

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 11292.51 | 10% | 90.00 | 44.99 | 46.89 | 46.47 | 46.97 | 0.002514 | 1.76 | 80.21 | 101.55 | 0.50 |
| SHAPIRIM | 11292.51 | 5% | 115.00 | 44.99 | 47.07 | 46.56 | 47.16 | 0.002241 | 1.81 | 99.18 | 105.78 | 0.48 |
| SHAPIRIM | 11292.51 | 1% | 150.00 | 44.99 | 47.28 | 46.73 | 47.38 | 0.002115 | 1.93 | 121.58 | 110.09 | 0.48 |
| SHAPIRIM | 11100 | 10% | 90.00 | 44.65 | 46.70 | | 46.74 | 0.000649 | 1.09 | 131.37 | 136.86 | 0.27 |
| SHAPIRIM | 11100 | 5% | 115.00 | 44.65 | 46.89 | | 46.93 | 0.000675 | 1.19 | 158.06 | 149.34 | 0.28 |
| SHAPIRIM | 11100 | 1% | 150.00 | 44.65 | 47.10 | | 47.15 | 0.000673 | 1.28 | 190.45 | 150.00 | 0.28 |
| SHAPIRIM | 11050 | 10% | 90.00 | 44.89 | 46.58 | | 46.68 | 0.001846 | 1.61 | 76.35 | 97.83 | 0.44 |
| SHAPIRIM | 11050 | 5% | 115.00 | 44.89 | 46.75 | | 46.87 | 0.001855 | 1.74 | 96.41 | 145.44 | 0.45 |
| SHAPIRIM | 11050 | 1% | 150.00 | 44.89 | 46.97 | | 47.09 | 0.001744 | 1.85 | 128.31 | 150.00 | 0.44 |
| SHAPIRIM | 11000 | 10% | 90.00 | 44.70 | 46.57 | | 46.61 | 0.000707 | 0.99 | 130.93 | 147.10 | 0.27 |
| SHAPIRIM | 11000 | 5% | 115.00 | 44.70 | 46.76 | | 46.79 | 0.000669 | 1.05 | 158.32 | 150.00 | 0.27 |
| SHAPIRIM | 11000 | 1% | 150.00 | 44.70 | 46.98 | | 47.02 | 0.000646 | 1.13 | 191.17 | 150.00 | 0.27 |
| SHAPIRIM | 10850 | 10% | 90.00 | 44.64 | 46.51 | | 46.53 | 0.000344 | 0.78 | 168.47 | 137.54 | 0.19 |
| SHAPIRIM | 10850 | 5% | 115.00 | 44.64 | 46.69 | | 46.71 | 0.000374 | 0.87 | 193.64 | 140.04 | 0.21 |
| SHAPIRIM | 10850 | 1% | 150.00 | 44.64 | 46.91 | | 46.94 | 0.000413 | 0.99 | 224.08 | 142.65 | 0.22 |
| SHAPIRIM | 10800 | 10% | 90.00 | 44.40 | 46.50 | | 46.51 | 0.000219 | 0.66 | 202.02 | 150.00 | 0.16 |
| SHAPIRIM | 10800 | 5% | 115.00 | 44.40 | 46.68 | | 46.70 | 0.000241 | 0.74 | 229.13 | 150.00 | 0.17 |
| SHAPIRIM | 10800 | 1% | 150.00 | 44.40 | 46.90 | | 46.92 | 0.000270 | 0.84 | 261.30 | 150.00 | 0.18 |
| SHAPIRIM | 10700 | 10% | 90.00 | 43.61 | 46.06 | 46.06 | 46.42 | 0.006879 | 3.09 | 45.17 | 66.17 | 0.83 |
| SHAPIRIM | 10700 | 5% | 115.00 | 43.61 | 46.21 | 46.21 | 46.59 | 0.006879 | 3.30 | 55.45 | 74.19 | 0.84 |
| SHAPIRIM | 10700 | 1% | 150.00 | 43.61 | 46.37 | 46.37 | 46.80 | 0.007183 | 3.60 | 68.57 | 89.33 | 0.87 |
| SHAPIRIM | 10650 | 10% | 90.00 | 43.20 | 45.23 | 45.37 | 45.91 | 0.014116 | 3.64 | 24.86 | 28.10 | 1.14 |
| SHAPIRIM | 10650 | 5% | 115.00 | 43.20 | 45.50 | 45.60 | 46.15 | 0.010142 | 3.61 | 34.22 | 39.81 | 1.01 |
| SHAPIRIM | 10650 | 1% | 150.00 | 43.20 | 45.81 | 45.98 | 46.42 | 0.007530 | 3.58 | 52.87 | 85.62 | 0.90 |
| SHAPIRIM | 10550 | 10% | 90.00 | 41.21 | 43.97 | 43.74 | 44.42 | 0.006615 | 2.97 | 30.30 | 22.15 | 0.81 |
| SHAPIRIM | 10550 | 5% | 115.00 | 41.21 | 43.72 | 44.00 | 44.79 | 0.017847 | 4.59 | 25.08 | 20.11 | 1.31 |
| SHAPIRIM | 10550 | 1% | 150.00 | 41.21 | 43.96 | 44.31 | 45.22 | 0.018646 | 4.98 | 30.13 | 22.08 | 1.36 |
| SHAPIRIM | 10500 | 10% | 90.00 | 40.98 | 43.88 | | 44.13 | 0.003362 | 2.18 | 41.28 | 29.28 | 0.59 |
| SHAPIRIM | 10500 | 5% | 115.00 | 40.98 | 44.03 | 43.57 | 44.35 | 0.004068 | 2.52 | 45.70 | 30.69 | 0.65 |
| SHAPIRIM | 10500 | 1% | 150.00 | 40.98 | 44.20 | 43.85 | 44.64 | 0.005016 | 2.95 | 51.03 | 32.30 | 0.73 |
| SHAPIRIM | 10400 | 10% | 90.00 | 40.91 | 43.39 | 43.39 | 43.63 | 0.008087 | 2.57 | 50.29 | 88.04 | 0.85 |
| SHAPIRIM | 10400 | 5% | 115.00 | 40.91 | 43.47 | 43.47 | 43.76 | 0.009218 | 2.83 | 57.84 | 90.34 | 0.91 |
| SHAPIRIM | 10400 | 1% | 150.00 | 40.91 | 43.57 | 43.57 | 43.92 | 0.010344 | 3.16 | 66.76 | 92.45 | 0.98 |
| SHAPIRIM | 10300 | 10% | 90.00 | 40.30 | 42.19 | 42.24 | 42.52 | 0.014601 | 3.07 | 41.72 | 84.40 | 1.10 |
| SHAPIRIM | 10300 | 5% | 115.00 | 40.30 | 42.30 | 42.35 | 42.66 | 0.013658 | 3.24 | 51.19 | 91.15 | 1.09 |
| SHAPIRIM | 10300 | 1% | 150.00 | 40.30 | 42.45 | 42.48 | 42.83 | 0.012039 | 3.37 | 65.88 | 102.84 | 1.05 |
| SHAPIRIM | 10250 | 10% | 90.00 | 40.07 | 41.64 | 41.57 | 41.87 | 0.007508 | 2.52 | 55.10 | 124.79 | 0.83 |
| SHAPIRIM | 10250 | 5% | 115.00 | 40.07 | 41.65 | 41.75 | 42.01 | 0.012121 | 3.21 | 55.37 | 125.15 | 1.05 |
| SHAPIRIM | 10250 | 1% | 150.00 | 40.07 | 41.73 | 41.84 | 42.17 | 0.013853 | 3.62 | 65.97 | 138.02 | 1.14 |
| SHAPIRIM | 10100 | 10% | 90.00 | 39.47 | 40.43 | | 40.58 | 0.009601 | 2.47 | 61.52 | 128.94 | 0.90 |
| SHAPIRIM | 10100 | 5% | 115.00 | 39.47 | 40.56 | 40.45 | 40.70 | 0.007706 | 2.44 | 77.51 | 132.15 | 0.83 |
| SHAPIRIM | 10100 | 1% | 150.00 | 39.47 | 40.72 | 40.54 | 40.86 | 0.006010 | 2.42 | 99.69 | 135.91 | 0.75 |
| SHAPIRIM | 10050 | 10% | 90.00 | 38.28 | 40.24 | | 40.33 | 0.002747 | 1.77 | 83.97 | 126.33 | 0.52 |
| SHAPIRIM | 10050 | 5% | 115.00 | 38.28 | 40.39 | | 40.48 | 0.002514 | 1.78 | 103.28 | 129.53 | 0.50 |
| SHAPIRIM | 10050 | 1% | 150.00 | 38.28 | 40.57 | | 40.67 | 0.002382 | 1.84 | 128.29 | 139.81 | 0.50 |
| SHAPIRIM | 10000 | 10% | 90.00 | 38.00 | 40.15 | | 40.20 | 0.001993 | 1.44 | 100.10 | 128.19 | 0.43 |
| SHAPIRIM | 10000 | 5% | 115.00 | 38.00 | 40.31 | | 40.36 | 0.001864 | 1.48 | 120.28 | 131.23 | 0.42 |
| SHAPIRIM | 10000 | 1% | 150.00 | 38.00 | 40.49 | | 40.56 | 0.001837 | 1.59 | 145.51 | 140.74 | 0.43 |
| SHAPIRIM | 9950 | 10% | 90.00 | 38.20 | 40.02 | | 40.10 | 0.002104 | 1.54 | 81.39 | 89.52 | 0.45 |
| SHAPIRIM | 9950 | 5% | 115.00 | 38.20 | 40.17 | | 40.26 | 0.002160 | 1.69 | 94.82 | 96.10 | 0.47 |
| SHAPIRIM | 9950 | 1% | 150.00 | 38.20 | 40.33 | | 40.45 | 0.002306 | 1.89 | 112.08 | 107.38 | 0.49 |
| SHAPIRIM | 9800 | 10% | 90.00 | 38.00 | 39.25 | 39.25 | 39.50 | 0.009045 | 2.65 | 49.19 | 88.45 | 0.90 |
| SHAPIRIM | 9800 | 5% | 115.00 | 38.00 | 39.33 | 39.33 | 39.63 | 0.009767 | 2.92 | 56.69 | 89.14 | 0.95 |
| SHAPIRIM | 9800 | 1% | 150.00 | 38.00 | 39.46 | 39.46 | 39.80 | 0.009660 | 3.16 | 68.25 | 94.30 | 0.96 |
| SHAPIRIM | 9700 | 10% | 90.00 | 36.79 | 38.95 | 38.47 | 39.02 | 0.001737 | 1.48 | 90.35 | 130.10 | 0.42 |
| SHAPIRIM | 9700 | 5% | 115.00 | 36.79 | 39.09 | 38.59 | 39.17 | 0.001816 | 1.62 | 109.24 | 141.94 | 0.43 |
| SHAPIRIM | 9700 | 1% | 150.00 | 36.79 | 39.25 | 38.75 | 39.35 | 0.001861 | 1.77 | 133.41 | 148.79 | 0.45 |
| SHAPIRIM | 9600 | 10% | 90.00 | 36.18 | 38.80 | | 38.88 | 0.001259 | 1.55 | 102.07 | 143.38 | 0.37 |
| SHAPIRIM | 9600 | 5% | 115.00 | 36.18 | 38.93 | | 39.02 | 0.001358 | 1.69 | 120.87 | 146.44 | 0.39 |
| SHAPIRIM | 9600 | 1% | 150.00 | 36.18 | 39.09 | | 39.18 | 0.001451 | 1.84 | 144.34 | 149.21 | 0.41 |
| SHAPIRIM | 9500 | 10% | 90.00 | 36.00 | 38.65 | | 38.73 | 0.001687 | 1.68 | 98.26 | 150.00 | 0.42 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 9500 | 5% | 115.00 | 36.00 | 38.78 | | 38.86 | 0.001707 | 1.77 | 117.44 | 150.00 | 0.43 |
| SHAPIRIM | 9500 | 1% | 150.00 | 36.00 | 38.93 | | 39.02 | 0.001754 | 1.90 | 140.41 | 150.00 | 0.44 |
| SHAPIRIM | 9400 | 10% | 90.00 | 35.80 | 38.44 | | 38.51 | 0.002937 | 1.63 | 93.05 | 150.00 | 0.49 |
| SHAPIRIM | 9400 | 5% | 115.00 | 35.80 | 38.59 | | 38.65 | 0.002541 | 1.64 | 114.43 | 150.00 | 0.46 |
| SHAPIRIM | 9400 | 1% | 150.00 | 35.80 | 38.74 | | 38.81 | 0.002417 | 1.73 | 137.71 | 150.00 | 0.46 |
| SHAPIRIM | 9350 | 10% | 90.00 | 35.64 | 38.09 | | 38.31 | 0.004622 | 2.48 | 54.34 | 73.28 | 0.67 |
| SHAPIRIM | 9350 | 5% | 115.00 | 35.64 | 38.21 | 38.12 | 38.46 | 0.005018 | 2.65 | 66.17 | 111.12 | 0.71 |
| SHAPIRIM | 9350 | 1% | 150.00 | 35.64 | 38.40 | | 38.63 | 0.004787 | 2.68 | 88.34 | 129.03 | 0.70 |
| SHAPIRIM | 9250 | 10% | 90.00 | 35.00 | 37.88 | | 37.99 | 0.001953 | 1.87 | 91.09 | 150.00 | 0.46 |
| SHAPIRIM | 9250 | 5% | 115.00 | 35.00 | 38.04 | | 38.14 | 0.001759 | 1.88 | 114.84 | 150.00 | 0.44 |
| SHAPIRIM | 9250 | 1% | 150.00 | 35.00 | 38.25 | | 38.34 | 0.001532 | 1.88 | 146.17 | 150.00 | 0.42 |
| SHAPIRIM | 9200 | 10% | 90.00 | 34.34 | 37.83 | | 37.91 | 0.000972 | 1.42 | 104.51 | 140.14 | 0.33 |
| SHAPIRIM | 9200 | 5% | 115.00 | 34.34 | 37.98 | | 38.06 | 0.001037 | 1.52 | 125.59 | 141.90 | 0.34 |
| SHAPIRIM | 9200 | 1% | 150.00 | 34.34 | 38.19 | | 38.27 | 0.001039 | 1.60 | 155.13 | 144.33 | 0.35 |
| SHAPIRIM | 9100 | 10% | 90.00 | 34.56 | 37.72 | | 37.80 | 0.001293 | 1.47 | 99.71 | 134.01 | 0.37 |
| SHAPIRIM | 9100 | 5% | 115.00 | 34.56 | 37.87 | | 37.95 | 0.001370 | 1.56 | 119.10 | 137.52 | 0.38 |
| SHAPIRIM | 9100 | 1% | 150.00 | 34.56 | 38.08 | | 38.16 | 0.001290 | 1.61 | 148.37 | 140.22 | 0.38 |
| SHAPIRIM | 9050 | 10% | 90.00 | 34.67 | 37.68 | | 37.74 | 0.000873 | 1.25 | 111.87 | 150.00 | 0.31 |
| SHAPIRIM | 9050 | 5% | 115.00 | 34.67 | 37.82 | | 37.89 | 0.000932 | 1.36 | 132.47 | 150.00 | 0.32 |
| SHAPIRIM | 9050 | 1% | 150.00 | 34.67 | 38.03 | | 38.10 | 0.000888 | 1.43 | 164.32 | 150.00 | 0.32 |
| SHAPIRIM | 8950 | 10% | 90.00 | 34.86 | 37.59 | | 37.64 | 0.001184 | 1.36 | 112.57 | 135.62 | 0.35 |
| SHAPIRIM | 8950 | 5% | 115.00 | 34.86 | 37.72 | | 37.78 | 0.001270 | 1.47 | 130.38 | 137.05 | 0.37 |
| SHAPIRIM | 8950 | 1% | 150.00 | 34.86 | 37.94 | | 38.00 | 0.001164 | 1.50 | 160.76 | 139.55 | 0.36 |
| SHAPIRIM | 8850 | 10% | 90.00 | 34.50 | 37.18 | 37.18 | 37.41 | 0.004812 | 2.42 | 61.72 | 136.20 | 0.68 |
| SHAPIRIM | 8850 | 5% | 115.00 | 34.50 | 37.50 | | 37.61 | 0.002066 | 1.84 | 105.89 | 138.83 | 0.47 |
| SHAPIRIM | 8850 | 1% | 150.00 | 34.50 | 37.78 | | 37.86 | 0.001490 | 1.74 | 143.87 | 141.49 | 0.41 |
| SHAPIRIM | 8800 | 10% | 90.00 | 34.30 | 37.17 | 36.24 | 37.26 | 0.001055 | 1.50 | 87.87 | 129.15 | 0.35 |
| SHAPIRIM | 8800 | 5% | 115.00 | 34.30 | 37.47 | | 37.54 | 0.000773 | 1.41 | 129.20 | 140.38 | 0.30 |
| SHAPIRIM | 8800 | 1% | 150.00 | 34.30 | 37.74 | | 37.81 | 0.000697 | 1.45 | 167.61 | 143.86 | 0.29 |
| SHAPIRIM | 8750 | 10% | 90.00 | 33.36 | 37.05 | | 37.20 | 0.001276 | 1.83 | 67.54 | 93.91 | 0.39 |
| SHAPIRIM | 8750 | 5% | 115.00 | 33.36 | 37.35 | | 37.49 | 0.001082 | 1.83 | 96.63 | 99.95 | 0.36 |
| SHAPIRIM | 8750 | 1% | 150.00 | 33.36 | 37.62 | | 37.76 | 0.001047 | 1.92 | 133.82 | 150.00 | 0.36 |
| SHAPIRIM | 8700 | 10% | 90.00 | 33.52 | 36.66 | | 37.06 | 0.004999 | 2.81 | 32.17 | 24.57 | 0.71 |
| SHAPIRIM | 8700 | 5% | 115.00 | 33.52 | 36.79 | 36.54 | 37.34 | 0.006564 | 3.31 | 36.25 | 40.43 | 0.82 |
| SHAPIRIM | 8700 | 1% | 150.00 | 33.52 | 37.21 | 37.21 | 37.64 | 0.004569 | 3.04 | 68.22 | 106.95 | 0.70 |
| SHAPIRIM | 8650 | 10% | 90.00 | 33.40 | 36.55 | 36.00 | 36.85 | 0.002781 | 2.49 | 43.47 | 79.91 | 0.56 |
| SHAPIRIM | 8650 | 5% | 115.00 | 33.40 | 36.71 | 36.24 | 37.06 | 0.003129 | 2.78 | 59.26 | 107.94 | 0.60 |
| SHAPIRIM | 8650 | 1% | 150.00 | 33.40 | 36.87 | 36.85 | 37.28 | 0.003540 | 3.10 | 78.13 | 124.18 | 0.65 |
| SHAPIRIM | 8600 | 10% | 90.00 | 33.30 | 36.51 | | 36.70 | 0.001879 | 1.99 | 52.41 | 71.43 | 0.46 |
| SHAPIRIM | 8600 | 5% | 115.00 | 33.30 | 36.64 | 35.89 | 36.89 | 0.002401 | 2.33 | 63.94 | 119.93 | 0.52 |
| SHAPIRIM | 8600 | 1% | 150.00 | 33.30 | 36.76 | 36.34 | 37.09 | 0.002985 | 2.70 | 80.52 | 137.50 | 0.59 |
| SHAPIRIM | 8550 | 10% | 90.00 | 33.20 | 35.94 | 35.78 | 36.50 | 0.007797 | 3.33 | 27.84 | 28.78 | 0.88 |
| SHAPIRIM | 8550 | 5% | 115.00 | 33.20 | 36.40 | 36.40 | 36.73 | 0.004449 | 2.73 | 60.50 | 107.74 | 0.68 |
| SHAPIRIM | 8550 | 1% | 150.00 | 33.20 | 36.60 | 36.60 | 36.91 | 0.004298 | 2.80 | 85.15 | 139.15 | 0.67 |
| SHAPIRIM | 8400 | 10% | 90.00 | 33.00 | 35.75 | | 35.85 | 0.001914 | 1.66 | 87.70 | 133.09 | 0.44 |
| SHAPIRIM | 8400 | 5% | 115.00 | 33.00 | 35.87 | 35.63 | 35.97 | 0.002053 | 1.78 | 103.75 | 134.72 | 0.46 |
| SHAPIRIM | 8400 | 1% | 150.00 | 33.00 | 36.02 | 35.73 | 36.14 | 0.002147 | 1.90 | 124.77 | 136.97 | 0.48 |
| SHAPIRIM | 8300 | 10% | 90.00 | 32.80 | 35.41 | | 35.59 | 0.003146 | 2.30 | 71.77 | 135.77 | 0.58 |
| SHAPIRIM | 8300 | 5% | 115.00 | 32.80 | 35.55 | | 35.72 | 0.002919 | 2.35 | 91.21 | 137.31 | 0.56 |
| SHAPIRIM | 8300 | 1% | 150.00 | 32.80 | 35.73 | | 35.90 | 0.002657 | 2.39 | 116.23 | 139.62 | 0.55 |
| SHAPIRIM | 8200 | 10% | 90.00 | 32.68 | 35.30 | | 35.37 | 0.001271 | 1.49 | 98.15 | 125.53 | 0.37 |
| SHAPIRIM | 8200 | 5% | 115.00 | 32.68 | 35.40 | | 35.49 | 0.001522 | 1.70 | 111.68 | 129.96 | 0.41 |
| SHAPIRIM | 8200 | 1% | 150.00 | 32.68 | 35.57 | | 35.67 | 0.001597 | 1.85 | 133.71 | 132.43 | 0.42 |
| SHAPIRIM | 8150 | 10% | 90.00 | 32.30 | 35.01 | 35.01 | 35.24 | 0.004901 | 2.97 | 64.71 | 121.08 | 0.71 |
| SHAPIRIM | 8150 | 5% | 115.00 | 32.30 | 35.21 | | 35.38 | 0.003403 | 2.66 | 91.36 | 131.56 | 0.60 |
| SHAPIRIM | 8150 | 1% | 150.00 | 32.30 | 35.43 | | 35.57 | 0.002716 | 2.54 | 120.14 | 133.85 | 0.54 |
| SHAPIRIM | 8100 | 10% | 90.00 | 32.04 | 35.01 | 34.21 | 35.07 | 0.000799 | 1.23 | 107.27 | 147.96 | 0.30 |
| SHAPIRIM | 8100 | 5% | 115.00 | 32.04 | 35.22 | | 35.28 | 0.000742 | 1.28 | 137.52 | 150.00 | 0.29 |
| SHAPIRIM | 8100 | 1% | 150.00 | 32.04 | 35.41 | | 35.48 | 0.000769 | 1.39 | 167.15 | 150.00 | 0.30 |
| SHAPIRIM | 8050 | 10% | 90.00 | 31.64 | 34.73 | 34.34 | 34.99 | 0.002917 | 2.42 | 51.38 | 83.68 | 0.56 |
| SHAPIRIM | 8050 | 5% | 115.00 | 31.64 | 34.89 | 34.60 | 35.19 | 0.003171 | 2.66 | 67.94 | 118.68 | 0.60 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 8050 | 1% | 150.00 | 31.64 | 35.12 | 35.06 | 35.39 | 0.002871 | 2.72 | 97.66 | 132.23 | 0.58 |
| SHAPIRIM | 7950 | 10% | 90.00 | 31.70 | 34.66 | | 34.76 | 0.001182 | 1.65 | 89.40 | 131.19 | 0.37 |
| SHAPIRIM | 7950 | 5% | 115.00 | 31.70 | 34.85 | | 34.95 | 0.001133 | 1.71 | 114.53 | 133.87 | 0.37 |
| SHAPIRIM | 7950 | 1% | 150.00 | 31.70 | 35.07 | | 35.18 | 0.001098 | 1.80 | 144.70 | 137.02 | 0.37 |
| SHAPIRIM | 7850 | 10% | 90.00 | 31.82 | 34.59 | | 34.65 | 0.000825 | 1.31 | 111.95 | 137.43 | 0.31 |
| SHAPIRIM | 7850 | 5% | 115.00 | 31.82 | 34.78 | | 34.85 | 0.000791 | 1.36 | 138.50 | 139.95 | 0.30 |
| SHAPIRIM | 7850 | 1% | 150.00 | 31.82 | 35.01 | | 35.07 | 0.000781 | 1.45 | 169.94 | 142.96 | 0.31 |
| SHAPIRIM | 7800 | 10% | 90.00 | 31.70 | 34.51 | | 34.59 | 0.001745 | 1.62 | 89.33 | 119.34 | 0.42 |
| SHAPIRIM | 7800 | 5% | 115.00 | 31.70 | 34.71 | | 34.79 | 0.001503 | 1.63 | 113.85 | 124.21 | 0.40 |
| SHAPIRIM | 7800 | 1% | 150.00 | 31.70 | 34.93 | | 35.02 | 0.001385 | 1.70 | 142.54 | 129.89 | 0.39 |
| SHAPIRIM | 7700 | 10% | 90.00 | 31.32 | 34.28 | | 34.42 | 0.001507 | 1.74 | 65.51 | 97.41 | 0.41 |
| SHAPIRIM | 7700 | 5% | 115.00 | 31.32 | 34.48 | | 34.63 | 0.001511 | 1.87 | 86.13 | 109.86 | 0.42 |
| SHAPIRIM | 7700 | 1% | 150.00 | 31.32 | 34.70 | | 34.87 | 0.001522 | 2.01 | 112.12 | 123.07 | 0.43 |
| SHAPIRIM | 7650 | 10% | 90.00 | 31.30 | 34.15 | | 34.33 | 0.002255 | 1.89 | 53.96 | 68.04 | 0.49 |
| SHAPIRIM | 7650 | 5% | 115.00 | 31.30 | 34.32 | | 34.53 | 0.002526 | 2.11 | 67.36 | 95.13 | 0.52 |
| SHAPIRIM | 7650 | 1% | 150.00 | 31.30 | 34.53 | | 34.76 | 0.002497 | 2.27 | 90.83 | 122.71 | 0.53 |
| SHAPIRIM | 7600 | 10% | 90.00 | 31.09 | 34.09 | | 34.20 | 0.002111 | 1.70 | 77.61 | 99.60 | 0.46 |
| SHAPIRIM | 7600 | 5% | 115.00 | 31.09 | 34.28 | | 34.39 | 0.002004 | 1.77 | 96.82 | 108.45 | 0.46 |
| SHAPIRIM | 7600 | 1% | 150.00 | 31.09 | 34.51 | | 34.62 | 0.001806 | 1.83 | 122.96 | 114.63 | 0.44 |
| SHAPIRIM | 7550 | 10% | 90.00 | 31.56 | 34.04 | | 34.11 | 0.001252 | 1.57 | 101.42 | 134.06 | 0.37 |
| SHAPIRIM | 7550 | 5% | 115.00 | 31.56 | 34.23 | | 34.30 | 0.001120 | 1.59 | 127.76 | 136.14 | 0.36 |
| SHAPIRIM | 7550 | 1% | 150.00 | 31.56 | 34.47 | | 34.54 | 0.001010 | 1.63 | 161.08 | 140.20 | 0.35 |
| SHAPIRIM | 7450 | 10% | 90.00 | 31.52 | 33.96 | | 34.00 | 0.000759 | 1.22 | 125.73 | 140.07 | 0.29 |
| SHAPIRIM | 7450 | 5% | 115.00 | 31.52 | 34.16 | | 34.21 | 0.000699 | 1.25 | 154.13 | 142.02 | 0.28 |
| SHAPIRIM | 7450 | 1% | 150.00 | 31.52 | 34.41 | | 34.46 | 0.000655 | 1.31 | 189.37 | 144.40 | 0.28 |
| SHAPIRIM | 7400 | 10% | 90.00 | 31.20 | 33.92 | | 33.96 | 0.000843 | 1.17 | 122.81 | 134.53 | 0.30 |
| SHAPIRIM | 7400 | 5% | 115.00 | 31.20 | 34.13 | | 34.17 | 0.000766 | 1.21 | 150.54 | 137.34 | 0.29 |
| SHAPIRIM | 7400 | 1% | 150.00 | 31.20 | 34.38 | | 34.42 | 0.000711 | 1.27 | 185.06 | 141.16 | 0.29 |
| SHAPIRIM | 7300 | 10% | 90.00 | 30.89 | 33.85 | | 33.89 | 0.000691 | 1.08 | 128.44 | 133.94 | 0.27 |
| SHAPIRIM | 7300 | 5% | 115.00 | 30.89 | 34.06 | | 34.10 | 0.000641 | 1.13 | 157.04 | 137.46 | 0.27 |
| SHAPIRIM | 7300 | 1% | 150.00 | 30.89 | 34.31 | | 34.36 | 0.000600 | 1.19 | 192.35 | 142.06 | 0.26 |
| SHAPIRIM | 7250 | 10% | 90.00 | 30.24 | 33.83 | | 33.86 | 0.000453 | 1.02 | 141.42 | 130.58 | 0.23 |
| SHAPIRIM | 7250 | 5% | 115.00 | 30.24 | 34.04 | | 34.07 | 0.000456 | 1.09 | 169.60 | 138.17 | 0.23 |
| SHAPIRIM | 7250 | 1% | 150.00 | 30.24 | 34.29 | | 34.33 | 0.000464 | 1.18 | 205.68 | 147.79 | 0.24 |
| SHAPIRIM | 7150 | 10% | 90.00 | 30.21 | 33.80 | | 33.82 | 0.000285 | 0.89 | 170.50 | 136.87 | 0.18 |
| SHAPIRIM | 7150 | 5% | 115.00 | 30.21 | 34.01 | | 34.03 | 0.000300 | 0.97 | 199.40 | 139.85 | 0.19 |
| SHAPIRIM | 7150 | 1% | 150.00 | 30.21 | 34.26 | | 34.29 | 0.000320 | 1.06 | 234.94 | 143.49 | 0.20 |
| SHAPIRIM | 7100 | 10% | 90.00 | 30.15 | 33.78 | | 33.80 | 0.000335 | 0.92 | 161.93 | 138.04 | 0.20 |
| SHAPIRIM | 7100 | 5% | 115.00 | 30.15 | 33.99 | | 34.02 | 0.000346 | 1.00 | 190.98 | 140.89 | 0.20 |
| SHAPIRIM | 7100 | 1% | 150.00 | 30.15 | 34.24 | | 34.27 | 0.000362 | 1.09 | 226.68 | 144.67 | 0.21 |
| SHAPIRIM | 7000 | 10% | 90.00 | 30.16 | 33.72 | | 33.76 | 0.000722 | 1.04 | 126.82 | 135.75 | 0.27 |
| SHAPIRIM | 7000 | 5% | 115.00 | 30.16 | 33.93 | | 33.97 | 0.000658 | 1.08 | 155.62 | 137.92 | 0.26 |
| SHAPIRIM | 7000 | 1% | 150.00 | 30.16 | 34.18 | | 34.22 | 0.000622 | 1.15 | 190.84 | 145.94 | 0.26 |
| SHAPIRIM | 6900 | 10% | 90.00 | 30.10 | 33.67 | | 33.70 | 0.000360 | 1.13 | 152.61 | 128.98 | 0.21 |
| SHAPIRIM | 6900 | 5% | 115.00 | 30.10 | 33.88 | | 33.92 | 0.000379 | 1.22 | 180.11 | 132.92 | 0.22 |
| SHAPIRIM | 6900 | 1% | 150.00 | 30.10 | 34.13 | | 34.17 | 0.000403 | 1.32 | 214.39 | 143.98 | 0.23 |
| SHAPIRIM | 6800 | 10% | 90.00 | 30.00 | 33.64 | | 33.67 | 0.000332 | 0.91 | 137.58 | 98.33 | 0.20 |
| SHAPIRIM | 6800 | 5% | 115.00 | 30.00 | 33.84 | | 33.88 | 0.000368 | 1.02 | 159.35 | 114.41 | 0.21 |
| SHAPIRIM | 6800 | 1% | 150.00 | 30.00 | 34.09 | | 34.13 | 0.000408 | 1.14 | 190.79 | 137.92 | 0.22 |
| SHAPIRIM | 6750 | 10% | 90.00 | 30.00 | 33.55 | | 33.64 | 0.001243 | 1.77 | 95.80 | 102.90 | 0.36 |
| SHAPIRIM | 6750 | 5% | 115.00 | 30.00 | 33.76 | | 33.85 | 0.001205 | 1.84 | 118.63 | 113.47 | 0.36 |
| SHAPIRIM | 6750 | 1% | 150.00 | 30.00 | 34.01 | | 34.10 | 0.001153 | 1.90 | 147.82 | 125.10 | 0.35 |
| SHAPIRIM | 6700 | 10% | 90.00 | 30.00 | 33.54 | | 33.59 | 0.000514 | 1.04 | 115.95 | 91.65 | 0.24 |
| SHAPIRIM | 6700 | 5% | 115.00 | 30.00 | 33.75 | | 33.80 | 0.000543 | 1.14 | 134.70 | 92.39 | 0.25 |
| SHAPIRIM | 6700 | 1% | 150.00 | 30.00 | 33.99 | | 34.05 | 0.000588 | 1.28 | 157.12 | 95.76 | 0.27 |
| SHAPIRIM | 6600 | 10% | 90.00 | 29.85 | 33.50 | | 33.53 | 0.000490 | 1.05 | 122.41 | 89.22 | 0.23 |
| SHAPIRIM | 6600 | 5% | 115.00 | 29.85 | 33.70 | | 33.74 | 0.000532 | 1.16 | 140.46 | 91.14 | 0.25 |
| SHAPIRIM | 6600 | 1% | 150.00 | 29.85 | 33.93 | | 33.99 | 0.000590 | 1.31 | 163.03 | 106.29 | 0.27 |
| SHAPIRIM | 6550 | 10% | 90.00 | 29.95 | 33.39 | | 33.49 | 0.001638 | 1.72 | 85.48 | 93.56 | 0.41 |
| SHAPIRIM | 6550 | 5% | 115.00 | 29.95 | 33.60 | | 33.70 | 0.001489 | 1.76 | 105.05 | 95.07 | 0.40 |
| SHAPIRIM | 6550 | 1% | 150.00 | 29.95 | 33.84 | | 33.94 | 0.001430 | 1.86 | 127.76 | 96.78 | 0.40 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 6500 | 10% | 90.00 | 29.96 | 33.37 | | 33.43 | 0.000541 | 1.15 | 91.51 | 80.47 | 0.25 |
| SHAPIRIM | 6500 | 5% | 115.00 | 29.96 | 33.57 | | 33.65 | 0.000627 | 1.31 | 112.55 | 118.16 | 0.28 |
| SHAPIRIM | 6500 | 1% | 150.00 | 29.96 | 33.80 | | 33.89 | 0.000682 | 1.46 | 141.41 | 131.92 | 0.29 |
| SHAPIRIM | 6450 | 10% | 90.00 | 30.10 | 33.36 | | 33.40 | 0.000460 | 1.13 | 139.55 | 148.71 | 0.24 |
| SHAPIRIM | 6450 | 5% | 115.00 | 30.10 | 33.56 | | 33.61 | 0.000477 | 1.22 | 169.65 | 150.00 | 0.24 |
| SHAPIRIM | 6450 | 1% | 150.00 | 30.10 | 33.80 | | 33.85 | 0.000478 | 1.30 | 205.28 | 150.00 | 0.25 |
| SHAPIRIM | 6300 | 10% | 90.00 | 29.63 | 33.25 | | 33.31 | 0.000808 | 1.31 | 101.33 | 91.42 | 0.30 |
| SHAPIRIM | 6300 | 5% | 115.00 | 29.63 | 33.44 | | 33.51 | 0.000848 | 1.43 | 118.91 | 92.81 | 0.31 |
| SHAPIRIM | 6300 | 1% | 150.00 | 29.63 | 33.66 | | 33.75 | 0.000913 | 1.58 | 139.72 | 94.43 | 0.33 |
| SHAPIRIM | 6250 | 10% | 90.00 | 30.01 | 33.23 | | 33.28 | 0.000448 | 1.13 | 121.53 | 86.62 | 0.23 |
| SHAPIRIM | 6250 | 5% | 115.00 | 30.01 | 33.42 | | 33.47 | 0.000510 | 1.27 | 137.82 | 87.21 | 0.25 |
| SHAPIRIM | 6250 | 1% | 150.00 | 30.01 | 33.64 | | 33.71 | 0.000595 | 1.44 | 156.89 | 87.89 | 0.28 |
| SHAPIRIM | 6100 | 10% | 90.00 | 29.60 | 33.03 | | 33.15 | 0.001693 | 1.84 | 76.74 | 85.30 | 0.42 |
| SHAPIRIM | 6100 | 5% | 115.00 | 29.60 | 33.20 | | 33.34 | 0.001718 | 1.97 | 91.86 | 85.98 | 0.43 |
| SHAPIRIM | 6100 | 1% | 150.00 | 29.60 | 33.40 | | 33.55 | 0.001832 | 2.16 | 108.72 | 86.73 | 0.46 |
| SHAPIRIM | 6050 | 10% | 90.00 | 29.20 | 32.53 | 32.48 | 32.98 | 0.005200 | 3.08 | 38.13 | 65.99 | 0.72 |
| SHAPIRIM | 6050 | 5% | 115.00 | 29.20 | 32.78 | 32.78 | 33.18 | 0.004491 | 3.06 | 56.39 | 79.08 | 0.68 |
| SHAPIRIM | 6050 | 1% | 150.00 | 29.20 | 32.99 | 32.99 | 33.39 | 0.004512 | 3.23 | 73.48 | 84.30 | 0.69 |
| SHAPIRIM | 5650 | 10% | 90.00 | 28.50 | 30.86 | 30.85 | 31.10 | 0.003980 | 2.55 | 64.44 | 142.66 | 0.65 |
| SHAPIRIM | 5650 | 5% | 115.00 | 28.50 | 31.01 | 30.98 | 31.22 | 0.003484 | 2.54 | 86.54 | 150.00 | 0.62 |
| SHAPIRIM | 5650 | 1% | 150.00 | 28.50 | 31.18 | 31.09 | 31.37 | 0.003138 | 2.56 | 111.64 | 150.00 | 0.59 |
| SHAPIRIM | 5600 | 10% | 90.00 | 28.28 | 30.86 | | 30.95 | 0.001390 | 1.68 | 99.83 | 150.00 | 0.39 |
| SHAPIRIM | 5600 | 5% | 115.00 | 28.28 | 30.98 | | 31.08 | 0.001471 | 1.80 | 118.57 | 150.00 | 0.41 |
| SHAPIRIM | 5600 | 1% | 150.00 | 28.28 | 31.13 | | 31.24 | 0.001582 | 1.96 | 140.67 | 150.00 | 0.43 |
| SHAPIRIM | 5550 | 10% | 90.00 | 28.65 | 30.76 | | 30.86 | 0.002168 | 1.77 | 83.91 | 148.18 | 0.47 |
| SHAPIRIM | 5550 | 5% | 115.00 | 28.65 | 30.87 | | 30.99 | 0.002360 | 1.94 | 100.33 | 150.00 | 0.50 |
| SHAPIRIM | 5550 | 1% | 150.00 | 28.65 | 31.01 | | 31.14 | 0.002464 | 2.10 | 121.21 | 150.00 | 0.52 |
| SHAPIRIM | 5500 | 10% | 90.00 | 28.60 | 30.58 | | 30.73 | 0.003134 | 2.15 | 75.55 | 150.00 | 0.57 |
| SHAPIRIM | 5500 | 5% | 115.00 | 28.60 | 30.70 | | 30.85 | 0.002981 | 2.22 | 94.62 | 150.00 | 0.57 |
| SHAPIRIM | 5500 | 1% | 150.00 | 28.60 | 30.85 | | 31.00 | 0.002902 | 2.33 | 116.93 | 150.00 | 0.57 |
| SHAPIRIM | 5400 | 10% | 90.00 | 28.14 | 30.24 | 30.11 | 30.42 | 0.002921 | 2.10 | 66.83 | 137.57 | 0.55 |
| SHAPIRIM | 5400 | 5% | 115.00 | 28.14 | 30.39 | 30.24 | 30.57 | 0.002710 | 2.16 | 88.86 | 150.00 | 0.54 |
| SHAPIRIM | 5400 | 1% | 150.00 | 28.14 | 30.56 | | 30.73 | 0.002596 | 2.25 | 113.36 | 150.00 | 0.54 |
| SHAPIRIM | 5350 | 10% | 90.00 | 28.07 | 30.05 | 29.86 | 30.26 | 0.003400 | 2.19 | 56.91 | 116.89 | 0.59 |
| SHAPIRIM | 5350 | 5% | 115.00 | 28.07 | 30.18 | 30.09 | 30.41 | 0.003385 | 2.32 | 74.87 | 138.93 | 0.60 |
| SHAPIRIM | 5350 | 1% | 150.00 | 28.07 | 30.39 | | 30.59 | 0.002813 | 2.31 | 105.54 | 150.00 | 0.56 |
| SHAPIRIM | 5300 | 10% | 90.00 | 27.58 | 30.02 | | 30.12 | 0.001438 | 1.55 | 81.46 | 150.00 | 0.39 |
| SHAPIRIM | 5300 | 5% | 115.00 | 27.58 | 30.15 | | 30.27 | 0.001526 | 1.68 | 101.33 | 150.00 | 0.41 |
| SHAPIRIM | 5300 | 1% | 150.00 | 27.58 | 30.35 | | 30.47 | 0.001423 | 1.75 | 131.66 | 150.00 | 0.40 |
| SHAPIRIM | 5200 | 10% | 90.00 | 27.72 | 29.74 | 29.61 | 29.91 | 0.003331 | 2.06 | 69.12 | 150.00 | 0.58 |
| SHAPIRIM | 5200 | 5% | 115.00 | 27.72 | 29.98 | | 30.09 | 0.002001 | 1.79 | 105.65 | 150.00 | 0.46 |
| SHAPIRIM | 5200 | 1% | 150.00 | 27.72 | 30.22 | | 30.31 | 0.001540 | 1.73 | 141.45 | 150.00 | 0.42 |
| SHAPIRIM | 5150 | 10% | 90.00 | 26.48 | 29.77 | | 29.82 | 0.000471 | 1.05 | 123.18 | 136.73 | 0.23 |
| SHAPIRIM | 5150 | 5% | 115.00 | 26.48 | 29.98 | | 30.03 | 0.000474 | 1.13 | 153.13 | 150.00 | 0.24 |
| SHAPIRIM | 5150 | 1% | 150.00 | 26.48 | 30.21 | | 30.26 | 0.000492 | 1.22 | 187.05 | 150.00 | 0.25 |
| SHAPIRIM | 5000 | 10% | 90.00 | 26.75 | 29.62 | | 29.72 | 0.000929 | 1.49 | 89.67 | 120.26 | 0.33 |
| SHAPIRIM | 5000 | 5% | 115.00 | 26.75 | 29.83 | | 29.93 | 0.000933 | 1.59 | 118.03 | 150.00 | 0.34 |
| SHAPIRIM | 5000 | 1% | 150.00 | 26.75 | 30.06 | | 30.16 | 0.000874 | 1.64 | 153.54 | 150.00 | 0.33 |
| SHAPIRIM | 4900 | 10% | 90.00 | 26.93 | 29.51 | | 29.60 | 0.001480 | 1.71 | 95.88 | 128.15 | 0.41 |
| SHAPIRIM | 4900 | 5% | 115.00 | 26.93 | 29.73 | | 29.81 | 0.001231 | 1.69 | 127.29 | 150.00 | 0.38 |
| SHAPIRIM | 4900 | 1% | 150.00 | 26.93 | 29.99 | | 30.06 | 0.001017 | 1.66 | 165.18 | 150.00 | 0.35 |
| SHAPIRIM | 4750 | 10% | 90.00 | 27.10 | 29.34 | | 29.42 | 0.000966 | 1.40 | 92.25 | 97.31 | 0.33 |
| SHAPIRIM | 4750 | 5% | 115.00 | 27.10 | 29.57 | | 29.66 | 0.000920 | 1.48 | 117.74 | 124.43 | 0.33 |
| SHAPIRIM | 4750 | 1% | 150.00 | 27.10 | 29.83 | | 29.92 | 0.000860 | 1.55 | 151.96 | 148.86 | 0.32 |
| SHAPIRIM | 4650 | 10% | 90.00 | 26.04 | 29.25 | | 29.34 | 0.000724 | 1.52 | 101.43 | 98.36 | 0.30 |
| SHAPIRIM | 4650 | 5% | 115.00 | 26.04 | 29.49 | | 29.57 | 0.000707 | 1.60 | 124.98 | 100.37 | 0.30 |
| SHAPIRIM | 4650 | 1% | 150.00 | 26.04 | 29.73 | | 29.83 | 0.000826 | 1.82 | 153.26 | 150.00 | 0.33 |
| SHAPIRIM | 4550 | 10% | 90.00 | 25.55 | 29.22 | | 29.28 | 0.000393 | 1.12 | 115.81 | 101.67 | 0.22 |
| SHAPIRIM | 4550 | 5% | 115.00 | 25.55 | 29.45 | | 29.51 | 0.000442 | 1.26 | 140.16 | 131.23 | 0.24 |
| SHAPIRIM | 4550 | 1% | 150.00 | 25.55 | 29.69 | | 29.76 | 0.000486 | 1.39 | 172.60 | 143.34 | 0.25 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 4500 | 10% | 90.00 | 25.53 | 28.55 | 28.55 | 29.17 | 0.007080 | 3.58 | 29.42 | 31.48 | 0.86 |
| SHAPIRIM | 4500 | 5% | 115.00 | 25.53 | 28.99 | 28.99 | 29.43 | 0.004226 | 3.21 | 53.59 | 70.25 | 0.69 |
| SHAPIRIM | 4500 | 1% | 150.00 | 25.53 | 29.20 | 29.20 | 29.67 | 0.004371 | 3.46 | 68.46 | 73.09 | 0.71 |
| SHAPIRIM | 4400 | 10% | 90.00 | 24.21 | 27.83 | 27.10 | 28.05 | 0.002453 | 2.14 | 48.60 | 46.45 | 0.51 |
| SHAPIRIM | 4400 | 5% | 115.00 | 24.21 | 28.15 | 27.44 | 28.37 | 0.002102 | 2.18 | 67.77 | 69.44 | 0.48 |
| SHAPIRIM | 4400 | 1% | 150.00 | 24.21 | 28.54 | 27.76 | 28.73 | 0.001724 | 2.16 | 101.56 | 115.99 | 0.45 |
| SHAPIRIM | 4250 | 10% | 90.00 | 23.55 | 27.34 | | 27.64 | 0.002863 | 2.42 | 38.28 | 25.66 | 0.55 |
| SHAPIRIM | 4250 | 5% | 115.00 | 23.55 | 27.61 | | 27.97 | 0.003084 | 2.68 | 46.05 | 32.47 | 0.58 |
| SHAPIRIM | 4250 | 1% | 150.00 | 23.55 | 27.93 | | 28.36 | 0.003331 | 2.97 | 57.80 | 44.33 | 0.61 |
| SHAPIRIM | 4150 | 10% | 90.00 | 23.93 | 26.97 | | 27.27 | 0.004870 | 2.45 | 36.76 | 28.69 | 0.69 |
| SHAPIRIM | 4150 | 5% | 115.00 | 23.93 | 27.31 | | 27.61 | 0.003824 | 2.44 | 47.58 | 36.22 | 0.63 |
| SHAPIRIM | 4150 | 1% | 150.00 | 23.93 | 27.71 | 27.10 | 28.01 | 0.002841 | 2.45 | 70.55 | 94.71 | 0.56 |
| SHAPIRIM | 3900 | 10% | 90.00 | 22.51 | 26.82 | | 26.89 | 0.000556 | 1.18 | 76.36 | 36.11 | 0.25 |
| SHAPIRIM | 3900 | 5% | 115.00 | 22.51 | 27.18 | | 27.26 | 0.000537 | 1.28 | 96.63 | 80.08 | 0.26 |
| SHAPIRIM | 3900 | 1% | 150.00 | 22.51 | 27.62 | | 27.71 | 0.000476 | 1.34 | 136.78 | 98.05 | 0.25 |
| SHAPIRIM | 3850 | 10% | 90.00 | 22.93 | 26.75 | | 26.86 | 0.000831 | 1.43 | 64.68 | 33.49 | 0.31 |
| SHAPIRIM | 3850 | 5% | 115.00 | 22.93 | 27.12 | | 27.23 | 0.000763 | 1.50 | 91.46 | 92.96 | 0.30 |
| SHAPIRIM | 3850 | 1% | 150.00 | 22.93 | 27.58 | | 27.68 | 0.000599 | 1.49 | 134.67 | 95.04 | 0.28 |
| SHAPIRIM | 3750 | 10% | 90.00 | 23.04 | 26.07 | | 26.63 | 0.006901 | 3.31 | 27.15 | 16.84 | 0.83 |
| SHAPIRIM | 3750 | 5% | 115.00 | 23.04 | 26.34 | 26.14 | 27.00 | 0.007294 | 3.61 | 31.90 | 18.15 | 0.87 |
| SHAPIRIM | 3750 | 1% | 150.00 | 23.04 | 26.51 | 26.51 | 27.44 | 0.009646 | 4.28 | 35.02 | 18.96 | 1.01 |
| SHAPIRIM | 3700 | 10% | 90.00 | 22.08 | 26.23 | | 26.38 | 0.001284 | 1.69 | 53.65 | 28.53 | 0.38 |
| SHAPIRIM | 3700 | 5% | 115.00 | 22.08 | 26.55 | | 26.72 | 0.001330 | 1.85 | 63.32 | 33.84 | 0.39 |
| SHAPIRIM | 3700 | 1% | 150.00 | 22.08 | 26.86 | 25.57 | 27.07 | 0.001422 | 2.09 | 81.61 | 80.65 | 0.41 |
| SHAPIRIM | 3600 | 10% | 90.00 | 22.16 | 26.02 | | 26.22 | 0.001901 | 2.02 | 47.95 | 29.42 | 0.46 |
| SHAPIRIM | 3600 | 5% | 115.00 | 22.16 | 26.33 | | 26.56 | 0.001979 | 2.19 | 57.58 | 32.68 | 0.48 |
| SHAPIRIM | 3600 | 1% | 150.00 | 22.16 | 26.63 | 25.71 | 26.90 | 0.002049 | 2.41 | 79.05 | 139.50 | 0.49 |
| SHAPIRIM | 3550 | 10% | 90.00 | 22.84 | 25.88 | | 26.11 | 0.002399 | 2.12 | 43.97 | 31.28 | 0.51 |
| SHAPIRIM | 3550 | 5% | 115.00 | 22.84 | 26.20 | | 26.45 | 0.002247 | 2.24 | 56.96 | 50.07 | 0.50 |
| SHAPIRIM | 3550 | 1% | 150.00 | 22.84 | 26.54 | 25.72 | 26.79 | 0.001969 | 2.33 | 89.68 | 147.85 | 0.49 |
| SHAPIRIM | 3500 | 10% | 90.00 | 22.70 | 25.84 | | 26.00 | 0.001406 | 1.78 | 52.37 | 32.55 | 0.40 |
| SHAPIRIM | 3500 | 5% | 115.00 | 22.70 | 26.16 | | 26.34 | 0.001361 | 1.93 | 63.50 | 36.83 | 0.40 |
| SHAPIRIM | 3500 | 1% | 150.00 | 22.70 | 26.47 | | 26.70 | 0.001439 | 2.16 | 85.45 | 102.22 | 0.42 |
| SHAPIRIM | 3400 | 10% | 90.00 | 22.44 | 25.72 | | 25.86 | 0.001262 | 1.67 | 55.41 | 32.29 | 0.38 |
| SHAPIRIM | 3400 | 5% | 115.00 | 22.44 | 26.04 | | 26.21 | 0.001211 | 1.81 | 68.19 | 60.14 | 0.38 |
| SHAPIRIM | 3400 | 1% | 150.00 | 22.44 | 26.37 | | 26.56 | 0.001223 | 1.99 | 96.77 | 123.22 | 0.39 |
| SHAPIRIM | 3350 | 10% | 90.00 | 22.01 | 25.63 | | 25.79 | 0.001219 | 1.86 | 58.35 | 38.40 | 0.38 |
| SHAPIRIM | 3350 | 5% | 115.00 | 22.01 | 25.96 | | 26.15 | 0.001256 | 2.05 | 71.52 | 47.94 | 0.40 |
| SHAPIRIM | 3350 | 1% | 150.00 | 22.01 | 26.26 | | 26.49 | 0.001376 | 2.30 | 97.38 | 115.87 | 0.42 |
| SHAPIRIM | 3300 | 10% | 90.00 | 21.51 | 25.59 | | 25.73 | 0.001168 | 1.64 | 56.15 | 30.93 | 0.36 |
| SHAPIRIM | 3300 | 5% | 115.00 | 21.51 | 25.91 | | 26.07 | 0.001232 | 1.79 | 69.09 | 53.52 | 0.38 |
| SHAPIRIM | 3300 | 1% | 150.00 | 21.51 | 26.21 | | 26.41 | 0.001332 | 2.02 | 89.66 | 115.30 | 0.40 |
| SHAPIRIM | 3250 | 10% | 90.00 | 22.17 | 25.28 | | 25.61 | 0.004114 | 2.53 | 35.58 | 23.09 | 0.65 |
| SHAPIRIM | 3250 | 5% | 115.00 | 22.17 | 25.59 | 25.05 | 25.95 | 0.004039 | 2.66 | 44.17 | 33.74 | 0.65 |
| SHAPIRIM | 3250 | 1% | 150.00 | 22.17 | 25.93 | 25.38 | 26.29 | 0.003694 | 2.74 | 68.32 | 116.52 | 0.64 |
| SHAPIRIM | 3100 | 10% | 90.00 | 21.28 | 25.01 | | 25.18 | 0.001707 | 1.82 | 49.41 | 27.09 | 0.43 |
| SHAPIRIM | 3100 | 5% | 115.00 | 21.28 | 25.31 | | 25.51 | 0.001845 | 1.99 | 57.77 | 31.32 | 0.45 |
| SHAPIRIM | 3100 | 1% | 150.00 | 21.28 | 25.60 | | 25.85 | 0.002065 | 2.21 | 73.02 | 62.51 | 0.49 |
| SHAPIRIM | 3000 | 10% | 90.00 | 20.50 | 24.92 | | 25.05 | 0.000926 | 1.58 | 59.36 | 35.45 | 0.33 |
| SHAPIRIM | 3000 | 5% | 115.00 | 20.50 | 25.22 | | 25.36 | 0.000996 | 1.74 | 78.39 | 83.03 | 0.34 |
| SHAPIRIM | 3000 | 1% | 150.00 | 20.50 | 25.52 | | 25.68 | 0.001047 | 1.88 | 105.22 | 88.56 | 0.36 |
| SHAPIRIM | 2950 | 10% | 90.00 | 20.45 | 24.89 | | 25.00 | 0.000667 | 1.48 | 63.08 | 39.47 | 0.28 |
| SHAPIRIM | 2950 | 5% | 115.00 | 20.45 | 25.18 | | 25.32 | 0.000752 | 1.68 | 80.71 | 82.45 | 0.30 |
| SHAPIRIM | 2950 | 1% | 150.00 | 20.45 | 25.47 | | 25.64 | 0.000828 | 1.87 | 107.84 | 94.19 | 0.32 |
| SHAPIRIM | 2850 | 10% | 90.00 | 20.35 | 24.66 | | 24.89 | 0.001888 | 2.20 | 48.89 | 56.41 | 0.45 |
| SHAPIRIM | 2850 | 5% | 115.00 | 20.35 | 24.97 | | 25.20 | 0.001776 | 2.31 | 71.83 | 85.16 | 0.44 |
| SHAPIRIM | 2850 | 1% | 150.00 | 20.35 | 25.29 | | 25.52 | 0.001686 | 2.41 | 100.34 | 97.99 | 0.44 |
| SHAPIRIM | 2800 | 10% | 90.00 | 20.30 | 24.73 | | 24.80 | 0.000492 | 1.15 | 89.04 | 70.76 | 0.24 |
| SHAPIRIM | 2800 | 5% | 115.00 | 20.30 | 25.03 | | 25.11 | 0.000505 | 1.25 | 112.40 | 88.05 | 0.24 |
| SHAPIRIM | 2800 | 1% | 150.00 | 20.30 | 25.34 | | 25.43 | 0.000523 | 1.37 | 144.23 | 116.50 | 0.25 |
| SHAPIRIM | 2750 | 10% | 90.00 | 20.24 | 24.71 | | 24.77 | 0.000526 | 1.12 | 85.39 | 79.00 | 0.25 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 2750 | 5% | 115.00 | 20.24 | 25.01 | | 25.08 | 0.000508 | 1.19 | 115.21 | 106.56 | 0.25 |
| SHAPIRIM | 2750 | 1% | 150.00 | 20.24 | 25.33 | | 25.40 | 0.000493 | 1.28 | 157.00 | 150.00 | 0.25 |
| SHAPIRIM | 2650 | 10% | 90.00 | 20.13 | 24.62 | | 24.71 | 0.000654 | 1.36 | 71.05 | 58.22 | 0.28 |
| SHAPIRIM | 2650 | 5% | 115.00 | 20.13 | 24.91 | | 25.02 | 0.000688 | 1.50 | 92.06 | 92.11 | 0.29 |
| SHAPIRIM | 2650 | 1% | 150.00 | 20.13 | 25.21 | | 25.34 | 0.000712 | 1.64 | 122.07 | 99.47 | 0.30 |
| SHAPIRIM | 2600 | 10% | 90.00 | 20.32 | 24.60 | | 24.68 | 0.000423 | 1.23 | 84.79 | 69.58 | 0.23 |
| SHAPIRIM | 2600 | 5% | 115.00 | 20.32 | 24.90 | | 24.98 | 0.000462 | 1.37 | 113.06 | 119.10 | 0.25 |
| SHAPIRIM | 2600 | 1% | 150.00 | 20.32 | 25.20 | | 25.30 | 0.000476 | 1.48 | 155.54 | 143.82 | 0.25 |
| SHAPIRIM | 2550 | 10% | 90.00 | 20.38 | 24.47 | | 24.63 | 0.001471 | 1.79 | 54.47 | 53.56 | 0.40 |
| SHAPIRIM | 2550 | 5% | 115.00 | 20.38 | 24.76 | | 24.94 | 0.001433 | 1.92 | 72.69 | 74.58 | 0.40 |
| SHAPIRIM | 2550 | 1% | 150.00 | 20.38 | 25.09 | | 25.25 | 0.001237 | 1.95 | 114.81 | 142.91 | 0.38 |
| SHAPIRIM | 2500 | 10% | 90.00 | 20.07 | 24.43 | | 24.56 | 0.001166 | 1.61 | 55.96 | 30.55 | 0.36 |
| SHAPIRIM | 2500 | 5% | 115.00 | 20.07 | 24.71 | | 24.86 | 0.001205 | 1.76 | 75.44 | 88.43 | 0.37 |
| SHAPIRIM | 2500 | 1% | 150.00 | 20.07 | 25.04 | | 25.19 | 0.001127 | 1.84 | 107.91 | 123.51 | 0.37 |
| SHAPIRIM | 2450 | 10% | 90.00 | 20.26 | 24.43 | | 24.50 | 0.000494 | 1.21 | 75.76 | 37.01 | 0.24 |
| SHAPIRIM | 2450 | 5% | 115.00 | 20.26 | 24.71 | | 24.81 | 0.000568 | 1.38 | 87.34 | 50.31 | 0.26 |
| SHAPIRIM | 2450 | 1% | 150.00 | 20.26 | 25.02 | | 25.14 | 0.000649 | 1.58 | 110.71 | 106.17 | 0.29 |
| SHAPIRIM | 2400 | 10% | 90.00 | 20.25 | 24.20 | | 24.44 | 0.003602 | 2.16 | 41.64 | 30.07 | 0.59 |
| SHAPIRIM | 2400 | 5% | 115.00 | 20.25 | 24.46 | | 24.73 | 0.003525 | 2.30 | 50.23 | 34.62 | 0.59 |
| SHAPIRIM | 2400 | 1% | 150.00 | 20.25 | 24.73 | 24.17 | 25.06 | 0.003507 | 2.54 | 60.76 | 55.97 | 0.61 |
| SHAPIRIM | 2300 | 10% | 90.00 | 20.25 | 24.18 | | 24.27 | 0.000607 | 1.36 | 86.13 | 71.12 | 0.27 |
| SHAPIRIM | 2300 | 5% | 115.00 | 20.25 | 24.46 | | 24.55 | 0.000646 | 1.50 | 108.80 | 101.99 | 0.28 |
| SHAPIRIM | 2300 | 1% | 150.00 | 20.25 | 24.76 | | 24.86 | 0.000660 | 1.62 | 146.57 | 140.23 | 0.29 |
| SHAPIRIM | 2250 | 10% | 90.00 | 20.15 | 24.18 | | 24.23 | 0.000444 | 1.11 | 117.00 | 108.72 | 0.23 |
| SHAPIRIM | 2250 | 5% | 115.00 | 20.15 | 24.46 | | 24.51 | 0.000410 | 1.15 | 151.19 | 132.29 | 0.23 |
| SHAPIRIM | 2250 | 1% | 150.00 | 20.15 | 24.77 | | 24.82 | 0.000393 | 1.21 | 195.88 | 150.00 | 0.22 |
| SHAPIRIM | 2200 | 10% | 90.00 | 20.20 | 24.08 | | 24.19 | 0.000931 | 1.51 | 67.29 | 48.29 | 0.33 |
| SHAPIRIM | 2200 | 5% | 115.00 | 20.20 | 24.34 | | 24.47 | 0.001020 | 1.70 | 81.70 | 68.30 | 0.35 |
| SHAPIRIM | 2200 | 1% | 150.00 | 20.20 | 24.60 | | 24.78 | 0.001158 | 1.95 | 105.48 | 126.11 | 0.38 |
| SHAPIRIM | 2100 | 10% | 90.00 | 20.25 | 23.98 | | 24.09 | 0.001241 | 1.47 | 64.41 | 57.28 | 0.36 |
| SHAPIRIM | 2100 | 5% | 115.00 | 20.25 | 24.24 | | 24.36 | 0.001194 | 1.58 | 81.07 | 72.92 | 0.37 |
| SHAPIRIM | 2100 | 1% | 150.00 | 20.25 | 24.50 | | 24.65 | 0.001219 | 1.75 | 105.84 | 112.60 | 0.38 |
| SHAPIRIM | 2050 | 10% | 90.00 | 20.17 | 23.96 | | 24.04 | 0.000526 | 1.28 | 75.83 | 64.22 | 0.25 |
| SHAPIRIM | 2050 | 5% | 115.00 | 20.17 | 24.21 | | 24.31 | 0.000592 | 1.44 | 98.47 | 126.32 | 0.27 |
| SHAPIRIM | 2050 | 1% | 150.00 | 20.17 | 24.48 | | 24.60 | 0.000626 | 1.57 | 136.48 | 142.60 | 0.28 |
| SHAPIRIM | 2000 | 10% | 90.00 | 19.71 | 23.95 | | 24.01 | 0.000413 | 1.12 | 90.83 | 68.02 | 0.23 |
| SHAPIRIM | 2000 | 5% | 115.00 | 19.71 | 24.20 | | 24.28 | 0.000462 | 1.27 | 113.23 | 106.64 | 0.24 |
| SHAPIRIM | 2000 | 1% | 150.00 | 19.71 | 24.47 | | 24.56 | 0.000514 | 1.42 | 147.61 | 150.00 | 0.26 |
| SHAPIRIM | 1950 | 10% | 90.00 | 20.14 | 23.93 | | 23.99 | 0.000531 | 1.10 | 85.84 | 60.50 | 0.25 |
| SHAPIRIM | 1950 | 5% | 115.00 | 20.14 | 24.18 | | 24.25 | 0.000569 | 1.23 | 101.99 | 71.93 | 0.26 |
| SHAPIRIM | 1950 | 1% | 150.00 | 20.14 | 24.44 | | 24.53 | 0.000643 | 1.41 | 128.82 | 125.82 | 0.28 |
| SHAPIRIM | 1900 | 10% | 90.00 | 19.95 | 23.87 | | 23.95 | 0.000692 | 1.26 | 77.63 | 85.77 | 0.28 |
| SHAPIRIM | 1900 | 5% | 115.00 | 19.95 | 24.13 | | 24.22 | 0.000689 | 1.36 | 104.83 | 114.99 | 0.29 |
| SHAPIRIM | 1900 | 1% | 150.00 | 19.95 | 24.40 | | 24.50 | 0.000703 | 1.48 | 137.77 | 133.37 | 0.29 |
| SHAPIRIM | 1850 | 10% | 90.00 | 19.75 | 23.24 | 23.24 | 23.81 | 0.012333 | 3.37 | 26.74 | 24.32 | 1.02 |
| SHAPIRIM | 1850 | 5% | 115.00 | 19.75 | 23.54 | 23.54 | 24.09 | 0.010039 | 3.29 | 36.15 | 40.21 | 0.95 |
| SHAPIRIM | 1850 | 1% | 150.00 | 19.75 | 23.81 | 23.81 | 24.37 | 0.008938 | 3.36 | 49.13 | 52.22 | 0.92 |
| SHAPIRIM | 1800 | 10% | 90.00 | 19.52 | 21.12 | 21.63 | 22.70 | 0.040593 | 5.58 | 16.12 | 18.11 | 1.89 |
| SHAPIRIM | 1800 | 5% | 115.00 | 19.52 | 21.29 | 21.86 | 23.08 | 0.039617 | 5.92 | 19.44 | 19.64 | 1.90 |
| SHAPIRIM | 1800 | 1% | 150.00 | 19.52 | 21.53 | 22.15 | 23.46 | 0.036139 | 6.14 | 24.41 | 21.73 | 1.85 |
| SHAPIRIM | 1683.71 | 10% | 90.00 | 18.41 | 21.37 | 20.38 | 21.54 | 0.001737 | 1.89 | 52.76 | 38.17 | 0.43 |
| SHAPIRIM | 1683.71 | 5% | 115.00 | 18.41 | 21.62 | 20.63 | 21.83 | 0.001946 | 2.09 | 62.80 | 42.63 | 0.46 |
| SHAPIRIM | 1683.71 | 1% | 150.00 | 18.41 | 21.94 | 20.95 | 22.18 | 0.002104 | 2.29 | 77.15 | 46.86 | 0.48 |
| SHAPIRIM | 1650 | 10% | 90.00 | 18.27 | 21.15 | | 21.45 | 0.003946 | 2.51 | 39.95 | 27.92 | 0.63 |
| SHAPIRIM | 1650 | 5% | 115.00 | 18.27 | 21.34 | | 21.71 | 0.004549 | 2.83 | 45.40 | 29.00 | 0.68 |
| SHAPIRIM | 1650 | 1% | 150.00 | 18.27 | 21.58 | 21.22 | 22.05 | 0.005224 | 3.20 | 52.38 | 30.03 | 0.74 |
| SHAPIRIM | 1600 | 10% | 90.00 | 18.01 | 20.63 | 20.63 | 21.11 | 0.011806 | 3.09 | 29.22 | 31.62 | 1.02 |
| SHAPIRIM | 1600 | 5% | 115.00 | 18.01 | 20.80 | 20.80 | 21.36 | 0.010963 | 3.31 | 34.91 | 32.36 | 1.01 |
| SHAPIRIM | 1600 | 1% | 150.00 | 18.01 | 21.02 | 21.02 | 21.68 | 0.010353 | 3.60 | 42.03 | 34.18 | 1.01 |
| SHAPIRIM | 1500 | 10% | 90.00 | 17.75 | 20.45 | 19.80 | 20.55 | 0.001815 | 1.69 | 67.72 | 50.56 | 0.43 |
| SHAPIRIM | 1500 | 5% | 115.00 | 17.75 | 20.62 | 19.93 | 20.75 | 0.002035 | 1.92 | 76.47 | 51.54 | 0.46 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 1500 | 1% | 150.00 | 17.75 | 20.84 | 20.10 | 21.01 | 0.002261 | 2.19 | 88.53 | 60.17 | 0.50 |
| SHAPIRIM | 1400 | 10% | 90.00 | 17.44 | 20.23 | | 20.35 | 0.002127 | 2.05 | 73.53 | 72.25 | 0.47 |
| SHAPIRIM | 1400 | 5% | 115.00 | 17.44 | 20.40 | | 20.54 | 0.002210 | 2.21 | 85.89 | 73.94 | 0.49 |
| SHAPIRIM | 1400 | 1% | 150.00 | 17.44 | 20.61 | | 20.77 | 0.002378 | 2.44 | 102.45 | 84.07 | 0.51 |
| SHAPIRIM | 1300 | 10% | 90.00 | 17.21 | 20.05 | | 20.16 | 0.001643 | 1.66 | 74.81 | 80.10 | 0.42 |
| SHAPIRIM | 1300 | 5% | 115.00 | 17.21 | 20.21 | | 20.34 | 0.001746 | 1.82 | 87.66 | 81.89 | 0.43 |
| SHAPIRIM | 1300 | 1% | 150.00 | 17.21 | 20.41 | | 20.56 | 0.001842 | 2.00 | 104.59 | 89.28 | 0.45 |
| SHAPIRIM | 1200 | 10% | 90.00 | 18.77 | 19.95 | | 20.00 | 0.001280 | 1.06 | 85.29 | 88.64 | 0.34 |
| SHAPIRIM | 1200 | 5% | 115.00 | 18.77 | 20.11 | | 20.17 | 0.001273 | 1.15 | 99.60 | 90.03 | 0.35 |
| SHAPIRIM | 1200 | 1% | 150.00 | 18.77 | 20.31 | | 20.39 | 0.001270 | 1.27 | 117.82 | 91.77 | 0.36 |
| SHAPIRIM | 1150 | 10% | 90.00 | 18.57 | 19.89 | | 19.94 | 0.001087 | 1.03 | 87.51 | 83.53 | 0.32 |
| SHAPIRIM | 1150 | 5% | 115.00 | 18.57 | 20.05 | | 20.11 | 0.001128 | 1.14 | 100.83 | 84.76 | 0.33 |
| SHAPIRIM | 1150 | 1% | 150.00 | 18.57 | 20.25 | | 20.33 | 0.001173 | 1.27 | 117.77 | 86.30 | 0.35 |
| SHAPIRIM | 1100 | 10% | 90.00 | 18.52 | 19.72 | | 19.85 | 0.003386 | 1.60 | 56.17 | 64.68 | 0.55 |
| SHAPIRIM | 1100 | 5% | 115.00 | 18.52 | 19.85 | | 20.01 | 0.003433 | 1.76 | 65.24 | 65.77 | 0.56 |
| SHAPIRIM | 1100 | 1% | 150.00 | 18.52 | 20.03 | | 20.22 | 0.003494 | 1.95 | 76.76 | 67.11 | 0.58 |
| SHAPIRIM | 1050 | 10% | 90.00 | 18.38 | 19.57 | | 19.69 | 0.002828 | 1.51 | 59.44 | 65.07 | 0.51 |
| SHAPIRIM | 1050 | 5% | 115.00 | 18.38 | 19.70 | | 19.85 | 0.002985 | 1.69 | 68.18 | 66.07 | 0.53 |
| SHAPIRIM | 1050 | 1% | 150.00 | 18.38 | 19.87 | | 20.05 | 0.003151 | 1.89 | 79.28 | 67.32 | 0.56 |
| SHAPIRIM | 1000 | 10% | 90.00 | 18.35 | 19.43 | | 19.54 | 0.002950 | 1.48 | 60.64 | 70.64 | 0.51 |
| SHAPIRIM | 1000 | 5% | 115.00 | 18.35 | 19.56 | | 19.70 | 0.003085 | 1.65 | 69.68 | 71.55 | 0.53 |
| SHAPIRIM | 1000 | 1% | 150.00 | 18.35 | 19.72 | | 19.89 | 0.003208 | 1.84 | 81.31 | 72.71 | 0.56 |
| SHAPIRIM | 950 | 10% | 90.00 | 18.24 | 19.18 | | 19.34 | 0.005701 | 1.78 | 50.58 | 73.60 | 0.69 |
| SHAPIRIM | 950 | 5% | 115.00 | 18.24 | 19.31 | | 19.49 | 0.005331 | 1.91 | 60.26 | 75.06 | 0.68 |
| SHAPIRIM | 950 | 1% | 150.00 | 18.24 | 19.48 | | 19.69 | 0.004855 | 2.04 | 73.45 | 76.99 | 0.67 |
| SHAPIRIM | 900 | 10% | 90.00 | 17.97 | 19.08 | | 19.16 | 0.001936 | 1.20 | 74.84 | 87.20 | 0.41 |
| SHAPIRIM | 900 | 5% | 115.00 | 17.97 | 19.22 | | 19.31 | 0.001941 | 1.32 | 87.15 | 88.49 | 0.42 |
| SHAPIRIM | 900 | 1% | 150.00 | 17.97 | 19.41 | | 19.52 | 0.001881 | 1.44 | 104.00 | 90.23 | 0.43 |
| SHAPIRIM | 850 | 10% | 90.00 | 17.90 | 19.00 | | 19.06 | 0.001691 | 1.16 | 77.31 | 85.41 | 0.39 |
| SHAPIRIM | 850 | 5% | 115.00 | 17.90 | 19.13 | | 19.22 | 0.001746 | 1.29 | 89.16 | 86.48 | 0.41 |
| SHAPIRIM | 850 | 1% | 150.00 | 17.90 | 19.32 | | 19.43 | 0.001723 | 1.42 | 105.75 | 88.05 | 0.41 |
| SHAPIRIM | 800 | 10% | 90.00 | 17.73 | 18.90 | | 18.98 | 0.001869 | 1.22 | 73.91 | 82.29 | 0.41 |
| SHAPIRIM | 800 | 5% | 115.00 | 17.73 | 19.03 | | 19.12 | 0.001966 | 1.36 | 84.81 | 83.43 | 0.43 |
| SHAPIRIM | 800 | 1% | 150.00 | 17.73 | 19.22 | | 19.33 | 0.001929 | 1.49 | 100.84 | 85.09 | 0.44 |
| SHAPIRIM | 750 | 10% | 90.00 | 17.63 | 18.77 | | 18.86 | 0.002600 | 1.37 | 65.47 | 77.84 | 0.48 |
| SHAPIRIM | 750 | 5% | 115.00 | 17.63 | 18.89 | | 19.01 | 0.002777 | 1.54 | 74.72 | 78.76 | 0.50 |
| SHAPIRIM | 750 | 1% | 150.00 | 17.63 | 19.08 | | 19.22 | 0.002602 | 1.67 | 90.05 | 80.26 | 0.50 |
| SHAPIRIM | 700 | 10% | 90.00 | 17.57 | 18.41 | 18.36 | 18.63 | 0.009673 | 2.04 | 44.10 | 77.75 | 0.86 |
| SHAPIRIM | 700 | 5% | 115.00 | 17.57 | 18.63 | | 18.81 | 0.005614 | 1.89 | 60.92 | 80.20 | 0.69 |
| SHAPIRIM | 700 | 1% | 150.00 | 17.57 | 18.90 | | 19.07 | 0.003538 | 1.80 | 83.36 | 83.37 | 0.57 |
| SHAPIRIM | 650 | 10% | 90.00 | 16.84 | 18.38 | | 18.44 | 0.001330 | 1.05 | 85.45 | 91.63 | 0.35 |
| SHAPIRIM | 650 | 5% | 115.00 | 16.84 | 18.61 | | 18.67 | 0.001078 | 1.08 | 106.43 | 93.79 | 0.32 |
| SHAPIRIM | 650 | 1% | 150.00 | 16.84 | 18.89 | | 18.96 | 0.000895 | 1.12 | 133.52 | 96.50 | 0.30 |
| SHAPIRIM | 600 | 10% | 90.00 | 16.48 | 18.35 | | 18.39 | 0.000625 | 0.82 | 110.41 | 98.68 | 0.25 |
| SHAPIRIM | 600 | 5% | 115.00 | 16.48 | 18.59 | | 18.62 | 0.000555 | 0.86 | 133.49 | 100.36 | 0.24 |
| SHAPIRIM | 600 | 1% | 150.00 | 16.48 | 18.87 | | 18.92 | 0.000501 | 0.92 | 162.81 | 102.46 | 0.23 |
| SHAPIRIM | 550 | 10% | 90.00 | 16.85 | 18.31 | | 18.35 | 0.000886 | 0.91 | 99.03 | 97.67 | 0.29 |
| SHAPIRIM | 550 | 5% | 115.00 | 16.85 | 18.55 | | 18.59 | 0.000733 | 0.94 | 122.60 | 100.03 | 0.27 |
| SHAPIRIM | 550 | 1% | 150.00 | 16.85 | 18.84 | | 18.89 | 0.000627 | 0.98 | 152.43 | 102.84 | 0.26 |
| SHAPIRIM | 500 | 10% | 90.00 | 16.89 | 18.27 | | 18.31 | 0.000721 | 0.84 | 106.55 | 100.42 | 0.26 |
| SHAPIRIM | 500 | 5% | 115.00 | 16.89 | 18.52 | | 18.56 | 0.000599 | 0.88 | 131.39 | 102.03 | 0.25 |
| SHAPIRIM | 500 | 1% | 150.00 | 16.89 | 18.82 | | 18.86 | 0.000519 | 0.93 | 162.14 | 103.99 | 0.24 |
| SHAPIRIM | 450 | 10% | 90.00 | 16.98 | 18.25 | | 18.28 | 0.000525 | 0.75 | 120.39 | 107.44 | 0.23 |
| SHAPIRIM | 450 | 5% | 115.00 | 16.98 | 18.50 | | 18.53 | 0.000444 | 0.78 | 147.48 | 108.94 | 0.21 |
| SHAPIRIM | 450 | 1% | 150.00 | 16.98 | 18.80 | | 18.83 | 0.000394 | 0.83 | 180.66 | 110.89 | 0.21 |
| SHAPIRIM | 400 | 10% | 90.00 | 16.71 | 18.20 | | 18.24 | 0.000784 | 0.89 | 101.35 | 94.46 | 0.27 |
| SHAPIRIM | 400 | 5% | 115.00 | 16.71 | 18.46 | | 18.50 | 0.000639 | 0.91 | 125.75 | 96.73 | 0.26 |
| SHAPIRIM | 400 | 1% | 150.00 | 16.71 | 18.76 | | 18.81 | 0.000547 | 0.97 | 156.15 | 102.90 | 0.24 |
| SHAPIRIM | 350 | 10% | 90.00 | 16.74 | 18.17 | | 18.20 | 0.000704 | 0.86 | 104.38 | 93.65 | 0.26 |
| SHAPIRIM | 350 | 5% | 115.00 | 16.74 | 18.43 | | 18.47 | 0.000580 | 0.89 | 129.21 | 95.53 | 0.24 |
| SHAPIRIM | 350 | 1% | 150.00 | 16.74 | 18.74 | | 18.78 | 0.000510 | 0.94 | 159.02 | 97.74 | 0.24 |

HEC-RAS Plan: Plan 01 River: SHAPIRIM Reach: SHAPIRIM (Continued)

| Reach | River Sta | Profile | Q Total (m3/s) | Min Ch El (m) | W.S. Elev (m) | Crit W.S. (m) | E.G. Elev (m) | E.G. Slope (m/m) | Vel Chnl (m/s) | Flow Area (m2) | Top Width (m) | Froude # Chl |
|----------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| SHAPIRIM | 300 | 10% | 90.00 | 14.84 | 18.14 | | 18.18 | 0.000443 | 1.10 | 119.89 | 81.10 | 0.23 |
| SHAPIRIM | 300 | 5% | 115.00 | 14.84 | 18.40 | | 18.44 | 0.000454 | 1.19 | 141.37 | 83.91 | 0.24 |
| SHAPIRIM | 300 | 1% | 150.00 | 14.84 | 18.70 | | 18.76 | 0.000477 | 1.31 | 167.47 | 87.21 | 0.25 |
| SHAPIRIM | 250 | 10% | 90.00 | 14.62 | 17.95 | | 18.12 | 0.001735 | 2.07 | 59.64 | 46.67 | 0.43 |
| SHAPIRIM | 250 | 5% | 115.00 | 14.62 | 18.18 | | 18.39 | 0.001855 | 2.28 | 71.01 | 50.58 | 0.46 |
| SHAPIRIM | 250 | 1% | 150.00 | 14.62 | 18.46 | | 18.70 | 0.002008 | 2.54 | 85.24 | 54.69 | 0.48 |
| SHAPIRIM | 200 | 10% | 90.00 | 14.52 | 17.84 | | 18.02 | 0.002792 | 1.83 | 50.01 | 43.65 | 0.52 |
| SHAPIRIM | 200 | 5% | 115.00 | 14.52 | 18.08 | | 18.27 | 0.002644 | 1.95 | 61.05 | 48.62 | 0.51 |
| SHAPIRIM | 200 | 1% | 150.00 | 14.52 | 18.36 | | 18.58 | 0.002464 | 2.11 | 74.96 | 52.54 | 0.51 |
| SHAPIRIM | 150 | 10% | 90.00 | 14.44 | 17.28 | 17.24 | 17.74 | 0.010675 | 3.02 | 29.79 | 29.42 | 0.96 |
| SHAPIRIM | 150 | 5% | 115.00 | 14.44 | 17.44 | 17.44 | 18.00 | 0.011220 | 3.30 | 34.83 | 31.27 | 1.00 |
| SHAPIRIM | 150 | 1% | 150.00 | 14.44 | 17.68 | 17.68 | 18.31 | 0.010797 | 3.51 | 42.70 | 33.91 | 1.00 |
| SHAPIRIM | 100 | 10% | 90.00 | 14.25 | 16.84 | 16.84 | 17.29 | 0.007482 | 3.01 | 33.32 | 47.93 | 0.85 |
| SHAPIRIM | 100 | 5% | 115.00 | 14.25 | 17.03 | 17.06 | 17.51 | 0.007757 | 3.18 | 42.61 | 53.12 | 0.87 |
| SHAPIRIM | 100 | 1% | 150.00 | 14.25 | 17.14 | 17.28 | 17.78 | 0.010177 | 3.73 | 48.46 | 56.14 | 1.01 |
| SHAPIRIM | 0 | 10% | 90.00 | 13.88 | 15.92 | 15.57 | 16.29 | 0.005002 | 2.70 | 33.34 | 22.94 | 0.71 |
| SHAPIRIM | 0 | 5% | 115.00 | 13.88 | 16.22 | 15.82 | 16.63 | 0.005005 | 2.84 | 40.45 | 25.78 | 0.72 |
| SHAPIRIM | 0 | 1% | 150.00 | 13.88 | 16.53 | 16.13 | 17.01 | 0.005006 | 3.06 | 49.19 | 33.02 | 0.74 |