

NEXUS eWATER

Water and Energy Recycling for the home

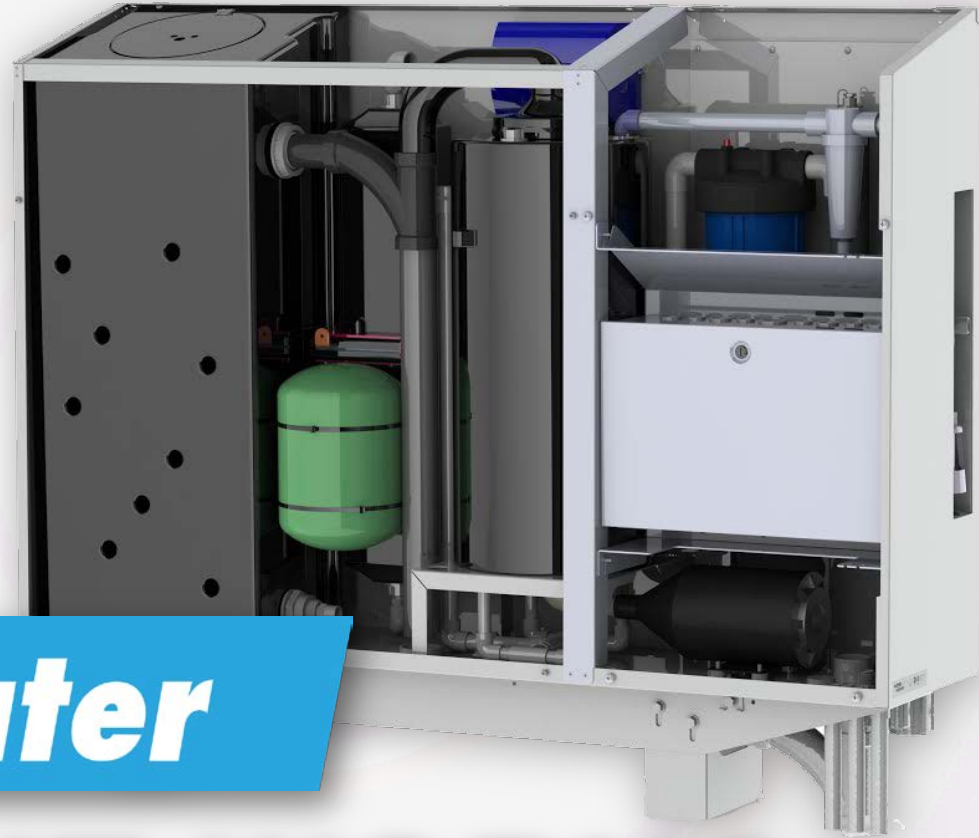
Heather McPherson P.E.
Heather.mcpherson@nexusewater.com

NEXUS
eWATER

www.NexusEwater.com

Agenda

- How Nexus System Works
- Current Applications
- Obstacles and challenges



NEX *treater*

HOW IT WORKS

NEXUS
eWATER

Home Water Recycling with Nexus eWater

67%

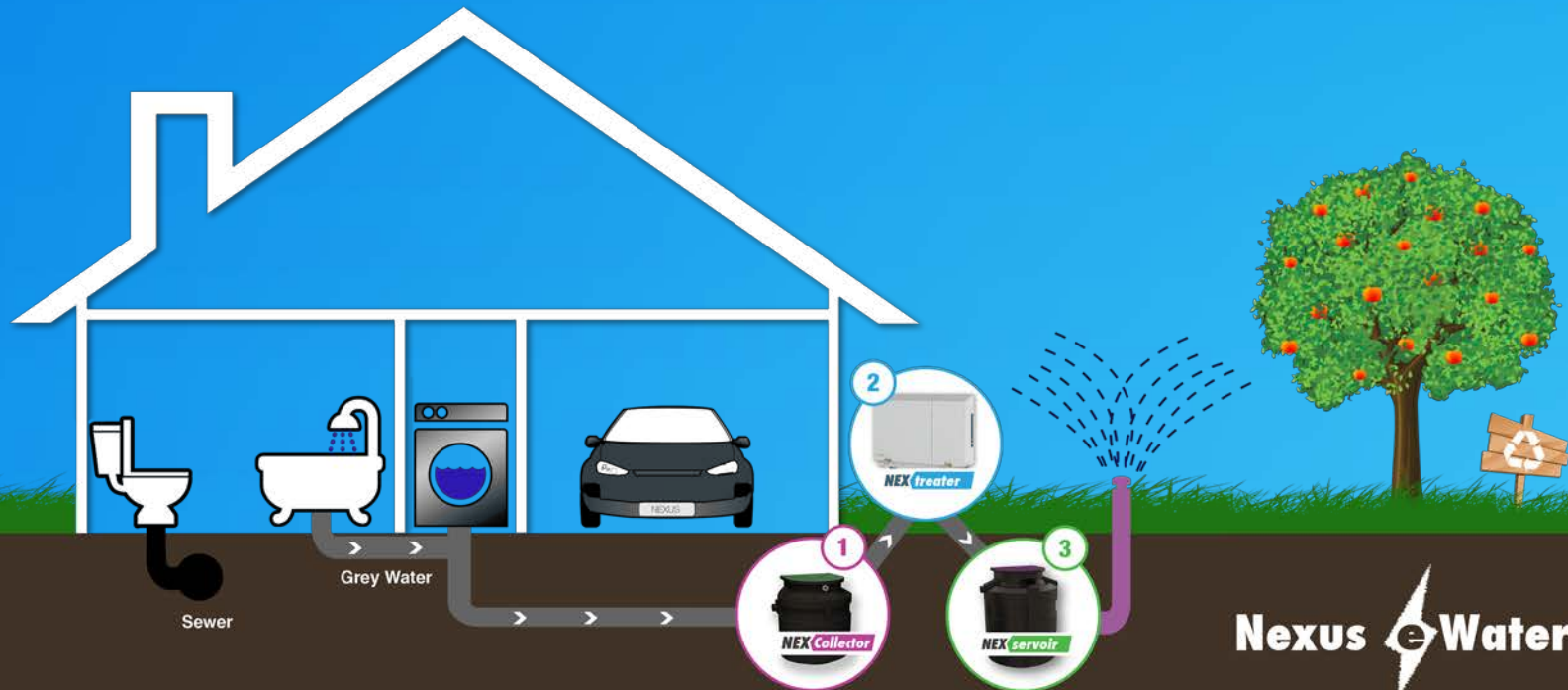
of all indoor water
is treated

70%

reduction in all
sewer flow

100%

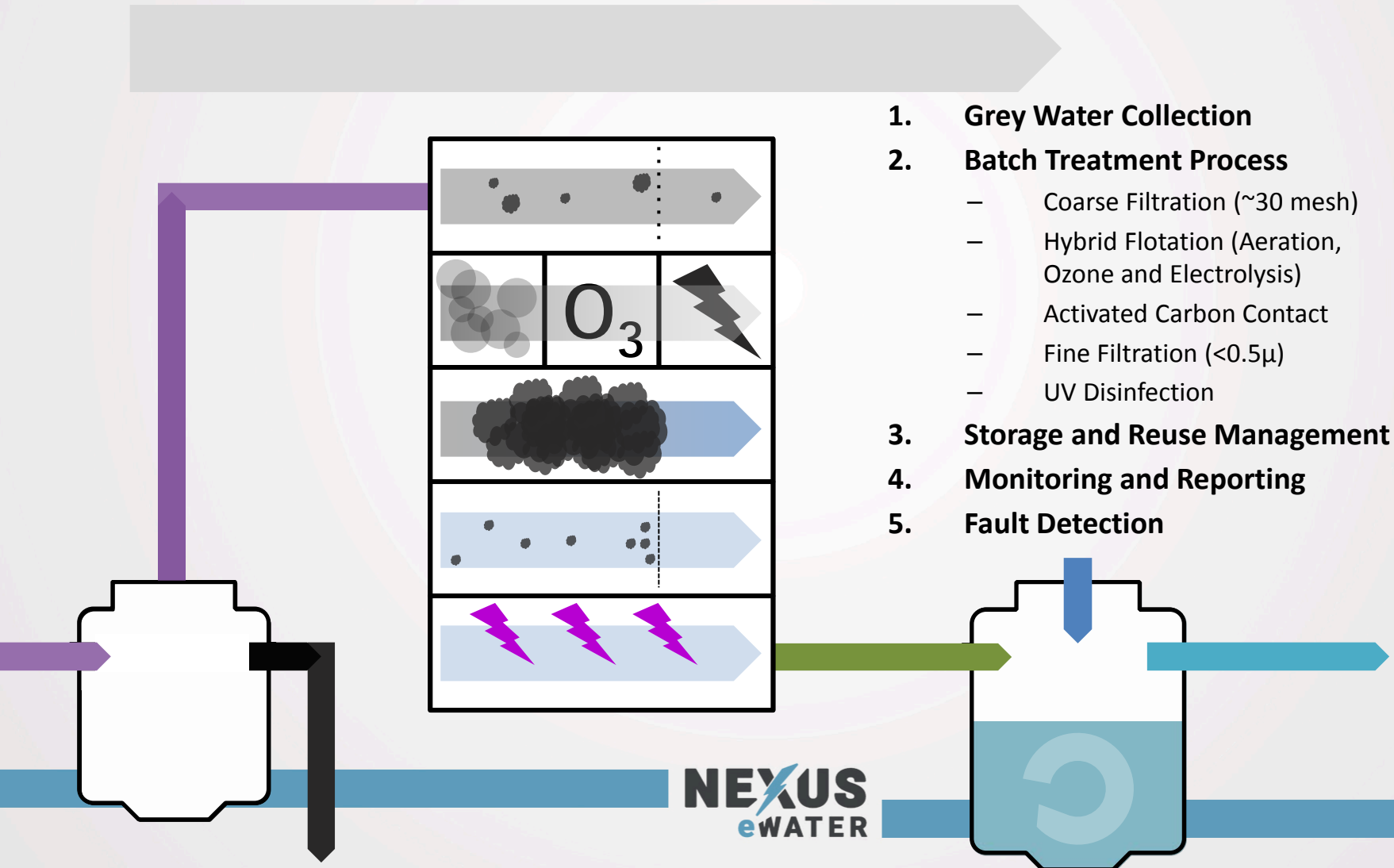
green – just like
your lawn!



Nexus eWater

www.nexus-e-water.com

Treatment Process



NEX *treater*

the difference is clear

- Looks like tap water
- Very high water quality
- NSF 350 certified water can be used in California since January 1, 2014 for above ground lawn watering



Before

After

NSF/ANSI-350 Standard



“NSF/ANSI Standard 350 is a revolutionary standard established to set clear, rigid, yet realistic guidelines for water reuse treatment systems. With a key focus on public health and appropriate water quality criteria for reuse applications....” NSF.org

Systems certified to NSF/ANSI-350 are:

Independently validated for system performance	✓
Undergone rigorous 6-month test program	✓
Verified to meet stringent water quality	✓
Verified to produce <u>no odor</u>	✓
Tested for electrical safety	✓
Tested to maximum permitted sound levels	✓
Tested for strength and integrity requirements	✓
Maintenance-free for 6-month minimum	✓
Approved with warranty and literature	✓
Subjected to annual audit requirements	✓

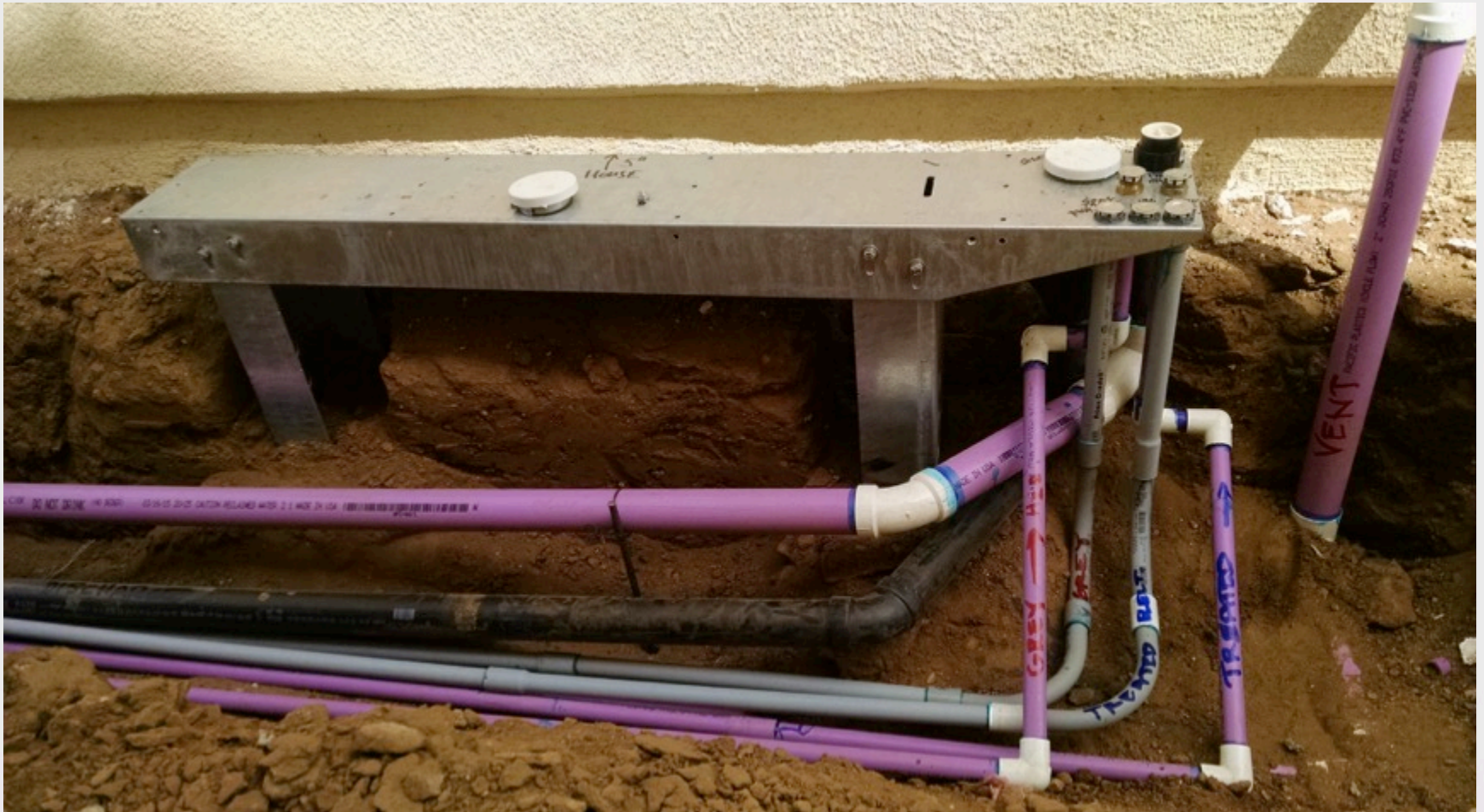
Nexus eWater: NSF Certified

Certification Results				
	Challenge Water		Treated Water	
	Specified in NSF/ANSI-350	Actual tested average	NSF/ANSI-350 Maximum limit	Nexus Certified Results
BOD ₅ (mg/L)	130-180	184	10 (avg)	2.31
TSS (mg/L)	80-160	133	10 (avg)	<2
Turbidity (NTU)	50-100	60	5 (avg)	0.68
Total Coliforms (CFU/100ml)	10 ³ -10 ⁴	1.5x10 ⁶	NA	<1
E. Coli (CFU/100ml)	100-1000	125	14 (avg)	<1
pH	6.5-8.5	7.0	6-9	6.9
Odor	-	-	Non-offence	No Odor

Trenching for Tanks



NEXbench



Tank Installed



NEXtreater Installed



Current Projects

- Custom SFR
- 40 -50 Tract SFR Developments
- Multi-family
- Whole community (10,000 home)

Obstacles and Challenges

- Education & Code Knowledge
 - Do not know difference of Treated vs Untreated Greywater
 - Do not clearly know the rules for either
- Fear of Unknown
 - Protectors of the Public Health not enforcers of the code.
 - Fear of homeowner tapping into recycled water line in the future
- Over-regulation = cost
 - Air Gap + testable (\$\$\$)backflow prevention
 - Code clearly states that Air Gap is adequate
- Need cover to move forward
 - Staff wants policy from leadership rather than just following code.