

July 6<sup>th</sup>, 2009

Lakeshore Company  
3 Trails End  
Morristown, NJ 07960  
Attn: Lakeshore Company Board

RE: Review of Water Shut off valves & during 2009 system flush

**Background and History:**

After various improvements to the water system, this review is being upgraded, with notes added and text edited, to reflect findings during the annual water system flush and valve exercise program in June of 2009.

**A. Hydrants**

Hydrant # 770

Located approximately 76 feet from the telephone pole on Lake Trail East, across from the property marked on the Lakeshore Co. map as "257.7", near the junction of Lake Trail East and Alpine Trail, was opened by 5 full clockwise turns. It ran rusty for several seconds, but cleared up within 3 minutes of running. The valve cover cap was well lubricated. The hydrant shut off valve, located immediately to the front of the hydrant, took eleven full turns clockwise to close. It operated without difficulty. The valve was still marked with blue marking paint.

Hydrant #750

Located on Lake Trail East across from #54 LTE and near telephone pole numbered "53HTM", was opened by 5 full counter-wise turns. It ran rusty / brown colored water for several seconds, but cleared up within 2 to 3 minutes of running. The hydrant shut off valve, located immediately to the front of the hydrant, took 13 full turns clockwise to close. It operated without difficulty. The valve was still marked with blue marking paint.

#### Hydrant # 640

Located in front of # 5 Lake Trail West, was opened 10 full turns to flush. The hydrant was run 3 minutes to clear.

The hydrant shut off valve, located immediately to the front of the hydrant, took 13 full turns clockwise to close. It operated without difficulty. The valve was still marked with blue marking paint.

#### Hydrant # 630

Located near 24 Lake Trail West, (Stuehler), was opened and flushed. The hydrant was run 3 minutes to clear. The hydrant itself opened and closed with some difficulty, and took longer to stop running than most others, but did finally stop dripping.

The hydrant shut off valve, located immediately to the front of the hydrant, took 12 full turns clockwise to close. It operated without difficulty. The valve was still marked with blue marking paint.

#### Hydrant #620

Located near #38 Lake Trail West (Van Kirk), this hydrant access was difficult due to residential landscaping, but was operated nonetheless. The hydrant took 5 turns to open fully, and ran 5 minutes to clear.

The hydrant shut off was exercised, with 12 full turns clockwise to close. The valve was still marked with blue marking paint.

#### Hydrant #610

Located on Lake Trail West across from the intersection of Elm Trail, this hydrant was flushed for 3 to 4 minutes and ran clear almost immediately. The hydrant shut off valve, located in front of the hydrant, took twelve full turns clockwise to close. The valve was still marked with blue marking paint.

#### Hydrant #540

Located near #37 Primrose (Sullivan). This hydrant was difficult to operate, but opened with 5 turns. The water ran clear after 2 to 3 minutes of flushing. The hydrant shut off was exercised, with 12 full turns clockwise to close. The valve was still marked with blue marking paint.

#### Hydrant #500

This hydrant is located in front of 78 Primrose Trail. The hydrant was flushed for 3 minutes and ran slightly rusty, then clear almost immediately. The hydrant shut off valve, located in front of the hydrant, took thirteen full turns clockwise to close. The valve was still marked with blue marking paint.

**NOTE ON HYDRANT VALVES:**

Most of the hydrant shut-off valves were covered with soil or gravel. This happens either from the homeowners, or from rain run-off carrying soil.

It would be effective to utilize a metal detector to find the valve covers in the future, as keeping them free of soil or gravel would be difficult.

**Valves:**

NOTE: All valves can be operated by the larger valve stem wrench, except as noted.

The Valves formerly known as: # 410 & # 400

These two valves have been replaced with new valves. One, closer to "Bierley" operates the East Side, and the other, the West side shut-off. Both valves needed 13 turns to operate, and were turned without difficulty.

The Valves formerly known as: # 220 and 210

These two valves have been removed and a new, single valve has replaced them. This is the main valve for shutting off water to the storage tanks from Well House #2. This valve required 14 turns to operate.

Valve # 710

This valve is located close to 76 Lake Trail East, on the roadside closer to the lake. This valve was closed with nine turns clockwise. The top of the cover is lightly damaged, but otherwise, OK.

Valve #810

This valve is located on the hill at the intersection of Lake Trail East and Alpine Trail, closer to well house # 2, near 76 Lake Trail East. The valve took 8 turns to operate, and was somewhat stiff.

Originally, the valve box stem of this valve was at a severe angle that almost precluded the use of the valve key to operate the valve. This was remedied when the Well House #2 valve(s) were replaced.

## Valves #820 – 850

These are the three valves at the top of Alpine Drive in front of the water storage tanks which control the shut off of the tanks. Valve # 820, located in the middle of Alpine Drive needed 9 turns clockwise to fully close. Valve #850, located closer to the horizontal storage tank needed thirteen turns to close. This valve needs a ¾ inch valve stem wrench, and 13 turns to open.

Valve # 820 had some dirt and debris, apparently from the draining of the tanks for repairs. The “Clamshell” digger was used to remove the soil. A rubber plug needs to be purchased and used to help keep debris out of the valve stem case.

There is also a valve box across from the last vertical tank, (#830) The cover was removed showing a rubber plug. The rubber plug was removed and the area cleaned. This valve has no stem, and has not been operated.

There also is a valve located on Alpine Trail, near # 8. This appears to be an ‘end of the line’ valve. A water line blow-off should be installed at this point. This valve was not operated for fear of not getting it to open again, this is on a water line of unknown material, but most likely galvanized steel, and could cause leaks if disturbed.

### NEW BLOW-OFFS:

New water line blow-offs were installed.

The First one is at the end of Primrose Trail, near Bailey’s Mill Road. The valve is a 90 degree turn valve, in the road near the property line of the resident there. The actual blow-off has a quick connect fixture, the hose for which is kept in Well House #1.

The second is under the large manhole on the front lawn of the last residence on Trails End. The 90 degree shut off valve was exercised, but the line was not blown off. This fixture needs a 2 inch coupler, along with a four foot 2 inch plastic elbow to make sure the water clears the manhole.

### **Recommendations:**

The entire system should be flushed annually. Any valves or hydrants that begin to operate poorly, should be repaired.

Compiled by:

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July 6<sup>th</sup>, 2009