

THE MCMEANS RAINWATER STORY

**A JOURNEY FROM WELLWATER TO
PURE RAINWATER**

THE JOURNEY BEGINS

- WE BOUGHT 35 ACRES ON FISCHER STORE ROAD IN 1997 – STILL AFFORDABLE.
- DRILLED MIDDLE TRINITY WELL IN 1997 – SET PUMP AT 625’
- STARTED CABIN CONSTRUCTION
- FULLY RETIRED IN 2002 – STARTED HOME CONSTRUCTION

THE HOUSE



WELL WATER

- WE MOVED INTO HOME IN 2003 – METAL ROOF WITH CHEAP GUTTERS
- WELL WATER SUPPLY – WATER SOFTENER AND REVERSE OSMOSIS UNIT IN KITCHEN
- SOFTENED WATER HIGH IN NITRATES
- USED RO WATER FOR DRINKING AND COOKING

WELL EQUIPMENT



WELL WATER EXPERIENCE

- WELL WATER SMELLY AT TIMES
- REQUIRED SALT AND FREQUENT SEDIMENT FILTER CHANGES
- REQUIRED TESTING AT TEXAS STATE LAB
- GOOD WATER LEVEL AT 200'

LEARNING ABOUT RAINWATER

- WE BUILT A FREE-STANDING SHOP IN 2007
- BEGAN LEARNING ABOUT RAINWATER COLLECTION
- ADVANTAGES – PURE, SAFE, RELIABLE, FREE WATER
- DISADVANTAGE – INSTALLATION COST

RAINWATER DECISION

- IN 2009 WE DECIDED TO CONVERT TO RAINWATER
- CONTACTED GUTTER AND RAINWATER INSTALLERS
- DREW BASIC SCHEMATIC FOR SYSTEM
- COLLECT RAINWATER OFF HOUSE AND SHOP – APPROX. 5000 SQUARE FEET

RAINWATER SYSTEM BASICS

- NEW 6" GUTTERS FOR HOUSE AND SHOP
- WET PIPE COLLECTION SYSTEM
- LOTS OF TANK STORAGE – 40,000 GALLONS
- TWO TANKS FOR REDUNDANCY
- CONSTANT PRESSURE TANK – 55 GALLONS
- RECIRCULATION OF STORED WATER

HOUSE RAINWATER COLLECTION



GUTTER WITH “LEAF RELIEF”



TREE DEBRIS ON GUTTERS



TWO PIONEER TANKS – 20,000 GALLONS EACH



BERM TO PROTECT TANKS



FILL PIPES – GRAVITY FLOW



TANK VALVING – INDEPENDENT OPERATION EACH TANK



DEBRIS BASKET AT TANK



TANK ACCESS HATCH



**METER TO
CHECK pH of
RAINWATER
AT TAP**



BAKING SODA TO RAISE pH above 7.0



REMOVE CAP TO BYPASS RAINWATER



TANK OVERFLOW AND RECIRCULATION PIPES



RAINWATER TREATMENT AND PRESSURE SYSTEM



PRESSURE TANK AND PUMP



WATER METER FOR HOUSE USE



SEDIMENT AND ACTIVATED CARBON FILTERS



UV LIGHT - STERILIZATION



RECIRCULATION PUMP AND FILTER

- NIGHTLY



RAINWATER COLLECTION AND USE

- RAINWATER COLLECTED = 600 GALLONS PER 1000 SQUARE FEET OF ROOF PER 1" OF RAIN.
- MCMEANS' SYSTEM – APPROX. 5000 SF OF ROOF YIELDS 3000 GALLONS PER 1" OF RAIN.
- NORMAL INDOOR USE ABOUT 70 GALLONS PER DAY WITH TWO OCCUPANTS WITH WATER SAVING APPLIANCES.
- SOME OUTDOOR USE – UNMETERED.

**WATER LEVEL MID-OCTOBER – 0.25
INCHES OF RAIN SINCE MID-JUNE**

