WATER DISTRIBUTION SYSTEM MODEL FOR CITY OF ARDEN HILLS, MN

(Including TCAAP Redevelopment Area)

The following base demand model runs are set up in this model:

1. Existing Arden Hills (1.17 MGD) – This Scenario represents existing Arden Hills without TCAAP and without any assumptions made for future growth. The total demand in this scenario is 1.17 MGD (no TCAAP redevelopment area demand).

2. Future Arden Hills (1.5 MGD) – This is the Existing Conditions model (1.17 MGD) with an additional 20% increase in demand to account for future growth for a total demand of 1.5 MGD (no TCAAP redevelopment area demand).

3. Full Dev Ave Day (2.25 MGD) – This scenario represents everything in the Existing model with future growth considered (1.5 MGD) plus it includes the TCAAP redevelopment area (0.75 MGD) for a total demand of 2.25 MGD.

4. Full Dev Max Day (6.75 MGD) – This scenario represents everything in the Existing model with future growth considered (1.5 MGD) plus it includes the TCAAP redevelopment area (0.75 MGD) plus an additional 4.5 MGD considered for the max day scenario. The total demand in this scenario is 6.75 MGD (i.e., three times the average day of 2.25 MGD).

5. Full Dev Peak Hour (13.5 MGD) – This scenario represents the peak hour scenario, which is two times the total demand of the max day scenario (i.e., two times the max day of 6.75 MGD).

Note: The above base demand scenarios do not include any imposed fire flow demand.