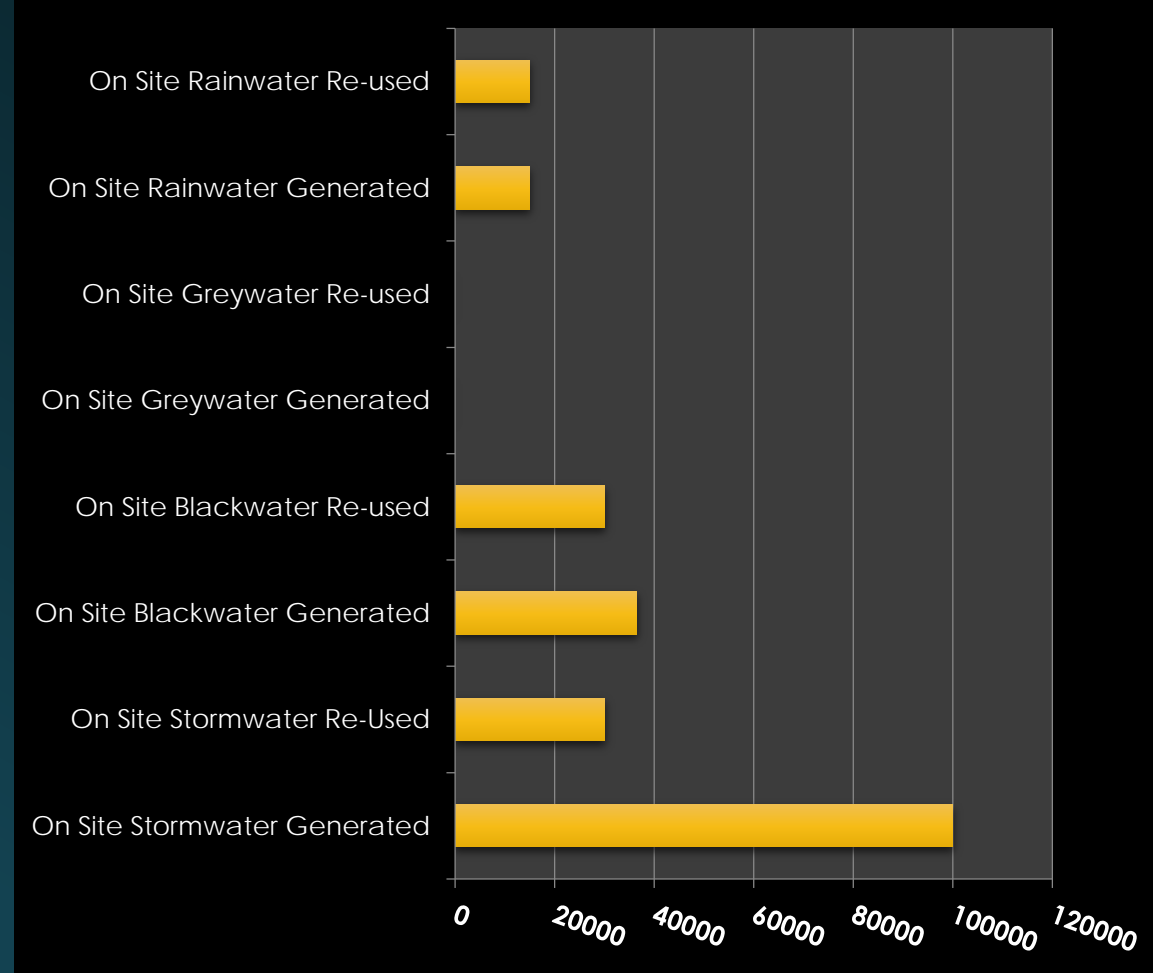
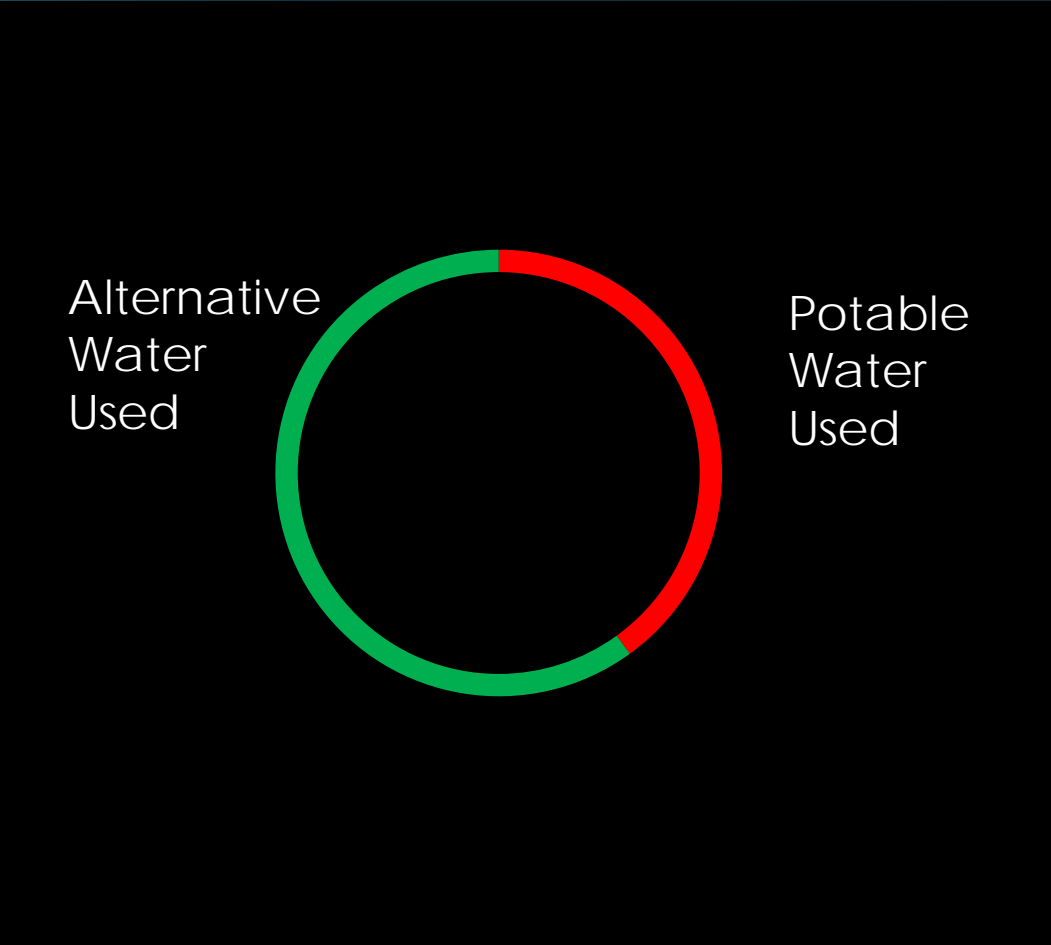
- Integrates Land Use Code and Water Conservation
- Reduces the requirement for specialized training of city personnel
- Simplifies inspection and code updating process
- Provides builders, architects, home owners more choice
- SAVES WATER

<b>GREEN BUILDING CODE SCORES</b> <b>Energy and Water Efficiency</b> for the residence located at: [INSERT ADDRESS]	
This home achieved a <u>confirmed</u> Home Energy Rating System (HERS) Index of:	 <b>XX</b>
This home achieved a <u>confirmed</u> Water Efficiency Rating Score (WERS) of:	 <b>XX</b>
In addition to the energy and water scores, this home meets the ventilation requirements of ASHRAE 62.2 for healthy indoor air quality and was inspected for heat loss due to thermal bypass. For more information see <a href="http://www.santafenm.gov/GreenCode">www.santafenm.gov/GreenCode</a>	





# WERS Dashboard





# Water Efficiency Rating Score (WERS)

- WERS is a tool and verification system from the Green Builder<sup>®</sup> Coalition, a green building non-profit since 2010
- Technical Advisory Board includes individuals from NM, FL, IL, MO, DC, and MA
- Green Builder<sup>®</sup> Coalition updates the tool, certifies 3<sup>rd</sup> party Verifiers, provides and provides on-going reports to agencies
- City of Santa Fe Land Use – Katherine Mortimer
- Green Builder<sup>®</sup> Coalition – Mike Collignon
- Santa Fe Area Home Builders Association – Kim Shanahan
- Santa Fe Water Conservation – Christine Chavez



A large, curling blue wave crashing over a sandy beach. The water is a vibrant turquoise color, and the wave is curling over itself, creating a tunnel-like effect. The beach is visible in the foreground, and the sky is a pale, hazy blue.

Questions?