



Annual Water Loss Report 2023

PSC Case # 2020-00386 and 2021-00206

Annual Review

Morgan County Water District has made progress in identify and repairing water line leaks in its distribution system in the past year. We have been able to purchase new equipment and have completed the first water line replacement project design to replace water lines that have historically have been a leak problem. We also began Phase 2 water line replacement.

We have been able to add zone meter pits at each of our water tanks and with the purchase of a portable flow meter; we have started to identify leaks that in the past we would not have been able to locate.

We have been able to get additional training for our Leak Detection Specialist through Kentucky Rural Water Association.

Actual Water Loss Progress

Please see below a four-year comparison of purchase water below. We have been able to purchase less water and at the same time sale more water to our customers.

(In Millions)

2019

Water Purchased	264,208
Water Sold	113,389

2020

Water Purchased	243,851	(Change) 20,357 less purchased
Water Sold	115,696	(Change) 2,307 increased sold

2021

Water Purchased	235,275	(Change) 8,576 less purchased
Water Sold	120, 233	(Change) 4,537 increased sold

2022

Water Purchased	233,433	(Change) 1,842 less purchased
Water Sold	126,109	(Change) 5,876 increased sold

Four-year difference in purchase water saved 30,775,000 gallons while increasing water sold by 12,720,000 gallons.

Estimated Water Loss Progress

We are making progress toward our goal of 15% water loss and we are on track this year to reduce water purchased by another 3 million gallons in 2023.

Actual Expenditures from Surcharge Account

Nesbit Engineering	\$14,702.50	11/9/2021
McKeand & Creed	\$ 26,995.00	12/27/2021
BearTraxx	\$ 30,480.00	3/11/2022
Gatormade	\$ 5,990.00	10/12/2022
Hydro-Stop	\$ 4,604.00	10/12/2022
Metron	\$ 8,543.64	10/12/2022
SE Diving	\$ 7,000.00	2/14/2023
Metron	\$ 7,825.00	2/14/2023
Keetech	\$ 42,620.00	2/14/2023
BearTraxx	\$ 50,800.00	3/25/2023
Metron	\$ 18,863.00	3/25/2023
Keetech	\$ 56,860.70	3/25/2023
Metron	\$ 14,605.00	3/27/2023
Metron	\$ 9,242.00	4/18/2023
ASTERRA	\$ 79,500.00	5/8/2023

Total Spent \$378,630.84

Estimated Expenditures from Surcharge Account

We will continue to add zone meter pits where we need them throughout our distribution system. We have also been researching the use of pressure monitoring for water leaks. We have had a company come in and do a demo on this technology. We are also looking at implementing Lean Six Sigma for problem solving and leak detection. Hydrant locking system has also been researched to deter theft of service

We have could some research papers regarding pressure monitoring and Lean Six Sigma in Leak Detection.

Additional Zone Meter Pits	\$30,000
Pressure Monitoring	\$50,000
Lean Six Sigma	\$10,000
Hydrant Locks	\$30,000