

Smithfield Wilson  
Water Use  
Reduction Project

**2014 Standard**

**0.086**

**Water Usage**

**31.7**

**Solid Waste**

# Continuous Improvement Goals Included

10% water reduction below our “standard  
year”

**GOAL**

**28.53**

# What We Did

- 1. Developed a water use reduction team.
- 2. Look at our biggest users....--- Sanitation, Condensers, Scrubbers.
- 3. Developed a plan.
- 4. Purchased New Nozzles for all hoses in the plant.
- 5. Installed, used and tracked our progress.
- 6. Improved Dry Pick Up by Using Air Hoses to gather solids together, so it could be shoveled into inedible.
- 7. Installed, used and tracked our progress.
- 8. Developed The “Strategic Cleaning Initiative.” (Instead of tearing everything down to gaskets and O rings every night, we washed the whole machines, and only tore them down completely twice per week.
- 9. Condensing tower level control. (Float)
- 10. Wastewater effluent reuse for polymers to DAF unit.
- 11. Scrubbers, calibrated water level control probes.

# The Nozzle we chose

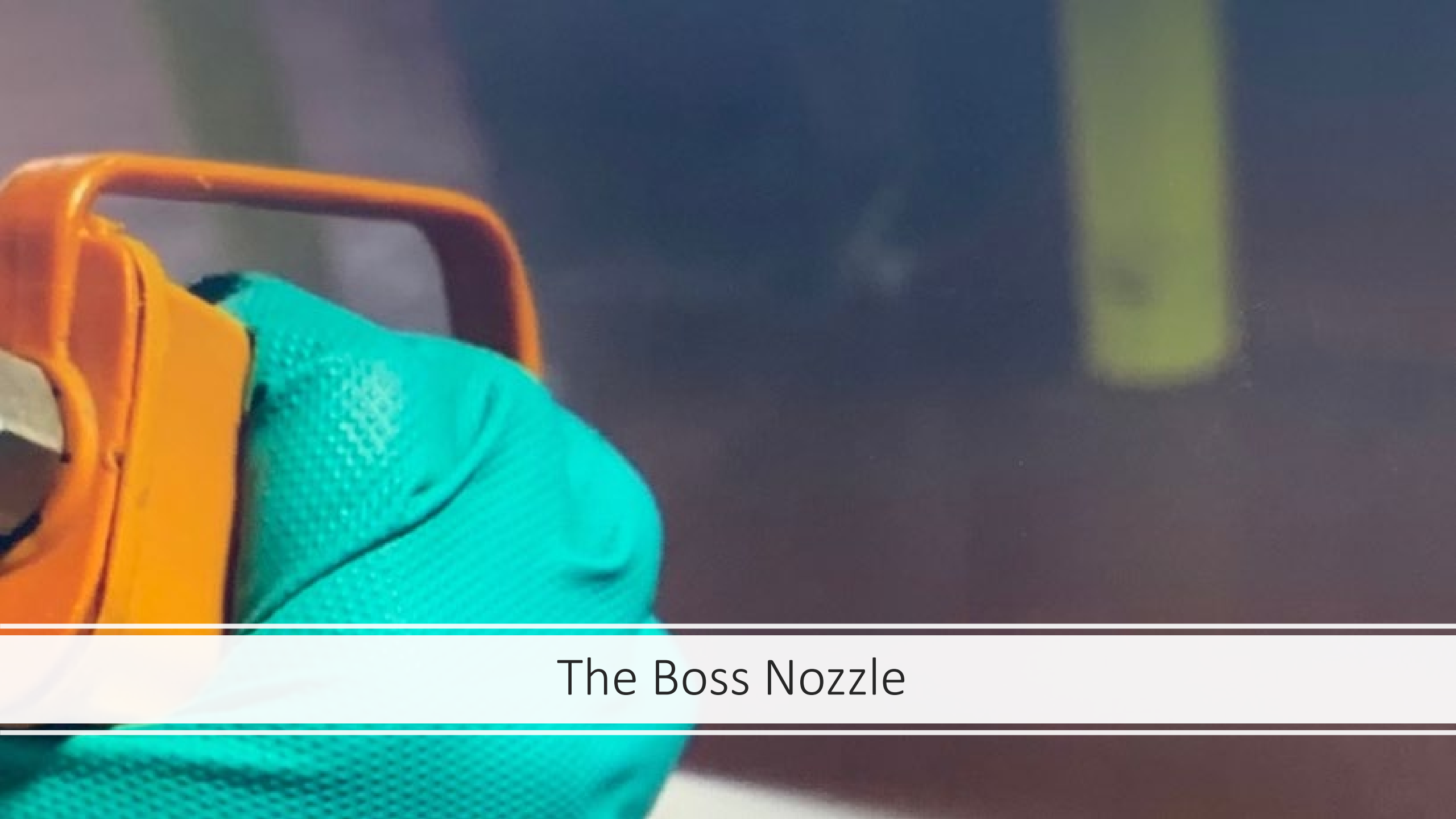


**Model: WB-750-1/2-IL**

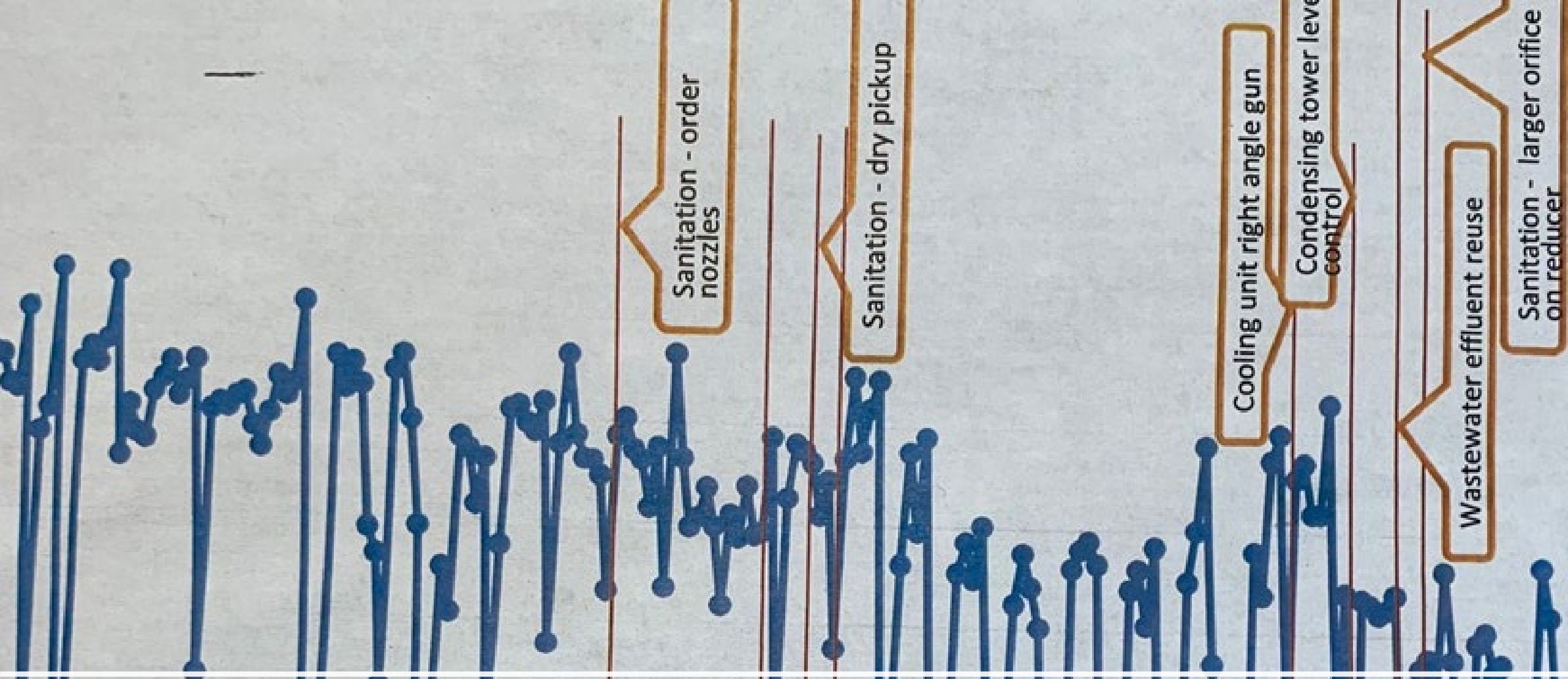
**HIGH PRESSURE - In Line**

**Color: Orange** | Rating: 750 psig

**Inlet Connection: 1/2" NPT**



## The Boss Nozzle



How we tracked it.

n Initiative



GRAY WATER

Recirculation To  
Chemical Inj  
Syste

Waste Water Reuse  
Project

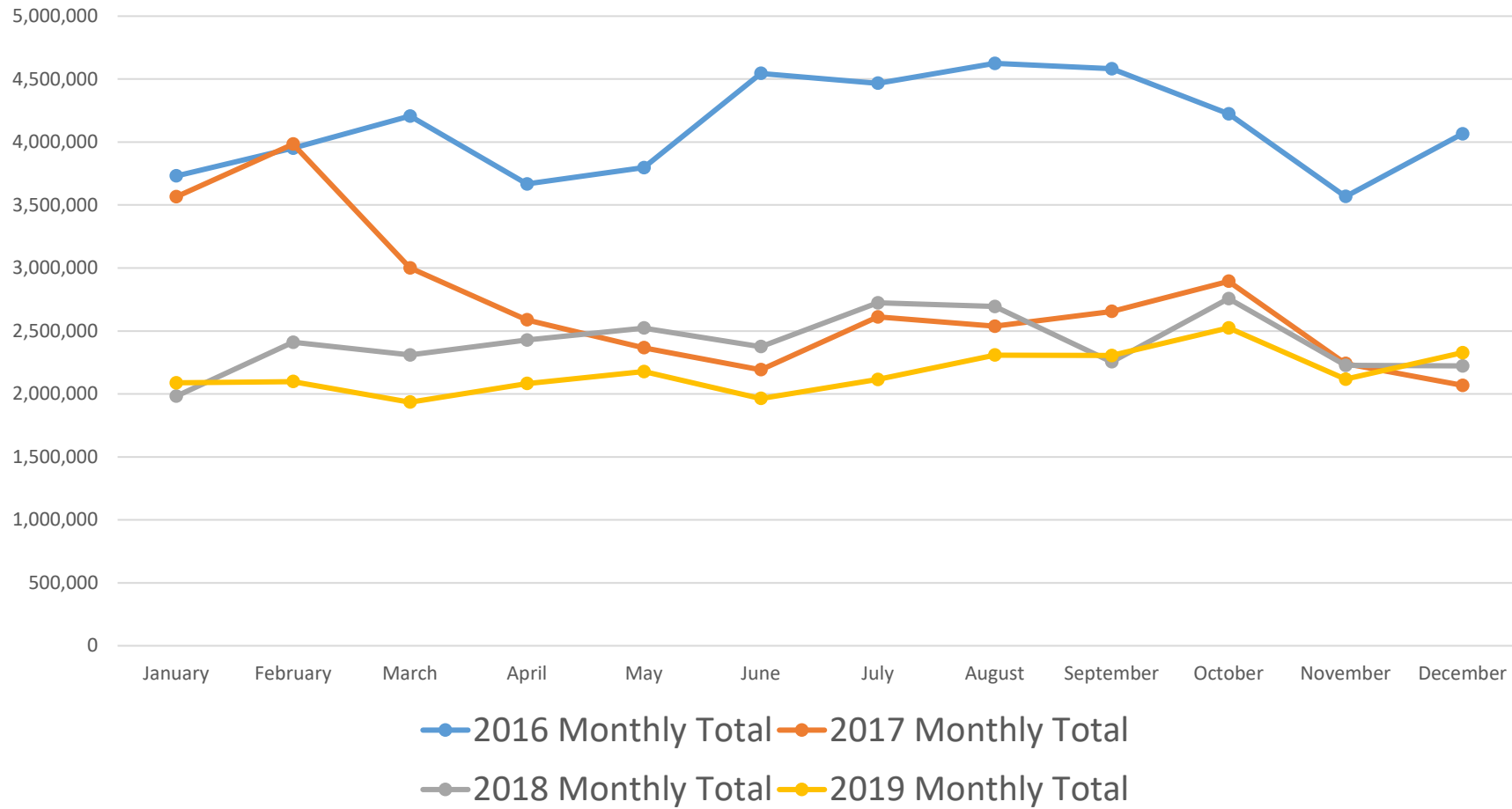






Presidential Award 2019 and Manufacturing Excellence Award winning project:  
50% water use reduction from early 2017 to early 2019

Water use by year and month



Before, left and after, right.









# Water Use Reduction Team Members with The President's Award



Month	Electricity	Natural	2019 Standard		Water	20.3		Solid Waste	1.21	
	2021 Usage KWH	Gas Usage MMTU's	GJ	GJ/CWT	Usage gallons	gallons/CWT	Tons	Tons	CWT	
Oct-20	1582012	2900.2	8754.95	0.089	2870951	29.18	85	1.73	98380.27	
Nov-20	1381961	2751	7877.36	0.067	2980960	25.43	56.79	0.97	117215.96	
Dec-20	1469652	3722	9217.46	0.075	2554368	20.85	77.88	1.27	122534.53	
Jan-21	1383845	3543	8719.71	0.085	2249700	21.86	85	1.65	102894.67	
Feb-21	1336058	3365	8359.46	0.079	2249700	21.25	69.17	1.31	105868.48	
Mar-21	1452518	3287	8697.27	0.07	2232945	17.28	69.58	1.08	129218.55	
Apr-21	1403695	2680	7880.39	0.0795	2448720	24.71	42.66	0.86	99112.49	
May-21	1323792	2098	6979	0.0770	2453298	27.05	48.25	1.06	90679.90	
Jun-21	1535189	2150.8	7795.77	0.0652	2726767	22.79	64.68	1.08	119648.55	
Jul-21	1511652	1853.6	7397.50	0.0858	3036454	35.24	61.77	1.43	86168.38	
Aug-21	1693970	2231	8452.00	0.0816	3171610	30.61	51.52	0.99	103613.0	
Sep-21	1537980	2205.6	7863.64	0.0654	2661145	22.13	57.77	0.96	120239.76	
Oct-21				0.000		0.00	67.02	1.41	95151.56	
Nov-21				#DIV/0!		#DIV/0!		#DIV/0!		
Dec-21				#DIV/0!		#DIV/0!		#DIV/0!		
			avg for 2020	0.076	avg for 2020	21.275	avg for 2020	1.159	1052595.34	
				0.0762 avg		24.77 avg		1.16 avg		
				7.23%	Diff from standard	-22%	Diff from standard	4.21%	Diff from standard	



# Water use from 2016-2021

2016 Monthly Total 2017 Monthly Total 2018 Monthly Total 2019 Monthly Total 2020 Monthly Total 2021 Monthly Total

