Black Mountain utility district plan for spending surcharge money.

With the Water Loss Surcharge money, we would like to be able to do various things throughout the district. We are going to explain those throughout this document. Before we start Black Mountain Utility District has taken the time to access the district and to get a knowable understanding on the system below, we are going display the plans for spending the WLS (water loss surcharge).

Personnel and Equipment

- 1. Personnel. Black Mountain Utility District (BMUD) would like to put two dedicated employees to leak detection and fix the leaks that are found. We would request that their weekly pay come from the WLS because that will be what they will be doing for 40 hours a week (with week-to-week detailed work done and work completed).
- 2. Equipment. BMUD has a leak detector that is outdated and would like to purchase two more so that we can cover more ground with the two employees we want to utilize for leak detection.
- 3. There are gate valves throughout the system that need changed to be able to isolate the system to zone it off. We would like to replace these to help in the leak detection reduction.

Louellen system PWS# KY04804987

- 1. Install flow meters to zone the system.
- 2. One at the Louellen tank (36.902864, -83.071979).
- 3. One at the Mary Wynn tank (36.890043, -83.043372).
- 4. One at the Holms Mill tank (36.874370, -82.952055).
- 5. Replace meters that are 10 years that has slowed down.
- 6. Replace service lines that have been prone to leaks throughout the years.
- 7. There are three pump stations that isolate the three tanks so that valving of for leak detection can be done.

Kenvir system PWS# KY0480603

- 1. Install flow meters to zone the system.
- 2. Install one in the Black Mountain tank (36.851621, -83.146166).
- 3. Install one at the Disney tank (36.855495, -83.102589).
- 4. Replace meters that are 10 years that has slowed down.
- 5. Replace service lines that have been prone to leaks throughout the years.

Coxton system PWS# KY0480265

- 1. Install one flow meters in this system.
- 2. We have one at (36.848975, -83.311046).
- 3. Install one at (36.860949, -83.284110).
- 4. Replace meters that are 10 years that has slowed down.
- 5. Replace service lines that have been prone to leaks throughout the years.

Dayhoit system PWS# KY0480277

- 1. Install flow meters to zone the system.
- 2. Install a flow meter at Watts Creek tank (36.854229, -83.377006).
- 3. Install a flow meter at Way Branch (36.853433, -83.391027).
- 4. Replace meters that are 10 years that has slowed down.
- 5. Replace service lines that have been prone to leaks throughout the years.

Sukey Ridge system PWS# KY0480461

- 1. Install flow meters to zone the system.
- 2. Install a flow meter at (36.859996, -83.340693).
- 3. Install a flow meter at (36.859970, -83.341580).
- 4. Replace meters that are 10 years that has slowed down.
- 5. Replace service lines (PVC) that have been prone to leaks throughout the years.

Rosspoint system PWS# KY0480650

- 1. Install flow meters to zone the system.
- 2. Install a flow meter at (36.868604, -83.316343).
- 3. Install a flow meter at (36.880054, -83.295125).
- 4. Install a flow meter at (36.901863, -83.244345).
- 5. Install two flow meters at (36.912793, -83.204616) the line goes in two directions here.
- 6. Install a flow meter at (36.916029, -83.188062).
- 7. Replace meters that are 10 years that has slowed down.
- 8. Replace service lines (Copper) that have been prone to leaks throughout the years.

Wallin's system PWS# KY0480572

- 1. Install flow meters to zone the system.
- 2. Install a flow meter at (36.832656, -83.420540).
- 3. Install a flow meter at (36.827415, -83.414236).
- 4. Install a flow meter at (36.809787, 83.407600).
- 5. Install a flow meter at (36.797905, -83.401839).
- 6. Install a flow meter at Banner Fork tank (36.773033, -83.381729)
- 7. Install a flow meter at Happy Top tank (36.821839, -83.432518).
- 8. Install two valves to isolate the system (36.818300, -83.431426).

- 9. Replace meters that are 10 years that has slowed down.
- 10. Replace service lines (improper installation) that have been prone to leaks throughout the years.

Green Hills system KY0480341

- 1. Install flow meters to zone off system.
- 2. We have two flow meters in this system already that we use to zone off pine mountain we would like to replace pipe in areas where the pipe is between 12-14 feet deep, on this mountain.
- 3. Install a flow meter at (36.9000660, -83.346147).
- 4. Install a flow meter at Shepherd tank (36.901379, -83.353924).
- 5. Install a flow meter at Bigalow tank (36.910406, -83.349800)
- 6. Install a flow meter for the Bledsoe area (36.910918, -83.338794)
- 7. Install a flow meter at (36.905774, -83.332712) on 221 east.
- 8. Install a flow meter at (36.911629, -83.297988) on 221 east
- 9. Install a flow meter at Divide tank (36.935774, -83.217099).
- 10. Install a flow meter at 510 junctions (36.949779, -83185695)
- 11. Install a flow meter at (36.952305, -83.187801)
- 12.Install two flow meters at the junction of 2008 and 221 east (36.979671, 83219437)
- 13. Replace meters that are 10 years that has slowed down.
- 14. Replace service lines (improper installation some service lines are between 8-12 feet deep) that have been prone to leaks throughout the years.

With all the miles of line we have it will take a lot of flow meters placed in variance places to zone the system to the point where leak detection becomes easier. With it becoming easier we will also succeed in getting the unaccountable water loss down to 15% and below. Black Mountain Utility District has driven the system and have taken the time to plan where all the flow meters need to be placed to zone the system where it is a manageable zone. Each system has its own problems, and we are ready and willing to do the work to reduce water loss.