# Appendix 5.13 Hydraulic Calculation for Transmission Pipeline (2015Year)

| Node | | | B/G | Flow Rate | Dia. | Dia. | Dia. | Mixed Dia | Exist. | Length | Velocity | Hyd.Grd | Loss | Dynamic Pressure | GL | Dynamic Pressure | Pump | Head | set | Output | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Node-Node | | | | Q(m3/d) | D(mm) | D(mm) | D(mm) | Dm(mm) | | L(m) | v(m/sec) | I(‰) | h(m) | Hd(MSL) | | He(m) | Type | H(m) | Excluding | (kw/set) | |
| | | | | | 2,005 | 2,010 | 2,015 | | | | | | | | | | | | Stand-by | | |
| | Katugastota-Madawala | | | | | | | | | | | | | | | | | | | | |
| | PG | | | | | | | | | | | | | 540.847 | 438.000 | 102.847 | | | | | |
| PG | - | 601 | B | 41,100 | 600 | 0 | 600 | 781 | | 700 | 0.993 | 1.281 | 0.897 | | | | B | 102.8 | 2 | 410.1 | |
| | 601 | | | | | | | | | | | | | 539.951 | 430.000 | 109.951 | | | | | |
| 601 | - | 301 | (B) | 23,700 | 600 | 0 | 0 | 600 | | 900 | 0.970 | 1.440 | 1.296 | | | | | | | | |
| | 301 | | | | | | | | | | | | | 538.655 | 445.000 | 93.655 | | | | | |
| 301 | - | 5001 | (B) | 22,400 | 600 | 0 | 0 | 600 | | 930 | 0.917 | 1.297 | 1.206 | | | | | | | | |
| | 5001 | | | | | | | | | | | | | 537.448 | 440.000 | 97.448 | | | | | |
| 5001 | - | 5002 | (B) | 19,600 | 198 | 600 | 0 | 612 | | 1,250 | 0.771 | 0.919 | 1.149 | | | | | | | | |
| | 5002 | | | | | | | | | | | | | 536.299 | 450.000 | 86.299 | | | | | |
| 5002 | - | 26' | (B) | 4,400 | 198 | 0 | 250 | 295 | | 2,670 | 0.747 | 2.362 | 6.307 | | | | | | | | |
| | 26' | | | | | | | | | | | | | 529.992 | 470.000 | 59.992 | | | | | |
| 26' | - | 26 | (B) | 2,900 | 198 | 198 | 0 | 258 | | 1,100 | 0.643 | 1.811 | 1.992 | | | | | | | | |
| | 26 | | | | | | | | | | | | | 528.000 | 523.000 | 5.000 | | | | | |
| | 301 | | | | | | | | | | | | | 538.655 | 445.000 | 93.655 | | | | | |
| 301 | - | 3 | (B) | 1,300 | 97 | 0 | 0 | 97 | | 750 | 2.036 | 47.849 | 35.887 | | | | | | | | |
| | 3 | | | | | | | | | | | | | 502.768 | 464.300 | 38.468 | | | | | |
| | 5001 | | | | | | | | | | | | | 537.448 | 440.000 | 97.448 | | | | | |
| 5001 | - | 500 | (B) | 2,800 | 198 | 0 | 0 | 198 | | 1,200 | 1.053 | 6.125 | 7.351 | | | | | | | | |
| | 500 | | | | | | | | | | | | | 530.098 | 513.000 | 17.098 | | | | | |
| | 500 | | | | | | | | | | | | | 606.444 | 513.000 | 93.444 | | | | | |
| 500 | - | 4J | B | 1,300 | 0 | 0 | 140 | 140 | | 3,300 | 0.977 | 8.013 | 26.444 | | | | B | 93.4 | 1 | 23.6 | |
| | 4J | | | | | | | | | | | | | 580.000 | 575.000 | 5.000 | | | | | |
| | 4J | | | | | | | | | | | | | 575.000 | 575.000 | 0.000 | | | | | |
| 4J | - | 4 | G | 700 | 0 | 0 | 140 | 140 | | 2,950 | 0.526 | 2.549 | 7.521 | | | | | | | | |
| | 4 | | | | | | | | | | | | | 567.479 | 565.000 | 2.479 | | | | | |
| | 26 | | | | | | | | | | | | | 588.458 | 523.000 | 65.458 | | | | | |
| 26 | - | 27' | B | 1,700 | 0 | 198 | 0 | 198 | | 1,300 | 0.639 | 2.433 | 3.164 | | | | B | 65.5 | 2 | 10.8 | |
| | 27' | | | | | | | | | | | | | 585.294 | 470.000 | 115.294 | | | | | |
| 27' | - | 27 | (B) | 300 | 0 | 79 | 0 | 79 | | 2,700 | 0.708 | 8.628 | 23.294 | | | | | | | | |
| | 27 | | | | | | | | | | | | | 562.000 | 557.000 | 5.000 | | | | | |
| | 27' | | | | | | | | | | | | | 585.294 | 470.000 | 115.294 | | | | | |
| 27' | - | 28 | (B) | 1,400 | 0 | 123 | 0 | 123 | | 1,400 | 1.364 | 17.265 | 24.170 | | | | | | | | |
| | 28 | | | | | | | | | | | | | 561.124 | 550.000 | 11.124 | | | | | |
| | 26' | | | | | | | | | | | | | 529.992 | 470.000 | 59.992 | | | | | |
| 26' | - | 25' | (B) | 1,500 | 198 | 0 | 0 | 198 | | 630 | 0.564 | 1.930 | 1.216 | | | | | | | | |
| | 25' | | | | | | | | | | | | | 528.776 | 460.000 | 68.776 | | | | | |
| 25' | - | 25 | (B) | 1,000 | 198 | 0 | 0 | 198 | | 1,300 | 0.376 | 0.912 | 1.185 | | | | | | | | |
| | 25 | | | | | | | | | | | | | 527.591 | 523.000 | 4.591 | | | | | |
| | 25' | | | | | | | | | | | | | 528.776 | 460.000 | 68.776 | | | | | |
| 25' | - | 25N | (B) | 500 | 0 | 0 | 97 | 97 | | 1,150 | 0.783 | 8.169 | 9.394 | | | | | | | | |
| | 25N | | | | | | | | | | | | | 519.381 | 502.000 | 17.381 | | | | | |

## Appendix 5.13 Hydraulic Calculation for Transmission Pipeline (2015Year)

| Node | Node-Node | B/G | Flow Rate Q(m3/d) | Dia. D(mm) 2,005 | Dia. D(mm) 2,010 | Dia. D(mm) 2,015 | Mixed Dia Dm(mm) | Exist. | Length L(m) | Velocity v(m/sec) | Hyd.Grd I (‰) | Loss h(m) | Dynamic Pressure Hd(MSL) | GL | Dynamic Pressure He(m) | Pump Type | Head H(m) | set Excluding Stand-by | Output (kw/set) | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Katugastota-Kahawatta | | | | | | | | | | | | 539.951 | 430.000 | 109.951 | | | | | |
| 601 | 601 - 6 | (B) | 17,400 | 500 | 0 | 0 | 500 | | 6,350 | 1.026 | 1.976 | 12.545 | 527.406 | 520.000 | 7.406 | | | | | |
| | | | | | | | | | | | | | 520.000 | 520.000 | 0.000 | | | | | |
| 6 | 6 - 10 | G | 900 | 198 | 0 | 0 | 198 | | 1,400 | 0.338 | 0.750 | 1.050 | 518.950 | 514.000 | 4.950 | | | | | |
| | | | | | | | | | | | | | 626.233 | 520.000 | 106.233 | B | 106.2 | 2 | 63.9 | |
| 6 | 6 - 11’ | B | 6,200 | 0 | 0 | 350 | 350 | | 6,150 | 0.746 | 1.929 | 11.862 | 614.371 | 570.000 | 44.371 | | | | | |
| 11’ | 11’ - 12 | (B) | 2,500 | 0 | 0 | 198 | 198 | | 3,900 | 0.940 | 4.967 | 19.371 | 595.000 | 590.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | 614.371 | 570.000 | 44.371 | | | | | |
| 11’ | 11’ - 11 | (B) | 1,100 | 0 | 0 | 79 | 79 | | 100 | 2.597 | 95.453 | 9.545 | 604.826 | 570.000 | 34.826 | | | | | |
| | | | | | | | | | | | | | 661.764 | 570.000 | 91.764 | IB | 47.4 | 1 | 23.9 | |
| 11’ | 11’ - 11S | IB | 2,600 | 0 | 0 | 250 | 250 | | 3,400 | 0.613 | 1.989 | 6.764 | 655.000 | 650.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | 710.968 | 650.000 | 60.968 | B | 61.0 | 2 | 15.4 | |
| 11S | 11S - 11G’ | B | 2,600 | 0 | 0 | 250 | 250 | | 3,000 | 0.613 | 1.989 | 5.968 | 705.000 | 700.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | 755.172 | 700.000 | 55.172 | IB | 50.2 | 1 | 25.3 | |
| 11G’ | 11G’ - 11G | IB | 2,600 | 0 | 0 | 250 | 250 | | 2,600 | 0.613 | 1.989 | 5.172 | 750.000 | 745.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | 595.300 | 520.000 | 75.300 | B | 75.3 | 2 | 40.9 | |
| 6 | 6 - 7’ | B | 5,600 | 198 | 0 | 250 | 295 | | 3,650 | 0.950 | 3.691 | 13.471 | 581.829 | 460.000 | 121.829 | | | | | |
| 7’ | 7’ - 7 | (B) | 5,100 | 198 | 0 | 250 | 295 | | 2,200 | 0.865 | 3.104 | 6.829 | 575.000 | 570.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | 581.829 | 460.000 | 121.829 | | | | | |
| 7’ | 7’ - 8 | (B) | 500 | 97 | 0 | 0 | 97 | | 1,000 | 0.783 | 8.169 | 8.169 | 573.660 | 570.000 | 3.660 | | | | | |
| | | | | | | | | | | | | | 629.747 | 570.000 | 59.747 | B | 59.7 | 2 | 17.4 | |
| 7 | 7 - 9 | B | 3,000 | 0 | 0 | 250 | 250 | | 3,760 | 0.707 | 2.592 | 9.747 | 620.000 | 615.000 | 5.000 | | | | | |
| | Katugastota-Uduwawala | | | | | | | | | | | | 584.756 | 438.000 | 146.756 | B | 146.8 | 1 | 250.6 | |
| PG | PG - 5’ | B | 8,800 | 0 | 400 | 0 | 400 | | 700 | 0.811 | 1.659 | 1.161 | 583.594 | 450.000 | 133.594 | | | | | |
| 5’ | 5’ - 1301 | (B) | 8,800 | 0 | 400 | 0 | 400 | | 1,200 | 0.811 | 1.659 | 1.991 | 581.603 | 470.000 | 111.603 | | | | | |

## Appendix 5.13 Hydraulic Calculation for Transmission Pipeline (2015Year)

| Node | | | B/G | Flow Rate | Dia. | Dia. | Dia. | Mixed Dia | Exist. | Length | Velocity | Hyd.Grd | Loss | Dynamic Pressure | GL | Dynamic Pressure | Pump | Head | set | Output | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Node-Node | | | | Q(m3/d) | D(mm) | D(mm) | D(mm) | Dm(mm) | | L(m) | v(m/sec) | I(‰) | h(m) | Hd(MSL) | | He(m) | Type | H(m) | Excluding Stand-by | (kw/set) | |
| | | | | | 2,005 | 2,010 | 2,015 | | | | | | | | | | | | | | |
| 1301 | - | 14' | (B) | 4,600 | 0 | 300 | 0 | 300 | | 3,420 | 0.753 | 2.029 | 6.938 | | | | | | | | |
| | 14' | | | | | | | | | | | | | 574.666 | 560.000 | 14.666 | | | | | |
| 14' | - | 17N | (B) | 4,600 | 0 | 300 | 0 | 300 | | 2,300 | 0.753 | 2.029 | 4.666 | | | | | | | | |
| | 17N | | | | | | | | | | | | | 570.000 | 565.000 | 5.000 | | | | | |
| | 1301 | | | | | | | | | | | | | 581.603 | 470.000 | 111.603 | | | | | |
| 1301 | - | 1302 | (B) | 4,200 | 0 | 198 | 0 | 198 | | 1,800 | 1.579 | 12.969 | 23.344 | | | | | | | | |
| | 1302 | | | | | | | | | | | | | 558.259 | 510.000 | 48.259 | | | | | |
| 1302 | - | 15 | (B) | 2,100 | 0 | 198 | 0 | 198 | | 2,300 | 0.789 | 3.598 | 8.274 | | | | | | | | |
| | 15 | | | | | | | | | | | | | 549.985 | 532.000 | 17.985 | | | | | |
| | 1302 | | | | | | | | | | | | | 558.259 | 510.000 | 48.259 | | | | | |
| 1302 | - | 13 | (B) | 2,100 | 0 | 97 | 0 | 97 | | 100 | 3.289 | 116.194 | 11.619 | | | | | | | | |
| | 13 | | | | | | | | | | | | | 546.639 | 510.000 | 36.639 | | | | | |
| | 15 | | | | | | | | | | | | | 580.312 | 532.000 | 48.312 | | | | | |
| 15 | - | 16 | B | 1,600 | 0 | 0 | 198 | 198 | | 5,200 | 0.601 | 2.175 | 11.312 | | | | B | 48.3 | 2 | 7.5 | |
| | 16 | | | | | | | | | | | | | 569.000 | 564.000 | 5.000 | | | | | |
| | Katugastota-Kondadeniya,Kulugamana | | | | | | | | | | | | | | | | | | | | |
| | PG | | | | | | | | | | | | | 443.448 | 438.000 | 5.448 | | | | | |
| PG | - | 5'' | B | 3,900 | 300 | 0 | 0 | 300 | | 300 | 0.639 | 1.495 | 0.448 | | | | B | 5.4 | 1 | 4.1 | |
| | 5'' | | | | | | | | | | | | | 443.000 | 438.000 | 5.000 | | | | | |
| | 5'' | | | | | | | | | | | | | 583.415 | 438.000 | 145.415 | | | | | |
| 5'' | - | 5 | B | 3,900 | 0 | 0 | 182 | 182 | K | 2,680 | 1.731 | 16.946 | 45.415 | | | | B | 145.4 | 1 | 110.0 | Exist Pipe φ160×2 |
| | 5 | | | | | | | | | | | | | 538.000 | 533.000 | 5.000 | | | | | |
| | 5 | | | | | | | | | | | | | 596.821 | 533.000 | 63.821 | | | | | |
| 5 | - | 14 | B | 1,200 | 0 | 0 | 140 | 140 | K | 2,000 | 0.902 | 6.910 | 13.821 | | | | B | 63.8 | 1 | 14.9 | Exist Pipe φ160 |
| | 14 | | | | | | | | | | | | | 583.000 | 578.000 | 5.000 | | | | | |
| | Katugastota-KFG,R2 | | | | | | | | | | | | | | | | | | | | |
| | PG | | | | | | | | | | | | | 598.526 | 438.000 | 160.526 | | | | | |
| PG | - | 17' | B | 49,700 | 700 | 0 | 600 | 850 | | 550 | 1.014 | 1.204 | 0.662 | | | | B | 160.5 | 4 | 387.0 | |
| | 17' | | | | | | | | | | | | | 597.864 | 480.000 | 117.864 | | | | | |
| 17' | - | AG' | (B) | 34,900 | 700 | 0 | 0 | 700 | | 2,400 | 1.050 | 1.391 | 3.338 | | | | | | | | |
| | AG' | | | | | | | | | | | | | 594.526 | 520.000 | 74.526 | | | | | |
| AG' | - | AG | (B) | 19,000 | 600 | 0 | 0 | 600 | | 550 | 0.778 | 0.957 | 0.526 | | | | | | | | |
| | AG | | | | | | | | | | | | | 594.000 | 589.000 | 5.000 | | | | | |
| | AG' | | | | | | | | | | | | | 594.526 | 520.000 | 74.526 | | | | | |
| AG' | - | 582 | (B) | 15,900 | 0 | 300 | 0 | 300 | | 1,450 | 2.603 | 20.121 | 29.176 | | | | | | | | |
| | 582 | | | | | | | | | | | | | 565.350 | 555.000 | 10.350 | | | | | |
| | AG | | | | | | | | | | | | | 634.344 | 589.000 | 45.344 | | | | | |
| AG | - | 57 | B | 6,700 | 350 | 0 | 0 | 350 | | 700 | 0.806 | 1.920 | 1.344 | | | | B | 45.3 | 1 | 59.0 | |
| | 57 | | | | | | | | | | | | | 633.000 | 628.000 | 5.000 | | | | | |
| | 17' | | | | | | | | | | | | | 597.864 | 480.000 | 117.864 | | | | | |
| 17' | - | 1702 | (B) | 14,900 | 400 | 0 | 0 | 400 | | 2,500 | 1.372 | 4.396 | 10.989 | | | | | | | | |
| | 1702 | | | | | | | | | | | | | 586.875 | 545.000 | 41.875 | | | | | |

# Appendix 5.13 Hydraulic Calculation for Transmission Pipeline (2015Year)

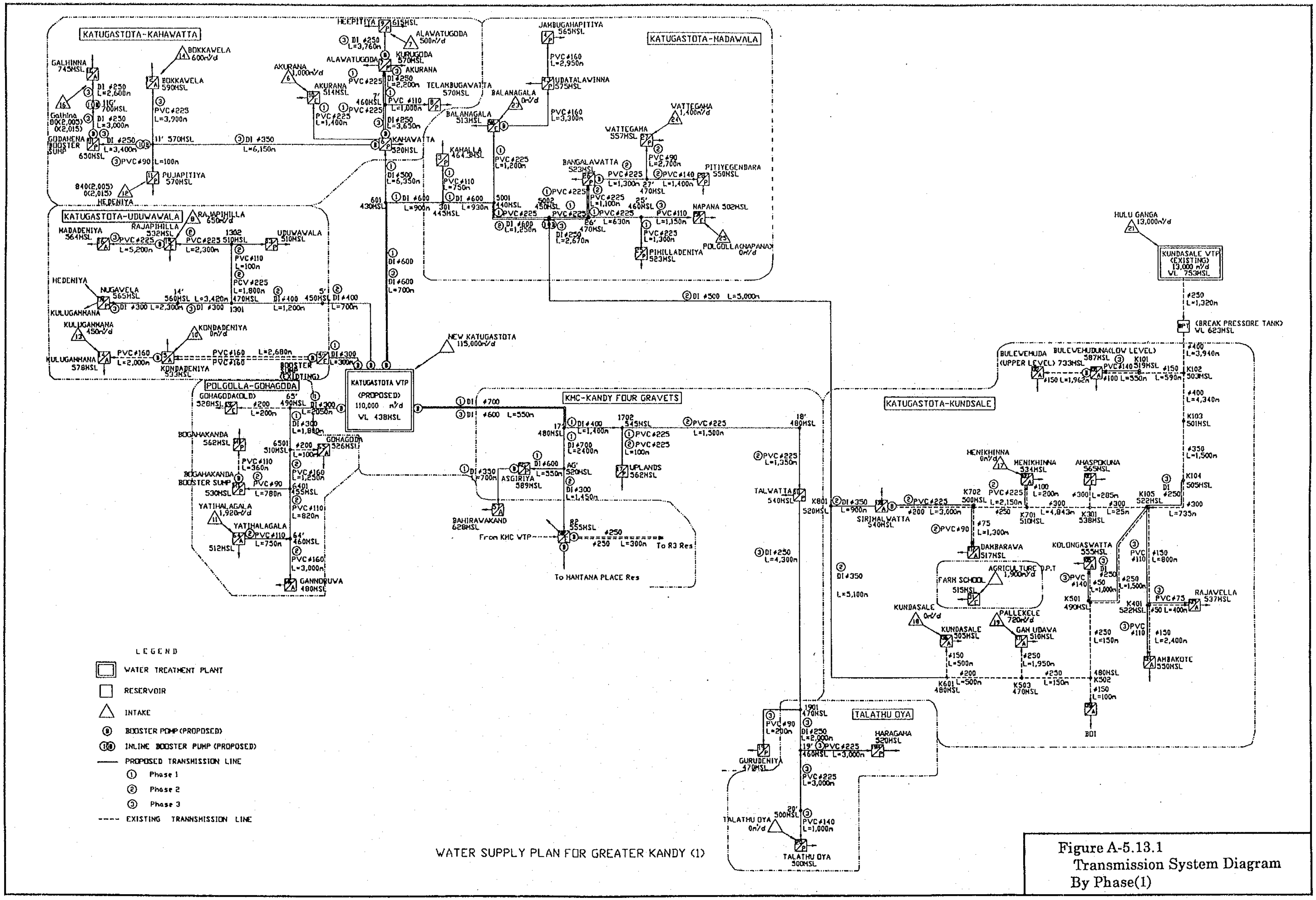
| Node | | | B/G | Flow Rate | Dia. | Dia. | Dia. | Mixed Dia | Exist. | Length | Velocity | Hyd.Grd | Loss | Dynamic Pressure | GL | Dynamic Pressure | Pump | Head | set | Output | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Node-Node | | | | Q(m3/d) | D(mm) | D(mm) | D(mm) | Dm(mm) | | L(m) | v(m/sec) | I(‰) | h(m) | Hd(MSL) | | He(m) | Type | H(m) | Excluding Stand-by | (kw/set) | |
| | | | | | 2,005 | 2,010 | 2,015 | | | | | | | | | | | | | | |
| 1702 | - | 18' | (B) | 4,000 | 0 | 198 | 0 | 198 | | 1,500 | 1.504 | 11.850 | 17.775 | | | | | | | | |
| | 18' | | | | | | | | | | | | | 569.100 | 480.000 | 89.100 | | | | | |
| 18' | - | 18 | (B) | 4,000 | 0 | 198 | 0 | 198 | | 1,350 | 1.504 | 11.850 | 15.997 | | | | | | | | |
| | 18 | | | | | | | | | | | | | 553.103 | 540.000 | 13.103 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 1702 | | | | | | | | | | | | | 586.875 | 545.000 | 41.875 | | | | | |
| 1702 | - | 17 | (B) | 10,900 | 198 | 198 | 0 | 258 | | 100 | 2.419 | 20.976 | 2.098 | | | | | | | | |
| | 17 | | | | | | | | | | | | | 584.777 | 562.000 | 22.777 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 18 | | | | | | | | | | | | | 540.000 | 540.000 | 0.000 | | | | | |
| 18 | - | 1901 | G | 3,000 | 0 | 0 | 250 | 250 | | 4,300 | 0.707 | 2.592 | 11.147 | | | | | | | | |
| | 1901 | | | | | | | | | | | | | 528.853 | 470.000 | 58.853 | | | | | |
| 1901 | - | 19 | (G) | 1,000 | 0 | 0 | 79 | 79 | | 200 | 2.361 | 80.022 | 16.004 | | | | | | | | |
| | 19 | | | | | | | | | | | | | 512.849 | 470.000 | 42.849 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 1901 | | | | | | | | | | | | | 528.853 | 470.000 | 58.853 | | | | | |
| 1901 | - | 19' | (G) | 2,000 | 0 | 0 | 250 | 250 | | 2,000 | 0.472 | 1.224 | 2.449 | | | | | | | | |
| | 19' | | | | | | | | | | | | | 526.405 | 460.000 | 66.405 | | | | | |
| 19' | - | 19H | (G) | 1,000 | 0 | 0 | 198 | 198 | | 3,000 | 0.376 | 0.912 | 2.735 | | | | | | | | |
| | 19H | | | | | | | | | | | | | 523.669 | 520.000 | 3.669 | | | | | |
| | Talathuoya | | | | | | | | | | | | | | | | | | | | |
| | 19' | | | | | | | | | | | | | 526.405 | 460.000 | 66.405 | | | | | |
| 19' | - | 20' | (G) | 1,000 | 0 | 0 | 198 | 198 | | 3,000 | 0.376 | 0.912 | 2.735 | | | | | | | | |
| | 20' | | | | | | | | | | | | | 523.669 | 500.000 | 23.669 | | | | | |
| 20' | - | 20 | (G) | 1,000 | 0 | 0 | 123 | 123 | | 1,000 | 0.974 | 9.264 | 9.264 | | | | | | | | |
| | 20 | | | | | | | | | | | | | 514.405 | 500.000 | 14.405 | | | | | |
| | Katugastota-Kundasale | | | | | | | | | | | | | | | | | | | | |
| | 5002 | | | | | | | | | | | | | 555.862 | 450.000 | 105.862 | | | | | |
| 5002 | - | K801 | IB | 15,200 | 0 | 500 | 0 | 500 | | 5,000 | 0.896 | 1.538 | 7.692 | | | | IB | 19.6 | 1 | 57.7 | |
| | K801 | | | | | | | | | | | | | 548.169 | 520.000 | 28.169 | | | | | |
| K801 | - | KR8 | (IB) | 9,300 | 0 | 350 | 0 | 350 | | 900 | 1.119 | 3.522 | 3.169 | | | | | | | | |
| | KR8 | | | | | | | | | | | | | 545.000 | 540.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | KR8 | | | | | | | | | | | | | 573.232 | 540.000 | 33.232 | | | | | |
| KR8 | - | K702 | B | 5,900 | 0 | 198 | 0 | 259 | Atten | 3,000 | 1.296 | 6.574 | 19.723 | | | | B | 33.2 | 2 | 19.0 | Exist Pipe φ200 |
| | K702 | | | | | | | | | | | | | 553.509 | 500.000 | 53.509 | | | | | |
| K702 | - | K701 | (B) | 4,900 | 0 | 0 | 0 | 250 | Atten | 2,150 | 1.155 | 5.541 | 11.912 | | | | | | | | Exist Pipe φ250 |
| | K701 | | | | | | | | | | | | | 541.596 | 510.000 | 31.596 | | | | | |
| K701 | - | KR7 | (B) | 4,900 | 0 | 198 | 0 | 210 | Atten | 200 | 1.639 | 12.982 | 2.596 | | | | | | | | Exist Pipe φ100 |
| | KR7 | | | | | | | | | | | | | 539.000 | 534.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | K702 | | | | | | | | | | | | | 553.509 | 500.000 | 53.509 | | | | | |
| K702 | - | KT2 | (B) | 1,000 | 0 | 79 | 0 | 100 | Atten | 1,300 | 1.466 | 25.053 | 32.569 | | | | | | | | Exist Pipe φ75 |
| | KT2 | | | | | | | | | | | | | 520.939 | 517.000 | 3.939 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | K801 | | | | | | | | | | | | | 548.169 | 520.000 | 28.169 | | | | | |
| K801 | - | K601 | (IB) | 5,900 | 0 | 350 | 0 | 350 | | 5,100 | 0.710 | 1.517 | 7.739 | | | | | | | | |
| | K601 | | | | | | | | | | | | | 540.430 | 480.000 | 60.430 | | | | | |
| K601 | - | K503 | (IB) | 2,000 | 0 | 0 | 200 | 200 | E | 500 | 0.737 | 3.130 | 1.565 | | | | | | | | Exist Pipe φ200 |
| | K503 | | | | | | | | | | | | | 538.865 | 470.000 | 68.865 | | | | | |

## Appendix 5.13 Hydraulic Calculation for Transmission Pipeline (2015Year)

| Node |  |  | B/G | Flow Rate | Dia. | Dia. | Dia. | Mixed Dia | Exist. | Length | Velocity | Hyd.Grd | Loss | Dynamic Pressure | GL | Dynamic Pressure | Pump | Head | set | Output | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Node-Node |  |  |  | Q(m3/d) | D(mm) | D(mm) | D(mm) | Dm(mm) |  | L(m) | v(m/sec) | I(‰) | h(m) | Hd(MSL) |  | He(m) | Type | H(m) | Excluding Stand-by | (kw/set) |  |
|  |  |  |  |  | 2,005 | 2,010 | 2,015 |  |  |  |  |  |  |  |  |  |  |  |  |  | Exist Pipe ϕ250 |
| K503 | - | K502 | (IB) | 1,100 | 0 | 0 | 250 | 250 | K | 150 | 0.259 | 0.405 | 0.061 |  |  |  |  |  |  |  |  |
|  | K502 |  |  |  |  |  |  |  |  |  |  |  |  | 538.805 | 480.000 | 58.805 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K601 |  |  |  |  |  |  |  |  |  |  |  |  | 540.430 | 480.000 | 60.430 |  |  |  |  | Exist Pipe ϕ150 |
| K601 | - | KR6 | (IB) | 3,900 | 0 | 0 | 150 | 150 | K | 500 | 2.554 | 43.708 | 21.854 |  |  |  |  |  |  |  |  |
|  | KR6 |  |  |  |  |  |  |  |  |  |  |  |  | 518.576 | 505.000 | 13.576 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K503 |  |  |  |  |  |  |  |  |  |  |  |  | 538.865 | 470.000 | 68.865 |  |  |  |  | Exist Pipe ϕ250 |
| K503 | - | KT1 | (IB) | 800 | 0 | 0 | 250 | 250 | K | 1,950 | 0.189 | 0.225 | 0.438 |  |  |  |  |  |  |  |  |
|  | KT1 |  |  |  |  |  |  |  |  |  |  |  |  | 538.427 | 510.000 | 28.427 |  |  |  |  |  |
|  | Kundasale |  |  |  |  |  |  |  |  |  |  |  |  | 623.000 | 623.000 | 0.000 |  |  |  |  |  |
|  | BPT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Exist Pipe ϕ400 |
| BPT | - | K102 | G | 13,000 | 0 | 0 | 400 | 400 | K | 3,940 | 1.197 | 3.960 | 15.604 |  |  |  |  |  |  |  |  |
|  | K102 |  |  |  |  |  |  |  |  |  |  |  |  | 607.396 | 503.000 | 104.396 |  |  |  |  | Exist Pipe ϕ400 |
| K102 | - | K103 | (G) | 11,000 | 0 | 0 | 400 | 400 | K | 4,340 | 1.013 | 2.907 | 12.618 |  |  |  |  |  |  |  |  |
|  | K103 |  |  |  |  |  |  |  |  |  |  |  |  | 594.778 | 501.000 | 93.778 |  |  |  |  | Exist Pipe ϕ350 |
| K103 | - | K104 | (G) | 11,000 | 0 | 0 | 350 | 350 | K | 1,500 | 1.323 | 5.571 | 8.356 |  |  |  |  |  |  |  |  |
|  | K104 |  |  |  |  |  |  |  |  |  |  |  |  | 586.422 | 505.000 | 81.422 |  |  |  |  | Exist Pipe ϕ300 |
| K104 | - | K105 | (G) | 11,000 | 0 | 0 | 250 | 360 | Atten | 735 | 1.249 | 4.836 | 3.554 |  |  |  |  |  |  |  |  |
|  | K105 |  |  |  |  |  |  |  |  |  |  |  |  | 582.867 | 522.000 | 60.867 |  |  |  |  | Exist Pipe ϕ250 |
| K105 | - | K501 | (G) | 8,100 | 0 | 0 | 250 | 325 | Atten | 1,500 | 1.127 | 4.511 | 6.767 |  |  |  |  |  |  |  |  |
|  | K501 |  |  |  |  |  |  |  |  |  |  |  |  | 576.101 | 490.000 | 86.101 |  |  |  |  | Exist Pipe ϕ50 |
| K501 | - | KR5 | (G) | 1,400 | 0 | 0 | 123 | 127 | Atten | 1,000 | 1.274 | 14.625 | 14.625 |  |  |  |  |  |  |  |  |
|  | KR5 |  |  |  |  |  |  |  |  |  |  |  |  | 561.475 | 555.000 | 6.475 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K102 |  |  |  |  |  |  |  |  |  |  |  |  | 607.396 | 503.000 | 104.396 |  |  |  |  | Exist Pipe ϕ150 |
| K102 | - | K101 | (G) | 2,000 | 0 | 0 | 150 | 150 | K | 590 | 1.310 | 12.706 | 7.496 |  |  |  |  |  |  |  |  |
|  | K101 |  |  |  |  |  |  |  |  |  |  |  |  | 599.900 | 519.000 | 80.900 |  |  |  |  | Exist Pipe ϕ100 |
| K101 | - | KR1 | (G) | 2,000 | 0 | 0 | 123 | 146 | Atten | 550 | 1.376 | 14.315 | 7.873 |  |  |  |  |  |  |  |  |
|  | KR1 |  |  |  |  |  |  |  |  |  |  |  |  | 592.027 | 587.000 | 5.027 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K105 |  |  |  |  |  |  |  |  |  |  |  |  | 582.867 | 522.000 | 60.867 |  |  |  |  | Exist Pipe ϕ300 |
| K105 | - | K301 | (B) | 5,300 | 0 | 0 | 300 | 300 | K | 25 | 0.868 | 3.057 | 0.076 |  |  |  |  |  |  |  |  |
|  | K301 |  |  |  |  |  |  |  |  |  |  |  |  | 582.791 | 538.000 | 44.791 |  |  |  |  | Exist Pipe ϕ300 |
| K301 | - | KR3 | (B) | 600 | 0 | 0 | 300 | 300 | K | 285 | 0.098 | 0.054 | 0.015 |  |  |  |  |  |  |  |  |
|  | KR3 |  |  |  |  |  |  |  |  |  |  |  |  | 582.776 | 565.000 | 17.776 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K105 |  |  |  |  |  |  |  |  |  |  |  |  | 582.867 | 522.000 | 60.867 |  |  |  |  | Exist Pipe ϕ150 |
| K105 | - | K401 | (G) | 2,400 | 0 | 0 | 97 | 167 | Atten | 800 | 1.274 | 10.680 | 8.544 |  |  |  |  |  |  |  |  |
|  | K401 |  |  |  |  |  |  |  |  |  |  |  |  | 574.323 | 522.000 | 52.323 |  |  |  |  | Exist Pipe ϕ150 |
| K401 | - | KR4 | (G) | 1,800 | 0 | 0 | 97 | 167 | Atten | 2,400 | 0.956 | 6.273 | 15.054 |  |  |  |  |  |  |  |  |
|  | KR4 |  |  |  |  |  |  |  |  |  |  |  |  | 559.269 | 550.000 | 9.269 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K401 |  |  |  |  |  |  |  |  |  |  |  |  | 574.323 | 522.000 | 52.323 |  |  |  |  | Exist Pipe ϕ50 |
| K401 | - | KR9 | (G) | 600 | 0 | 0 | 65 | 76 | Atten | 400 | 1.536 | 37.882 | 15.153 |  |  |  |  |  |  |  |  |
|  | KR9 |  |  |  |  |  |  |  |  |  |  |  |  | 559.170 | 537.000 | 22.170 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K501 |  |  |  |  |  |  |  |  |  |  |  |  | 576.101 | 490.000 | 86.101 |  |  |  |  | Exist Pipe ϕ250 |
| K501 | - | K502 | (G) | 12,600 | 0 | 0 | 250 | 250 | K | 150 | 2.971 | 36.871 | 5.531 |  |  |  |  |  |  |  |  |
|  | K502 |  |  |  |  |  |  |  |  |  |  |  |  | 570.570 | 480.000 | 90.570 |  |  |  |  |  |

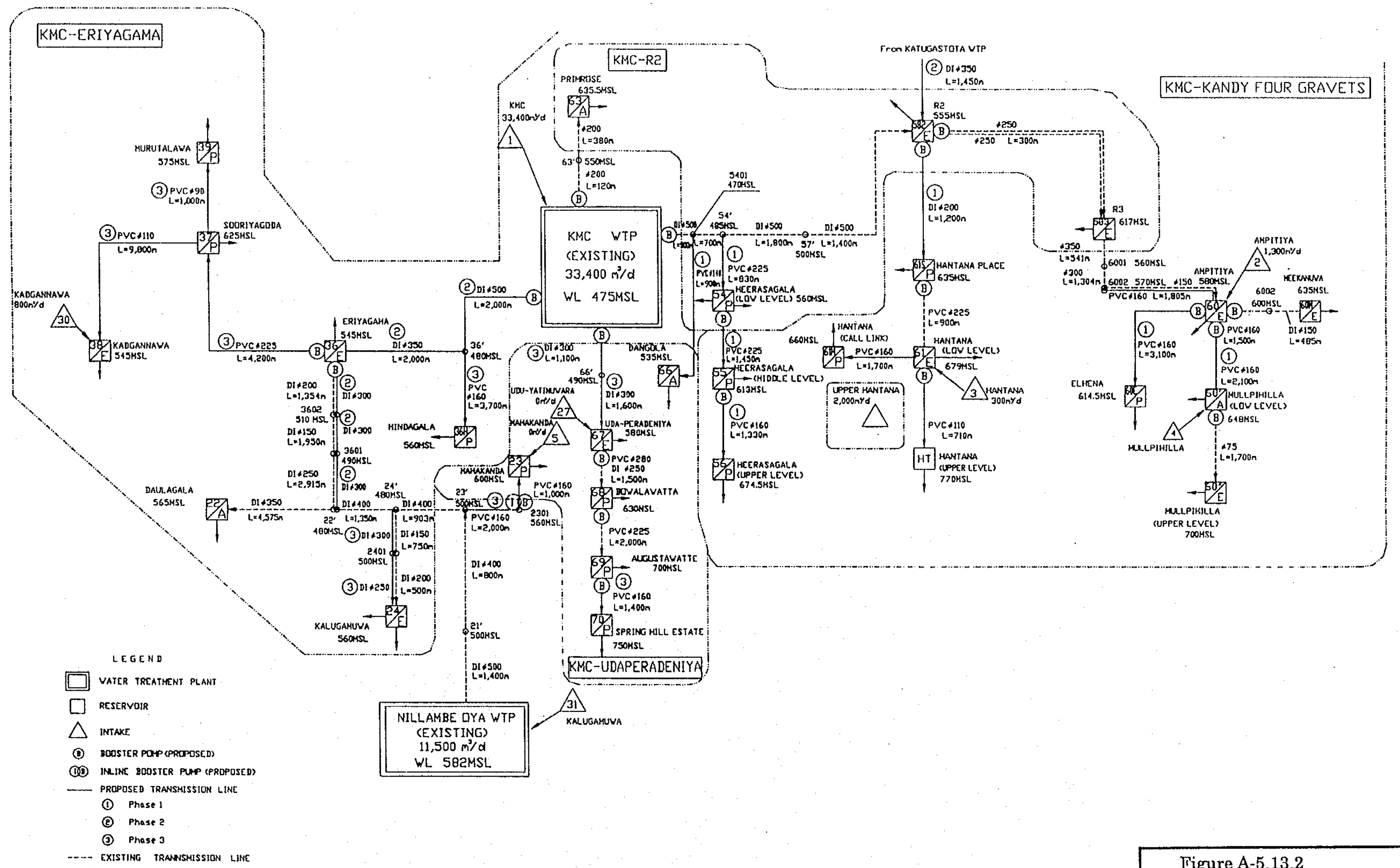
# Appendix 5.13 Hydraulic Calculation for Transmission Pipeline (2015Year)

| Node-Node | Node | | B/G | Flow Rate Q(m3/d) | Dia. D(mm) 2,005 | Dia. D(mm) 2,010 | Dia. D(mm) 2,015 | Mixed Dia Dm(mm) | Exist. | Length L(m) | Velocity v(m/sec) | Hyd.Grd I(‰) | Loss h(m) | Dynamic Pressure Hd(MSL) | GL | Dynamic Pressure He(m) | Pump Type | Head H(m) | set Excluding Stand-by | Output (kw/set) | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Katugastota-Gohagoda | | | | | | | | | | | | | | | | | | | | |
| | PG | | | | | | | | | | | | | 550.111 | 438.000 | 112.111 | | | | | |
| PG | - | 65' | B | 5,100 | 300 | 0 | 0 | 300 | | 2,050 | 0.835 | 2.455 | 5.033 | | | | B | 112.1 | 2 | 55.5 | |
| | 65' | | | | | | | | | | | | | 545.078 | 490.000 | 55.078 | | | | | |
| 65' | - | 6501 | (B) | 4,000 | 300 | 0 | 0 | 300 | | 1,800 | 0.655 | 1.566 | 2.819 | | | | | | | | 既設管無視 φ160×2条 |
| | 6501 | | | | | | | | | | | | | 542.258 | 510.000 | 32.258 | | | | | |
| 6501 | - | 6401 | (B) | 800 | 0 | 140 | 0 | 140 | | 1,250 | 0.601 | 3.264 | 4.080 | | | | | | | | 既設管無視 φ225 |
| | 6401 | | | | | | | | | | | | | 538.178 | 455.000 | 83.178 | | | | | |
| 6401 | - | 64S | (B) | 200 | 0 | 79 | 0 | 79 | | 780 | 0.472 | 4.075 | 3.178 | | | | | | | | 既設管無視 |
| | 64S | | | | | | | | | | | | | 535.000 | 530.000 | 5.000 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 65' | | | | | | | | | | | | | 545.078 | 490.000 | 55.078 | | | | | |
| 65' | - | 65G | (B) | 1,100 | 0 | 0 | 200 | 200 | K | 200 | 0.405 | 1.036 | 0.207 | | | | | | | | Exist Pipe φ200 |
| | 65G | | | | | | | | | | | | | 544.871 | 528.000 | 16.871 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 6501 | | | | | | | | | | | | | 542.258 | 510.000 | 32.258 | | | | | |
| 6501 | - | 65 | (B) | 3,200 | 0 | 0 | 200 | 200 | K | 100 | 1.179 | 7.467 | 0.747 | | | | | | | | Exist Pipe φ200 |
| | 65 | | | | | | | | | | | | | 541.511 | 526.000 | 15.511 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 6401 | | | | | | | | | | | | | 538.178 | 455.000 | 83.178 | | | | | |
| 6401 | - | 64' | (B) | 600 | 0 | 97 | 0 | 97 | | 820 | 0.940 | 11.446 | 9.386 | | | | | | | | 既設管無視 φ160 |
| | 64' | | | | | | | | | | | | | 528.793 | 460.000 | 68.793 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 64 | | | | | | | | | | | | | 512.000 | 512.000 | 0.000 | | | | | |
| 64 | - | 64' | G | 500 | 0 | 97 | 0 | 97 | | 750 | 0.783 | 8.169 | 6.127 | | | | | | | | 既設管無視 φ160, φ110 |
| | 64' | | | | | | | | | | | | | 505.873 | 460.000 | 45.873 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 64' | | | | | | | | | | | | | 505.873 | 460.000 | 45.873 | | | | | |
| 64' | - | 64G | (B) | 1,100 | 0 | 140 | 0 | 140 | | 3,000 | 0.827 | 5.883 | 17.649 | | | | | | | | 既設管無視 φ225 |
| | 64G | | | | | | | | | | | | | 488.225 | 480.000 | 8.225 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | 64S | | | | | | | | | | | | | 567.540 | 530.000 | 37.540 | | | | | |
| 64S | - | 64B | B | 200 | 0 | 0 | 97 | 97 | K | 360 | 0.313 | 1.500 | 0.540 | | | | B | 37.5 | 1 | 1.5 | Exist Pipe φ110 |
| | 64B | | | | | | | | | | | | | 567.000 | 562.000 | 5.000 | | | | | |
| Sub Total | | | | | | | | | | | | | | | | | | | 30 | 1,188.0 | |
| Grand Total | | | | | | | | | | | | | | | | | | | 62 | 1,791.2 | |



WATER SUPPLY PLAN FOR GREATER KANDY (1)

Figure A-5.13.1
Transmission System Diagram
By Phase(1)




WATER SUPPLY PLAN FOR GREATER KANDY (2)

Figure A-5.13.2
Transmission System Diagram
By Phase(2)

# Appendix 5.14 Capacity Calculation for Distribution Service Reservoir

| Table | Projected Water Supply in Greater Kandy by Service Zone(2005-2015) | | | | | | | | 2005 | | | | | 2010 | | | | | 2015 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zone | | Area | | No. | Reservoir Location | Capacity of the exisisting Reserver (cu m) | Required Capacity of Reserver (cu m) | Capacity of the proposed Reserver (cu m) | Demand (cu m/d) | | Supply (cu m/d) | | Capacity of Reserver (cu m) | Demand (cu m/d) | | Supply (cu m/d) | | Capacity of Reserver (cu m) | Demand (cu m/d) | | Supply (cu m/d) | | Capacity of Reserver (cu m) |
| Katugastota-Kundasale | j | KUNDASALE | Mulewemuduna (low) | KR1 | Mulewemuduna | 100 | 147 | 47 | 405 | | 0 | | 0 | 443 | | 0 | | 0 | 490 | * | 490 | * | 47 |
| | j | KUNDASALE | Mulewe' (upper) | KR2 | Mulewemuduna | 225 | 343 | 118 | 945 | | 0 | | 0 | 1,035 | | 0 | | 0 | 1,144 | * | 1,144 | * | 118 |
| | j | KUNDASALE | Ahaspokuna | KR3 | Ahaspokuna | 650 | 147 | 0 | 405 | | 0 | | 0 | 443 | | 0 | | 0 | 490 | * | 490 | | 0 |
| | j | KUNDASALE | Vijaya Srigama | KR4 | Vijaya Srigama | 225 | 441 | 216 | 1,215 | | 0 | | 0 | 1,330 | | 0 | | 0 | 1,471 | * | 1,471 | * | 216 |
| | j | KUNDASALE | Kolongahawatte | KR5 | Kolongahawatte | 100 | 343 | 243 | 945 | | 0 | | 0 | 1,035 | | 0 | | 0 | 1,144 | * | 1,144 | * | 243 |
| | j | KUNDASALE | Kundasale | KR6 | Kundasale | 350 | 980 | 630 | 2,700 | | 0 | | 0 | 2,956 | * | 2,956 | * | 630 | 3,268 | * | 3,268 | | 0 |
| | j | KUNDASALE | Menikhinna | KR7 | Menikhinna | 450 | 1,225 | 775 | 3,375 | | 0 | | 0 | 3,695 | * | 3,695 | * | 775 | 4,085 | * | 4,085 | | 0 |
| | j | KUNDASALE | Sirimalwatta | KR8 | Sirimalwatta | 650 | 858 | 208 | 2,362 | | 0 | | 0 | 2,586 | * | 2,586 | * | 208 | 2,859 | * | 2,859 | | 0 |
| | j | KUNDASALE | Rajawella | KR9 | Rajawella Town | 100 | 147 | 47 | 405 | | 0 | | 0 | 443 | | 0 | | 0 | 490 | * | 490 | * | 47 |
| | j | KUNDASALE | BOI | KR10 | | 450 | 1,961 | 1,511 | 5,399 | | 0 | | 0 | 5,912 | | 0 | | 0 | 6,536 | * | 6,536 | * | 1,511 |
| | j | KUNDASALE | Gam Udawa | KT1 | Opposite Army Camp | 320 | 392 | 72 | 1,080 | | 0 | | 0 | 1,182 | * | 1,182 | * | 72 | 1,307 | * | 1,307 | | 0 |
| | j | KUNDASALE | Dambarawa | KT2 | Dambarawa | 175 | 245 | 70 | 675 | | 0 | | 0 | 739 | * | 739 | * | 70 | 817 | * | 817 | | 0 |
| Subtotal | j | | | | | 5,645 | 7,230 | 3,938 | 19,910 | | - | | - | 21,800 | | 11,159 | | 1,756 | 24,100 | | 24,100 | | 2,182 |
| Katugastota - Madawala | f | PATHA DUMBARA | Jambugahapitiya | 4 | Jambugahapitiya | 0 | 167 | 167 | 477 | | 0 | | 0 | 529 | | 0 | | 0 | 558 | * | 558 | * | 167 |
| | f | PATHA DUMBARA | Uda Thalawinna | 4J | Jambugahapitiya Sump Booster | 0 | 167 | 167 | 477 | | 0 | | 0 | 529 | | 0 | | 0 | 558 | * | 558 | * | 167 |
| | f | PATHA DUMBARA | Kahalla | 3 | Kahalla | 0 | 323 | 323 | 919 | * | 919 | * | 323 | 1,018 | * | 1,018 | | 0 | 1,075 | * | 1,075 | | 0 |
| | f | PATHA DUMBARA | Balanagala | 500 | Balanagala | 450 | 372 | 0 | 1,061 | * | 1,061 | | 0 | 1,175 | * | 1,175 | | 0 | 1,241 | * | 1,241 | | 0 |
| | f | PATHA DUMBARA | Madawala Area | 26 | Bangalawatta | 0 | 298 | 298 | 848 | * | 848 | * | 298 | 940 | * | 940 | | 0 | 992 | * | 992 | | 0 |
| | f | PATHA DUMBARA | Wattegama | 27 | Wal Arambe | 0 | 422 | 422 | 1,202 | | 0 | | 0 | 1,331 | * | 1,331 | * | 422 | 1,406 | * | 1,406 | | 0 |
| | f | PATHA DUMBARA | Pitiyagedara | 28 | Pitiyagedara | 0 | 360 | 360 | 1,025 | | 0 | | 0 | 1,135 | * | 1,135 | * | 360 | 1,199 | * | 1,199 | | 0 |
| | f | PATHA DUMBARA | Napana | 25N | Napana | 150 | 124 | 0 | 354 | | 0 | | 0 | 392 | | 0 | | 0 | 414 | * | 414 | | 0 |
| | f | PATHA DUMBARA | Pihilladeniya | 25 | Pihilladeniya | 0 | 248 | 248 | 707 | * | 707 | * | 248 | 783 | * | 783 | | 0 | 827 | * | 827 | | 0 |
| Subtotal | f | | | | | 600 | 2,481 | 1,985 | 7,070 | | 3,535 | | 868 | 7,830 | | 6,381 | | 782 | 8,270 | | 8,270 | | 335 |
| Katugastota - Kahawatta | e | HARISPATTUWA, AKURANA & | Bokkawela - Present WSS and Suburbs | 12 | Bokkawela(Ex) | 300 | 779 | 479 | 2,180 | | 0 | | 0 | 2,238 | | 0 | | 0 | 2,598 | * | 2,598 | * | 479 |
| | e | HARISPATTUWA, AKURANA & PUJAPITIYA | Hedeniya (part)-Present WSS and Suburbs-Pujapitiya | 11 | Pujapitiya | 0 | 278 | 278 | 779 | | 0 | | 0 | 799 | | 0 | | 0 | 928 | * | 928 | * | 278 |
| | d | HARISPATTUWA, AKURANA & PUJAPITIYA | Akurana (part)-Present WSS and Suburbs | 6 | Kahawatta | 0 | 1,174 | 1,174 | 3,246 | * | 3,246 | * | 1,174 | 3,368 | * | 3,368 | | 0 | 3,912 | * | 3,912 | | 0 |
| | d | HARISPATTUWA, AKURANA & PUJAPITIYA | Akurana (part)-Present WSS and Suburbs | 10 | Akurana | 600 | 474 | 0 | 1,310 | * | 1,310 | | 0 | 1,359 | * | 1,359 | | 0 | 1,579 | * | 1,579 | | 0 |
| | d | HARISPATTUWA, AKURANA & PUJAPITIYA | Akurana (part)-Present WSS and Suburbs | 7 | Kurugoda | 0 | 103 | 103 | 285 | * | 285 | * | 103 | 295 | * | 295 | | 0 | 343 | * | 343 | | 0 |
| | d | HARISPATTUWA, AKURANA & PUJAPITIYA | Alawathugoda-Present WSS and Suburbs | 7 | Kurugoda | 0 | 432 | 432 | 1,196 | * | 1,196 | * | 432 | 1,241 | * | 1,241 | | 0 | 1,441 | * | 1,441 | | 0 |

Table Projected Water Supply in Greater Kandy by Service Zone(2005-2015)

| Zone | | Area | | No. | Reservoir Location | Capacity of the existing Reserver (cu m) | Required Capacity of Reserver (cu m) | Capacity of the proposed Reserver (cu m) | 2005 Demand (cu m/d) | | 2005 Supply (cu m/d) | | 2005 Capacity of Reserver (cu m) | 2010 Demand (cu m/d) | | 2010 Supply (cu m/d) | | 2010 Capacity of Reserver (cu m) | 2015 Demand (cu m/d) | | 2015 Supply (cu m/d) | | 2015 Capacity of Reserver (cu m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | d | HARISPATTUWA, AKURANA & | Thelambugahawatta | 8 | Thelambugahawatta | 0 | 124 | 124 | 342 | * | 342 | * | 124 | 355 | * | 355 | | 0 | 412 | * | 412 | | 0 |
| | d | HARISPATTUWA, AKURANA & PUJAPITIYA | Alawathugoda-Present WSS and Suburbs | 9 | Heepitiya | 0 | 865 | 865 | 2,392 | | 0 | | 0 | 2,482 | | 0 | | 0 | 2,883 | * | 2,883 | * | 865 |
| | e | HARISPATTUWA, AKURANA & | Galhinna | 11G | | 150 | 640 | 490 | 1,791 | | 0 | | 0 | 1,838 | | 0 | | 0 | 2,134 | * | 2,134 | * | 490 |
| | e | HARISPATTUWA, AKURANA & | Godahena | 11S | | 0 | | | | | | | | | | | | | | | | | |
| Subtotal | | | | | | 1,050 | 4,869 | 3,945 | 13,520 | | 6,378 | | 1,833 | 13,974 | | 6,617 | | - | 16,230 | | 16,230 | | 2,113 |
| | d | | | | | 600 | 3,171 | 2,697 | 8,770 | | 6,378 | | 1,833 | 9,099 | | 6,617 | | - | 10,570 | | 10,570 | | 865 |
| | e | | | | | 450 | 1,698 | 1,248 | 4,750 | | - | | - | 4,875 | | - | | - | 5,660 | | 5,660 | | 1,248 |
| Katugastota - Uduwawala | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Hedeniya (part)-Present WSS and Suburbs-Madadeniya | 16 | Madadeniya(Ex) | 300 | 411 | 111 | 1,158 | | 0 | | 0 | 1,178 | | 0 | | 0 | 1,368 | * | 1,368 | * | 111 |
| | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Hedeniya (part)-Present WSS and Suburbs | 17N | Nugawela | 0 | 438 | 438 | 1,235 | | 0 | | 0 | 1,257 | * | 1,257 | * | 438 | 1,460 | * | 1,460 | | 0 |
| | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Kulugammana-Present WSS and Suburbs | 17N | Nugawela | 0 | 712 | 712 | 2,006 | | 0 | | 0 | 2,042 | * | 2,042 | * | 712 | 2,372 | * | 2,372 | | 0 |
| | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Kulugammana-Present WSS and Suburbs | 14 | Kulugammana | 300 | 411 | 111 | 1,158 | * | 1,158 | * | 111 | 1,178 | * | 1,178 | | 0 | 1,368 | * | 1,368 | | 0 |
| | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Rajapihilla (part) Present WSS and Suburbs | 15 | Rajapihilla | 300 | 274 | 0 | 772 | | 0 | | 0 | 785 | * | 785 | | 0 | 912 | * | 912 | | 0 |
| | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Rajapihilla (part) Present WSS and Suburbs | 13 | Uduwawala | 0 | 520 | 520 | 1,466 | | 0 | | 0 | 1,492 | * | 1,492 | * | 520 | 1,733 | * | 1,733 | | 0 |
| | c | HARISPATTUWA, AKURANA & PUJAPITIYA | Kondadeniya-Present WSS and Suburbs | 5 | Kondadeniya | 300 | 684 | 384 | 1,929 | * | 1,929 | * | 384 | 1,963 | * | 1,963 | | 0 | 2,281 | * | 2,281 | | 0 |
| Subtotal | c | | | | | 1,200 | 3,448 | 2,275 | 9,723 | | 3,087 | | 495 | 9,895 | | 8,717 | | 1,669 | 11,494 | | 11,494 | | 111 |
| KMC-Eriyagama | b | KANDY FOUR GRAVETS | Hindagala | 36H | Hindagala | 0 | 223 | 223 | 634 | | 0 | | 0 | 690 | | 0 | | 0 | 744 | * | 744 | * | 223 |
| | g | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Daulagala present WSS and Suburbs | 22 | Daulagala | 1,140 | 1,616 | 476 | 4,631 | | 0 | | 0 | 5,153 | * | 5,153 | * | 476 | 5,386 | * | 5,386 | | 0 |
| | g | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Kalugamuwa | 24 | Kalugamuwa | 1,820 | 2,131 | 311 | 6,109 | | 0 | | 0 | 6,797 | | 0 | | 0 | 7,104 | * | 7,104 | * | 311 |
| | i | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | | 24 | Kalugamuwa | 180 | 147 | 0 | 440 | | 0 | | 0 | 460 | | 0 | | 0 | 490 | * | 490 | | 0 |
| | h | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Eriyagama | 36 | Eriyagama | 860 | 762 | 0 | 2,044 | | 0 | | 0 | 2,368 | * | 2,368 | | 0 | 2,542 | * | 2,542 | | 0 |

**Table Projected Water Supply in Greater Kandy by Service Zone(2005-2015)**

| Zone | | Area | | No. | Reservoir Location | Capacity of the existing Reserver (cu m) | Required Capacity of Reserver (cu m) | Capacity of the proposed Reserver (cu m) | 2005 Demand (cu m/d) | | 2005 Supply (cu m/d) | | 2005 Capacity of Reserver (cu m) | 2010 Demand (cu m/d) | | 2010 Supply (cu m/d) | | 2010 Capacity of Reserver (cu m) | 2015 Demand (cu m/d) | | 2015 Supply (cu m/d) | | 2015 Capacity of Reserver (cu m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | h | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Suriyagoda, Waturakumbura, Giragama, Danture, Urapola | 37 | Suriyagoda | 0 | 272 | 272 | 730 | | 0 | | 0 | 846 | | 0 | | 0 | 908 | * | 908 | * | 272 |
| | h | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Murutalawa, Pelawa, Yahalatenna | 39 | Murutalawa | 0 | 182 | 182 | 487 | | 0 | | 0 | 564 | | 0 | | 0 | 605 | * | 605 | * | 182 |
| | h | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Kadugannawa Present WSS and Suburbs | 38 | Kagudannawa(Ex) | 560 | 272 | 0 | 730 | | 0 | | 0 | 846 | | 0 | | 0 | 908 | * | 908 | | 0 |
| Subtotal | | | | | | 4,560 | 5,606 | 1,464 | 15,804 | | - | | - | 17,724 | | 7,521 | | 476 | 18,686 | | 18,686 | | 988 |
| | b | | | | | - | 223 | 223 | 634 | | - | | - | 690 | | - | | - | 744 | | 744 | | 223 |
| | g | | | | | 2,960 | 3,747 | 787 | 10,740 | | - | | - | 11,950 | | 5,153 | | 476 | 12,490 | | 12,490 | | 311 |
| | h | | | | | 1,420 | 1,489 | 454 | 3,990 | | - | | - | 4,624 | | 2,368 | | - | 4,962 | | 4,962 | | 454 |
| | i | | | | | 180 | 147 | - | 440 | | - | | - | 460 | | - | | - | 490 | | 490 | | - |
| Katugastota - Gohagoda | h | UDUNUWARA, YATINUWARA AND UDA PALATHA (PART) | Gannoruwa Institutions | 64G | Gannoruwa | 0 | 272 | 272 | 730 | | 0 | | 0 | 846 | * | 846 | * | 272 | 908 | * | 908 | | 0 |
| | c | HARISPATTUWA, AKURANA & | Gohagoda-Present WSS and Suburbs | 65G | Gohagoda | 300 | 274 | 0 | 772 | * | 772 | | 0 | 785 | * | 785 | | 0 | 912 | * | 912 | | 0 |
| | c | HARISPATTUWA, AKURANA & | Gohagoda | 65 | | 600 | 807 | 207 | 2,276 | * | 2,276 | * | 207 | 2,317 | * | 2,317 | | 0 | 2,691 | * | 2,691 | | 0 |
| | c | HARISPATTUWA, AKURANA & | Bogahakanda | 64B | Bogahakanda | 0 | 41 | 41 | 116 | | 0 | | 0 | 118 | * | 118 | * | 41 | 137 | * | 137 | | 0 |
| | c | HARISPATTUWA, AKURANA & | Yatihalagala-Present WSS and Suburbs | 64 | Yatihalagala | 150 | 356 | 206 | 1,003 | | 0 | | 0 | 1,021 | * | 1,021 | * | 206 | 1,186 | * | 1,186 | | 0 |
| Subtotal | | | | | | 1,050 | 1,750 | 726 | 4,897 | | 3,048 | | 207 | 5,087 | | 5,087 | | 519 | 5,834 | | 5,834 | | - |
| | c | | | | | 1,050 | 1,478 | 454 | 4,167 | | 3,048 | | 207 | 4,241 | | 4,241 | | 247 | 4,926 | | 4,926 | | - |
| | h | | | | | - | 272 | 272 | 730 | | - | | - | 846 | | 846 | | 272 | 908 | | 908 | | - |
| KMC-R2 | a | KANDY MUNICIPAL COUNCIL | Bahirawakanda/Anniwatta | 57 | Bahirawakanda | 91 | 1,686 | 1,595 | 4,729 | * | 4,729 | * | 1,595 | 5,256 | * | 5,256 | | 0 | 5,621 | * | 5,621 | | 0 |
| | a | KANDY MUNICIPAL COUNCIL | Primrose | 63 | Primrose | 181 | 496 | 315 | 1,391 | * | 1,391 | * | 315 | 1,546 | * | 1,546 | | 0 | 1,653 | * | 1,653 | | 0 |
| | a | KANDY MUNICIPAL COUNCIL | Heeressagala (lower) | 54 | Heeressagala | 0 | 99 | 99 | 278 | * | 278 | * | 99 | 309 | * | 309 | | 0 | 331 | * | 331 | | 0 |
| | a | KANDY MUNICIPAL COUNCIL | R2 Reservoir Present Distribution Zone | 582 | Wakarawatta | 3,636 | 3,472 | 0 | 15,461 | * | 15,461 | | 0 | 10,821 | * | 10,821 | | 0 | 11,573 | * | 11,573 | | 0 |
| | a | KANDY MUNICIPAL COUNCIL | R3 Reservoir Present Distribution Zone | 583 | Wakarawatta | 1,136 | 1,107 | 0 | 3,105 | * | 3,105 | | 0 | 3,451 | * | 3,451 | | 0 | 3,691 | * | 3,691 | | 0 |
| Subtotal | a | | | | | 5,044 | 6,861 | 2,010 | 24,964 | | 24,964 | | 2,010 | 21,384 | | 21,384 | | - | 22,870 | | 22,870 | | - |
| KMC-Udaperadeniya | b | KANDY FOUR GRAVETS | Heeressagala Sump/meda Bowala (Lower) | 54 | H'gala(lower) | 0 | 99 | 99 | 282 | * | 282 | * | 99 | 307 | * | 307 | | 0 | 331 | * | 331 | | 0 |
| | b | KANDY FOUR GRAVETS | Heeressagala (middle) | 55 | H'gala(middle) | 0 | 248 | 248 | 704 | * | 704 | * | 248 | 766 | * | 766 | | 0 | 827 | * | 827 | | 0 |
| | b | KANDY FOUR GRAVETS | Heeressagala (Upper) | 56 | H'gala(upper) | 0 | 248 | 248 | 704 | * | 704 | * | 248 | 766 | * | 766 | | 0 | 827 | * | 827 | | 0 |

**Table Projected Water Supply in Greater Kandy by Service Zone(2005-2015)**

| Zone | | Area | | No. | Reservoir Location | Capacity of the exisisting Reserver (cu m) | Required Capacity of Reserver (cu m) | Capacity of the proposed Reserver (cu m) | 2005 Demand (cu m/d) | | 2005 Supply (cu m/d) | | 2005 Capacity of Reserver (cu m) | 2010 Demand (cu m/d) | | 2010 Supply (cu m/d) | | 2010 Capacity of Reserver (cu m) | 2015 Demand (cu m/d) | | 2015 Supply (cu m/d) | | 2015 Capacity of Reserver (cu m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | b | KANDY FOUR GRAVETS | Uda Peradeniya (Lower) | 67 | Prospect Hill | 1,140 | 248 | 0 | 704 | | 0 | | 0 | 766 | | 0 | | 0 | 827 | * | 827 | | 0 |
| | b | KANDY FOUR GRAVETS | Uda Peradeniya (Upper)/ Bowalawatta | 68 | Bowalawatta | 0 | 248 | 248 | 704 | | 0 | | 0 | 766 | | 0 | | 0 | 827 | * | 827 | * | 248 |
| | b | KANDY FOUR GRAVETS | Augastawatta | 69 | Augastawatta | 0 | 248 | 248 | 704 | | 0 | | 0 | 766 | | 0 | | 0 | 827 | * | 827 | * | 248 |
| | b | KANDY FOUR GRAVETS | Mount Pleasant Housing Schemes | 70 | Spring Hill | 0 | 248 | 248 | 704 | | 0 | | 0 | 766 | | 0 | | 0 | 827 | * | 827 | * | 248 |
| | a | KANDY MUNICIPAL COUNCIL | Dangolla | 66 | Dangolla | 118 | 372 | 254 | 1,043 | * | 1,043 | * | 254 | 1,159 | * | 1,159 | | 0 | 1,240 | * | 1,240 | | 0 |
| | b | KANDY FOUR GRAVETS | Mahakanda | 23 | Sarasavigama | 0 | 260 | 260 | 739 | | 0 | | 0 | 805 | | 0 | | 0 | 868 | * | 868 | * | 260 |
| Subtotal | | | | | | 1,258 | 2,220 | 1,854 | 6,289 | | 2,733 | | 849 | 6,870 | | 2,999 | | - | 7,399 | | 7,399 | | 1,004 |
| | a | | | | | 118 | 372 | 254 | 1,043 | | 1,043 | | 254 | 1,159 | | 1,159 | | - | 1,240 | | 1,240 | | - |
| | b | | | | | 1,140 | 1,848 | 1,600 | 5,246 | | 1,690 | | 595 | 5,710 | | 1,840 | | - | 6,159 | | 6,159 | | 1,004 |
| Kandy Four Gravets | b | KANDY FOUR GRAVETS | Ampitiya, ketawala, lewla | 60 | Ampitiya | 900 | 670 | 0 | 1,901 | * | 1,901 | | 0 | 2,070 | * | 2,070 | | 0 | 2,232 | * | 2,232 | | 0 |
| | b | KANDY FOUR GRAVETS | meekanuwa | 60M | Meekkanuwa | 225 | 198 | 0 | 563 | * | 563 | | 0 | 613 | * | 613 | | 0 | 661 | * | 661 | | 0 |
| | b | KANDY FOUR GRAVETS | Gurudeniya | 19 | Ilukmodare | 0 | 248 | 248 | 704 | | 0 | | 0 | 766 | | 0 | | 0 | 827 | * | 827 | * | 248 |
| | b | KANDY FOUR GRAVETS | Hantana Sump | 61S | Hantana Place | 0 | 248 | 248 | 704 | * | 704 | * | 248 | 766 | * | 766 | | 0 | 827 | * | 827 | | 0 |
| | b | KANDY FOUR GRAVETS | Hantana Housing scheme | HT | Hantana (upper) | 390 | 248 | 0 | 704 | | 0 | | 0 | 766 | | 0 | | 0 | 827 | * | 827 | | 0 |
| | b | KANDY FOUR GRAVETS | Hantana Housing | 61 | Hantana (lower) | 1,365 | 149 | 0 | 423 | | 0 | | 0 | 460 | * | 460 | | 0 | 496 | * | 496 | | 0 |
| | b | KANDY FOUR GRAVETS | Settlements near Call Link Tower/Hantana Housing Scheme | 61H | Hantana (Call Link) | 0 | 236 | 236 | 669 | | 0 | | 0 | 728 | * | 728 | * | 236 | 785 | * | 785 | | 0 |
| | a | KANDY MUNICIPAL COUNCIL | Uplands, Aruppola, mawilmada, Watapuuwa, Lady mcCullums Drive | 17 | Uplands | 0 | 2,728 | 2,728 | 5,253 | * | 5,253 | * | 2,728 | 8,502 | * | 8,502 | | 0 | 9,093 | * | 9,093 | | 0 |
| | a | KANDY MUNICIPAL COUNCIL | Aruppola, mawilmada, Watapuuwa, Lady mcCullums Drive | AG | Asgiriya | 0 | 3,059 | 3,059 | 5,250 | * | 5,250 | * | 3,059 | 9,534 | * | 9,534 | | 0 | 10,197 | * | 10,197 | | 0 |
| | b | KANDY FOUR GRAVETS | Tennekumbura | 18 | Talwatta | 0 | 248 | 248 | 704 | | 0 | | 0 | 766 | * | 766 | * | 248 | 827 | * | 827 | | 0 |
| | b | KANDY FOUR GRAVETS | Elhena | 60E | | 0 | 248 | 248 | 704 | * | 704 | * | 248 | 766 | * | 766 | | 0 | 827 | * | 827 | | 0 |
| | b | KANDY FOUR GRAVETS | Mulluphilla (Low Level) | 60' | | 45 | 124 | 79 | 352 | * | 352 | * | 79 | 383 | * | 383 | | 0 | 413 | * | 413 | | 0 |
| | b | KANDY FOUR GRAVETS | Mulluphilla (Upper Level) | 60" | | 45 | 50 | 0 | 141 | * | 141 | | 0 | 153 | * | 153 | | 0 | 165 | * | 165 | | 0 |
| Subtotal | | | | | | 2,970 | 8,453 | 7,094 | 18,073 | | 14,869 | | 6,362 | 26,277 | | 24,744 | | 484 | 28,177 | | 28,177 | | 248 |
| | a | | | | | - | 5,787 | 5,787 | 10,503 | | 10,503 | | 5,787 | 18,037 | | 18,037 | | - | 19,290 | | 19,290 | | - |
| | b | | | | | 2,970 | 2,666 | 1,307 | 7,570 | | 4,366 | | 575 | 8,240 | | 6,707 | | 484 | 8,887 | | 8,887 | | 248 |
| Thalathu Oya - Marassana | k | PATHA HEWAHETA | Talatuoya | 20 | Talatuoya | 0 | 247 | 247 | 614 | | 0 | | 0 | 737 | | 0 | | 0 | 825 | * | 825 | * | 247 |
| | k | PATHA HEWAHETA | Haragama | 19H | Haragama | 0 | 247 | 247 | 614 | | 0 | | 0 | 737 | | 0 | | 0 | 825 | * | 825 | * | 247 |

| Table | Projected Water Supply in Greater Kandy by Service Zone(2005-2015) | | | | | | | 2005 | | | 2010 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zone | | Area | No. | Reservoir Location | Capacity of the exisisting Reserver (cu m) | Required Capacity of Reserver (cu m) | Capacity of the proposed Reserver (cu m) | Demand (cu m/d) | Supply (cu m/d) | Capacity of Reserver (cu m) | Demand (cu m/d) | Supply (cu m/d) | Capacity of Reserver (cu m) | Demand (cu m/d) | Supply (cu m/d) | Capacity of Reserver (cu m) |
| | k | PATHA HEWAHETA Marassana(Ex) | 20M | Marassana | 0 | 210 | 0 | 522 | 0 | | 626 | 0 | | 701 | * 701 | |
| Subtotal | k | | | | - | 705 | 495 | 1,750 | - | - | 2,100 | - | - | 2,350 | 2,350 | 495 |
| Grand Total | | | | | 23,377 | 43,623 | 25,785 | 122,000 | 58,614 | 12,624 | 132,940 | 94,609 | 5,685 | 145,410 | 145,410 | 7,476 |
| Grand Total | | ( Excluding Hantana(upper) and Marassana) | | | 22,012 | 43,165 | 25,785 | 120,774 | 58,614 | 12,624 | 131,547 | 94,609 | 5,685 | 143,882 | 143,882 | 7,476 |

| | | | | |
|---|---|---|---|---|
| Remark | a | KMC | Demand | =Day Average |
| | b | KFG | Required Capacity of Reservoir | =1.2*Demand*6/24 |
| | c | Harispattuwa | Capacity of the proposed Reservoir | =Required Capacity of Reservoir — Capacity of the Exisisting Reservoir |
| | d | Akurana | | |
| | e | Pujapitaya | | |
| | f | Pathadumbara | | |
| | g | Udunuwara | | |
| | h | Yatinuwara | | |
| | i | Udapalatha | | |
| | j | Kundasale | | |
| | k | Pathahewaheta | | |

# Chapter 6

# APPENDIX 6.1

## Staged Pipeline Installation

There will be 4 cases of pipeline installation alternatives to meet the requirements of each stage.

| Case | Contents of Works |
|---|---|
| Case 1 | Single Pipeline<br>A pipeline with a capacity to meet the demand of 2015, to be constructed by 2005 |
| Case 2 | Double Pipeline - 1<br>First pipeline with a capacity to meet the demand of 2005, to be constructed by 2005<br>Second pipeline with a capacity to meet the demand of 2015, to be constructed by 2010 |
| Case 3 | Double Pipeline - 2<br>First pipeline with a capacity to meet the demand of 2010, to be constructed by 2005<br>Second pipeline with a capacity to meet the demand of 2015, to be constructed by 2015 |
| Case 4 | Triple Pipeline<br>First pipeline with a capacity to meet the demand of 2005, to be constructed by 2005<br>Second pipeline with a capacity to meet the demand of 2010, to be constructed by 2010<br>Third pipeline with a capacity to meet the demand of 2015, to be constructed by 2015 |

Net present value is applied to select the most economical alternative, and discount rate of 8%, 10% and 12% were applied.

The results of comparison are shown in the following table.

The following problems are considered for staged pipeline installation.

a. Major roads in Greater Kandy have two lanes. In the shoulder of the roads, the existing water supply pipes, electricity cables, drains etc. were installed, new pipeline has to be installed below the paved carriage way.

b. Breaking of pavement within several years is troublesome.

c. It is quite difficult to install plural water supply pipelines in narrow single-lane road, in addition to one or two existing water supply pipeline.

Due to the above reasons, the following criteria are set to evaluate the cases in addition to economical aspects.

a. Case with the lowest net present value is selected.

b. If Case 1 is less than 10 % higher than the lowest Case, Case 1 is selected.

c. The difference of the diameters between the lowest case and Case1 is minimum, Case 1 is selected

Among 30 routes, selected case is

| | |
|---|---|
| Case 1 | 23 |
| Case 2 | 2 |
| Case 3 | 5 |

Although some Case 3 were the lowest, it is not practical, due to the reasons mentioned in the above, and it was not selected.

Table6.1.1. Adopted Case

| CaseNo. | Adopted Case |
|---|---|
| 1 | 1 |
| 2 | 1 |
| 3 | 1 |
| 4 | 1 |
| 5* | 1 |
| 6 | 1 |
| 7 | 1 |
| 8 | 3 |
| 9 | 1 |
| 10 | 1 |
| 11 | 2 |
| 12 | 3 |
| 13 | 1 |
| 14 | 1 |
| 15 | 1 |
| 16 | 1 |
| 17 | 1 |
| 18 | 3 |
| 19 | 3 |
| 20 | 1 |
| 21 | 3 |
| 22 | 1 |
| 23 | 1 |
| 24 | 1 |
| 25 | 1 |
| 26 | 2 |
| 27 | 1 |
| 28 | 1 |
| 29 | 1 |
| 30 | 1 |

| | |
|---|---|
| Case1 | 23 |
| Case2 | 2 |
| Case3 | 5 |
| 合計 | 30 |

*In Case No.5, DIP 200mm was employed because of request of NWSDB.

## Table6.1.2 N.P.V. of Cases

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 1 | 5401 - 66 | 2005Year | 1.300 | 2002Year | 140 | 2002Year | 140 | 2002Year | 140 | 2002Year | 140 |
| | | 2010Year | 1.400 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 1.500 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 3407 | | 3407 | | 3407 | | 3407 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 2.504 | | 2.504 | | 2.504 | | 2.504 |
| | | Rate 10% | | | 2.327 | | 2.327 | | 2.327 | | 2.327 |
| | | Rate 12% | | | 2.165 | | 2.165 | | 2.165 | | 2.165 |
| 2 | 54' - 54 | 2005Year | 2.400 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 2.600 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 2.800 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 4501 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 3.308 | | 3.308 | | 3.308 | | 3.308 |
| | | Rate 10% | | | 3.074 | | 3.074 | | 3.074 | | 3.074 |
| | | Rate 12% | | | 2.860 | | 2.860 | | 2.860 | | 2.860 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 3 | 54 - 55 | 2005Year | 1,700 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 1,800 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 2,000 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 4501 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 3,308 | | 3,308 | | 3,308 | | 3,308 |
| | | Rate 10% | | | 3,074 | | 3,074 | | 3,074 | | 3,074 |
| | | Rate 12% | | | 2,860 | | 2,860 | | 2,860 | | 2,860 |
| 4 | 55 - 56 | 2005Year | 800 | 2002Year | 160 | 2002Year | 140 | 2002Year | 160 | 2002Year | 140 |
| | | 2010Year | 900 | | | 2007Year | 75 | | | 2007Year | 75 |
| | | 2015Year | 1,000 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 3502 | | 3407 | | 3502 | | 3407 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 2535 | | 0 | | 2535 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 2,574 | | 3,772 | | 2,574 | | 3,772 |
| | | Rate 10% | | | 2,392 | | 3,402 | | 2,392 | | 3,402 |
| | | Rate 12% | | | 2,226 | | 3,079 | | 2,226 | | 3,079 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 5 | 582 - 61S | 2005Year | 800 | 2002Year | 200 | 2002Year | 140 | 2002Year | 200 | 2002Year | 140 |
| | | 2010Year | 2,000 | | | 2007Year | 160 | | | 2007Year | 160 |
| | | 2015Year | 2,200 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 7414 | | 3407 | | 7414 | | 3407 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 3502 | | 0 | | 3502 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 5,450 | | 4,256 | | 5,450 | | 4,256 |
| | | Rate 10% | | | 5,064 | | 3,812 | | 5,064 | | 3,812 |
| | | Rate 12% | | | 4,712 | | 3,428 | | 4,712 | | 3,428 |
| 6 | 60 - 60E | 2005Year | 800 | 2002Year | 160 | 2002Year | 140 | 2002Year | 160 | 2002Year | 140 |
| | | 2010Year | 900 | | | 2007Year | 75 | | | 2007Year | 75 |
| | (Existing Pipe 150mm) | 2015Year | 1,000 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 3502 | | 3407 | | 3502 | | 3407 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 2535 | | 0 | | 2535 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 2,574 | | 3,772 | | 2,574 | | 3,772 |
| | | Rate 10% | | | 2,392 | | 3,402 | | 2,392 | | 3,402 |
| | | Rate 12% | | | 2,226 | | 3,079 | | 2,226 | | 3,079 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 7 | 60 -60' | 2005Year | 600 | 2002Year | 140 | 2002Year | 110 | 2002Year | 110 | 2002Year | 110 |
| | | 2010Year | 600 | | | 2007Year | 75 | | | 2007Year | 0 |
| | | 2015Year | 700 | | | | | 2012Year | 75 | 2012Year | 75 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 3407 | | 2884 | | 2884 | | 2884 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 2535 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 2535 | | 2535 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 2.504 | | 3.388 | | 2.983 | | 2.983 |
| | | Rate 10% | | | 2.327 | | 3.045 | | 2.637 | | 2.637 |
| | | Rate 12% | | | 2.165 | | 2.747 | | 2.352 | | 2.352 |
| 8 | PG - 601 | 2005Year | 9.900 | 2002Year | 800 | 2002Year | 450 | 2002Year | 600 | 2002Year | 400 |
| | | 2010Year | 23.900 | | | 2007Year | 700 | | | 2007Year | 450 |
| | | 2015Year | 41.100 | | | | | 2012Year | 600 | 2012Year | 500 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 43127 | | 15935 | | 23206 | | 15040 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 30184 | | 0 | | 15935 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 23206 | | 20044 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 31.700 | | 26.812 | | 24.958 | | 25.851 |
| | | Rate 10% | | | 29.456 | | 23.685 | | 21.961 | | 22.309 |
| | | Rate 12% | | | 27.408 | | 21.012 | | 19.496 | | 19.406 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 9 | 601 - 301 | 2005Year | 4.200 | 2002Year | 600 | 2002Year | 300 | 2002Year | 500 | 2002Year | 300 |
| | | 2010Year | 17.400 | | | 2007Year | 500 | | | 2007Year | 450 |
| | | 2015Year | 23.700 | | | | | 2012Year | 300 | 2012Year | 300 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 23206 | | 10190 | | 20044 | | 10190 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 20044 | | 0 | | 15935 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 10190 | | 10190 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 17.057 | | 17.517 | | 18.202 | | 18.931 |
| | | Rate 10% | | | 15.850 | | 15.461 | | 16.374 | | 16.401 |
| | | Rate 12% | | | 14.748 | | 13.704 | | 14.823 | | 14.307 |
| 10 | 301 - 5001 | 2005Year | 3.100 | 2002Year | 600 | 2002Year | 250 | 2002Year | 500 | 2002Year | 250 |
| | | 2010Year | 16.100 | | | 2007Year | 500 | | | 2007Year | 450 |
| | | 2015Year | 22.400 | | | | | 2012Year | 250 | 2012Year | 300 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 23206 | | 8550 | | 20044 | | 8550 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 20044 | | 0 | | 15935 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 8550 | | 10190 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 17.057 | | 16.311 | | 17.644 | | 17.725 |
| | | Rate 10% | | | 15.850 | | 14.340 | | 15.942 | | 15.281 |
| | | Rate 12% | | | 14.748 | | 12.662 | | 14.488 | | 13.265 |

| | Transmission Route | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 11 | 5001 - 5002 | 2005Year | 1.900 | 2002Year | 700 | 2002Year | 225 | 2002Year | 600 | 2002Year | 250 |
| | | 2010Year | 14.700 | | | 2007Year | 600 | | | 2007Year | 500 |
| | | 2015Year | 19.600 | | | | | 2012Year | 225 | 2012Year | 300 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 30184 | | 4501 | | 23206 | | 8550 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 23206 | | 0 | | 20044 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 4501 | | 10190 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 22.186 | | 14.917 | | 18.590 | | 19.781 |
| | | Rate 10% | | | 20.616 | | 12.916 | | 17.035 | | 17.024 |
| | | Rate 12% | | | 19.182 | | 11.229 | | 15.669 | | 14.747 |
| 12 | 5002 - 26' | 2005Year | 1.900 | 2002Year | 300 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 2.100 | | | 2007Year | 225 | | | 2007Year | 0 |
| | | 2015Year | 4.400 | | | | | 2012Year | 225 | 2012Year | 225 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 10190 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 4501 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 4501 | | 4501 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 7.490 | | 5.560 | | 4.841 | | 4.841 |
| | | Rate 10% | | | 6.960 | | 4.983 | | 4.259 | | 4.259 |
| | | Rate 12% | | | 6.476 | | 4.484 | | 3.781 | | 3.781 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 13 | 26' - 25' | 2005Year | 800 | 2002Year | 225 | 2002Year | 140 | 2002Year | 160 | 2002Year | 140 |
| | | 2010Year | 900 | | | 2007Year | 110 | | | 2007Year | 75 |
| | | 2015Year | 1.500 | | | | | 2012Year | 75 | 2012Year | 110 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 4501 | | 3407 | | 3502 | | 3407 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 2884 | | 0 | | 2535 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 2535 | | 2884 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 3.308 | | 3.947 | | 3.437 | | 4.754 |
| | | Rate 10% | | | 3.074 | | 3.550 | | 3.059 | | 4.162 |
| | | Rate 12% | | | 2.860 | | 3.205 | | 2.744 | | 3.669 |
| 14 | 25' - 25 | 2005Year | 800 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 900 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 1.000 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 4501 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 3.308 | | 3.308 | | 3.308 | | 3.308 |
| | | Rate 10% | | | 3.074 | | 3.074 | | 3.074 | | 3.074 |
| | | Rate 12% | | | 2.860 | | 2.860 | | 2.860 | | 2.860 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 15 | 301 - 3 | 2005Year | 1.100 | 2002Year | 110 | 2002Year | 110 | 2002Year | 110 | 2002Year | 110 |
| | | 2010Year | 1.200 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 1.300 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 2884 | | 2884 | | 2884 | | 2884 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 2.120 | | 2.120 | | 2.120 | | 2.120 |
| | | Rate 10% | | | 1.970 | | 1.970 | | 1.970 | | 1.970 |
| | | Rate 12% | | | 1.833 | | 1.833 | | 1.833 | | 1.833 |
| 16 | 5001 - 500 | 2005Year | 1.300 | 2002Year | 225 | 2002Year | 160 | 2002Year | 160 | 2002Year | 160 |
| | | 2010Year | 1.400 | | | 2007Year | 160 | | | 2007Year | 0 |
| | | 2015Year | 2.800 | | | | | 2012Year | 160 | 2012Year | 160 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 4501 | | 3502 | | 3502 | | 3502 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 3502 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 3502 | | 3502 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 3.308 | | 4.326 | | 3.766 | | 3.766 |
| | | Rate 10% | | | 3.074 | | 3.877 | | 3.314 | | 3.314 |
| | | Rate 12% | | | 2.860 | | 3.488 | | 2.942 | | 2.942 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 17 | 601 - 6 | 2005Year | 5.700 | 2002Year | 500 | 2002Year | 300 | 2002Year | 350 | 2002Year | 300 |
| | | 2010Year | 6.500 | | | 2007Year | 450 | | | 2007Year | 140 |
| | | 2015Year | 17.400 | | | | | 2012Year | 400 | 2012Year | 400 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 20044 | | 10190 | | 12138 | | 10190 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 15935 | | 0 | | 3407 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 15040 | | 15040 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 14.733 | | 15.461 | | 14.042 | | 14.315 |
| | | Rate 10% | | | 13.690 | | 13.718 | | 12.251 | | 12.365 |
| | | Rate 12% | | | 12.738 | | 12.222 | | 10.791 | | 10.782 |
| 18 | 6 - 7' | 2005Year | 1.800 | 2002Year | 300 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 1.800 | | | 2007Year | 250 | | | 2007Year | 0 |
| | | 2015Year | 5.600 | | | | | 2012Year | 250 | 2012Year | 250 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 10190 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 8550 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 8550 | | 8550 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 7.490 | | 7.585 | | 6.219 | | 6.219 |
| | | Rate 10% | | | 6.960 | | 6.700 | | 5.326 | | 5.326 |
| | | Rate 12% | | | 6.476 | | 5.944 | | 4.610 | | 4.610 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 19 | 7' - 7 | 2005Year | 1.800 | 2002Year | 300 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 1.800 | | | 2007Year | 250 | | | 2007Year | 0 |
| | | 2015Year | 5.100 | | | | | 2012Year | 250 | 2012Year | 250 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 10190 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 8550 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 8550 | | 8550 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 7.490 | | 7.585 | | 6.219 | | 6.219 |
| | | Rate 10% | | | 6.960 | | 6.700 | | 5.326 | | 5.326 |
| | | Rate 12% | | | 6.476 | | 5.944 | | 4.610 | | 4.610 |
| 20 | PG - 5" | 2005Year | 3.300 | 2002Year | 300 | 2002Year | 250 | 2002Year | 250 | 2002Year | 250 |
| | | 2010Year | 3.300 | | | 2007Year | 75 | | | 2007Year | 0 |
| | | 2015Year | 3.900 | | | | | 2012Year | 75 | 2012Year | 75 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 10190 | | 8550 | | 8550 | | 8550 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 2535 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 2535 | | 2535 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 7.490 | | 7.553 | | 7.148 | | 7.148 |
| | | Rate 10% | | | 6.960 | | 6.915 | | 6.507 | | 6.507 |
| | | Rate 12% | | | 6.476 | | 6.348 | | 5.952 | | 5.952 |

| | Transmission Route | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 21 | PG - 17' | 2005Year | 18.300 | 2002Year | 900 | 2002Year | 600 | 2002Year | 700 | 2002Year | 600 |
| | | 2010Year | 33.000 | | | 2007Year | 700 | | | 2007Year | 500 |
| | | 2015Year | 48.700 | | | | | 2012Year | 600 | 2012Year | 450 |
| | flow | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 50608 | | 23206 | | 30184 | | 23206 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 30184 | | 0 | | 20044 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 23206 | | 15935 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 37.198 | | 32.157 | | 30.087 | | 32.509 |
| | | Rate 10% | | | 34.566 | | 28.651 | | 26.727 | | 28.547 |
| | | Rate 12% | | | 32.162 | | 25.632 | | 23.931 | | 25.237 |
| 22 | 17' - AG' | 2005Year | 12.000 | 2002Year | 700 | 2002Year | 450 | 2002Year | 600 | 2002Year | 450 |
| | | 2010Year | 21.900 | | | 2007Year | 600 | | | 2007Year | 400 |
| | | 2015Year | 33.900 | | | | | 2012Year | 350 | 2012Year | 400 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 30184 | | 15935 | | 23206 | | 15935 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 23206 | | 0 | | 15040 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 12138 | | 15040 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 22.186 | | 23.321 | | 21.190 | | 24.357 |
| | | Rate 10% | | | 20.616 | | 20.725 | | 19.046 | | 21.223 |
| | | Rate 12% | | | 19.182 | | 18.495 | | 17.232 | | 18.628 |

| | Transmission Route | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 23 | AG' - AG | 2005Year | 12.000 | 2002Year | 600 | 2002Year | 450 | 2002Year | 500 | 2002Year | 450 |
| | | 2010Year | 17.700 | | | 2007Year | 300 | | | 2007Year | 300 |
| | | 2015Year | 19.000 | | | | | 2012Year | 110 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 23206 | | 15935 | | 20044 | | 15935 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 10190 | | 0 | | 10190 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 2884 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 17.057 | | 16.810 | | 15.715 | | 16.810 |
| | | Rate 10% | | | 15.850 | | 15.205 | | 14.450 | | 15.205 |
| | | Rate 12% | | | 14.748 | | 13.802 | | 13.328 | | 13.802 |
| 24 | AG - 57 | 2005Year | 5.700 | 2002Year | 350 | 2002Year | 300 | 2002Year | 350 | 2002Year | 300 |
| | | 2010Year | 6.300 | | | 2007Year | 160 | | | 2007Year | 110 |
| | | 2015Year | 6.700 | | | | | 2012Year | 0 | 2012Year | 90 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 12138 | | 10190 | | 12138 | | 10190 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 3502 | | 0 | | 2884 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 2682 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 8.922 | | 9.242 | | 8.922 | | 9.846 |
| | | Rate 10% | | | 8.290 | | 8.445 | | 8.290 | | 8.889 |
| | | Rate 12% | | | 7.714 | | 7.739 | | 7.714 | | 8.065 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 25 | 17' - 1702 | 2005Year | 6.300 | 2002Year | 400 | 2002Year | 300 | 2002Year | 400 | 2002Year | 300 |
| | | 2010Year | 11.100 | | | 2007Year | 350 | | | 2007Year | 300 |
| | | 2015Year | 14.900 | | | | | 2012Year | 0 | 2012Year | 250 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 15040 | | 10190 | | 15040 | | 10190 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 12138 | | 0 | | 10190 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 8550 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 11.055 | | 13.562 | | 11.055 | | 15.498 |
| | | Rate 10% | | | 10.273 | | 12.108 | | 10.273 | | 13.533 |
| | | Rate 12% | | | 9.558 | | 10.853 | | 9.558 | | 11.900 |
| 26 | 1702 - 17 | 2005Year | 6.300 | 2002Year | 250 | 2002Year | 225 | 2002Year | 250 | 2002Year | 225 |
| | | 2010Year | 10.200 | | | 2007Year | 225 | | | 2007Year | 225 |
| | | 2015Year | 10.900 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 8550 | | 4501 | | 8550 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 4501 | | 0 | | 4501 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 6.285 | | 5.560 | | 6.285 | | 5.560 |
| | | Rate 10% | | | 5.840 | | 4.983 | | 5.840 | | 4.983 |
| | | Rate 12% | | | 5.434 | | 4.484 | | 5.434 | | 4.484 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 27 | 7'- 8 | 2005Year | 410 | 2002Year | 110 | 2002Year | 110 | 2002Year | 110 | 2002Year | 110 |
| | | 2010Year | 430 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 490 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 2884 | | 2884 | | 2884 | | 2884 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 2.120 | | 2.120 | | 2.120 | | 2.120 |
| | | Rate 10% | | | 1.970 | | 1.970 | | 1.970 | | 1.970 |
| | | Rate 12% | | | 1.833 | | 1.833 | | 1.833 | | 1.833 |
| 28 | 6 - 10 | 2005Year | 1.570 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 | 2002Year | 225 |
| | | 2010Year | 1.630 | | | 2007Year | 0 | | | 2007Year | 0 |
| | | 2015Year | 1.890 | | | | | 2012Year | 0 | 2012Year | 0 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 4501 | | 4501 | | 4501 | | 4501 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 0 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 0 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 3.308 | | 3.308 | | 3.308 | | 3.308 |
| | | Rate 10% | | | 3.074 | | 3.074 | | 3.074 | | 3.074 |
| | | Rate 12% | | | 2.860 | | 2.860 | | 2.860 | | 2.860 |

| Transmission Route | | Flow Rate (m3/d) | | Case 1 | | Case 2 | | Case 3 | | Case 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) | Investment Year | Diameter (mm) |
| 29 | PG - 65' | 2005Year | 3.660 | 2002Year | 300 | 2002Year | 250 | 2002Year | 300 | 2002Year | 250 |
| | | 2010Year | 4.200 | | | 2007Year | 160 | | | 2007Year | 0 |
| | | 2015Year | 5.100 | | | | | 2012Year | 0 | 2012Year | 160 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 10190 | | 8550 | | 10190 | | 8550 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 3502 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 0 | | 3502 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 7.490 | | 8.036 | | 7.490 | | 7.477 |
| | | Rate 10% | | | 6.960 | | 7.325 | | 6.960 | | 6.762 |
| | | Rate 12% | | | 6.476 | | 6.697 | | 6.476 | | 6.150 |
| 30 | 65' - 6501 | 2005Year | 2.730 | 2002Year | 300 | 2002Year | 250 | 2002Year | 250 | 2002Year | 250 |
| | | 2010Year | 3.200 | | | 2007Year | 75 | | | 2007Year | 0 |
| | | 2015Year | 4.000 | | | | | 2012Year | 75 | 2012Year | 75 |
| | | Year | | | | | | | | | |
| | | 1999 | | | 0 | | 0 | | 0 | | 0 |
| | | 2000 | | | 0 | | 0 | | 0 | | 0 |
| | | 2001 | | | 0 | | 0 | | 0 | | 0 |
| | | 2002 | | | 10190 | | 8550 | | 8550 | | 8550 |
| | | 2003 | | | 0 | | 0 | | 0 | | 0 |
| | | 2004 | | | 0 | | 0 | | 0 | | 0 |
| | | 2005 | | | 0 | | 0 | | 0 | | 0 |
| | | 2006 | | | 0 | | 0 | | 0 | | 0 |
| | | 2007 | | | 0 | | 2535 | | 0 | | 0 |
| | | 2008 | | | 0 | | 0 | | 0 | | 0 |
| | | 2009 | | | 0 | | 0 | | 0 | | 0 |
| | | 2010 | | | 0 | | 0 | | 0 | | 0 |
| | | 2011 | | | 0 | | 0 | | 0 | | 0 |
| | | 2012 | | | 0 | | 0 | | 2535 | | 2535 |
| | | 2013 | | | 0 | | 0 | | 0 | | 0 |
| | | 2014 | | | 0 | | 0 | | 0 | | 0 |
| | | 2015 | | | 0 | | 0 | | 0 | | 0 |
| | | Rate 8% | | | 7.490 | | 7.553 | | 7.148 | | 7.148 |
| | | Rate 10% | | | 6.960 | | 6.915 | | 6.507 | | 6.507 |
| | | Rate 12% | | | 6.476 | | 6.348 | | 5.952 | | 5.952 |
| Routes of Minimum Ratio | | | | | 17 | | 9 | | 23 | | 9 |
| Ratio | | | | | 57% | | 30% | | 77% | | 30% |

## Appendix 6.2 Construction Cost

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2005Year | 36670 | m3/d |
| | | | | | | | | | Unit | Unit Cost | Quantity | Price |
| 1 | Intake Facilities | | | | | | | | | | | |
| | | Intake Mouce,Grit Chamber,Pump House | | | | | | | set | | 1 | 147.000.000 |
| | | Transmission Pump | | 38500 | m3/d | 50 | m | | pcs | 71000000 | 2 | 142.000.000 |
| | | Electrical Facilities | | | | | | | set | 24600000 | 1 | 24.600.000 |
| | | Power Supply Cost | | | | | | | set | | 1 | 670.000 |
| | | Conveyer Pipe(P) | DCIP φ800 | | | | | | m | 43127 | 600 | 25.876.200 |
| | | | DCIP φ900 | | | | | | | 50608 | 0 | 0 |
| | | | DCIP φ800 | | | | | | m | 43127 | 1.600 | 69.003.200 |
| | | balancing Tank | | | | | | | set | 7780000 | 1 | 7.780.000 |
| | | Total | | | | | | | | | | 416.929.400 |
| 2 | Treatment Plant Facilities | | | | | | | | | | | |
| | | Excavation | | | | | | | m3 | 490 | 3.230 | 1.582.700 |
| | | Filling | | | | | | | m3 | 190 | 6.250 | 1.187.500 |
| | | Filling | | | | | | | m3 | 430 | 1.757 | 755.510 |
| | | Excavation | for Facilities | | | | | | m3 | 790 | 10.390 | 8.208.100 |
| | | Filling | for Facilities | | | | | | m3 | 430 | 2.015 | 866.450 |
| | | Receiving Well | Concrete | | | | | | m3 | 9530 | 172 | 1.639.160 |
| | | | Form Work | | | | | | m2 | 1060 | 609 | 645.540 |
| | | | Reinforcement | | | | | 0,12 | ton | 72970 | 21 | 1.506.101 |
| | | | Miscellaneous | | | | | 30% | set | | | 1.137.240 |
| | | Sedimentation Basin | Concrete | | | | | | m3 | 9530 | 1.933 | 18.421.490 |
| | | | Form Work | | | | | | m2 | 1060 | 4.633 | 4.910.980 |
| | | | Reinforcement | | | | | 0,12 | ton | 72970 | 232 | 16.926.121 |
| | | | Miscellaneous | | | | | 30% | set | | | 12.077.577 |
| | | Rapid Sand Filter | Concrete | | | | | | m3 | 9530 | 833 | 7.938.490 |
| | | | Form Work | | | | | | m2 | 1060 | 2.467 | 2.615.020 |
| | | | Reinforcement | | | | | 0,12 | ton | 72970 | 100 | 7.294.081 |
| | | | Miscellaneous | | | | | 200% | set | | | 35.695.182 |
| | | Clear Water Reservoir | Concrete | | | | | | m3 | 9530 | 1.300 | 12.389.000 |
| | | T=1,0hr | Form Work | | | | | | m2 | 1060 | 1.800 | 1.908.000 |
| | | | Reinforcement | | | | | 0,12 | ton | 72970 | 156 | 11.383.320 |
| | | | Miscellaneous | | | | | 30% | set | | | 7.704.096 |
| | | Backwash Return Pump | Concrete | | | | | | m3 | 9530 | 357 | 3.402.210 |
| | | | Form Work | | | | | | m2 | 1060 | 921 | 976.260 |
| | | | Reinforcement | | | | | 0,12 | ton | 72970 | 43 | 3.126.035 |
| | | | Miscellaneous | | | | | 30% | set | | | 2.251.351 |
| | | Sludge Lagoon | Excavation | | | | | | m3 | 790 | 5.162 | 4.077.980 |
| | | | Concrete | | | | | | m3 | 9530 | 262 | 2.496.860 |
| | | | Reinforcement | | | | | 0,12 | ton | 72970 | 31 | 2.294.177 |
| | | | Granular | | | | | | m3 | 1000 | 334 | 334.000 |
| | | | Miscellaneous | | | | | 30% | set | | | 2.760.905 |
| | | Office | | | | | | | m2 | 15700 | 400 | 6.280.000 |
| | | Pump House | | | | | | | m2 | 20000 | 300 | 6.000.000 |
| | | Chemical House | | | | | | | m2 | 20000 | 400 | 8.000.000 |
| | | Chlorination House | | | | | | | m2 | 19800 | 50 | 990.000 |
| | | Store House | | | | | | | m2 | 20000 | 200 | 4.000.000 |
| | | Piling | | | | | | | m | 9550 | 153 | 1.461.150 |
| | | Mechanical and Electrical Facilities | | | | | | | set | | | 514.300.000 |
| | | Power Supply Cost | | | | | | | | | | 1.400.000 |
| | | Implant Piping | | | | | | | set | | | 19.100.000 |
| | | Miscellaneous | | | | | | 5% | set | | | 37.000.000 |
| | | Total | | | | | | | | | | 777.042.587 |
| 3 | Chlorination Facilities of Distribution Reservoir | | | | | | | | | | | |
| | | Chlorination Facilities | | | | | | | set | 600000 | 20 | 12.000.000 |
| | | Chlorination House | | 10 | m2 | | | | set | 450000 | 20 | 9.000.000 |
| | | Total | | | | | | | | | | 21.000.000 |
| 4 | Transmission Facilities | | | | | | | | | | | |
| | | Transmission Pipe Line | | | | | | | | | | |
| | | | PVC φ75 | | | | | | m | 2535 | 0 | 0 |
| | | | PVC φ90 | | | | | | m | 2682 | 0 | 0 |
| | | | PVC φ110 | | | | | | m | 2884 | 1.750 | 5.047.000 |
| | | | PVC φ140 | | | | | | m | 3407 | 900 | 3.066.300 |
| | | | PVC φ160 | | | | | | m | 3502 | 8.335 | 29.189.170 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2005Year | 36670 | m3/d |
| | | | | | | | | | Unit | Unit Cost | Quantity | Price |
| | | PVC φ225 | | | | | | | m | 4501 | 12.760 | 57.432.760 |
| | | DCIP φ200 | | | | | | | m | 7414 | 1.200 | 8.896.800 |
| | | DCIP φ250 | | | | | | | m | 8550 | 0 | 0 |
| | | DCIP φ300 | | | | | | | m | 10190 | 4.150 | 42.288.500 |
| | | DCIP φ350 | | | | | | | m | 12138 | 700 | 8.496.600 |
| | | DCIP φ400 | | | | | | | m | 15040 | 2.500 | 37.600.000 |
| | | DCIP φ450 | | | | | | | m | 15935 | 0 | 0 |
| | | DCIP φ500 | | | | | | | m | 20044 | 6.350 | 127.279.400 |
| | | DCIP φ600 | | | | | | | m | 23206 | 550 | 12.763.300 |
| | | DCIP φ700 | | | | | | | m | 30184 | 2.950 | 89.042.800 |
| | | DCIP φ800 | | | | | | | m | 43127 | 0 | 0 |
| | | DCIP φ900 | | | | | | | m | 50608 | 0 | 0 |
| Aqueduct | | φ350-120m | | | | | | | set | 101000000 | 0 | 0 |
| | | (φ600+600)-120m | | | | | | | set | 170000000 | 1 | 170.000.000 |
| | | (φ700+600)-120m | | | | | | | set | 189000000 | 1 | 189.000.000 |
| | | φ110-φ600,20m | | | | | | | set | 5000000 | 5 | 25.000.000 |
| | | | | | | | | | | | | |
| | Pipe Total | | | | | | | | | | 42.145 | 805.102.630 |
| | | | | | | | | | | | | |
| Pump Facilities | | | | | | | | | | | | |
| (KMC W.T.P.- | | Pump Equip | 2000 | m3/d | 168 | m | 3 | Pieces | set | | 3 | 3.298.000 |
| Primose I.B.P.) | | Electrical Facilities | | | | | | | set | | 0 | 0 |
| | | Pump House | | | | | | | set | | 0 | 0 |
| | | Power Supply Cost | | | 0 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 3.298.000 |
| (Eriyagama Re.- | | Pump Equip | 7600 | m3/d | 52 | m | 3 | Pieces | set | | | 0 |
| Daulagala Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 78 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Eriyagama Re.- | | Pump Equip | 2100 | m3/d | 100 | m | 3 | Pieces | set | | | 0 |
| Sooriyagoda Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 40 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (I.B.- | | Pump Equip | 1000 | m3/d | 40 | m | 1 | Pieces | set | | | 0 |
| Mahakanda Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 8 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | |
| (Udu-Peradeniya- | | Pump Equip | 3000 | m3/d | 56 | m | 2 | Pieces | set | | | 0 |
| Bowalawatta Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 33 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Bowalawatta Re.- | | Pump Equip | 2000 | m3/d | 82 | m | 3 | Pieces | set | | | 0 |
| Augustawatta Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 32 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Augustawatta Re.- | | Pump Equip | 1000 | m3/d | 62 | m | 2 | Pieces | set | | 0 | 0 |
| Spring Hill Estate Re.) | | Electrical Facilities | | | | | | | set | | 0 | 0 |
| | | Pump House | | | | | | | m2 | | 0 | 0 |
| | | Power Supply Cost | | | 12 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Heerasagala Low Re.- | | Pump Equip | 2000 | m3/d | 63 | m | 3 | Pieces | set | | 2 | 1.329.000 |
| Heerasagala Middle) | | Electrical Facilities | | | | | | | set | | 1 | 1.229.000 |
| | | Pump House | | | | | | | m2 | | 1 | 660.000 |
| | | Power Supply Cost | | | 24 | kw | | | set | | 1 | 684.000 |
| | Sub Total | | | | | | | | | | | 3.902.000 |
| (Heerasagala Middle- | | Pump Equip | 1000 | m3/d | 73 | m | 2 | Pieces | set | | 2 | 1.663.000 |
| Heerasagala Upper) | | Electrical Facilities | | | | | | | set | | 1 | 1.239.000 |
| | | Pump House | | | | | | | m2 | | 1 | 540.000 |
| | | Power Supply Cost | | | 28 | kw | | | set | | 1 | 75.000 |
| | Sub Total | | | | | | | | | | | 3.517.000 |
| (Hantana Place Re.- | | Pump Equip | 1200 | m3/d | 50 | m | 3 | Pieces | set | | | 0 |
| Hantana Low Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 12 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Ampitiya Re.- | | Pump Equip | 1000 | m3/d | 55 | m | 2 | Pieces | set | | 2 | 1.551.000 |
| Elhena Re.) | | Electrical Facilities | | | | | | | set | | 1 | 1.034.000 |
| | | Pump House | | | | | | | m2 | | 1 | 540.000 |
| | | Power Supply Cost | | | 11 | kw | | | set | | 1 | 75.000 |
| | Sub Total | | | | | | | | | | | 3.200.000 |
| (Ampitiya Re.- | | Pump Equip | 700 | m3/d | 78 | m | 2 | Pieces | set | | 2 | 1.549.000 |
| Mulipihila Low Re.) | | Electrical Facilities | | | | | | | set | | 1 | 1.029.000 |
| | | Pump House | | | | | | | m2 | | 1 | 540.000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2005Year | 36670 | m3/d |
| | | | | | | | | | Unit | Unit Cost | Quantity | Price |
| | | Power Supply Cost | | | 11 | kw | | | set | | 1 | 75,000 |
| | Sub Total | | | | | | | | | | | 3,193,000 |
| (Ampitiya Re.- | | Pump Equi | 800 | m3/d | 66 | m | 2 | Pieces | set | 769000 | 2 | 1,538,000 |
| Meekanuwa Re.) | | Electrical Facilities | | | | | | | set | | 1 | 1,009,000 |
| | | Pump House | | | | | | | m2 | | 1 | 540,000 |
| | | Power Supply Cost | | | 10 | kw | | | set | | 1 | 75,000 |
| | Sub Total | | | | | | | | | | | 3,162,000 |
| (Katugastota W.T.P.- | | Pump Equi | 41100 | m3/d | 103 | m | 3 | Pieces | set | 32000000 | 2 | 64,000,000 |
| Kahawatta Re.) | | Electrical Facilities | | | | | | | set | | 0 | 0 |
| | | Pump House | | | | | | | m2 | | 0 | 0 |
| | | Power Supply Cost | | | 0 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 64,000,000 |
| (Balanagara Re.- | | Pump Equi | 1300 | m3/d | 93 | m | 2 | Pieces | set | | | 0 |
| Udatalawinna Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 24 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Bangalawatta Re.- | | Pump Equi | 1700 | m3/d | 66 | m | 3 | Pieces | set | | | 0 |
| Pitiyegendara Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 22 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Kahawatta Re.- | | Pump Equi | 6200 | m3/d | 106 | m | 3 | Pieces | set | | | 0 |
| Godahana Branch) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 128 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Godahana Branch- | | Pump Equi | 2600 | m3/d | 47 | m | 1 | Pieces | set | | | 0 |
| Godahana Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 24 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Godahana Re.- | | Pump Equi | 2600 | m3/d | 61 | m | 3 | Pieces | set | | | 0 |
| I.B.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 30 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (I.B.- | | Pump Equi | 2600 | m3/d | 50 | m | 1 | Pieces | set | | | 0 |
| Galhinna Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 25 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Kahawatta Re.- | | Pump Equi | 5600 | m3/d | 75 | m | 3 | Pieces | set | | 2 | 2,547,000 |
| Kurugoda Re.) | | Electrical Facilities | | | | | | | set | | 1 | 3,463,000 |
| | | Pump House | | | | | | | m2 | | 1 | 660,000 |
| | | Power Supply Cost | | | 82 | kw | | | set | | 1 | 941,000 |
| | Sub Total | | | | | | | | | | | 7,611,000 |
| (Kurugoda Re.- | | Pump Equi | 3000 | m3/d | 60 | m | 3 | Pieces | set | | | 0 |
| Heepitiya Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 34 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Katugastota W.T.P.- | | Pump Equi | 8800 | m3/d | 147 | m | 2 | Pieces | set | | | 0 |
| Rajapihilla Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 0 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Rajapihilla Re.- | | Pump Equi | 1600 | m3/d | 48 | m | 3 | Pieces | set | | | 0 |
| Madadeniya Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | Pump House | | | | | | | m2 | | | 0 |
| | | Power Supply Cost | | | 16 | kw | | | set | | | 0 |
| | Sub Total | | | | | | | | | | | 0 |
| (Katugastota W.T.P.- | | Pump Equi | 3900 | m3/d | 5 | m | 2 | Pieces | set | | 2 | 1,331,000 |
| kondadeniya Sump.) | | Electrical Facilities | | | | | | | set | | 0 | 0 |
| | | Pump House | | | | | | | m2 | | 0 | 0 |
| | | Power Supply Cost | | | 0 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 1,331,000 |
| (Kondadeniya Sump- | | Pump Equi | 3900 | m3/d | 145 | m | 2 | Pieces | set | | | 4,725,000 |
| kondadeniya Re.) | | Electrical Facilities | | | | | | | set | | | 6,852,000 |
| | | Pump House | | | | | | | m2 | | | 540,000 |
| | | Power Supply Cost | | | 110 | kw | | | set | | 0 | 1,444,000 |
| | Sub Total | | | | | | | | | | | 13,561,000 |
| (Katugastota W.T.P.- | | Pump Equi | 48700 | m3/d | 160 | m | 5 | Pieces | set | 45600000 | 3 | 136,800,000 |
| Upland Re.) | | Electrical Facilities | | | | | | | set | | 0 | 0 |
| | | Pump House | | | | | | | m2 | | 0 | 0 |
| | | Power Supply Cost | | | 0 | kw | | | set | | 0 | 0 |
| | Sub Total | | | | | | | | | | | 136,800,000 |
| (Asgiriya Re.- | | Pump Equi | 6700 | m3/d | 45 | m | 2 | Pieces | set | | 2 | 3,084,000 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | 2005Year | 36670 | m3/d |
| | | | | | | | | | | | Unit | Unit Cost | Quantity | Price |
| | | Bahirawakanda Re.) | | Electrical Facilities | | | | | | | set | | 1 | 3,843,000 |
| | | | | Pump House | | | | | | | m2 | | 1 | 540,000 |
| | | | | Power Supply Cost | | | 59 | kw | | | set | | 1 | 1,385,000 |
| | | | Sub Total | | | | | | | | | | | 8,852,000 |
| | | (Balanagala Re.- | | Pump Equip | 15200 | m3/d | 20 | m | 1 | Pieces | set | | | 0 |
| | | Sirimaruwatta Re) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | | | Pump House | | | | | | | m2 | | | 0 |
| | | | | Power Supply Cost | | | 58 | kw | | | set | | | 0 |
| | | | Sub Total | | | | | | | | | | | 0 |
| | | (Sirimaruwatta Re.- | | Pump Equip | 5900 | m3/d | 33 | m | 3 | Pieces | set | | | 0 |
| | | Dambarawa Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | | | Pump House | | | | | | | m2 | | | 0 |
| | | | | Power Supply Cost | | | 38 | kw | | | set | | | 0 |
| | | | Sub Total | | | | | | | | | | | 0 |
| | | (Katugastota W.T.P.- | | Pump Equip | 5100 | m3/d | 112 | m | 3 | Pieces | set | | 3 | 4,761,000 |
| | | Gohagoda Re.) | | Electrical Facilities | | | | | | | set | | 0 | 0 |
| | | | | Pump House | | | | | | | m2 | | 0 | 0 |
| | | | | Power Supply Cost | | | 0 | kw | | | set | | 0 | 0 |
| | | | Sub Total | | | | | | | | | | | 4,761,000 |
| | | (Bogahakanda Re.- | | Pump Equip | 200 | m3/d | 38 | m | 2 | Pieces | set | | | 0 |
| | | Bogahakanda Re.) | | Electrical Facilities | | | | | | | set | | | 0 |
| | | | | Pump House | | | | | | | m2 | | | 0 |
| | | | | Power Supply Cost | | | 2 | kw | | | set | | | 0 |
| | | | Sub Total | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | |
| | | | Pump Facilities Total | | | | | | | | | | | 257,188,000 |
| | | | | | | | | | | | | | | |
| | | Total | | | | | | | | | | | | 1,062,290,630 |
| | | | | | | | | | | | | | | |
| 5 | Distribution Facilities | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | Reservoir | | | | | | | | | | | | |
| | | (Bulewemuduna Low) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 47 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Bulewemuduna Upper) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 118 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Ambakote) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 216 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Kolongaswatta) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 243 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Kundasale) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 630 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Menikhina) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 775 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Sirimalwatta) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 208 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Rajawella) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 47 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (BOI) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 1511 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Gum Udawa) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 72 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Dambarawa) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 70 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | | | | | | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | | | | | | 100% | set | | | 0 |
| | | (Jambugahapitiya) | | Concrete | | | | | | | m3 | 9530 | 0 | 0 |
| | | 167 | m3 | Form Work | | | | | | | m2 | 1060 | 0 | 0 |

| | | | | | 2003Year | 36670 | m3/d |
|---|---|---|---|---|---|---|---|
| | | | | Unit | Unit Cost | Quantity | Price |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Udatalawinna) | | Concrete | | m3 | 9530 | 0 | 0 |
| 167 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Kahalla) | | Concrete | | m3 | 9530 | 991 | 9.444.230 |
| 323 | m3 | Form Work | | m2 | 1060 | 5.444 | 5.770.640 |
| | | Reinforcement | 0,12 | ton | 72970 | 119 | 8.677.592 |
| | | Piling | | m | 9550 | 350 | 3.342.500 |
| | | Miscellaneous | 100% | set | | | 27.234.962 |
| (Bangalawatta) | | Concrete | | m3 | 9530 | 315 | 3.001.950 |
| 298 | m3 | Form Work | | m2 | 1060 | 788 | 835.280 |
| | | Reinforcement | 0,12 | ton | 72970 | 38 | 2.758.266 |
| | | Miscellaneous | 100% | set | | | 6.595.496 |
| (Wattegama) | | Concrete | | m3 | 9530 | 0 | 0 |
| 422 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Pitiyegendara) | | Concrete | | m3 | 9530 | 0 | 0 |
| 360 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Pihilladeniya) | | Concrete | | m3 | 9530 | 278 | 2.649.340 |
| 248 | m3 | Form Work | | m2 | 1060 | 696 | 737.760 |
| | | Reinforcement | 0,12 | ton | 72970 | 33 | 2.434.279 |
| | | Miscellaneous | 100% | set | | | 5.821.379 |
| (Bokkawela) | | Concrete | | m3 | 9530 | 0 | 0 |
| 479 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Pujapitiya) | | Concrete | | m3 | 9530 | 0 | 0 |
| 278 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Kahawatta) | | Concrete | | m3 | 9530 | 857 | 8.167.210 |
| 1174 | m3 | Form Work | | m2 | 1060 | 2.142 | 2.270.520 |
| | | Reinforcement | 0,12 | ton | 72970 | 103 | 7.504.235 |
| | | Miscellaneous | 100% | set | | | 17.941.965 |
| (Kurugoda) | | Concrete | | m3 | 9530 | 475 | 4.526.750 |
| 535 | m3 | Form Work | | m2 | 1060 | 1.187 | 1.258.220 |
| | | Reinforcement | 0,12 | ton | 72970 | 57 | 4.159.290 |
| | | Miscellaneous | 100% | set | | | 9.944.260 |
| (Telambugawatta) | | Concrete | | m3 | 9530 | 179 | 1.705.870 |
| 124 | m3 | Form Work | | m2 | 1060 | 447 | 473.820 |
| | | Reinforcement | 0,12 | ton | 72970 | 21 | 1.567.396 |
| | | Miscellaneous | 100% | set | | | 3.747.086 |
| (Heepitiya) | | Concrete | | m3 | 9530 | 0 | 0 |
| 865 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Galhinna) | | Concrete | | m3 | 9530 | 0 | 0 |
| 490 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Madadeniya) | | Concrete | | m3 | 9530 | 0 | 0 |
| 111 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Nugawela) | | Concrete | | m3 | 9530 | 0 | 0 |
| 1150 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Kulugammana) | | Concrete | | m3 | 9530 | 167 | 1.591.510 |
| 111 | m3 | Form Work | | m2 | 1060 | 418 | 443.080 |
| | | Reinforcement | 0,12 | ton | 72970 | 20 | 1.462.319 |
| | | Miscellaneous | 100% | set | | | 3.496.909 |
| (Uduwawala) | | Concrete | | m3 | 9530 | 0 | 0 |
| 520 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | Miscellaneous | 100% | set | | | 0 |
| (Kondadeniya) | | Concrete | | m3 | 9530 | 375 | 3.573.750 |
| 384 | m3 | Form Work | | m2 | 1060 | 938 | 994.280 |
| | | Reinforcement | 0,12 | ton | 72970 | 45 | 3.283.650 |
| | | Miscellaneous | 100% | set | | | 7.851.680 |
| (Hindagala) | | Concrete | | m3 | 9530 | 0 | 0 |
| 223 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |

| | | | | | | | 2005Year | 36670 | m3/d |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Unit | Unit Cost | Quantity | Price |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Daulagala) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 476 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Kalugamuwa) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 311 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Sooriyagoda) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 272 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Murutalawa) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 182 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Gannoruwa)) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 272 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Gohagoda New) | | Concrete | | m3 | 9530 | 248 | 2.363.440 |
| | | 207 | m3 | Form Work | | m2 | 1060 | 620 | 657.200 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 30 | 2.171.587 |
| | | | | Miscellaneous | 100% | set | | | 5.192.227 |
| | | (Bogahakanda) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 41 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Yatihalagala) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 206 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Bahirawakanda) | | Concrete | | m3 | 9530 | 1.091 | 10.397.230 |
| | | 1595 | m3 | Form Work | | m2 | 1060 | 2.728 | 2.891.680 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 131 | 9.553.232 |
| | | | | Miscellaneous | 100% | set | | | 22.842.142 |
| | | (Primrose) | | Concrete | | m3 | 9530 | 327 | 3.116.310 |
| | | 315 | m3 | Form Work | | m2 | 1060 | 818 | 867.080 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 39 | 2.863.343 |
| | | | | Miscellaneous | 100% | set | | | 6.846.733 |
| | | (Heerasagala Low) | | Concrete | | m3 | 9530 | 240 | 2.287.200 |
| | | 198 | m3 | Form Work | | m2 | 1060 | 601 | 637.060 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 29 | 2.101.536 |
| | | | | Miscellaneous | 100% | set | | | 5.025.796 |
| | | (Heerasagala Middle) | | Concrete | | m3 | 9530 | 278 | 2.649.340 |
| | | 248 | m3 | Form Work | | m2 | 1060 | 696 | 737.760 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 33 | 2.434.279 |
| | | | | Miscellaneous | 100% | set | | | 5.821.379 |
| | | (Heerasagala Upper) | | Concrete | | m3 | 9530 | 278 | 2.649.340 |
| | | 248 | m3 | Form Work | | m2 | 1060 | 696 | 737.760 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 33 | 2.434.279 |
| | | | | Miscellaneous | 100% | set | | | 5.821.379 |
| | | (Bowalawatta) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 248 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Augustawatte) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 248 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Spring Hill Estate) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 248 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Dangola) | | Concrete | | m3 | 9530 | 283 | 2.696.990 |
| | | 254 | m3 | Form Work | | m2 | 1060 | 707 | 749.420 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 34 | 2.478.061 |
| | | | | Miscellaneous | 100% | set | | | 5.924.471 |
| | | (Mahakanda) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 260 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |
| | | (Gurudeniya) | | Concrete | | m3 | 9530 | 0 | 0 |
| | | 248 | m3 | Form Work | | m2 | 1060 | 0 | 0 |
| | | | | Reinforcement | 0,12 | ton | 72970 | 0 | 0 |
| | | | | Miscellaneous | 100% | set | | | 0 |