

| UPSTREAM STATION | DNSTREAM STATION | LENGTH | AREA IDENTITY | AREA "A" (ACRES) | RUNOFF COEF. "C" | INCREM. "CA" | ACCUM. "CA" | TIME AT UPSTREAM STATION (MIN) | STORM FREQUENCY (YEARS) | INTENSITY "I" (IN/HR) | RUNOFF "Q" (CFS) | SLOPE HYDRAULIC GRADIENT "S" (FT/FT) | PIPE SIZE (IN) | VELOCITY "V" (FPS) | PIPE SIZE CHANGE LOSSES | INLET & BEND LOSSES | FLOW TIME (MIN) | TIME AT DNSTREAM STATION (MIN) | CHANGE HYDRAULIC GRADE (PRESSURE FLOW) | VELOCITY HEAD (FEET) | |
|------------------|------------------|--------|---------------|------------------|------------------|--------------|-------------|--------------------------------|-------------------------|-----------------------|------------------|--------------------------------------|----------------|--------------------|-------------------------|---------------------|-----------------|--------------------------------|--|----------------------|-------------------------|
| | | | | | | | | | | | | | | | | | | | | | PIPE SIZE CHANGE LOSSES |
| LINE M | 135.00 | 80.00 | 55.00 | M-1 | 3.09 | 0.50 | 1.08 | 1.08 | 10.00 | 100 | 9.80 | 19.4 | 0.0073 | 24 | 6.18 | 0.40 | | 0.15 | 10.15 | 0.40 | 0.59 |
| | 80.00 | 80.00 | 0.00 | | | | 1.08 | 10.15 | 100 | 9.78 | 19.4 | 0.0002 | 48 | 1.54 | 0.00 | | 0.00 | 10.15 | 0.00 | 0.04 | |
| | 80.00 | 0.00 | 80.00 | LINE N, T | 16.46 | 0.50 | 7.73 | 9.71 | 10.15 | 100 | 9.78 | 94.9 | 0.0043 | 48 | 7.55 | 0.35 | | 0.18 | 10.32 | 0.35 | 0.89 |
| | | | | | 19.41 | | | | | | | | | | | | | | | | |
| LINE N | 918.37 | 894.56 | 23.82 | N-8 | 3.47 | 0.50 | 1.74 | 1.74 | 10.00 | 100 | 9.80 | 17.0 | 0.0068 | 24 | 5.41 | 0.13 | | 0.07 | 10.07 | 0.13 | 0.45 |
| | 894.56 | 876.50 | 18.05 | N-7 | 2.38 | 0.50 | 1.19 | 2.93 | 10.07 | 100 | 9.79 | 28.6 | 0.0159 | 24 | 9.11 | 0.29 | 0.84 | 0.03 | 10.11 | 0.29 | 1.29 |
| | 876.50 | 873.50 | 3.00 | | | | 0.00 | 2.93 | 10.11 | 100 | 9.78 | 28.6 | 0.0159 | 24 | 9.11 | 0.05 | 0.00 | 0.01 | 10.11 | 0.05 | 1.29 |
| | 873.50 | 692.27 | 181.23 | N-6 | 0.32 | 0.50 | 0.16 | 3.09 | 10.11 | 100 | 9.78 | 30.2 | 0.0177 | 24 | 9.61 | 3.21 | 0.14 | 0.31 | 10.43 | 3.21 | 1.43 |
| | 692.27 | 536.00 | 153.47 | N-5 | 1.84 | 0.50 | 0.92 | 4.81 | 10.43 | 100 | 9.74 | 39.0 | 0.0159 | 27 | 9.81 | 2.42 | 0.06 | 0.26 | 10.69 | 2.42 | 1.49 |
| | 536.00 | 535.80 | 3.00 | | | | 0.00 | 4.01 | 10.69 | 100 | 9.70 | 38.9 | 0.0089 | 30 | 7.91 | 0.83 | -0.26 | 0.01 | 10.69 | 0.83 | 0.97 |
| | 535.80 | 285.03 | 270.77 | N-3,4 | 3.35 | 0.50 | 1.88 | 5.68 | 10.69 | 100 | 9.70 | 55.1 | 0.0180 | 30 | 11.22 | 4.88 | 0.34 | 0.40 | 11.10 | 4.88 | 1.96 |
| | 285.03 | 262.03 | 3.00 | | | | 0.00 | 5.68 | 11.10 | 100 | 9.64 | 54.6 | 0.0107 | 33 | 9.22 | 0.09 | -0.32 | 0.01 | 11.10 | 0.09 | 1.32 |
| | 262.03 | 148.44 | 115.59 | N-2* | 1.14 | 0.50 | 0.57 | 6.25 | 11.10 | 100 | 9.64 | 60.3 | 0.0129 | 33 | 10.14 | 1.49 | 0.28 | 0.19 | 11.29 | 1.49 | 1.80 |
| | 148.44 | 99.95 | 46.49 | | | | 0.00 | 6.25 | 11.29 | 100 | 9.61 | 60.1 | 0.0081 | 36 | 8.50 | 0.38 | -0.24 | 0.89 | 11.39 | 0.38 | 1.12 |
| | 99.95 | 0.00 | 99.95 | N1, B1* | 1.04 | 0.50 | 0.52 | 6.77 | 11.39 | 100 | 9.60 | 65.0 | 0.0094 | 36 | 9.19 | 0.94 | 0.19 | 0.18 | 11.56 | 0.94 | 1.31 |
| | | | | | 13.54 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| LAT. N-3 | 200.05 | 0.00 | 200.05 | N-6 | 1.84 | 0.50 | 0.92 | 0.92 | 15.00 | 100 | 9.80 | 9.0 | 0.0032 | 21 | 3.75 | 0.64 | | 0.89 | 15.89 | 0.64 | 0.22 |
| | | | | | 1.84 | | | | | | | | | | | | | | | | |
| LAT. N-4 | 164.18 | 0.00 | 164.18 | N-8 | 3.47 | 0.50 | 1.74 | 1.74 | 15.00 | 100 | 9.80 | 17.0 | 0.0058 | 24 | 5.41 | 0.32 | | 0.51 | 15.51 | 0.32 | 0.45 |
| | | | | | 3.47 | | | | | | | | | | | | | | | | |
| LINE O | 151.25 | 117.84 | 33.41 | N-4 | 2.93 | 0.50 | 1.47 | 1.47 | 10.00 | 100 | 9.80 | 14.4 | 0.0040 | 24 | 4.57 | 0.13 | -0.08 | 0.12 | 10.12 | 0.13 | 0.32 |
| | 117.84 | 114.84 | 3.00 | | | | 1.47 | 10.12 | 100 | 9.78 | 14.3 | 0.0021 | 27 | 3.60 | 0.01 | 0.06 | 0.01 | 10.14 | 0.01 | 0.20 | |
| | 114.84 | 0.00 | 114.84 | N-3 | 0.42 | 0.50 | 0.21 | 1.68 | 10.14 | 100 | 9.78 | 18.4 | 0.0028 | 27 | 4.12 | 0.32 | 0.06 | 0.46 | 10.60 | 0.32 | 0.29 |
| | | | | | 3.35 | | | | | | | | | | | | | | | | |
| LINE P | 165.11 | 157.16 | 7.95 | P-1 | 2.64 | 0.50 | 1.32 | 1.32 | 10.00 | 100 | 9.80 | 12.9 | 0.0058 | 21 | 5.38 | 0.05 | -0.14 | 0.02 | 10.02 | 0.05 | 0.45 |
| | 157.16 | 62.97 | 94.19 | | | | 1.32 | 10.02 | 100 | 9.80 | 12.9 | 0.0017 | 27 | 3.25 | 0.16 | 0.40 | 0.46 | 10.51 | 0.16 | 0.19 | |
| | 62.97 | 0.00 | 62.97 | LINE Q | 2.31 | 0.50 | 1.16 | 2.46 | 10.51 | 100 | 9.73 | 24.1 | 0.0080 | 27 | 6.05 | 0.38 | 0.06 | 0.17 | 10.68 | 0.38 | 0.57 |
| | | | | | 4.95 | | | | | | | | | | | | | | | | |
| LINE Q | 233.02 | 185.37 | 47.65 | Q-6* | 0.46 | 0.50 | 0.23 | 0.23 | 10.00 | 100 | 9.80 | 2.2 | 0.0004 | 18 | 1.25 | 0.02 | 0.27 | 0.64 | 10.64 | 0.02 | 0.02 |
| | 185.37 | 62.62 | 132.76 | Q-5* | 1.14 | 0.50 | 0.57 | 0.80 | 10.64 | 100 | 9.71 | 7.7 | 0.0054 | 18 | 4.37 | 0.71 | -0.07 | 0.51 | 11.14 | 0.71 | 0.30 |
| | 62.62 | 48.62 | 3.00 | | | | 0.80 | 11.14 | 100 | 9.63 | 7.7 | 0.0023 | 21 | 3.16 | 0.01 | 0.02 | 0.02 | 11.16 | 0.01 | 0.16 | |
| | 48.62 | 38.48 | 11.14 | Q-4 | 0.11 | 0.50 | 0.06 | 0.85 | 11.16 | 100 | 9.63 | 8.2 | 0.0027 | 21 | 3.40 | 0.03 | 0.15 | 0.05 | 11.21 | 0.03 | 0.18 |
| | 38.48 | 0.00 | 38.48 | Q-3* | 0.61 | 0.50 | 0.31 | 1.16 | 11.21 | 100 | 9.82 | 11.1 | 0.0049 | 21 | 4.82 | 0.19 | 0.06 | 0.14 | 11.35 | 0.19 | 0.39 |
| | | | | | 2.31 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| LINE S | 383.38 | 330.09 | 53.29 | S-4* | 1.14 | 0.50 | 0.57 | 0.57 | 10.00 | 100 | 9.80 | 5.8 | 0.0012 | 21 | 2.32 | 0.04 | 0.21 | 0.24 | 10.24 | 0.04 | 0.08 |
| | 330.09 | 304.14 | 25.92 | S-3 | 0.99 | 0.50 | 0.50 | 1.07 | 10.24 | 100 | 9.77 | 10.4 | 0.0043 | 21 | 4.32 | 0.11 | 0.00 | 0.10 | 10.34 | 0.11 | 0.29 |
| | 304.14 | 154.65 | 149.50 | | | | 0.00 | 1.07 | 10.34 | 100 | 9.75 | 10.4 | 0.0043 | 21 | 4.32 | 0.04 | 0.91 | 0.58 | 10.92 | 0.04 | 0.29 |
| | 154.65 | 31.03 | 123.62 | S-2 | 2.24 | 0.50 | 1.12 | 2.19 | 10.92 | 100 | 9.67 | 21.1 | 0.0177 | 21 | 8.78 | 2.19 | 0.88 | 0.23 | 11.15 | 2.19 | 1.20 |
| | 31.03 | 0.00 | 31.03 | S-1* | 1.14 | 0.50 | 0.57 | 2.76 | 11.15 | 100 | 9.63 | 26.5 | 0.0278 | 21 | 11.03 | 0.87 | 0.05 | 0.05 | 11.20 | 0.87 | 1.89 |
| | | | | | 6.51 | | | | | | | | | | | | | | | | |
| LINE T | 68.71 | 65.44 | 3.27 | T-1 | 0.54 | 0.50 | 0.27 | 0.27 | 10.00 | 100 | 9.80 | 2.6 | 0.0001 | 24 | 0.84 | 0.00 | 0.13 | 0.06 | 10.06 | 0.00 | 0.01 |
| | 65.44 | 0.00 | 65.44 | T-2* | 1.37 | 0.50 | 0.89 | 0.96 | 10.06 | 100 | 9.70 | 9.4 | 0.0017 | 24 | 2.88 | 0.11 | 0.04 | 0.37 | 10.43 | 0.11 | 0.14 |
| | | | | | 1.91 | | | | | | | | | | | | | | | | |
| LINE X | 107.49 | 87.43 | 20.06 | X-1 | 1.10 | 0.50 | 0.55 | 0.55 | 10.00 | 100 | 9.80 | 5.4 | 0.0028 | 18 | 3.05 | 0.05 | -0.05 | 0.11 | 10.11 | 0.05 | 0.14 |
| | 87.43 | 84.43 | 3.00 | | | | 0.55 | 10.11 | 100 | 9.78 | 5.4 | 0.0008 | 24 | 1.71 | 0.00 | 0.04 | 0.03 | 10.14 | 0.00 | 0.05 | |
| | 84.43 | 0.00 | 84.43 | X-2 | 0.37 | 0.50 | 0.19 | 0.74 | 10.14 | 100 | 9.78 | 7.2 | 0.0010 | 24 | 2.29 | 0.08 | 0.04 | 0.61 | 10.75 | 0.08 | 0.08 |
| | | | | | 1.47 | | | | | | | | | | | | | | | | |

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|------------------|------------------|--------|---------------|------------------|------------------|--------------|-------------|--------------------------------|-------------------------|-----------------------|------------------|--------------------------------------|----------------|--------------------|-------------------------|---------------------|-----------------|--------------------------------|--|----------------------|-------------------------|
| | | | | | | | | | | | | | | | | | | | | | PIPE SIZE CHANGE LOSSES |
| LAT. Q-1 | 16.82 | 0.00 | 16.82 | Q-3 | 0.81 | 0.50 | 0.31 | 0.31 | 10.00 | 100 | 9.83 | 3.2 | 0.0006 | 18 | 1.82 | 0.02 | | 0.18 | 10.18 | 0.02 | 0.06 |
| | | | | | 0.61 | | | | | | | | | | | | | | | | |
| LAT. Q-2 | 16.92 | 0.00 | 16.92 | Q-4 | 0.11 | 0.50 | 0.05 | 0.05 | 15.00 | 100 | 9.80 | 0.5 | 0.0006 | 18 | 0.31 | 0.00 | | 0.92 | 15.92 | 0.00 | 0.00 |
| | | | | | 0.11 | | | | | | | | | | | | | | | | |
| LAT. Q-3 | 37.52 | 0.00 | 37.52 | Q-5 | 1.14 | 0.50 | 0.57 | 0.57 | 15.00 | 100 | 9.80 | 6.8 | 0.0028 | 18 | 3.16 | 0.11 | | 0.20 | 15.20 | 0.11 | 0.18 |
| | | | | | 1.14 | | | | | | | | | | | | | | | | |
| T-1 | 16.74 | 0.00 | 16.74 | T-2 | 1.37 | 0.50 | 0.69 | 0.69 | 15.00 | 100 | 9.80 | 6.7 | 0.0041 | 18 | 3.00 | 0.07 | | 0.07 | 15.07 | 0.07 | 0.22 |
| | | | | | 1.37 | | | | | | | | | | | | | | | | |
| T-2 | 16.74 | 0.00 | 16.74 | T-1 | 0.54 | 0.50 | 0.27 | 0.27 | 15.00 | 100 | 9.80 | 2.6 | 0.0008 | 18 | 1.50 | 0.01 | | 0.19 | 15.19 | 0.01 | 0.03 |
| | | | | | 0.54 | | | | | | | | | | | | | | | | |
| N-1 | 16.74 | 0.00 | 16.74 | N-1, B-1* | 1.04 | 0.50 | 0.52 | 0.52 | 15.00 | 100 | 9.80 | 5.1 | 0.0023 | 18 | 2.88 | 0.04 | | 0.50 | | | |