

## Matrix of Water Efficiency Rating Systems

	ICC 700 - 2015/2020 NGBS Chapter 8: Prescriptive path	ICC 700 - 2020 NGBS WRI path <i>(Alternate compliance)</i>	RESNET HERSH2O	WERS	EPA WaterSense v1.3 <i>(released May 2020 - administrative changes only)</i>	EPA WaterSense v2 <i>(in pilot phase as of July 2020)</i>
American National Standards Institute (ANSI) Approved Standard	Yes	Yes	Yes	No	No	Depends on the WACM used
Requires an Independent Rater/Verifier	Yes	Yes	Yes	Yes	Yes	Yes
Standalone Certification Program	No <i>(Part of overall home certification)</i>	No <i>(Part of overall home certification)</i>	Yes	Yes	Yes	Yes
Onsite Inspections	Yes	Yes	Yes	Yes	Yes	Yes
Certification Fees <i>(Only includes fees paid to Certifying Body)</i>	Whole project certification SF: \$200/home   MF: tiered structure	Whole project certification SF: \$200/home   MF: tiered structure	TBD - anticipated to be \$50-\$150	\$75 per single-family project <i>(\$49 in NM)</i>	None	None
Possible Additional Fees	NGBS Green Verifier fee <i>(as part of whole home certification)</i>	NGBS Green Verifier fee <i>(as part of whole home certification)</i>	HERSH2O Rater fee	WERS Verifier fee	Certified Inspector fee	Verifier fee
Project Certification Information	<a href="https://www.homeinnovation.com/green">https://www.homeinnovation.com/green</a>	<a href="https://www.homeinnovation.com/green">https://www.homeinnovation.com/green</a>	<a href="https://www.resnet.us/about/hersh2o/">https://www.resnet.us/about/hersh2o/</a>	<a href="http://www.wers.us/">http://www.wers.us/</a>	<a href="http://www.epa.gov/watersense/homes">www.epa.gov/watersense/homes</a>	<a href="http://www.epa.gov/watersense/homes/v2">www.epa.gov/watersense/homes/v2</a>
Standard/Rating System Guide	<a href="http://www.nahb/ngbs">www.nahb/ngbs</a>	<a href="http://www.nahb/ngbs">www.nahb/ngbs</a>	<a href="http://www.resnet/hersh2o">www.resnet/hersh2o</a>	<a href="http://www.wers.us/">http://www.wers.us/</a>	<a href="http://www.epa.gov/watersense/homes/guide">www.epa.gov/watersense/homes/guide</a>	<a href="http://www.epa.gov/ws-homes-v2-concept-paper">www.epa.gov/ws-homes-v2-concept-paper</a>
Applicable Building Types <i>(SF = single-family) (MF = multifamily)</i>	SF - New Construction & Renovation <i>(including duplexes, townhomes)</i> MF - New Construction & Renovation	SF - New Construction <i>(Section 804)</i> <i>(including duplexes, townhomes)</i> <i>(Section 1204.4 for SF Certified Path)</i> MF - New Construction <i>(Section 804)</i>	SF - New Construction & Renovation <i>(including duplexes, townhomes)</i> <i>(renovation implied, not specifically called out)</i> MF - No	SF - New Construction & Renovation <i>(including townhomes)</i> MF - New Construction & Renovation	SF - New Construction <i>(including townhomes)</i> MF - New Construction <i>(residential units in buildings ≤ 3 stories)</i>	SF - New Construction <i>(including townhomes)</i> MF - New Construction <i>(residential units in buildings ≤ 3 stories)</i>
Water Cost Evaluation	No	No	No	Yes	No	No
Approved Product List	Yes	Yes	No	Yes	Yes	Yes
<b>INDOOR WATER</b>						
Evaluates Overall Indoor Water Efficiency	No	Yes	Yes	Yes	Yes <i>(Home must be at least 20% more efficient than typical new construction)</i>	Yes <i>(Home must be at least 30% more efficient than typical new construction based on national standards and requirements)</i>
What's Included in the Calculations?	Prescriptive: Home features, fixtures and appliance information entered in scoring tool spreadsheet; points awarded for practices as defined in the standard	Detailed in App. D & Verifier Reference Guide Formulas use home size, #bedrooms, fixtures & appliances, lot size, landscape design <i>Formula: (Anticipated indoor + outdoor water use) / (Baseline indoor + outdoor water use)</i>	Detailed in BSR/RESNET/ICC Standard 850 Formulas use home size, #bedrooms, fixtures & appliances, lot & landscape size <i>Formula: (indoor and outdoor gpd for rated home) / (indoor and outdoor gpd for reference home)</i>	Formulas use home size, #bedrooms, fixtures & appliances, lot size, landscape design <i>Formula: (Anticipated indoor + outdoor water use) / (Baseline indoor + outdoor water use)</i>	Prescriptive: Size of home and lot, fixtures, appliances, landscaping and irrigation evaluated against reference home (based on 2009 plumbing codes)	Any applicable WaterSense Approved Certification Method (WACM) developed by EPA approved Home Certification Organization (HCO) can be used
Flush and Flow Fixtures	Yes	Yes	Yes	Yes	Yes <i>(Must be WaterSense labeled)</i>	Yes <i>(Toilets, bathroom sink faucets and showerheads must be WaterSense labeled)</i>
Water Heater	Yes	Yes	No	Yes	No	No
Dishwasher	Yes <i>(ENERGY STAR or equivalent)</i>	Yes	Yes	Yes	Yes <i>(ENERGY STAR qualified)</i>	No
Washing Machine	Yes <i>(ENERGY STAR or equivalent)</i>	Yes	Yes	Yes	Yes <i>(ENERGY STAR qualified)</i>	No
Structural Waste Considered <i>(water volume in the pipe between the hot water source and the plumbing fixture or appliance plus the extra volume needed to heat the pipe as hot water is delivered to its use)</i>	Yes	Yes	No	Yes	No	No
Other Indoor Considerations	No	Water Softeners   Humidifiers Evaporative Coolers   Water Filters (except Reverse Osmosis)	Water Softener Other water use in the home Static pressure adjustment (excess pressure)	Water Softeners   Humidifiers Evaporative Coolers   Water Filters Indoor Water Features	Evaporative cooling system   Water softeners Inspection to confirm no visible leaks and proper service pressure   Hot water delivery	Inspection to confirm no visible leaks and proper service pressure
<b>OUTDOOR WATER</b>						
Evaluates Overall Outdoor Water Efficiency	No	Yes	Yes	Yes	Yes <i>(Home must be at least 20% more efficient than typical new construction)</i>	Yes <i>(Home must be at least 30% more efficient than typical new construction based on national standards and requirements)</i>
What's Included in the Calculations?	Irrigation system and rainwater collection design parameter information entered in scoring tool spreadsheet; points awarded for practices as defined in the standard	Uses: areas of hardscapes/pervious areas, monthly potential ETO & historic rainfall, types of plantings	Determines water demand based on one of two calculations, based on lot size and if there is an outdoor irrigation system	Uses: areas of hardscapes/pervious areas, monthly potential ETO & historic rainfall, types of plantings	EPA Water Budget Tool <i>(https://www.epa.gov/watersense/water-budget-tool)</i>	Any applicable WaterSense Approved Certification Method (WACM) developed by EPA approved Home Certification Organization (HCO) can be used
Landscape Design	No	Yes <i>(Evapotranspiration factor based on plant type)</i>	Yes <i>(Based on lot size only - less than or greater than 7000 sq. ft.)</i>	Yes <i>[Water demand of plantings, plant grouping (hydrozones) considered]</i>	Yes	No
Irrigation System	Yes	Yes <i>(Efficiency factors based on system type)</i>	Yes	Yes <i>(Potential water use based on type(s) of irrigation, irrigation zones, water demand)</i>	Yes <i>(climate zones factored in for net evapotranspiration)</i>	No
Other Outdoor Considerations	No	Swimming Pools, Fountains and Spas	Swimming Pools	Swimming Pools, Fountains and Spas	Swimming Pools, Spas and Fountains	No
<b>WATER CAPTURE AND REUSE</b>						
Rainwater Capture <i>(precipitation that falls on a structure)</i>	Yes	Yes	No* <i>*(Can be considered on a case-by-case basis)</i>	Yes	No	No
Graywater Capture <i>(wastewater from bath, shower, lavatories or clothes washers)</i>	Yes	Yes	No* <i>*(Can be considered on a case-by-case basis)</i>	Yes <i>(for indoor or outdoor use)</i>	No	No
Blackwater Capture <i>(wastewater from toilets)</i>	Yes	Yes	No	Yes	No	No
Other	Reclaimed Water: Engineered Biological or Bioremediation System	Sitewater Capture <i>(Precipitation falling on the ground, softscapes or hardscapes)</i>	No	Sitewater Capture <i>(Precipitation falling on the ground, softscapes or hardscapes; also direct capture)</i>	No	No
Water Reuse	Yes <i>(Points based on system size/ % demand met)</i>	Yes <i>(Per local requirements. No indoor blackwater reuse.)</i>	No* <i>*(Can be considered on a case-by-case basis)</i>	Yes <i>(Calculates storage needed, tank size, demand % met)</i>	No	No