

Ayutuxtepeque

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Ayutuxtepeque | | | | | | | | | | | | |
| collection amount 365-base | ton/day | 10.5 | 10.8 | 11.1 | 11.5 | 11.8 | 12.1 | 12.3 | 12.6 | 12.9 | 13.2 | |
| collection amount 312-base | ton/day | 12.3 | 12.6 | 13.0 | 13.5 | 13.8 | 14.2 | 14.4 | 14.7 | 15.1 | 15.4 | |
| amount for 18yd3 | ton/day | 10.5 | 10.7 | 11.1 | 11.5 | 11.7 | 12.1 | 12.2 | 12.5 | 12.8 | 13.1 | |
| amount for 11yd3 | ton/day | 1.8 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | |
| required number of vehicle (1) | | | | | | | | | | | | |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2010) | 11.4 ton/day | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | |
| 11yd3 (2001-2010) | 8.7 ton/day | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | |
| required number of vehicle (2) | | | | | | | | | | | | |
| 18yd3 | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 11yd3 | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| operatable vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| 11yd3 | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| purchase of vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 11yd3 | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |
| Vehicle | US\$ | 0 | 0 | 75,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75,000 |
| 18yd3 | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11yd3 | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| sub-total | US\$ | 0 | 0 | 75,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75,000 |
| physical contingency | US\$ | 0 | 0 | 7,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,500 |
| sub-total | US\$ | 0 | 0 | 82,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82,500 |
| VAT | US\$ | 0 | 0 | 10,725 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,725 |
| total | US\$ | 0 | 0 | 93,225 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93,225 |
| design & supervise | US\$ | 0 | 0 | 3,750 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,750 |
| physical contingency | US\$ | 0 | 0 | 375 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 375 |
| sub-total | US\$ | 0 | 0 | 4,125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,125 |
| VAT | US\$ | 0 | 0 | 536 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 536 |
| total | US\$ | 0 | 0 | 4,661 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,661 |
| total investment | US\$ | 0 | 0 | 97,886 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 97,886 |
| | 1000US\$ | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 |
| O&M cost | | | | | | | | | | | | |
| personnel cost | US\$ | 18,629 | 18,629 | 20,492 | 20,492 | 20,492 | 22,355 | 22,355 | 22,355 | 22,355 | 24,218 | 223,555 |
| 18yd3 | US\$ | 2,994 | 2,994 | 4,491 | 4,491 | 4,491 | 4,491 | 4,491 | 4,491 | 4,491 | 4,491 | 44,911 |
| 11yd3 | US\$ | | | | | | | | | | | |

| Ayutuxtepeque | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| sub-total | | 21,623 | 21,623 | 24,983 | 24,983 | 24,983 | 26,846 | 26,846 | 26,846 | 26,846 | 28,709 | |
| physical contingency | 10 % | 2,162 | 2,162 | 2,498 | 2,498 | 2,498 | 2,685 | 2,685 | 2,685 | 2,685 | 2,871 | |
| personnel cost total | | 23,785 | 23,785 | 27,481 | 27,481 | 27,481 | 29,531 | 29,531 | 29,531 | 29,531 | 31,580 | |
| operation cost | | 2,462 | 2,462 | 2,708 | 2,708 | 2,708 | 2,954 | 2,954 | 2,954 | 2,954 | 3,201 | |
| fuel 18yd3 (2001-2010) | 2,462 US\$/vehicle | 410 | 410 | 615 | 615 | 615 | 615 | 615 | 615 | 615 | 615 | |
| fuel 11yd3 (2001-2010) | 2,050 US\$/vehicle | 2,872 | 2,872 | 3,323 | 3,323 | 3,323 | 3,569 | 3,569 | 3,569 | 3,569 | 3,816 | |
| fuel total | | 287 | 287 | 332 | 332 | 332 | 357 | 357 | 357 | 357 | 382 | |
| oil | 10 % of fuel | 3,159 | 3,159 | 3,655 | 3,655 | 3,655 | 3,926 | 3,926 | 3,926 | 3,926 | 4,198 | |
| sub-total | | 316 | 316 | 366 | 366 | 366 | 393 | 393 | 393 | 393 | 420 | |
| physical contingency | 10 % | 3,475 | 3,475 | 4,021 | 4,021 | 4,021 | 4,319 | 4,319 | 4,319 | 4,319 | 4,618 | |
| sub-total | | 452 | 452 | 523 | 523 | 523 | 561 | 561 | 561 | 561 | 600 | |
| VAT | 13 % | 3,927 | 3,927 | 4,544 | 4,544 | 4,544 | 4,880 | 4,880 | 4,880 | 4,880 | 5,218 | |
| operation cost total | | | | | | | | | | | | |
| maintenance cost | | 11,250 | 11,250 | 12,375 | 12,375 | 12,375 | 13,500 | 13,500 | 13,500 | 13,500 | 14,625 | |
| 18yd3 | 15 % of vehicle | 1,800 | 1,800 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | |
| 11yd3 | 15 % of vehicle | 13,050 | 13,050 | 15,075 | 15,075 | 15,075 | 16,200 | 16,200 | 16,200 | 16,200 | 17,325 | |
| sub-total | | 1,305 | 1,305 | 1,508 | 1,508 | 1,508 | 1,620 | 1,620 | 1,620 | 1,620 | 1,733 | |
| physical contingency | 10 % | 14,355 | 14,355 | 16,583 | 16,583 | 16,583 | 17,820 | 17,820 | 17,820 | 17,820 | 19,058 | |
| sub-total | | 1,866 | 1,866 | 2,156 | 2,156 | 2,156 | 2,317 | 2,317 | 2,317 | 2,317 | 2,478 | |
| VAT | 13 % | 16,221 | 16,221 | 18,739 | 18,739 | 18,739 | 20,137 | 20,137 | 20,137 | 20,137 | 21,536 | |
| maintenance cost total | | | | | | | | | | | | |
| O&M cost total | | 43,933 | 43,933 | 50,764 | 50,764 | 50,764 | 54,548 | 54,548 | 54,548 | 54,548 | 58,334 | 519 |
| | 1000US\$ | 44 | 44 | 51 | 51 | 51 | 55 | 55 | 55 | 55 | 58 | |
| Cost summary | | 10.5 | 10.8 | 11.1 | 11.5 | 11.8 | 12.1 | 12.3 | 12.6 | 12.9 | 13.2 | Total |
| collection amount 365-base | ton/day | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 43 |
| collection amount | 1000ton/year | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 196 |
| Investment | 1000US\$/year | 44 | 44 | 51 | 51 | 51 | 55 | 55 | 55 | 55 | 58 | 519 |
| O&M | 1000US\$/year | 44 | 44 | 149 | 51 | 51 | 55 | 55 | 55 | 55 | 156 | 715 |
| total | 1000US\$/year | 0.00 | 0.00 | 24.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.60 | 4.56 |
| Investment per ton | US\$/ton | 11.00 | 11.00 | 12.75 | 12.75 | 12.75 | 13.75 | 13.75 | 11.00 | 11.00 | 11.60 | 12.07 |
| O&M per ton | US\$/ton | 11.00 | 11.00 | 37.25 | 12.75 | 12.75 | 13.75 | 13.75 | 11.00 | 11.00 | 31.20 | 16.63 |
| total | US\$/ton | | | | | | | | | | | |

San Marcos

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|--------------|--------|------|---------|------|------|------|------|--------|------|---------|-------|
| San Marcos | | | | | | | | | | | | |
| collection amount 365-base | ton/day | 32.2 | 33.1 | 34.1 | 35.1 | 36.0 | 36.9 | 37.8 | 38.7 | 39.6 | 40.5 | |
| collection amount 312-base | ton/day | 37.7 | 38.7 | 39.9 | 41.1 | 42.1 | 43.2 | 44.2 | 45.3 | 46.3 | 47.4 | |
| amount for 18yd3 | ton/day | 32.0 | 32.9 | 33.9 | 34.9 | 35.8 | 36.7 | 37.6 | 38.5 | 39.4 | 40.3 | |
| amount for 11yd3 | ton/day | 5.7 | 5.8 | 6.0 | 6.2 | 6.3 | 6.5 | 6.6 | 6.8 | 6.9 | 7.1 | |
| required number of vehicle (1) | | | | | | | | | | | | |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2004) | 8.4 ton/day | 4.2 | 4.4 | 4.5 | 4.6 | 2.8 | 2.9 | 3.0 | 3.1 | 3.1 | 3.2 | |
| 11yd3 (2001-2004) | 6.4 ton/day | 1.0 | 1.0 | 1.0 | 1.1 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | |
| 18yd3 (2005-2010) | 14.0 ton/day | | | | | | | | | | | |
| 11yd3 (2005-2010) | 10.7 ton/day | | | | | | | | | | | |
| required number of vehicle (2) | | | | | | | | | | | | |
| 18yd3 | unit | 4 | 4 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 11yd3 | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| operatable vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 2 | 3 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | |
| 11yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| purchase of vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | |
| 11yd3 | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |
| Vehicle | US\$ | 75,000 | 0 | 150,000 | 0 | 0 | 0 | 0 | 75,000 | 0 | 150,000 | |
| 18yd3 | US\$ | 0 | 0 | 60,000 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 | |
| 11yd3 | US\$ | 75,000 | 0 | 210,000 | 0 | 0 | 0 | 0 | 75,000 | 0 | 210,000 | |
| sub-total | US\$ | 7,500 | 0 | 21,000 | 0 | 0 | 0 | 0 | 7,500 | 0 | 21,000 | |
| physical contingency | 10 % | 82,500 | 0 | 231,000 | 0 | 0 | 0 | 0 | 82,500 | 0 | 231,000 | |
| sub-total | US\$ | 10,725 | 0 | 30,030 | 0 | 0 | 0 | 0 | 10,725 | 0 | 30,030 | |
| VAT | 13 % | 93,225 | 0 | 261,030 | 0 | 0 | 0 | 0 | 93,225 | 0 | 261,030 | |
| total | US\$ | 3,750 | 0 | 10,500 | 0 | 0 | 0 | 0 | 3,750 | 0 | 10,500 | |
| design & supervise | 5 % | 375 | 0 | 1,050 | 0 | 0 | 0 | 0 | 375 | 0 | 1,050 | |
| physical contingency | 10 % | 4,125 | 0 | 11,550 | 0 | 0 | 0 | 0 | 4,125 | 0 | 11,550 | |
| sub-total | US\$ | 536 | 0 | 1,502 | 0 | 0 | 0 | 0 | 536 | 0 | 1,502 | |
| VAT | 13 % | 4,661 | 0 | 13,052 | 0 | 0 | 0 | 0 | 4,661 | 0 | 13,052 | |
| total | US\$ | 97,886 | 0 | 274,082 | 0 | 0 | 0 | 0 | 97,886 | 0 | 274,082 | |
| total investment | US\$ | | | | | | | | | | | |

| San Marcos | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| | 1000US\$ | 98 | 0 | 274 | 0 | 0 | 0 | 0 | 98 | 0 | 274 | 744 |
| O&M cost | | | | | | | | | | | | |
| personnel cost | | | | | | | | | | | | |
| 18yd3 | 18,629 US\$/vehicle | 78,242 | 81,968 | 83,831 | 85,693 | 52,161 | 54,024 | 55,887 | 57,750 | 57,750 | 59,613 | |
| 11yd3 | 14,971 US\$/vehicle | 14,971 | 14,971 | 14,971 | 16,488 | 10,480 | 10,480 | 10,480 | 10,480 | 10,480 | 10,480 | |
| sub-total | | 93,213 | 96,939 | 98,802 | 102,161 | 62,641 | 64,504 | 66,367 | 68,230 | 68,230 | 70,093 | |
| physical contingency | 10 % | 9,321 | 9,694 | 9,880 | 10,216 | 6,264 | 6,450 | 6,637 | 6,823 | 6,823 | 7,009 | |
| personnel cost total | | 102,534 | 106,633 | 108,682 | 112,377 | 68,905 | 70,954 | 73,004 | 75,053 | 75,053 | 77,102 | |
| operation cost | | | | | | | | | | | | |
| fuel 18yd3 (2001-2004) | 3,654 US\$/vehicle | 15,347 | 16,078 | 16,443 | 16,808 | 4,026 | 4,170 | 4,314 | 4,458 | 4,458 | 4,602 | |
| fuel 11yd3 (2001-2004) | 3,042 US\$/vehicle | 3,042 | 3,042 | 3,042 | 3,346 | 837 | 837 | 837 | 837 | 837 | 837 | |
| fuel 18yd3 (2004-2010) | 1,438 US\$/vehicle | | | | | | | | | | | |
| fuel 11yd3 (2004-2010) | 1,195 US\$/vehicle | | | | | | | | | | | |
| fuel total | | 18,389 | 19,120 | 19,485 | 20,154 | 4,863 | 5,007 | 5,151 | 5,295 | 5,295 | 5,439 | |
| oil | 10 % of fuel | 1,839 | 1,912 | 1,949 | 2,015 | 486 | 501 | 515 | 530 | 530 | 544 | |
| sub-total | | 20,228 | 21,032 | 21,434 | 22,169 | 5,349 | 5,508 | 5,666 | 5,825 | 5,825 | 5,983 | |
| physical contingency | 10 % | 2,023 | 2,103 | 2,143 | 2,217 | 535 | 551 | 567 | 583 | 583 | 598 | |
| sub-total | | 22,251 | 23,135 | 23,577 | 24,386 | 5,884 | 6,059 | 6,233 | 6,408 | 6,408 | 6,581 | |
| VAT | 13 % | 2,893 | 3,008 | 3,065 | 3,170 | 765 | 788 | 810 | 833 | 833 | 856 | |
| operation cost total | | 25,144 | 26,143 | 26,642 | 27,556 | 6,649 | 6,847 | 7,043 | 7,241 | 7,241 | 7,437 | |
| maintenance cost | | | | | | | | | | | | |
| 18yd3 | 15 % of vehicle | 47,250 | 49,500 | 50,625 | 51,750 | 31,500 | 32,625 | 33,750 | 34,875 | 34,875 | 36,000 | |
| 11yd3 | 15 % of vehicle | 9,000 | 9,000 | 9,000 | 9,900 | 6,300 | 6,300 | 6,300 | 6,300 | 6,300 | 6,300 | |
| sub-total | | 56,250 | 58,500 | 59,625 | 61,650 | 37,800 | 38,925 | 40,050 | 41,175 | 41,175 | 42,300 | |
| physical contingency | 10 % | 5,625 | 5,850 | 5,963 | 6,165 | 3,780 | 3,893 | 4,005 | 4,118 | 4,118 | 4,230 | |
| sub-total | | 61,875 | 64,350 | 65,588 | 67,815 | 41,580 | 42,818 | 44,055 | 45,293 | 45,293 | 46,530 | |
| VAT | 13 % | 8,044 | 8,366 | 8,526 | 8,816 | 5,405 | 5,566 | 5,727 | 5,888 | 5,888 | 6,049 | |
| maintenance cost total | | 69,919 | 72,716 | 74,114 | 76,631 | 46,985 | 48,384 | 49,782 | 51,181 | 51,181 | 52,579 | |
| O&M cost total | | 197,597 | 205,492 | 209,438 | 216,564 | 122,539 | 126,185 | 129,829 | 133,475 | 133,475 | 137,118 | 1,611 |
| | 1000US\$ | 198 | 205 | 209 | 217 | 123 | 126 | 130 | 133 | 133 | 137 | |
| Cost summary | | | | | | | | | | | | |
| collection amount 365-base | | 32.2 | 33.1 | 34.1 | 35.1 | 36.0 | 36.9 | 37.8 | 38.7 | 39.6 | 40.5 | Total |
| collection amount | ton/day | 12 | 12 | 12 | 13 | 13 | 13 | 14 | 14 | 14 | 15 | 132 |
| Investment | 1000US\$/year | 98 | 0 | 274 | 0 | 0 | 0 | 0 | 98 | 0 | 274 | 744 |
| O&M | 1000US\$/year | 198 | 205 | 209 | 217 | 123 | 126 | 130 | 133 | 133 | 137 | 1,611 |
| total | 1000US\$/year | 296 | 205 | 483 | 217 | 123 | 126 | 130 | 231 | 133 | 411 | 2,355 |

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------|----------|-------|-------|-------|-------|------|------|------|-------|------|-------|-------|
| San Marcos | | | | | | | | | | | | |
| Investment per ton | US\$/ton | 8.17 | 0.00 | 22.83 | 0.00 | 0.00 | 0.00 | 0.00 | 7.00 | 0.00 | 18.27 | 5.64 |
| O&M per ton | US\$/ton | 16.50 | 17.08 | 17.42 | 16.69 | 9.46 | 9.69 | 9.29 | 9.50 | 9.50 | 9.13 | 12.20 |
| total | US\$/ton | 24.67 | 17.08 | 40.25 | 16.69 | 9.46 | 9.69 | 9.29 | 16.50 | 9.50 | 27.40 | 17.84 |

Antiguo Cuscatlan

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------|---------|------|---------|------|------|------|------|---------|------|---------|-------|
| Antiguo Cuscatlan | | | | | | | | | | | | |
| collection amount 365-base | ton/day | 43.3 | 44.8 | 46.5 | 48.0 | 49.6 | 51.1 | 52.6 | 54.1 | 55.6 | 57.1 | |
| collection amount 312-base | ton/day | 50.7 | 52.4 | 54.4 | 56.2 | 58.0 | 59.8 | 61.5 | 63.3 | 65.0 | 66.8 | |
| amount for 18yd3 | ton/day | 43.1 | 44.5 | 46.2 | 47.8 | 49.3 | 50.8 | 52.3 | 53.8 | 55.3 | 56.8 | |
| amount for 11yd3 | ton/day | 7.6 | 7.9 | 8.2 | 8.4 | 8.7 | 9.0 | 9.2 | 9.5 | 9.8 | 10.0 | |
| required number of vehicle (1) | | | | | | | | | | | | |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2003) | unit | 5.3 | 5.4 | 5.6 | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.0 | 4.2 | |
| 11yd3 (2001-2003) | unit | 1.2 | 1.3 | 1.3 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | |
| 18yd3 (2004-2010) | unit | | | | | | | | | | | |
| 11yd3 (2004-2010) | unit | | | | | | | | | | | |
| required number of vehicle (2) | | | | | | | | | | | | |
| 18yd3 | unit | 5 | 5 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| 11yd3 | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| operatable vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 1 | 4 | 3 | 4 | 4 | 4 | 4 | 1 | 4 | 3 | |
| 11yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| purchase of vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | |
| 11yd3 | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |
| Vehicle | US\$ | 225,000 | 0 | 75,000 | 0 | 0 | 0 | 0 | 225,000 | 0 | 75,000 | |
| 18yd3 | US\$ | 0 | 0 | 60,000 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 | |
| 11yd3 | US\$ | 225,000 | 0 | 135,000 | 0 | 0 | 0 | 0 | 225,000 | 0 | 135,000 | |
| sub-total | US\$ | 225,000 | 0 | 135,000 | 0 | 0 | 0 | 0 | 225,000 | 0 | 135,000 | |
| physical contingency | 10 % | 24,500 | 0 | 14,500 | 0 | 0 | 0 | 0 | 22,500 | 0 | 13,500 | |
| sub-total | US\$ | 247,500 | 0 | 148,500 | 0 | 0 | 0 | 0 | 247,500 | 0 | 148,500 | |
| VAT | 13 % | 32,175 | 0 | 19,305 | 0 | 0 | 0 | 0 | 32,175 | 0 | 19,305 | |
| total | US\$ | 279,675 | 0 | 167,805 | 0 | 0 | 0 | 0 | 279,675 | 0 | 167,805 | |
| design & supervise | US\$ | 11,250 | 0 | 6,750 | 0 | 0 | 0 | 0 | 11,250 | 0 | 6,750 | |
| physical contingency | US\$ | 1,125 | 0 | 675 | 0 | 0 | 0 | 0 | 1,125 | 0 | 675 | |
| sub-total | US\$ | 12,375 | 0 | 7,425 | 0 | 0 | 0 | 0 | 12,375 | 0 | 7,425 | |

| Antiguo Cuscatlan | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| VAT | US\$ | 1,609 | 0 | 965 | 0 | 0 | 0 | 0 | 1,609 | 0 | 965 | |
| total | US\$ | 13,984 | 0 | 8,390 | 0 | 0 | 0 | 0 | 13,984 | 0 | 8,390 | |
| total investment | US\$ | 293,659 | 0 | 176,195 | 0 | 0 | 0 | 0 | 293,659 | 0 | 176,195 | |
| | 1000US\$ | 294 | 0 | 176 | 0 | 0 | 0 | 0 | 294 | 0 | 176 | 940 |
| O&M cost | | | | | | | | | | | | |
| personnel cost | US\$ | 98,734 | 100,597 | 104,322 | 65,202 | 67,064 | 68,927 | 70,790 | 72,653 | 74,516 | 78,242 | |
| 18yd3 | US\$ | 17,965 | 19,462 | 19,462 | 11,977 | 11,977 | 13,474 | 13,474 | 13,474 | 13,474 | 14,971 | |
| 11yd3 | US\$ | 116,699 | 120,059 | 123,784 | 77,179 | 79,041 | 82,401 | 84,264 | 86,127 | 87,990 | 93,213 | |
| sub-total | US\$ | 11,670 | 12,006 | 12,378 | 7,718 | 7,904 | 8,240 | 8,426 | 8,613 | 8,799 | 9,321 | |
| physical contingency | US\$ | 128,369 | 132,065 | 136,162 | 84,897 | 86,945 | 90,641 | 92,690 | 94,740 | 96,789 | 102,534 | |
| personnel cost total | US\$ | | | | | | | | | | | |
| operation cost | US\$ | 17,760 | 18,095 | 18,766 | 3,385 | 3,481 | 3,578 | 3,675 | 3,771 | 3,868 | 4,061 | |
| fuel 18yd3 (2001-2003) | US\$ | 3,347 | 3,626 | 3,626 | 639 | 639 | 719 | 719 | 719 | 719 | 799 | |
| fuel 11yd3 (2001-2003) | US\$ | | | | | | | | | | | |
| fuel 18yd3 (2004-2010) | US\$ | 21,107 | 21,721 | 22,392 | 4,024 | 4,120 | 4,297 | 4,394 | 4,490 | 4,587 | 4,860 | |
| fuel 11yd3 (2004-2010) | US\$ | 2,111 | 2,172 | 2,239 | 402 | 412 | 430 | 439 | 449 | 459 | 486 | |
| sub-total | US\$ | 23,218 | 23,893 | 24,631 | 4,426 | 4,532 | 4,727 | 4,833 | 4,939 | 5,046 | 5,346 | |
| physical contingency | US\$ | 2,322 | 2,389 | 2,463 | 443 | 453 | 473 | 483 | 494 | 505 | 535 | |
| sub-total | US\$ | 25,540 | 26,282 | 27,094 | 4,869 | 4,985 | 5,200 | 5,316 | 5,433 | 5,551 | 5,881 | |
| VAT | US\$ | 3,320 | 3,417 | 3,522 | 633 | 648 | 676 | 691 | 706 | 722 | 765 | |
| operation cost total | US\$ | 28,860 | 29,699 | 30,616 | 5,502 | 5,633 | 5,876 | 6,007 | 6,139 | 6,273 | 6,646 | |
| maintenance cost | US\$ | 59,625 | 60,750 | 63,000 | 39,375 | 40,500 | 41,625 | 42,750 | 43,875 | 45,000 | 47,250 | |
| 18yd3 | US\$ | 10,800 | 11,700 | 11,700 | 7,200 | 7,200 | 8,100 | 8,100 | 8,100 | 8,100 | 9,000 | |
| 11yd3 | US\$ | 70,425 | 72,450 | 74,700 | 46,575 | 47,700 | 49,725 | 50,850 | 51,975 | 53,100 | 56,250 | |
| sub-total | US\$ | 7,043 | 7,245 | 7,470 | 4,658 | 4,770 | 4,973 | 5,085 | 5,198 | 5,310 | 5,625 | |
| physical contingency | US\$ | 77,468 | 79,695 | 82,170 | 51,233 | 52,470 | 54,698 | 55,935 | 57,173 | 58,410 | 61,875 | |
| sub-total | US\$ | 10,071 | 10,360 | 10,682 | 6,660 | 6,821 | 7,111 | 7,272 | 7,432 | 7,593 | 8,044 | |
| VAT | US\$ | 87,539 | 90,055 | 92,852 | 57,893 | 59,291 | 61,809 | 63,207 | 64,605 | 66,003 | 69,919 | |
| maintenance cost total | US\$ | | | | | | | | | | | |
| O&M cost total | US\$ | 244,768 | 251,819 | 259,630 | 148,232 | 151,869 | 158,326 | 161,904 | 165,484 | 169,065 | 179,099 | |
| | 1000US\$ | 245 | 252 | 260 | 148 | 152 | 158 | 162 | 165 | 169 | 179 | 1,890 |
| Cost summary | | | | | | | | | | | | |
| collection amount 365-base | ton/day | 43.3 | 44.8 | 46.5 | 48.0 | 49.6 | 51.1 | 52.6 | 54.1 | 55.6 | 57.1 | Total |
| collection amount | 1000ton/year | 16 | 16 | 17 | 18 | 18 | 19 | 19 | 20 | 20 | 21 | 184 |

| Antiguo Cuscatlan | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------|---------------|-------|-------|-------|------|------|------|------|-------|------|-------|-------|
| Investment | 1000US\$/year | 294 | 0 | 176 | 0 | 0 | 0 | 0 | 294 | 0 | 176 | 940 |
| O&M | 1000US\$/year | 245 | 252 | 260 | 148 | 152 | 158 | 162 | 165 | 169 | 179 | 1,890 |
| total | 1000US\$/year | 539 | 252 | 436 | 148 | 152 | 158 | 162 | 459 | 169 | 355 | 2,830 |
| Investment per ton | US\$/ton | 18.38 | 0.00 | 10.35 | 0.00 | 0.00 | 0.00 | 0.00 | 14.70 | 0.00 | 8.38 | 5.11 |
| O&M per ton | US\$/ton | 15.31 | 15.75 | 15.29 | 8.22 | 8.44 | 8.32 | 8.53 | 8.25 | 8.45 | 8.52 | 10.27 |
| total | US\$/ton | 33.69 | 15.75 | 25.64 | 8.22 | 8.44 | 8.32 | 8.53 | 22.95 | 8.45 | 16.90 | 15.38 |

Soyapango

| Soyapango | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------|---------|-------|-----------|-------|-------|-------|-------|---------|-------|-----------|-------|
| collection amount 365-base | ton/day | 133.4 | 138.5 | 143.6 | 148.7 | 153.7 | 158.7 | 163.6 | 168.4 | 173.2 | 178.3 | |
| collection amount 312-base | ton/day | 156.1 | 162.0 | 168.0 | 174.0 | 179.8 | 185.7 | 191.4 | 197.0 | 202.6 | 208.6 | |
| amount for 18yd3 | ton/day | 132.7 | 137.7 | 142.8 | 147.9 | 152.8 | 157.8 | 162.7 | 167.5 | 172.2 | 177.3 | |
| amount for 11yd3 | ton/day | 23.4 | 24.3 | 25.2 | 26.1 | 27.0 | 27.9 | 28.7 | 29.6 | 30.4 | 31.3 | |
| required number of vehicle (1) | unit | 15 | 16 | 16 | 17 | 12 | 12 | 12 | 13 | 13 | 13 | |
| net working rate | unit | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 18yd3 (2001-2004) | unit | 15.2 | 15.8 | 16.4 | 16.9 | 11.5 | 11.8 | 12.2 | 12.6 | 12.9 | 13.3 | |
| 11yd3 (2001-2004) | unit | 3.5 | 3.6 | 3.8 | 3.9 | 2.7 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | |
| 18yd3 (2005-2010) | unit | | | | | | | | | | | |
| 11yd3 (2005-2010) | unit | | | | | | | | | | | |
| required number of vehicle (2) | unit | | | | | | | | | | | |
| operable vehicle | unit | 10 | 12 | 2 | 12 | 12 | 12 | 12 | 10 | 13 | 3 | |
| purchase of vehicle | unit | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | |
| Cost | unit | 2 | 0 | 10 | 0 | 0 | 0 | 0 | 3 | 0 | 10 | |
| Investment | unit | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | |
| Vehicle | US\$ | 150,000 | 0 | 750,000 | 0 | 0 | 0 | 0 | 225,000 | 0 | 750,000 | |
| 18yd3 | US\$ | 0 | 0 | 180,000 | 0 | 0 | 0 | 0 | 0 | 0 | 180,000 | |
| 11yd3 | US\$ | 150,000 | 0 | 930,000 | 0 | 0 | 0 | 0 | 225,000 | 0 | 930,000 | |
| sub-total | US\$ | 15,000 | 0 | 93,000 | 0 | 0 | 0 | 0 | 22,500 | 0 | 93,000 | |
| physical contingency | US\$ | 165,000 | 0 | 1,023,000 | 0 | 0 | 0 | 0 | 247,500 | 0 | 1,023,000 | |
| sub-total | US\$ | 21,450 | 0 | 132,990 | 0 | 0 | 0 | 0 | 32,175 | 0 | 132,990 | |
| VAT | US\$ | 186,450 | 0 | 1,155,990 | 0 | 0 | 0 | 0 | 279,675 | 0 | 1,155,990 | |
| total | US\$ | | | | | | | | | | | |

| Soyapango | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|------------------------|---------------------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|-----------|-------|
| design & supervise | 5 % | 7,500 | 0 | 46,500 | 0 | 0 | 0 | 0 | 11,250 | 0 | 46,500 | |
| physical contingency | 10 % | 750 | 0 | 4,650 | 0 | 0 | 0 | 0 | 1,125 | 0 | 4,650 | |
| sub-total | | 8,250 | 0 | 51,150 | 0 | 0 | 0 | 0 | 12,375 | 0 | 51,150 | |
| VAT | 13 % | 1,073 | 0 | 6,650 | 0 | 0 | 0 | 0 | 1,609 | 0 | 6,650 | |
| total | | 9,323 | 0 | 57,800 | 0 | 0 | 0 | 0 | 13,984 | 0 | 57,800 | |
| total investment | | 195,773 | 0 | 1,213,790 | 0 | 0 | 0 | 0 | 293,659 | 0 | 1,213,790 | 2,918 |
| | 1000US\$ | 196 | 0 | 1214 | 0 | 0 | 0 | 0 | 294 | 0 | 1214 | |
| O&M cost | | | | | | | | | | | | |
| personnel cost | | | | | | | | | | | | |
| 18yd3 | 18,629 US\$/vehicle | 283,161 | 294,338 | 305,516 | 314,830 | 214,234 | 219,822 | 227,274 | 234,725 | 240,314 | 247,766 | |
| 11yd3 | 14,971 US\$/vehicle | 52,399 | 53,896 | 56,890 | 58,387 | 40,422 | 40,422 | 41,919 | 43,416 | 44,913 | 46,410 | |
| sub-total | | 335,560 | 348,234 | 362,406 | 373,217 | 254,656 | 260,244 | 269,193 | 278,141 | 285,227 | 294,176 | |
| physical contingency | 10 % | 33,556 | 34,823 | 36,241 | 37,322 | 25,466 | 26,024 | 26,919 | 27,814 | 28,523 | 29,418 | |
| personnel cost total | | 369,116 | 383,057 | 398,647 | 410,539 | 280,122 | 286,268 | 296,112 | 305,955 | 313,750 | 323,594 | |
| operation cost | | | | | | | | | | | | |
| fuel 18yd3 (2001-2004) | 3,123 US\$/vehicle | 47,470 | 49,343 | 51,217 | 52,779 | 12,846 | 13,181 | 13,627 | 14,074 | 14,409 | 14,856 | |
| fuel 11yd3 (2001-2004) | 2,602 US\$/vehicle | 9,107 | 9,367 | 9,888 | 10,148 | 2,495 | 2,495 | 2,587 | 2,680 | 2,772 | 2,864 | |
| fuel 18yd3 (2005-2010) | 1,117 US\$/vehicle | | | | | | | | | | | |
| fuel 11yd3 (2005-2010) | 924 US\$/vehicle | | | | | | | | | | | |
| fuel total | | 56,577 | 58,710 | 61,105 | 62,927 | 15,341 | 15,676 | 16,214 | 16,754 | 17,181 | 17,720 | |
| oil | 10 % of fuel | 5,658 | 5,871 | 6,111 | 6,293 | 1,534 | 1,568 | 1,621 | 1,675 | 1,718 | 1,772 | |
| sub-total | | 62,235 | 64,581 | 67,216 | 69,220 | 16,875 | 17,244 | 17,835 | 18,429 | 18,899 | 19,492 | |
| physical contingency | 10 % | 6,224 | 6,458 | 6,722 | 6,922 | 1,688 | 1,724 | 1,784 | 1,843 | 1,890 | 1,949 | |
| sub-total | | 68,459 | 71,039 | 73,938 | 76,142 | 18,563 | 18,968 | 19,619 | 20,272 | 20,789 | 21,441 | |
| VAT | 13 % | 8,900 | 9,235 | 9,612 | 9,898 | 2,413 | 2,466 | 2,550 | 2,635 | 2,703 | 2,787 | |
| operation cost total | | 77,359 | 80,274 | 83,550 | 86,040 | 20,976 | 21,434 | 22,169 | 22,907 | 23,492 | 24,228 | |
| maintenance cost | | | | | | | | | | | | |
| 18yd3 | 15 % of vehicle | 171,000 | 177,750 | 184,500 | 190,125 | 129,375 | 132,750 | 137,250 | 141,750 | 145,125 | 149,625 | |
| 11yd3 | 15 % of vehicle | 31,500 | 32,400 | 34,200 | 35,100 | 24,300 | 24,300 | 25,200 | 26,100 | 27,000 | 27,900 | |
| sub-total | | 202,500 | 210,150 | 218,700 | 225,225 | 153,675 | 157,050 | 162,450 | 167,850 | 172,125 | 177,525 | |
| physical contingency | 10 % | 20,250 | 21,015 | 21,870 | 22,523 | 15,368 | 15,705 | 16,245 | 16,785 | 17,213 | 17,753 | |
| sub-total | | 222,750 | 231,165 | 240,570 | 247,748 | 169,043 | 172,755 | 178,695 | 184,635 | 189,338 | 195,278 | |
| VAT | 13 % | 28,958 | 30,051 | 31,274 | 32,207 | 21,976 | 22,458 | 23,230 | 24,003 | 24,614 | 25,386 | |
| maintenance cost total | | 251,708 | 261,216 | 271,844 | 279,955 | 191,019 | 195,213 | 201,925 | 208,638 | 213,952 | 220,664 | |
| O&M cost total | | 698,183 | 724,547 | 754,041 | 776,534 | 492,117 | 502,915 | 520,206 | 537,500 | 551,194 | 568,486 | 6,126 |
| | 1000US\$ | 698 | 725 | 754 | 777 | 492 | 503 | 520 | 538 | 551 | 568 | |

| Soyapango | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cost summary | year | | | | | | | | | | | Total |
| collection amount 365-base | ton/day | 133.4 | 138.5 | 143.6 | 148.7 | 153.7 | 158.7 | 163.6 | 168.4 | 173.2 | 178.3 | 569 |
| collection amount | 1000ton/year | 49 | 51 | 52 | 54 | 56 | 58 | 60 | 61 | 63 | 65 | |
| Investment | 1000US\$/year | 196 | 0 | 1,214 | 0 | 0 | 0 | 0 | 294 | 0 | 1,214 | 2,918 |
| O&M | 1000US\$/year | 698 | 725 | 754 | 777 | 492 | 503 | 520 | 538 | 551 | 568 | 6,126 |
| total | 1000US\$/year | 894 | 725 | 1,968 | 777 | 492 | 503 | 520 | 832 | 551 | 1,782 | 9,044 |
| Investment per ton | US\$/ton | 4.00 | 0.00 | 23.35 | 0.00 | 0.00 | 0.00 | 0.00 | 4.82 | 0.00 | 18.68 | 5.13 |
| O&M per ton | US\$/ton | 14.24 | 14.22 | 14.50 | 14.39 | 8.79 | 8.67 | 8.67 | 8.82 | 8.75 | 8.74 | 10.77 |
| total | US\$/ton | 18.24 | 14.22 | 37.85 | 14.39 | 8.79 | 8.67 | 8.67 | 13.64 | 8.75 | 27.42 | 15.90 |

Ilopango

| Ilopango | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------|------|------|---------|------|------|------|------|------|------|------|---------|
| collection amount 365-base | year | | | | | | | | | | | Total |
| collection amount 312-base | ton/day | 44.1 | 45.5 | 46.9 | 48.2 | 49.5 | 50.8 | 52.0 | 53.2 | 54.4 | 55.7 | 55.7 |
| amount for 18yd3 | ton/day | 51.6 | 53.2 | 54.9 | 56.4 | 57.9 | 59.4 | 60.8 | 62.2 | 63.6 | 65.2 | 65.2 |
| amount for 11yd3 | ton/day | 43.9 | 45.2 | 46.7 | 47.9 | 49.2 | 50.5 | 51.7 | 52.9 | 54.1 | 55.4 | 55.4 |
| required number of vehicle (1) | ton/day | 7.7 | 8.0 | 8.2 | 8.5 | 8.7 | 8.9 | 9.1 | 9.3 | 9.5 | 9.8 | 9.8 |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2004) | unit | 5.5 | 5.6 | 5.8 | 6.0 | 4.0 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 4.5 |
| 11yd3 (2001-2004) | unit | 1.3 | 1.3 | 1.3 | 1.4 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 18yd3 (2005-2010) | unit | | | | | | | | | | | |
| 11yd3 (2005-2010) | unit | | | | | | | | | | | |
| required number of vehicle (2) | unit | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| operatable vehicle | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| purchase of vehicle | unit | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 0 |
| 18yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 11yd3 | unit | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Cost | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Investment | US\$ | 0 | 0 | 300,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 375,000 |
| Vehicle | US\$ | 0 | 0 | 60,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 |
| 18yd3 | US\$ | 0 | 0 | 60,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 |
| 11yd3 | US\$ | 0 | 0 | 360,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 435,000 |
| sub-total | US\$ | 0 | 0 | 360,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 435,000 |

| Ilopongo | | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|------------------------|------------------------|----------|---------|---------|---------|---------|--------|--------|---------|---------|---------|---------|-------|
| physical contingency | sub-total | US\$ | 0 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 | 43,500 | |
| | VAT | US\$ | 0 | 0 | 396,000 | 0 | 0 | 0 | 0 | 0 | 0 | 478,500 | |
| | total | US\$ | 0 | 0 | 447,480 | 0 | 0 | 0 | 0 | 0 | 0 | 540,705 | |
| design & supervise | physical contingency | US\$ | 0 | 0 | 18,000 | 0 | 0 | 0 | 0 | 0 | 0 | 21,750 | |
| | sub-total | US\$ | 0 | 0 | 1,800 | 0 | 0 | 0 | 0 | 0 | 0 | 2,175 | |
| | VAT | US\$ | 0 | 0 | 19,800 | 0 | 0 | 0 | 0 | 0 | 0 | 23,925 | |
| total investment | sub-total | US\$ | 0 | 0 | 2,574 | 0 | 0 | 0 | 0 | 0 | 0 | 3,110 | |
| | VAT | US\$ | 0 | 0 | 22,374 | 0 | 0 | 0 | 0 | 0 | 0 | 27,035 | |
| | total | US\$ | 0 | 0 | 469,854 | 0 | 0 | 0 | 0 | 0 | 0 | 567,740 | 1,038 |
| O&M cost | personnel cost | 1000US\$ | 0 | 0 | 470 | 0 | 0 | 0 | 0 | 0 | 0 | 568 | |
| | 18yd3 | US\$ | 102,460 | 104,322 | 108,048 | 111,774 | 74,516 | 76,379 | 78,242 | 80,105 | 81,968 | 83,831 | |
| | 11yd3 | US\$ | 19,462 | 19,462 | 19,462 | 20,959 | 13,474 | 13,474 | 14,971 | 14,971 | 14,971 | 14,971 | |
| physical contingency | sub-total | US\$ | 121,922 | 123,784 | 127,510 | 132,733 | 87,990 | 89,853 | 93,213 | 95,076 | 96,939 | 98,802 | |
| | sub-total | US\$ | 12,192 | 12,378 | 12,751 | 13,273 | 8,799 | 8,985 | 9,321 | 9,508 | 9,694 | 9,880 | |
| | total | US\$ | 134,114 | 136,162 | 140,261 | 146,006 | 96,789 | 98,838 | 102,534 | 104,584 | 106,633 | 108,682 | |
| operation cost | fuel 18yd3 (2001-2004) | US\$ | 18,843 | 19,186 | 19,871 | 20,556 | 6,052 | 6,203 | 6,355 | 6,506 | 6,657 | 6,809 | |
| | fuel 11yd3 (2001-2004) | US\$ | 3,712 | 3,712 | 3,712 | 3,997 | 1,131 | 1,131 | 1,257 | 1,257 | 1,257 | 1,257 | |
| | fuel 18yd3 (2005-2010) | US\$ | 22,555 | 22,898 | 23,583 | 24,553 | 7,183 | 7,334 | 7,612 | 7,763 | 7,914 | 8,066 | |
| fuel 11yd3 (2005-2010) | fuel total | US\$ | 2,256 | 2,290 | 2,358 | 2,455 | 718 | 733 | 761 | 776 | 791 | 807 | |
| | oil | US\$ | 24,811 | 25,188 | 25,941 | 27,008 | 7,901 | 8,067 | 8,373 | 8,539 | 8,705 | 8,873 | |
| | sub-total | US\$ | 2,481 | 2,519 | 2,594 | 2,701 | 790 | 807 | 837 | 854 | 871 | 887 | |
| physical contingency | sub-total | US\$ | 27,292 | 27,707 | 28,535 | 29,709 | 8,691 | 8,874 | 9,210 | 9,393 | 9,576 | 9,760 | |
| | sub-total | US\$ | 3,548 | 3,602 | 3,710 | 3,862 | 1,130 | 1,154 | 1,197 | 1,221 | 1,245 | 1,269 | |
| | VAT | US\$ | 30,840 | 31,309 | 32,245 | 33,571 | 9,821 | 10,028 | 10,407 | 10,614 | 10,821 | 11,029 | |
| operation cost total | sub-total | US\$ | 61,875 | 63,000 | 65,250 | 67,500 | 45,000 | 46,125 | 47,250 | 48,375 | 49,500 | 50,625 | |
| | sub-total | US\$ | 11,700 | 11,700 | 11,700 | 12,600 | 8,100 | 8,100 | 9,000 | 9,000 | 9,000 | 9,000 | |
| | VAT | US\$ | 73,575 | 74,700 | 76,950 | 80,100 | 53,100 | 54,225 | 56,250 | 57,375 | 58,500 | 59,625 | |
| physical contingency | sub-total | US\$ | 7,358 | 7,470 | 7,695 | 8,010 | 5,423 | 5,423 | 5,625 | 5,738 | 5,850 | 5,963 | |
| | sub-total | US\$ | 80,933 | 82,170 | 84,645 | 88,110 | 58,410 | 59,648 | 61,875 | 63,113 | 64,350 | 65,588 | |
| | VAT | US\$ | 10,521 | 10,682 | 11,004 | 11,454 | 7,593 | 7,754 | 8,044 | 8,205 | 8,366 | 8,526 | |
| maintenance cost total | sub-total | US\$ | 91,454 | 92,852 | 95,649 | 99,564 | 66,003 | 67,402 | 69,919 | 71,318 | 72,716 | 74,114 | |
| | sub-total | US\$ | 61,875 | 63,000 | 65,250 | 67,500 | 45,000 | 46,125 | 47,250 | 48,375 | 49,500 | 50,625 | |
| | VAT | US\$ | 11,700 | 11,700 | 11,700 | 12,600 | 8,100 | 8,100 | 9,000 | 9,000 | 9,000 | 9,000 | |
| physical contingency | sub-total | US\$ | 73,575 | 74,700 | 76,950 | 80,100 | 53,100 | 54,225 | 56,250 | 57,375 | 58,500 | 59,625 | |
| | sub-total | US\$ | 7,358 | 7,470 | 7,695 | 8,010 | 5,423 | 5,423 | 5,625 | 5,738 | 5,850 | 5,963 | |
| | VAT | US\$ | 80,933 | 82,170 | 84,645 | 88,110 | 58,410 | 59,648 | 61,875 | 63,113 | 64,350 | 65,588 | |
| maintenance cost total | sub-total | US\$ | 10,521 | 10,682 | 11,004 | 11,454 | 7,593 | 7,754 | 8,044 | 8,205 | 8,366 | 8,526 | |
| | sub-total | US\$ | 91,454 | 92,852 | 95,649 | 99,564 | 66,003 | 67,402 | 69,919 | 71,318 | 72,716 | 74,114 | |
| | VAT | US\$ | 10,521 | 10,682 | 11,004 | 11,454 | 7,593 | 7,754 | 8,044 | 8,205 | 8,366 | 8,526 | |

| Illopango | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| O&M cost total | US\$ | 256,408 | 260,323 | 268,155 | 279,141 | 172,613 | 176,268 | 182,860 | 186,516 | 190,170 | 193,825 | 2,166 |
| | 1000US\$ | 256 | 260 | 268 | 279 | 173 | 176 | 183 | 187 | 190 | 194 | |
| Cost summary | ton/day | 44.1 | 45.5 | 46.9 | 48.2 | 49.5 | 50.8 | 52.0 | 53.2 | 54.4 | 55.7 | Total |
| collection amount 365-base | 1000ton/year | 16 | 17 | 17 | 18 | 18 | 19 | 19 | 19 | 20 | 20 | 183 |
| collection amount | 1000US\$/year | 0 | 0 | 470 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 568 |
| Investment | 1000US\$/year | 256 | 260 | 268 | 279 | 173 | 176 | 183 | 187 | 190 | 194 | 1,038 |
| O&M | 1000US\$/year | 256 | 260 | 268 | 279 | 173 | 176 | 183 | 187 | 190 | 194 | 2,166 |
| total | 1000US\$/year | 256 | 260 | 738 | 279 | 173 | 176 | 183 | 187 | 190 | 194 | 3,204 |
| Investment per ton | US\$/ton | 0.00 | 0.00 | 27.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.40 | 5.67 |
| O&M per ton | US\$/ton | 16.00 | 15.29 | 15.76 | 15.50 | 9.61 | 9.26 | 9.63 | 9.84 | 9.50 | 9.70 | 11.84 |
| total | US\$/ton | 16.00 | 15.29 | 43.41 | 15.50 | 9.61 | 9.26 | 9.63 | 9.84 | 9.50 | 38.10 | 17.51 |

San Martin

| San Martin | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|-------|
| collection amount 365-base | ton/day | 25.0 | 25.7 | 26.5 | 27.2 | 27.9 | 28.7 | 29.4 | 30.0 | 30.7 | 31.4 | |
| collection amount 312-base | ton/day | 29.2 | 30.1 | 31.0 | 31.8 | 32.6 | 33.6 | 34.4 | 35.1 | 35.9 | 36.7 | |
| amount for 18yd3 | ton/day | 24.8 | 25.6 | 26.4 | 27.0 | 27.7 | 28.6 | 29.2 | 29.8 | 30.5 | 31.2 | |
| amount for 11yd3 | ton/day | 4.4 | 4.5 | 4.7 | 4.8 | 4.9 | 5.0 | 5.2 | 5.3 | 5.4 | 5.5 | |
| required number of vehicle (1) | unit | | | | | | | | | | | |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2004) | 15.3 ton/day | 1.8 | 1.9 | 1.9 | 2.0 | 2.5 | 2.6 | 2.7 | 2.7 | 2.8 | 2.9 | |
| 11yd3 (2001-2004) | 11.6 ton/day | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | |
| 18yd3 (2005-2010) | 12.1 ton/day | | | | | | | | | | | |
| 11yd3 (2005-2010) | 9.2 ton/day | | | | | | | | | | | |
| required number of vehicle (2) | unit | | | | | | | | | | | |
| 18yd3 | unit | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 11yd3 | unit | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| operatable vehicle | unit | | | | | | | | | | | |
| 18yd3 | unit | 3 | 3 | 0 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 1 |
| 11yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| purchase of vehicle | unit | | | | | | | | | | | |
| 18yd3 | unit | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11yd3 | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |

| San Martin | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|------------------------|----------|--------|--------|---------|--------|--------|--------|--------|--------|--------|---------|-------|
| Vehicle | US\$ | 0 | 0 | 150,000 | 0 | 75,000 | 0 | 0 | 0 | 0 | 150,000 | |
| 18yd3 | US\$ | 0 | 0 | 60,000 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 | |
| 11yd3 | US\$ | 0 | 0 | 210,000 | 0 | 75,000 | 0 | 0 | 0 | 0 | 210,000 | |
| sub-total | US\$ | 0 | 0 | 21,000 | 0 | 7,500 | 0 | 0 | 0 | 0 | 21,000 | |
| physical contingency | US\$ | 0 | 0 | 231,000 | 0 | 82,500 | 0 | 0 | 0 | 0 | 231,000 | |
| sub-total | US\$ | 0 | 0 | 30,030 | 0 | 10,725 | 0 | 0 | 0 | 0 | 30,030 | |
| VAT | US\$ | 0 | 0 | 261,030 | 0 | 93,225 | 0 | 0 | 0 | 0 | 261,030 | |
| total | US\$ | 0 | 0 | 10,500 | 0 | 3,750 | 0 | 0 | 0 | 0 | 10,500 | |
| design & supervise | US\$ | 0 | 0 | 1,050 | 0 | 375 | 0 | 0 | 0 | 0 | 1,050 | |
| physical contingency | US\$ | 0 | 0 | 11,550 | 0 | 4,125 | 0 | 0 | 0 | 0 | 11,550 | |
| sub-total | US\$ | 0 | 0 | 1,502 | 0 | 536 | 0 | 0 | 0 | 0 | 1,502 | |
| VAT | US\$ | 0 | 0 | 13,052 | 0 | 4,661 | 0 | 0 | 0 | 0 | 13,052 | |
| total | US\$ | 0 | 0 | 274,082 | 0 | 97,886 | 0 | 0 | 0 | 0 | 274,082 | 646 |
| total investment | 1000US\$ | 0 | 0 | 274 | 0 | 98 | 0 | 0 | 0 | 0 | 274 | |
| O&M cost | | | | | | | | | | | | |
| personnel cost | US\$ | 33,532 | 35,395 | 35,395 | 37,258 | 46,573 | 48,435 | 50,298 | 50,298 | 52,161 | 54,024 | |
| 18yd3 | US\$ | 5,988 | 5,988 | 7,486 | 7,486 | 8,983 | 8,983 | 8,983 | 8,983 | 10,480 | 10,480 | |
| 11yd3 | US\$ | 39,520 | 41,383 | 42,881 | 44,744 | 55,556 | 57,418 | 59,281 | 59,281 | 62,641 | 64,504 | |
| sub-total | US\$ | 3,952 | 4,138 | 4,288 | 4,474 | 5,556 | 5,742 | 5,928 | 5,928 | 6,264 | 6,450 | |
| physical contingency | US\$ | 43,472 | 45,521 | 47,169 | 49,218 | 61,112 | 63,160 | 65,209 | 65,209 | 68,905 | 70,954 | |
| personnel cost total | US\$ | 1,669 | 1,761 | 1,761 | 1,854 | 5,445 | 5,663 | 5,881 | 5,881 | 6,098 | 6,316 | |
| operation cost | US\$ | 307 | 307 | 384 | 384 | 1,086 | 1,086 | 1,086 | 1,086 | 1,267 | 1,267 | |
| fuel 18yd3 (2001-2004) | US\$ | 1,976 | 2,068 | 2,145 | 2,238 | 6,531 | 6,749 | 6,967 | 6,967 | 7,365 | 7,583 | |
| fuel 11yd3 (2001-2004) | US\$ | 198 | 207 | 215 | 224 | 653 | 675 | 697 | 697 | 737 | 758 | |
| fuel 18yd3 (2005-2010) | US\$ | 2,174 | 2,275 | 2,360 | 2,462 | 7,184 | 7,424 | 7,664 | 7,664 | 8,102 | 8,341 | |
| fuel 11yd3 (2005-2010) | US\$ | 217 | 228 | 236 | 246 | 718 | 742 | 766 | 766 | 810 | 834 | |
| sub-total | US\$ | 2,391 | 2,503 | 2,596 | 2,708 | 7,902 | 8,166 | 8,430 | 8,430 | 8,912 | 9,175 | |
| physical contingency | US\$ | 311 | 325 | 337 | 352 | 1,027 | 1,062 | 1,096 | 1,096 | 1,159 | 1,193 | |
| sub-total | US\$ | 2,702 | 2,828 | 2,933 | 3,060 | 8,929 | 9,228 | 9,526 | 9,526 | 10,071 | 10,368 | |
| VAT | US\$ | 20,250 | 21,375 | 21,375 | 22,500 | 28,125 | 29,250 | 30,375 | 30,375 | 31,500 | 32,625 | |
| operation cost total | US\$ | 3,600 | 3,600 | 4,500 | 4,500 | 5,400 | 5,400 | 5,400 | 5,400 | 6,300 | 6,300 | |
| total | US\$ | 23,850 | 24,975 | 25,875 | 27,000 | 33,525 | 34,650 | 35,775 | 35,775 | 37,800 | 38,925 | |
| maintenance cost | US\$ | | | | | | | | | | | |
| 18yd3 | US\$ | | | | | | | | | | | |
| 11yd3 | US\$ | | | | | | | | | | | |
| sub-total | US\$ | | | | | | | | | | | |

| San Martin | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|-------|
| physical contingency | 10 % | 2,385 | 2,498 | 2,588 | 2,700 | 3,353 | 3,465 | 3,578 | 3,578 | 3,780 | 3,893 | |
| sub-total | | 26,235 | 27,473 | 28,463 | 29,700 | 36,878 | 38,115 | 39,353 | 39,353 | 41,580 | 42,818 | |
| VAT | 13 % | 3,411 | 3,571 | 3,700 | 3,861 | 4,794 | 4,955 | 5,116 | 5,116 | 5,405 | 5,566 | |
| maintenance cost total | | 29,646 | 31,044 | 32,163 | 33,561 | 41,672 | 43,070 | 44,469 | 44,469 | 46,985 | 48,384 | |
| O&M cost total | | 75,820 | 79,393 | 82,265 | 85,839 | 111,713 | 115,458 | 119,204 | 119,204 | 125,961 | 129,706 | 1,044 |
| | 1000US\$ | 76 | 79 | 82 | 86 | 112 | 115 | 119 | 119 | 126 | 130 | |
| Cost summary | | | | | | | | | | | | Total |
| collection amount 365-base | ton/day | 25.0 | 25.7 | 26.5 | 27.2 | 27.9 | 28.7 | 29.4 | 30.0 | 30.7 | 31.4 | |
| collection amount | 1000ton/year | 9 | 9 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 | 102 |
| Investment | 1000US\$/year | 0 | 0 | 274 | 0 | 98 | 0 | 0 | 0 | 0 | 274 | 646 |
| O&M | 1000US\$/year | 76 | 79 | 82 | 86 | 112 | 115 | 119 | 119 | 126 | 130 | 1,044 |
| total | 1000US\$/year | 76 | 79 | 356 | 86 | 210 | 115 | 119 | 119 | 126 | 404 | 1,690 |
| Investment per ton | US\$/ton | 0.00 | 0.00 | 27.40 | 0.00 | 9.80 | 0.00 | 0.00 | 0.00 | 0.00 | 24.91 | 6.33 |
| O&M per ton | US\$/ton | 8.44 | 8.78 | 8.20 | 8.60 | 11.20 | 11.50 | 10.82 | 10.82 | 11.45 | 11.82 | 10.24 |
| total | US\$/ton | 8.44 | 8.78 | 35.60 | 8.60 | 21.00 | 11.50 | 10.82 | 10.82 | 11.45 | 36.73 | 16.57 |

Apopa

| Apopa | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------|------|------|------|------|------|------|------|------|------|------|-------|
| collection amount 365-base | ton/day | 47.0 | 48.5 | 49.9 | 51.3 | 52.7 | 54.0 | 55.3 | 56.6 | 57.9 | 59.2 | |
| collection amount 312-base | ton/day | 55.0 | 56.7 | 58.4 | 60.0 | 61.7 | 63.2 | 64.7 | 66.2 | 67.7 | 69.3 | |
| amount for 18yd3 | ton/day | 46.8 | 48.2 | 49.6 | 51.0 | 52.4 | 53.7 | 55.0 | 56.3 | 57.5 | 58.9 | |
| amount for 11yd3 | ton/day | 8.3 | 8.5 | 8.8 | 9.0 | 9.3 | 9.5 | 9.7 | 9.9 | 10.2 | 10.4 | |
| required number of vehicle (1) | | | | | | | | | | | | |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2010) | unit | 3.9 | 4.0 | 4.1 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 4.9 | |
| 11yd3 (2001-2010) | unit | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | |
| required number of vehicle (2) | | | | | | | | | | | | |
| 18yd3 | unit | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | |
| 11yd3 | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| operatable vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 4 | 4 | 0 | 4 | 4 | 4 | 5 | 5 | 5 | 1 | |
| 11yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| purchase of vehicle | | | | | | | | | | | | |
| 18yd3 | unit | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | |
| 11yd3 | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |

| Apopa Cost | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|------------------------|--------------------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| Investment | | | | | | | | | | | | |
| Vehicle | | | | | | | | | | | | |
| 18yd3 | US\$ 75,000 US\$/vehicle | 0 | 0 | 300,000 | 0 | 0 | 75,000 | 0 | 0 | 0 | 300,000 | |
| 11yd3 | US\$ 60,000 US\$/vehicle | 0 | 0 | 60,000 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 | |
| sub-total | | 0 | 0 | 360,000 | 0 | 0 | 75,000 | 0 | 0 | 0 | 360,000 | |
| physical contingency | 10 % | 0 | 0 | 36,000 | 0 | 0 | 7,500 | 0 | 0 | 0 | 36,000 | |
| sub-total | | 0 | 0 | 396,000 | 0 | 0 | 82,500 | 0 | 0 | 0 | 396,000 | |
| VAT | 13 % | 0 | 0 | 51,480 | 0 | 0 | 10,725 | 0 | 0 | 0 | 51,480 | |
| total | | 0 | 0 | 447,480 | 0 | 0 | 93,225 | 0 | 0 | 0 | 447,480 | |
| design & supervise | 5 % | 0 | 0 | 18,000 | 0 | 0 | 3,750 | 0 | 0 | 0 | 18,000 | |
| physical contingency | 10 % | 0 | 0 | 1,800 | 0 | 0 | 375 | 0 | 0 | 0 | 1,800 | |
| sub-total | | 0 | 0 | 19,800 | 0 | 0 | 4,125 | 0 | 0 | 0 | 19,800 | |
| VAT | 13 % | 0 | 0 | 2,574 | 0 | 0 | 536 | 0 | 0 | 0 | 2,574 | |
| total | | 0 | 0 | 22,374 | 0 | 0 | 4,661 | 0 | 0 | 0 | 22,374 | |
| total investment | | 0 | 0 | 469,854 | 0 | 0 | 97,886 | 0 | 0 | 0 | 469,854 | 1,038 |
| | 1000US\$ | 0 | 0 | 470 | 0 | 0 | 98 | 0 | 0 | 0 | 470 | |
| O&M cost | | | | | | | | | | | | |
| personnel cost | | | | | | | | | | | | |
| 18yd3 | US\$ 18,629 US\$/vehicle | 72,653 | 74,516 | 76,379 | 80,105 | 81,968 | 83,831 | 85,693 | 87,556 | 89,419 | 91,282 | |
| 11yd3 | US\$ 14,971 US\$/vehicle | 13,474 | 13,474 | 14,971 | 14,971 | 14,971 | 14,971 | 16,468 | 16,468 | 16,468 | 16,468 | |
| sub-total | | 86,127 | 87,990 | 91,350 | 95,076 | 96,939 | 98,802 | 102,161 | 104,024 | 105,887 | 107,750 | |
| physical contingency | 10 % | 8,613 | 8,799 | 9,135 | 9,508 | 9,694 | 9,880 | 10,216 | 10,402 | 10,589 | 10,775 | |
| personnel cost total | | 94,740 | 96,789 | 100,485 | 104,584 | 106,633 | 108,682 | 112,377 | 114,426 | 116,476 | 118,525 | |
| operation cost | | | | | | | | | | | | |
| fuel 18yd3 (2001-2010) | US\$ 1,704 US\$/vehicle | 6,646 | 6,816 | 6,986 | 7,327 | 7,498 | 7,668 | 7,838 | 8,009 | 8,179 | 8,350 | |
| fuel 11yd3 (2001-2010) | US\$ 1,413 US\$/vehicle | 1,272 | 1,272 | 1,413 | 1,413 | 1,413 | 1,413 | 1,554 | 1,554 | 1,554 | 1,554 | |
| fuel total | | 7,918 | 8,088 | 8,399 | 8,740 | 8,911 | 9,081 | 9,392 | 9,563 | 9,733 | 9,904 | |
| oil | 10 % of fuel | 792 | 809 | 840 | 874 | 891 | 908 | 939 | 956 | 973 | 990 | |
| sub-total | | 8,710 | 8,897 | 9,239 | 9,614 | 9,802 | 9,989 | 10,331 | 10,519 | 10,706 | 10,894 | |
| physical contingency | 10 % | 871 | 890 | 924 | 961 | 980 | 999 | 1,033 | 1,052 | 1,071 | 1,089 | |
| sub-total | | 9,581 | 9,787 | 10,163 | 10,575 | 10,782 | 10,988 | 11,364 | 11,571 | 11,777 | 11,983 | |
| VAT | 13 % | 1,246 | 1,272 | 1,321 | 1,375 | 1,402 | 1,428 | 1,477 | 1,504 | 1,531 | 1,558 | |
| operation cost total | | 10,827 | 11,059 | 11,484 | 11,950 | 12,184 | 12,416 | 12,841 | 13,075 | 13,308 | 13,541 | |
| maintenance cost | | | | | | | | | | | | |
| 18yd3 | US\$ 15 % of vehicle | 43,875 | 45,000 | 46,125 | 48,375 | 49,500 | 50,625 | 51,750 | 52,875 | 54,000 | 55,125 | |
| 11yd3 | US\$ 15 % of vehicle | 8,100 | 8,100 | 9,000 | 9,000 | 9,000 | 9,000 | 9,900 | 9,900 | 9,900 | 9,900 | |
| sub-total | | 51,975 | 53,100 | 55,125 | 57,375 | 58,500 | 59,625 | 61,650 | 62,775 | 63,900 | 65,025 | |

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Apopa | | | | | | | | | | | | |
| physical contingency | 10 % | | | | | | | | | | | |
| sub-total | US\$ | 5,198 | 5,310 | 5,513 | 5,738 | 5,850 | 5,963 | 6,165 | 6,278 | 6,390 | 6,503 | 6,503 |
| VAT | US\$ | 57,173 | 58,410 | 60,638 | 63,113 | 64,350 | 65,588 | 67,815 | 69,053 | 70,290 | 71,528 | 71,528 |
| maintenance cost total | US\$ | 7,432 | 7,593 | 7,883 | 8,205 | 8,366 | 8,526 | 8,816 | 8,977 | 9,138 | 9,299 | 9,299 |
| | US\$ | 64,605 | 66,003 | 68,521 | 71,318 | 72,716 | 74,114 | 76,631 | 78,030 | 79,428 | 80,827 | 80,827 |
| O&M cost total | US\$ | 170,172 | 173,851 | 180,490 | 187,852 | 191,533 | 195,212 | 201,849 | 205,531 | 209,212 | 212,893 | 212,893 |
| | 1000US\$ | 170 | 174 | 180 | 188 | 192 | 195 | 202 | 206 | 209 | 213 | 1,929 |
| Cost summary | ton/day | 47.0 | 48.5 | 49.9 | 51.3 | 52.7 | 54.0 | 55.3 | 56.6 | 57.9 | 59.2 | Total |
| collection amount 365-base | 1000ton/year | 17 | 18 | 18 | 19 | 19 | 20 | 20 | 21 | 21 | 22 | 195 |
| collection amount | 1000US\$/year | 0 | 0 | 470 | 0 | 0 | 98 | 0 | 0 | 0 | 470 | 1,038 |
| Investment | 1000US\$/year | 170 | 174 | 180 | 188 | 192 | 195 | 202 | 206 | 209 | 213 | 1,929 |
| O&M | 1000US\$/year | 170 | 174 | 650 | 188 | 192 | 293 | 202 | 206 | 209 | 683 | 2,967 |
| total | US\$/ton | 0.00 | 0.00 | 26.11 | 0.00 | 0.00 | 4.90 | 0.00 | 0.00 | 0.00 | 21.36 | 5.32 |
| Investment per ton | US\$/ton | 10.00 | 9.67 | 10.00 | 9.89 | 10.11 | 9.75 | 10.10 | 9.81 | 9.95 | 9.68 | 9.89 |
| O&M per ton | US\$/ton | 10.00 | 9.67 | 36.11 | 9.89 | 10.11 | 14.65 | 10.10 | 9.81 | 9.95 | 31.04 | 15.21 |

Nejapa

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------|------|------|------|------|------|------|------|------|------|------|-------|
| Nejapa | | | | | | | | | | | | |
| collection amount 365-base | ton/day | 4.9 | 5.1 | 5.2 | 5.4 | 5.5 | 5.7 | 5.8 | 5.9 | 6.1 | 6.2 | 6.2 |
| collection amount 312-base | ton/day | 5.7 | 6.0 | 6.1 | 6.3 | 6.4 | 6.7 | 6.8 | 6.9 | 7.1 | 7.3 | 7.3 |
| amount for 18yd3 | ton/day | 4.8 | 5.1 | 5.2 | 5.4 | 5.4 | 5.7 | 5.8 | 5.9 | 6.0 | 6.2 | 6.2 |
| amount for 11yd3 | ton/day | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 |
| required number of vehicle (1) | unit | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| net working rate | unit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 18yd3 (2001-2010) | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 11yd3 (2001-2010) | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| required number of vehicle (2) | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 18yd3 | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11yd3 | unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| operable vehicle | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 18yd3 | unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |

| Nejapa | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|------------------------|----------|--------|--------|---------|--------|--------|--------|--------|--------|--------|---------|---------|
| purchase of vehicle | unit | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18yd3 | unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 11yd3 | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |
| Vehicle | US\$ | 0 | 0 | 75,000 | 0 | 0 | 0 | 0 | 0 | 0 | 75,000 | 75,000 |
| 18yd3 | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11yd3 | US\$ | 0 | 0 | 75,000 | 0 | 0 | 0 | 0 | 0 | 0 | 75,000 | 75,000 |
| sub-total | US\$ | 0 | 0 | 75,000 | 0 | 0 | 0 | 0 | 0 | 0 | 75,000 | 75,000 |
| physical contingency | US\$ | 0 | 0 | 82,500 | 0 | 0 | 0 | 0 | 0 | 0 | 82,500 | 82,500 |
| sub-total | US\$ | 0 | 0 | 10,725 | 0 | 0 | 0 | 0 | 0 | 0 | 10,725 | 10,725 |
| VAT | US\$ | 0 | 0 | 93,225 | 0 | 0 | 0 | 0 | 0 | 0 | 93,225 | 93,225 |
| total | US\$ | 0 | 0 | 178,725 | 0 | 0 | 0 | 0 | 0 | 0 | 178,725 | 178,725 |
| design & supervise | US\$ | 0 | 0 | 3,750 | 0 | 0 | 0 | 0 | 0 | 0 | 3,750 | 3,750 |
| physical contingency | US\$ | 0 | 0 | 375 | 0 | 0 | 0 | 0 | 0 | 0 | 375 | 375 |
| sub-total | US\$ | 0 | 0 | 4,125 | 0 | 0 | 0 | 0 | 0 | 0 | 4,125 | 4,125 |
| VAT | US\$ | 0 | 0 | 536 | 0 | 0 | 0 | 0 | 0 | 0 | 536 | 536 |
| total | US\$ | 0 | 0 | 4,661 | 0 | 0 | 0 | 0 | 0 | 0 | 4,661 | 4,661 |
| total investment | US\$ | 0 | 0 | 183,386 | 0 | 0 | 0 | 0 | 0 | 0 | 183,386 | 183,386 |
| | 1000US\$ | 0 | 0 | 183 | 0 | 0 | 0 | 0 | 0 | 0 | 183 | 183 |
| O&M cost | | | | | | | | | | | | |
| personnel cost | US\$ | 7,452 | 7,452 | 7,452 | 7,452 | 7,452 | 7,452 | 9,315 | 9,315 | 9,315 | 9,315 | 9,315 |
| 18yd3 | US\$ | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 | 1,497 |
| 11yd3 | US\$ | 8,949 | 8,949 | 8,949 | 8,949 | 8,949 | 8,949 | 10,812 | 10,812 | 10,812 | 10,812 | 10,812 |
| sub-total | US\$ | 895 | 895 | 895 | 895 | 895 | 895 | 1,081 | 1,081 | 1,081 | 1,081 | 1,081 |
| physical contingency | US\$ | 9,844 | 9,844 | 9,844 | 9,844 | 9,844 | 9,844 | 11,893 | 11,893 | 11,893 | 11,893 | 11,893 |
| personnel cost total | US\$ | 17,296 | 17,296 | 17,296 | 17,296 | 17,296 | 17,296 | 21,208 | 21,208 | 21,208 | 21,208 | 21,208 |
| operation cost | US\$ | 560 | 560 | 560 | 560 | 560 | 560 | 701 | 701 | 701 | 701 | 701 |
| fuel 18yd3 (2001-2010) | US\$ | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| fuel 11yd3 (2001-2010) | US\$ | 676 | 676 | 676 | 676 | 676 | 676 | 817 | 817 | 817 | 817 | 817 |
| oil | US\$ | 68 | 68 | 68 | 68 | 68 | 68 | 82 | 82 | 82 | 82 | 82 |
| sub-total | US\$ | 744 | 744 | 744 | 744 | 744 | 744 | 899 | 899 | 899 | 899 | 899 |
| physical contingency | US\$ | 74 | 74 | 74 | 74 | 74 | 74 | 90 | 90 | 90 | 90 | 90 |
| sub-total | US\$ | 818 | 818 | 818 | 818 | 818 | 818 | 989 | 989 | 989 | 989 | 989 |
| VAT | US\$ | 106 | 106 | 106 | 106 | 106 | 106 | 129 | 129 | 129 | 129 | 129 |
| operation cost total | US\$ | 924 | 924 | 924 | 924 | 924 | 924 | 1,118 | 1,118 | 1,118 | 1,118 | 1,118 |
| | 1000US\$ | 924 | 924 | 924 | 924 | 924 | 924 | 1118 | 1118 | 1118 | 1118 | 1118 |
| Total | | | | | | | | | | | | |
| total investment | US\$ | 0 | 0 | 183,386 | 0 | 0 | 0 | 0 | 0 | 0 | 183,386 | 183,386 |
| O&M cost | US\$ | 17,296 | 17,296 | 17,296 | 17,296 | 17,296 | 17,296 | 21,208 | 21,208 | 21,208 | 21,208 | 21,208 |
| total | US\$ | 17,296 | 17,296 | 200,682 | 17,296 | 17,296 | 17,296 | 21,208 | 21,208 | 21,208 | 204,594 | 204,594 |
| | 1000US\$ | 17 | 17 | 200 | 17 | 17 | 17 | 21 | 21 | 21 | 204 | 204 |

| Nejapa | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|------------------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| maintenance cost | 15 % of vehicle | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 5,625 | 5,625 | 5,625 | 5,625 | 5,625 |
| | 15 % of vehicle | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| physical contingency | 10 % | 5,400 | 5,400 | 5,400 | 5,400 | 5,400 | 5,400 | 6,525 | 6,525 | 6,525 | 6,525 | 6,525 |
| | 13 % | 540 | 540 | 540 | 540 | 540 | 540 | 653 | 653 | 653 | 653 | 653 |
| maintenance cost total | | 5,940 | 5,940 | 5,940 | 5,940 | 5,940 | 5,940 | 7,178 | 7,178 | 7,178 | 7,178 | 7,178 |
| | | 772 | 772 | 772 | 772 | 772 | 772 | 933 | 933 | 933 | 933 | 933 |
| | | 6,712 | 6,712 | 6,712 | 6,712 | 6,712 | 6,712 | 8,111 | 8,111 | 8,111 | 8,111 | 8,111 |
| O&M cost total | | 17,480 | 17,480 | 17,480 | 17,480 | 17,480 | 17,480 | 21,122 | 21,122 | 21,122 | 21,122 | 21,122 |
| | | 17 | 17 | 17 | 17 | 17 | 17 | 21 | 21 | 21 | 21 | 21 |
| Cost summary | | | | | | | | | | | | |
| | collection amount 365-base | 4.9 | 5.1 | 5.2 | 5.4 | 5.5 | 5.7 | 5.8 | 5.9 | 6.1 | 6.2 | 6.2 |
| collection amount | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 20 |
| Investment | | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 98 |
| | O&M | 17 | 17 | 17 | 17 | 17 | 17 | 21 | 21 | 21 | 21 | 21 |
| total | | 17 | 17 | 115 | 17 | 17 | 17 | 21 | 21 | 21 | 119 | 382 |
| Investment per ton | | 0.00 | 0.00 | 49.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 49.00 | 9.80 |
| | O&M per ton | 8.50 | 8.50 | 8.50 | 8.50 | 8.50 | 8.50 | 10.50 | 10.50 | 10.50 | 10.50 | 9.30 |
| total | | 8.50 | 8.50 | 57.50 | 8.50 | 8.50 | 8.50 | 10.50 | 10.50 | 10.50 | 59.50 | 19.10 |

Tonacatepeque

| Tonacatepeque | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|-------|
| collection amount 365-base | ton/day | 21.7 | 22.4 | 23.0 | 23.7 | 24.3 | 24.9 | 25.5 | 26.1 | 26.7 | 27.3 | 27.3 |
| collection amount 312-base | ton/day | 25.4 | 26.2 | 26.9 | 27.7 | 28.4 | 29.1 | 29.8 | 30.5 | 31.2 | 31.9 | 31.9 |
| amount for 18yd3 | ton/day | 21.6 | 22.3 | 22.9 | 23.5 | 24.1 | 24.7 | 25.3 | 25.9 | 26.5 | 27.1 | 27.1 |
| amount for 11yd3 | ton/day | 3.8 | 3.9 | 4.0 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 4.8 |
| required number of vehicle (1) | | | | | | | | | | | | |
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 (2001-2004) | 15.3 ton/day | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 |
| 11yd3 (2001-2004) | 11.6 ton/day | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| 18yd3 (2005-2010) | 14.7 ton/day | | | | | | | | | | | |

| Tonacatepeque | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|----------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|---------|
| 11yd3 (2005-2010) | unit | | | | | | | | | | | |
| required number of vehicle (2) | unit | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| operatable vehicle | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | |
| | unit | | | | | | | | | | | |
| purchase of vehicle | unit | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| | unit | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |
| Vehicle | US\$ | 0 | 0 | 150,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150,000 |
| 18yd3 | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 | 0 | 0 | 60,000 |
| 11yd3 | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60,000 | 0 | 0 | 60,000 |
| sub-total | US\$ | 0 | 0 | 150,000 | 0 | 0 | 0 | 0 | 6,000 | 0 | 0 | 15,000 |
| physical contingency | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66,000 | 0 | 0 | 165,000 |
| sub-total | US\$ | 0 | 0 | 165,000 | 0 | 0 | 0 | 0 | 8,580 | 0 | 0 | 21,450 |
| VAT | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74,580 | 0 | 0 | 186,450 |
| total | US\$ | 0 | 0 | 186,450 | 0 | 0 | 0 | 0 | 3,000 | 0 | 0 | 7,500 |
| design & supervise | US\$ | 0 | 0 | 7,500 | 0 | 0 | 0 | 0 | 300 | 0 | 0 | 750 |
| physical contingency | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,300 | 0 | 0 | 8,250 |
| sub-total | US\$ | 0 | 0 | 8,250 | 0 | 0 | 0 | 0 | 429 | 0 | 0 | 1,073 |
| VAT | US\$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,729 | 0 | 0 | 9,323 |
| total | US\$ | 0 | 0 | 9,323 | 0 | 0 | 0 | 0 | 78,309 | 0 | 0 | 195,773 |
| total investment | US\$ | 0 | 0 | 195,773 | 0 | 0 | 0 | 0 | 78 | 0 | 0 | 196 |
| | 1000US\$ | 0 | 0 | 196 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 470 |
| O&M cost | | | | | | | | | | | | |
| personnel cost | US\$ | 29,806 | 29,806 | 31,669 | 31,669 | 33,532 | 35,395 | 35,395 | 37,258 | 37,258 | 37,258 | |
| 18yd3 | US\$ | 5,988 | 5,988 | 5,988 | 5,988 | 5,988 | 5,988 | 5,988 | 7,486 | 7,486 | 7,486 | |
| 11yd3 | US\$ | 35,794 | 35,794 | 37,657 | 37,657 | 39,520 | 41,383 | 41,383 | 44,744 | 44,744 | 44,744 | |
| sub-total | US\$ | 3,579 | 3,579 | 3,766 | 3,766 | 3,952 | 4,138 | 4,138 | 4,474 | 4,474 | 4,474 | |
| physical contingency | US\$ | 39,373 | 39,373 | 41,423 | 41,423 | 43,472 | 45,521 | 45,521 | 49,218 | 49,218 | 49,218 | |
| personnel cost total | US\$ | 1,483 | 1,483 | 1,576 | 1,576 | 2,077 | 2,193 | 2,193 | 2,308 | 2,308 | 2,308 | |
| operation cost | US\$ | 307 | 307 | 307 | 307 | 382 | 382 | 382 | 478 | 478 | 478 | |
| fuel 18yd3 (2001-2004) | US\$ | | | | | | | | | | | |
| fuel 11yd3 (2001-2004) | US\$ | | | | | | | | | | | |
| fuel 18yd3 (2001-2004) | US\$ | | | | | | | | | | | |
| fuel 11yd3 (2001-2004) | US\$ | | | | | | | | | | | |

| Tonacatepeque | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| fuel total | US\$ | 1,790 | 1,790 | 1,883 | 1,883 | 2,459 | 2,575 | 2,575 | 2,786 | 2,786 | 2,786 | 2,786 |
| oil | US\$ | 179 | 179 | 188 | 188 | 246 | 258 | 258 | 279 | 279 | 279 | 279 |
| sub-total | US\$ | 1,969 | 1,969 | 2,071 | 2,071 | 2,705 | 2,833 | 2,833 | 3,065 | 3,065 | 3,065 | 3,065 |
| physical contingency | US\$ | 197 | 197 | 207 | 207 | 271 | 283 | 283 | 307 | 307 | 307 | 307 |
| sub-total | US\$ | 2,166 | 2,166 | 2,278 | 2,278 | 2,976 | 3,116 | 3,116 | 3,372 | 3,372 | 3,372 | 3,372 |
| VAT | US\$ | 282 | 282 | 296 | 296 | 387 | 405 | 405 | 438 | 438 | 438 | 438 |
| operation cost total | US\$ | 2,448 | 2,448 | 2,574 | 2,574 | 3,363 | 3,521 | 3,521 | 3,810 | 3,810 | 3,810 | 3,810 |
| maintenance cost | US\$ | 18,000 | 18,000 | 19,125 | 19,125 | 20,250 | 21,375 | 21,375 | 22,500 | 22,500 | 22,500 | 22,500 |
| 18yd3 | US\$ | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 3,600 | 4,500 | 4,500 | 4,500 | 4,500 |
| 11yd3 | US\$ | 21,600 | 21,600 | 22,725 | 22,725 | 23,850 | 24,975 | 24,975 | 27,000 | 27,000 | 27,000 | 27,000 |
| sub-total | US\$ | 2,160 | 2,160 | 2,273 | 2,273 | 2,385 | 2,498 | 2,498 | 2,700 | 2,700 | 2,700 | 2,700 |
| physical contingency | US\$ | 23,760 | 23,760 | 24,998 | 24,998 | 26,235 | 27,473 | 27,473 | 29,700 | 29,700 | 29,700 | 29,700 |
| sub-total | US\$ | 3,089 | 3,089 | 3,250 | 3,250 | 3,411 | 3,571 | 3,571 | 3,861 | 3,861 | 3,861 | 3,861 |
| VAT | US\$ | 26,849 | 26,849 | 28,248 | 28,248 | 29,646 | 31,044 | 31,044 | 33,561 | 33,561 | 33,561 | 33,561 |
| maintenance cost total | US\$ | 68,670 | 68,670 | 72,245 | 72,245 | 76,481 | 80,086 | 80,086 | 86,589 | 86,589 | 86,589 | 86,589 |
| O&M cost total | 1000US\$ | 69 | 69 | 72 | 72 | 76 | 80 | 80 | 87 | 87 | 87 | 87 |
| Cost summary | ton/day | 21.7 | 22.4 | 23.0 | 23.7 | 24.3 | 24.9 | 25.5 | 26.1 | 26.7 | 27.3 | Total |
| collection amount 365-base | 1000ton/year | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 10 | 10 | 10 | 90 |
| collection amount | 1000US\$/year | 0 | 0 | 196 | 0 | 0 | 0 | 0 | 78 | 0 | 196 | 470 |
| Investment | 1000US\$/year | 69 | 69 | 72 | 72 | 76 | 80 | 80 | 87 | 87 | 87 | 779 |
| O&M | 1000US\$/year | 69 | 69 | 69 | 72 | 76 | 80 | 80 | 87 | 87 | 87 | 779 |
| total | 1000US\$/year | 69 | 69 | 268 | 72 | 76 | 80 | 80 | 165 | 87 | 283 | 1,249 |
| Investment per ton | US\$/ton | 0.00 | 0.00 | 24.50 | 0.00 | 0.00 | 0.00 | 0.00 | 7.80 | 0.00 | 19.60 | 5.22 |
| O&M per ton | US\$/ton | 8.63 | 8.63 | 9.00 | 8.00 | 8.44 | 8.89 | 8.89 | 8.70 | 8.70 | 8.70 | 8.66 |
| total | US\$/ton | 8.63 | 8.63 | 33.50 | 8.00 | 8.44 | 8.89 | 8.89 | 16.50 | 8.70 | 28.30 | 13.88 |

Total

| year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| collection amount 365-base | ton/day | 1069.9 | 1109.5 | 1149.0 | 1187.6 | 1225.9 | 1264.0 | 1301.0 | 1337.7 | 1374.6 | 1412.0 |
| collection amount 312-base | ton/day | 1291.7 | 1297.8 | 1344.1 | 1389.4 | 1434.0 | 1478.8 | 1522.0 | 1564.8 | 1607.9 | 1652.0 |
| amount for 18yd3 | ton/day | 1064.0 | 1103.1 | 1142.6 | 1181.0 | 1218.7 | 1256.9 | 1293.7 | 1330.2 | 1366.8 | 1404.3 |
| amount for 11yd3 | ton/day | 187.9 | 194.7 | 201.7 | 208.5 | 215.3 | 222.0 | 228.4 | 234.7 | 241.3 | 247.8 |
| required number of vehicle (1) | | | | | | | | | | | |

| Total | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
| net working rate | 90 % | | | | | | | | | | | |
| 18yd3 | ton/day | 117.8 | 122.0 | 126.3 | 119.2 | 97.9 | 101.0 | 104.0 | 106.9 | 109.8 | 113.0 | |
| 11yd3 | ton/day | 27.3 | 28.1 | 29.4 | 27.6 | 22.8 | 23.4 | 24.1 | 24.8 | 25.6 | 26.1 | |
| required number of vehicle (2) | | | | | | | | | | | | |
| 18yd3 | | 119 | 121 | 128 | 120 | 101 | 103 | 105 | 108 | 111 | 114 | |
| 11yd3 | | 27 | 28 | 30 | 28 | 24 | 25 | 25 | 27 | 27 | 27 | |
| operatable vehicle | | | | | | | | | | | | |
| 18yd3 | | 81 | 98 | 18 | 96 | 96 | 101 | 103 | 87 | 108 | 33 | |
| 11yd3 | | 20 | 27 | 7 | 24 | 24 | 24 | 25 | 18 | 27 | 10 | |
| purchase of vehicle | | | | | | | | | | | | |
| 18yd3 | | 18 | 0 | 78 | 0 | 5 | 2 | 2 | 21 | 3 | 81 | |
| 11yd3 | | 7 | 0 | 17 | 0 | 0 | 1 | 0 | 9 | 0 | 17 | |
| Cost | | | | | | | | | | | | |
| Investment | | | | | | | | | | | | |
| Vehicle | | | | | | | | | | | | |
| 18yd3 | 75,000 US\$/vehicle | 1,350,000 | 0 | 5,850,000 | 0 | 375,000 | 150,000 | 150,000 | 1,575,000 | 225,000 | 6,075,000 | |
| 11yd3 | 60,000 US\$/vehicle | 420,000 | 0 | 1,020,000 | 0 | 0 | 60,000 | 0 | 540,000 | 0 | 1,020,000 | |
| sub-total | | 1,770,000 | 0 | 6,870,000 | 0 | 375,000 | 210,000 | 150,000 | 2,115,000 | 225,000 | 7,095,000 | |
| physical contingency | 10 % | 177,000 | 0 | 687,000 | 0 | 37,500 | 21,000 | 15,000 | 211,500 | 22,500 | 709,500 | |
| sub-total | | 1,947,000 | 0 | 7,557,000 | 0 | 412,500 | 231,000 | 165,000 | 2,326,500 | 247,500 | 7,804,500 | |
| VAT | 13 % | 253,110 | 0 | 982,410 | 0 | 53,625 | 30,030 | 21,450 | 302,445 | 32,175 | 1,014,585 | |
| total | | 2,200,110 | 0 | 8,539,410 | 0 | 466,125 | 261,030 | 186,450 | 2,628,945 | 279,675 | 8,819,085 | |
| design & supervise | 5 % | 88,500 | 0 | 343,500 | 0 | 18,750 | 10,500 | 7,500 | 105,750 | 11,250 | 354,750 | |
| physical contingency | 10 % | 8,850 | 0 | 34,350 | 0 | 1,875 | 1,050 | 750 | 10,575 | 1,125 | 35,475 | |
| sub-total | | 97,350 | 0 | 377,850 | 0 | 20,625 | 11,550 | 8,250 | 116,325 | 12,375 | 390,225 | |
| VAT | 13 % | 12,656 | 0 | 49,124 | 0 | 2,680 | 1,501 | 1,072 | 15,123 | 1,608 | 50,732 | |
| total | | 110,006 | 0 | 426,974 | 0 | 23,305 | 13,051 | 9,322 | 131,448 | 13,983 | 440,957 | |
| total investment | | 2,310,116 | 0 | 8,966,384 | 0 | 489,430 | 274,081 | 195,772 | 2,760,393 | 293,658 | 9,260,042 | |
| | 1000US\$ | 2,311 | 0 | 8,967 | 0 | 490 | 274 | 196 | 2,762 | 294 | 9,261 | 24,555 |
| O&M cost | | | | | | | | | | | | |
| personnel cost | | | | | | | | | | | | |
| 18yd3 | | 2,194,497 | 2,272,740 | 2,352,845 | 2,220,578 | 1,823,781 | 1,881,529 | 1,937,417 | 1,991,441 | 2,045,464 | 2,105,078 | |
| 11yd3 | | 408,708 | 420,685 | 440,148 | 413,200 | 341,340 | 350,323 | 360,802 | 371,283 | 383,259 | 390,744 | |
| sub-total | | 2,603,205 | 2,693,425 | 2,792,993 | 2,633,778 | 2,165,121 | 2,231,852 | 2,298,219 | 2,362,724 | 2,428,723 | 2,495,822 | |
| physical contingency | 10 % | 260,318 | 269,342 | 279,300 | 263,379 | 216,513 | 223,183 | 229,822 | 236,273 | 242,873 | 249,579 | |
| personnel cost total | | 2,863,523 | 2,962,767 | 3,072,293 | 2,897,157 | 2,381,634 | 2,455,035 | 2,528,041 | 2,598,997 | 2,671,596 | 2,745,401 | |
| operation cost | | | | | | | | | | | | |
| fuel 18yd3 | | 352,436 | 365,152 | 378,064 | 320,378 | 156,260 | 161,507 | 166,143 | 170,574 | 175,422 | 180,564 | |
| fuel 11yd3 | | 67,986 | 70,084 | 72,991 | 61,693 | 30,151 | 31,018 | 31,900 | 32,782 | 34,075 | 34,689 | |

Data H

| Total | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
| fuel total | US\$ | 420,422 | 435,236 | 451,055 | 382,071 | 186,411 | 192,525 | 198,043 | 203,356 | 209,497 | 215,253 | |
| oil | US\$ | 42,046 | 43,524 | 45,106 | 38,207 | 18,641 | 19,254 | 19,805 | 20,337 | 20,952 | 21,525 | |
| sub-total | US\$ | 462,468 | 478,760 | 496,161 | 420,278 | 205,052 | 211,779 | 217,848 | 223,693 | 230,449 | 236,778 | |
| physical contingency | US\$ | 46,247 | 47,877 | 49,618 | 42,030 | 20,505 | 21,178 | 21,784 | 22,372 | 23,048 | 23,677 | |
| sub-total | US\$ | 508,715 | 526,637 | 545,779 | 462,308 | 225,557 | 232,957 | 239,632 | 246,065 | 253,497 | 260,455 | |
| VAT | US\$ | 66,133 | 68,464 | 70,950 | 60,099 | 29,322 | 30,284 | 31,151 | 31,987 | 32,955 | 33,859 | |
| operation cost total | US\$ | 574,848 | 595,101 | 616,729 | 522,407 | 254,879 | 263,241 | 270,783 | 278,052 | 286,452 | 294,314 | |
| maintenance cost | US\$ | 1,325,250 | 1,372,500 | 1,420,875 | 1,341,000 | 1,101,375 | 1,136,250 | 1,170,000 | 1,202,625 | 1,235,250 | 1,271,250 | |
| 18yd3 | US\$ | 245,700 | 252,900 | 264,600 | 248,400 | 205,200 | 210,600 | 216,900 | 223,200 | 230,400 | 234,900 | |
| 11yd3 | US\$ | 1,570,950 | 1,625,400 | 1,685,475 | 1,589,400 | 1,306,575 | 1,346,850 | 1,386,900 | 1,425,825 | 1,465,650 | 1,506,150 | |
| sub-total | US\$ | 157,098 | 162,541 | 168,552 | 158,943 | 130,661 | 134,689 | 138,694 | 142,587 | 146,567 | 150,621 | |
| physical contingency | US\$ | 1,728,048 | 1,787,941 | 1,854,027 | 1,748,343 | 1,437,236 | 1,481,539 | 1,525,594 | 1,568,412 | 1,612,217 | 1,656,771 | |
| sub-total | US\$ | 224,646 | 232,431 | 241,023 | 227,285 | 186,840 | 192,599 | 198,328 | 203,894 | 209,589 | 215,381 | |
| VAT | US\$ | 1,952,694 | 2,020,372 | 2,095,050 | 1,975,628 | 1,624,076 | 1,674,138 | 1,723,922 | 1,772,306 | 1,821,806 | 1,872,152 | |
| maintenance cost total | US\$ | 5,391,065 | 5,578,240 | 5,784,072 | 5,395,192 | 4,260,589 | 4,392,414 | 4,522,746 | 4,649,355 | 4,779,854 | 4,911,867 | |
| O&M cost total | 1000US\$ | 5,392 | 5,577 | 5,783 | 5,395 | 4,261 | 4,391 | 4,524 | 4,652 | 4,781 | 4,912 | 49,668 |
| Cost summary | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
| collection amount 365-base | ton/day | 1069.9 | 1109.5 | 1149.0 | 1187.6 | 1225.9 | 1264.0 | 1301.0 | 1337.7 | 1374.6 | 1412.0 | |
| collection amount | 1000ton/year | 391 | 405 | 419 | 433 | 447 | 461 | 475 | 488 | 502 | 515 | 4,536 |
| Investment | 1000US\$/year | 2,311 | 0 | 8,967 | 0 | 490 | 274 | 196 | 2,762 | 294 | 9,261 | 24,555 |
| O&M | 1000US\$/year | 5,392 | 5,577 | 5,783 | 5,395 | 4,261 | 4,391 | 4,524 | 4,652 | 4,781 | 4,912 | 49,668 |
| total | 1000US\$/year | 7,703 | 5,577 | 14,750 | 5,395 | 4,751 | 4,665 | 4,720 | 7,414 | 5,075 | 14,173 | 74,223 |
| Investment per ton | US\$/ton | 5.91 | 0 | 21.4 | 0 | 1.1 | 0.59 | 0.41 | 5.66 | 0.59 | 17.98 | 5.41 |
| O&M per ton | US\$/ton | 13.79 | 13.77 | 13.8 | 12.46 | 9.53 | 9.52 | 9.52 | 9.53 | 9.52 | 9.54 | 10.95 |
| total | US\$/ton | 19.7 | 13.77 | 35.2 | 12.46 | 10.63 | 10.11 | 9.93 | 15.19 | 10.11 | 27.52 | 16.36 |

c. Transfer Stations
Investment cost of transfer stations

| T/S-1 (350ton/day) | | T/S-2 (900ton/day) | | | |
|--|--|--------------------|-----------|--------------------|-----------|
| Item | Item | USD1.00= | | USD1.00= | |
| | | Unit cost colon | US\$ | Unit cost colon | US\$ |
| Amount 1000US\$ | | Amount 1000US\$ | | Amount 1000US\$ | |
| 1. Land acquisition | 1. Land acquisition | 8,000 m2 | 22.86 | 12,500 m2 | 22.86 |
| 2. Construction | 2. Construction | | | | |
| building | building | 2,400 m2 | 285.71 | 3,500 m2 | 285.71 |
| pavement | pavement | 5,000 m2 | 10.29 | 8,000 m2 | 10.29 |
| miscellaneous | miscellaneous | 10 % | | 10 % | |
| sub-total | sub-total | | | | |
| general expense | general expense | 30 % | | 30 % | |
| construction cost | construction cost | | | | |
| physical contingency | physical contingency | 10 % | | 10 % | |
| sub-total | sub-total | | | | |
| VAT | VAT | 13 % | | 13 % | |
| total | total | | 183 | | 286 |
| total | total | | 1,310 | | 1,923 |
| 3. Equipment | 3. Equipment | | | | |
| weighbridge 60ton | weighbridge 60ton | 2 unit | 60,000.00 | 2 unit | 60,000.00 |
| hopper | hopper | 3 unit | 4,571.43 | 9 unit | 4,571.43 |
| electric facilities (light, fan, etc.) | electric facilities (light, fan, etc.) | 1 | 10,285.71 | 1 | 10,285.71 |
| miscellaneous | miscellaneous | 10 % | | 10 % | |
| sub-total | sub-total | | | | |
| general expense | general expense | 30 % | | 30 % | |
| equipment cost | equipment cost | | | | |
| physical contingency | physical contingency | 10 % | | 10 % | |
| sub-total | sub-total | | | | |
| VAT | VAT | 13 % | | 13 % | |
| total | total | | 255 | | 303 |
| 4. EIA, design and supervision | 4. Design and supervision | | | | |
| EIA, design and supervision | design and supervision | 10 % | | 10 % | |
| physical contingency | physical contingency | 10 % | | 10 % | |
| sub-total | sub-total | | | | |
| VAT | VAT | 13 % | | 13 % | |
| total | total | | 157 | | 223 |

O&M cost of transfer station

Basic conditions

| | | |
|---------------------------|---------------------|---------------------------------------|
| manager | 70,000 colones/year | 8,000.00 US\$/year |
| engineer | 60,000 colones/year | 6,857.14 US\$/year |
| supervisor | 40,000 colones/year | 4,571.43 US\$/year |
| mechanic | 50,000 colones/year | 5,714.29 US\$/year |
| mechanic assistant | 40,000 colones/year | 4,571.43 US\$/year |
| worker | 32,000 colones/year | 3,657.14 US\$/year |
| secretary | 30,000 colones/year | 3,428.57 US\$/year |
| operation day | 312 day/year | (7.5hr/day, 6days/week, 52weeks/year) |
| investment cost of T/S 01 | 1,259 1000US\$ | |
| investment cost of T/S 02 | 1,791 1000US\$ | |

T/S 01

350 ton/day

Personnel cost

| | | |
|----------------------|---------|------------------|
| manager | 1 pers. | 8,000 US\$/year |
| engineer | 1 pers. | 6,857 US\$/year |
| supervisor | 2 pers. | 9,143 US\$/year |
| worker | 8 pers. | 29,257 US\$/year |
| secretary | 1 pers. | 3,429 US\$/year |
| sub-total | | 56,686 US\$/year |
| physical contingency | 10 % | 5,669 US\$/year |
| personnel cost (1) | | 62,355 US\$/year |

Other O&M cost

| | | |
|--------------------------|------------------|------------------|
| electricity, water, etc. | 1 % of con. cost | 12,590 US\$/year |
| maintenance | 1 % of con. cost | 12,590 US\$/year |
| sub-total | | 25,180 US\$/year |
| physical contingency | 10 % | 2,518 |
| sub-total | | 27,698 |
| VAT | | 3,601 US\$/year |
| other O&M cost (2) | 13 % | 31,299 US\$/year |

Total (1+2)

93,654 US\$/year
94 1000US\$/year

T/S 02

900 ton/day

Personnel cost

| | | |
|----------------------|----------|------------------|
| manager | 1 pers. | 8,000 US\$/year |
| engineer | 1 pers. | 6,857 US\$/year |
| supervisor | 2 pers. | 9,143 US\$/year |
| worker | 15 pers. | 54,857 US\$/year |
| secretary | 2 pers. | 6,857 US\$/year |
| sub-total | | 85,714 US\$/year |
| physical contingency | 10 % | 8,571 |
| personnel cost (1) | | 94,285 |

Other O&M cost

| | | |
|--------------------------|------------------|------------------|
| electricity, water, etc. | 1 % of con. cost | 17,910 US\$/year |
| maintenance | 1 % of con. cost | 17,910 US\$/year |
| sub-total | | 35,820 US\$/year |
| physical contingency | 10 % | 3,582 US\$/year |
| sub-total | | 39,402 US\$/year |
| VAT | | 5,122 US\$/year |
| other O&M cost (2) | 13 % | 44,524 US\$/year |

Total (1+2)

138,809 US\$/year
139 1000US\$/year

d. Transfer transport

Summary of transfer transport cost

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|---------------|------|------|------|-------|------|------|------|------|------|-------|-------|
| T/S 01 | | | | | | | | | | | | |
| 20ton tractor-trailer | | | | | | | | | | | | |
| required number of vehicle (1) | unit | - | - | - | 5.6 | 5.7 | 5.9 | 6.1 | 6.2 | 6.4 | 6.5 | |
| required number of vehicle (2) | unit | - | - | - | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| operatable vehicle | unit | - | - | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | |
| purchase of vehicle | unit | - | - | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 13 |
| Investment | 1000US\$/year | - | - | 940 | 0 | 0 | 0 | 0 | 0 | 0 | 1,096 | 2,036 |
| O&M | 1000US\$/year | - | - | - | 218 | 222 | 229 | 237 | 241 | 249 | 253 | 1,849 |
| total | 1000US\$/year | - | - | 940 | 218 | 222 | 229 | 237 | 241 | 249 | 1,349 | 3,685 |
| T/S 02 | | | | | | | | | | | | |
| 20ton tractor-trailer | | | | | | | | | | | | |
| required number of vehicle (1) | unit | - | - | - | - | 14.5 | 15 | 15.4 | 15.8 | 16.2 | 16.6 | |
| required number of vehicle (2) | unit | - | - | - | - | 15 | 15 | 15 | 16 | 16 | 17 | |
| operatable vehicle | unit | - | - | - | 0 | 15 | 15 | 15 | 15 | 16 | 16 | |
| purchase of vehicle | unit | - | - | - | 15 | 0 | 0 | 0 | 1 | 0 | 1 | 17 |
| Investment | 1000US\$/year | - | - | - | 2,349 | 0 | 0 | 0 | 157 | 0 | 157 | 2,663 |
| O&M | 1000US\$/year | - | - | - | - | 557 | 576 | 591 | 607 | 622 | 637 | 3,590 |
| total | 1000US\$/year | - | - | - | 2,349 | 557 | 576 | 591 | 764 | 622 | 794 | 6,253 |

Basic conditons

driver 35,000 colones/year 4,000 US\$/year
 working period 140,400 minutes/year (7.5hr/day, 6days/week, 52weeks/year)
 fuel (diesel) 2.38 colones/liter 0.27 US\$/liter
 oil 10 % of fuel cost
 maintenance 15 % of capital cost

| T/S to S/L | one-way km | round trip km | round trip minute |
|------------|---------------|------------------|----------------------|
| T/S01 | 31.6 | 63.2 | 126 |
| T/S02 | 30.3 | 60.6 | 121 |

payload 20 ton
 round trip 2.5 hour
 working hour 7.5 hour
 number of trip 3 times
 transport amount 60 ton/day/vehicle
 net working rate 90 %
 working day 312 day/year
 velocity 30 km
 mileage 1.8 km/liter

fuel cost 0.075 US\$/minute
 T/S01 per day 28.35 US\$/day/vehicle
 T/S01 per year 8,845 US\$/year/vehicle
 T/S02 per day 27.23 US\$/day/vehicle
 T/S02 per year 8,496 US\$/year/vehicle

T/S 01

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--------------------------------|----------|------|------|---------|--------|--------|--------|--------|--------|--------|-----------|
| transport amount 365-base | ton/day | - | - | - | 257.5 | 265.3 | 272.8 | 280 | 286.9 | 293.5 | 300.1 |
| transport amount 312-base | ton/day | - | - | - | 301.2 | 310.4 | 319.1 | 327.6 | 335.6 | 343.4 | 351.1 |
| 20ton tractor-trailer | | | | | | | | | | | |
| net working rate | | | | | | | | | | | |
| 90 % | | | | | | | | | | | |
| required number of vehicle (1) | unit | - | - | - | 5.6 | 5.7 | 5.9 | 6.1 | 6.2 | 6.4 | 6.5 |
| required number of vehicle (2) | unit | - | - | - | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| operatable vehicle | unit | - | - | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 0 |
| purchase of vehicle | unit | - | - | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Cost | | | | | | | | | | | |
| Investment | | | | | | | | | | | |
| 20ton tractor-trailer | US\$ | - | - | 720,000 | 0 | 0 | 0 | 0 | 0 | 0 | 840,000 |
| physical contingency | US\$ | - | - | 72,000 | 0 | 0 | 0 | 0 | 0 | 0 | 84,000 |
| sub-total | US\$ | - | - | 792,000 | 0 | 0 | 0 | 0 | 0 | 0 | 924,000 |
| VAT | US\$ | - | - | 102,960 | 0 | 0 | 0 | 0 | 0 | 0 | 120,120 |
| total | US\$ | - | - | 894,960 | 0 | 0 | 0 | 0 | 0 | 0 | 1,044,120 |
| design & supervise | US\$ | - | - | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 | 42,000 |
| physical contingency | US\$ | - | - | 3,600 | 0 | 0 | 0 | 0 | 0 | 0 | 4,200 |
| sub-total | US\$ | - | - | 39,600 | 0 | 0 | 0 | 0 | 0 | 0 | 46,200 |
| VAT | US\$ | - | - | 5,148 | 0 | 0 | 0 | 0 | 0 | 0 | 6,006 |
| total | US\$ | - | - | 44,748 | 0 | 0 | 0 | 0 | 0 | 0 | 52,206 |
| total investment | US\$ | - | - | 939,708 | 0 | 0 | 0 | 0 | 0 | 0 | 1,096,326 |
| | 1000US\$ | - | - | 940 | 0 | 0 | 0 | 0 | 0 | 0 | 1096 |
| O&M cost | | | | | | | | | | | |
| personnel cost | | | | | | | | | | | |
| driver | US\$ | - | - | - | 22,400 | 22,800 | 23,600 | 24,400 | 24,800 | 25,600 | 26,000 |
| physical contingency | US\$ | - | - | - | 2,240 | 2,280 | 2,360 | 2,440 | 2,480 | 2,560 | 2,600 |
| personnel cost total | US\$ | - | - | - | 24,640 | 25,080 | 25,960 | 26,840 | 27,280 | 28,160 | 28,600 |
| operation cost | | | | | | | | | | | |
| fuel | US\$ | - | - | - | 49,532 | 50,417 | 52,186 | 53,955 | 54,839 | 56,608 | 57,493 |
| oil | US\$ | - | - | - | 4,953 | 5,042 | 5,219 | 5,396 | 5,484 | 5,661 | 5,749 |
| sub-total | US\$ | - | - | - | 54,485 | 55,459 | 57,405 | 59,351 | 60,323 | 62,269 | 63,242 |
| physical contingency | US\$ | - | - | - | 5,449 | 5,546 | 5,741 | 5,935 | 6,032 | 6,227 | 6,324 |
| sub-total | US\$ | - | - | - | 59,934 | 61,005 | 63,146 | 65,286 | 66,355 | 68,496 | 69,566 |
| VAT | US\$ | - | - | - | 7,791 | 7,931 | 8,209 | 8,487 | 8,626 | 8,904 | 9,044 |
| operation cost total | US\$ | - | - | - | 67,725 | 68,936 | 71,355 | 73,773 | 74,981 | 77,400 | 78,610 |

e. Street Sweeping

Manual sweeping

worker 30,000 colon/year 3,429 US\$/year
 net working rate 90 %
 handcart 500 colon 57 US\$
 lifetime of handcart 5 year (required number of handcarts are equally purchased annually)
 physical contingency 10 %
 VAT 13 %

unit: US\$/year

| Muni. | length (km) | nos. of workers | personnel cost | physical contingency | personnel total | nos. of handcarts per year | handcart cost | physical contingency | VAT | handcart total | Total |
|-------|-------------|-----------------|----------------|----------------------|-----------------|----------------------------|---------------|----------------------|-----|----------------|-----------|
| 01SS | 269.5 | 299 | 1,025,271 | 102,527 | 1,127,798 | 59.8 | 3,409 | 340.86 | 443 | 4,192 | 1,131,990 |
| 02MJ | 29.1 | 32 | 109,728 | 10,973 | 120,701 | 6.4 | 365 | 36.48 | 47 | 448 | 121,149 |
| 03CD | 15.0 | 17 | 58,293 | 5,829 | 64,122 | 3.4 | 194 | 19.38 | 25 | 238 | 64,360 |
| 04CT | 9.0 | 10 | 34,290 | 3,429 | 37,719 | 2.0 | 114 | 11.4 | 15 | 140 | 37,859 |
| 05AY | 2.7 | 3 | 10,287 | 1,029 | 11,316 | 0.6 | 34 | 3.42 | 4 | 42 | 11,358 |
| 06SM | 7.0 | 8 | 27,432 | 2,743 | 30,175 | 1.6 | 91 | 9.12 | 12 | 112 | 30,287 |
| 07ST | 43.1 | 48 | 164,592 | 16,459 | 181,051 | 9.6 | 547 | 54.72 | 71 | 673 | 181,724 |
| 08AC | 51.6 | 57 | 195,453 | 19,545 | 214,998 | 11.4 | 650 | 64.98 | 84 | 799 | 215,797 |
| 09SY | 12.6 | 14 | 48,006 | 4,801 | 52,807 | 2.8 | 160 | 15.96 | 21 | 197 | 53,004 |
| 10IL | 1.8 | 2 | 6,858 | 686 | 7,544 | 0.4 | 23 | 2.28 | 3 | 28 | 7,572 |
| 11SMT | 1.7 | 2 | 6,858 | 686 | 7,544 | 0.4 | 23 | 2.28 | 3 | 28 | 7,572 |
| 12AP | 5.6 | 6 | 20,574 | 2,057 | 22,631 | 1.2 | 68 | 6.84 | 9 | 84 | 22,715 |
| 13NJ | 0.7 | 1 | 3,429 | 343 | 3,772 | 0.2 | 11 | 1.14 | 1 | 14 | 3,786 |
| 14TN | 3.2 | 4 | 13,716 | 1,372 | 15,088 | 0.8 | 46 | 4.56 | 6 | 56 | 15,144 |
| Total | 452.6 | 503 | 1,724,787 | 172,479 | 1,897,266 | 100.6 | 5,734 | 573 | 744 | 7,052 | 1,904,318 |

| Item | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------|----------------------|--------|--------|---------|--------|---------|--------|--------|--------|--------|---------|-----------|
| Nos. of vehicle | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Nos. of purchase | | | 2 | | | 3 | | | | | 2 | 7 |
| Investment | 100,000 US\$/vehicle | | | 200,000 | | 300,000 | | | | | 200,000 | 700,000 |
| vehicle | 10 % | | | 20,000 | | 30,000 | | | | | 20,000 | 70,000 |
| physical contingency | 13 % | | | 26,000 | | 39,000 | | | | | 26,000 | 91,000 |
| VAT | | | | 246,000 | | 369,000 | | | | | 246,000 | 861,000 |
| sub-total | 5 % | | | 10,000 | | 15,000 | | | | | 10,000 | 35,000 |
| design & supervise | 10 % | | | 1,000 | | 1,500 | | | | | 1,000 | 3,500 |
| physical contingency | 13 % | | | 1,300 | | 1,950 | | | | | 1,300 | 4,550 |
| VAT | | | | 12,300 | | 18,450 | | | | | 12,300 | 43,050 |
| sub-total | | | | 258,300 | | 387,450 | | | | | 258,300 | 904,050 |
| Total investment | | | | | | | | | | | | |
| O&M | | | | | | | | | | | | |
| personnel | 4,000 US\$/year | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 200,000 |
| physical contingency | 10 % | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 20,000 |
| personnel total | | 22,000 | 22,000 | 22,000 | 22,000 | 22,000 | 22,000 | 22,000 | 22,000 | 22,000 | 22,000 | 220,000 |
| operation | 1084 US\$/year | 5,420 | 5,420 | 5,420 | 5,420 | 5,420 | 5,420 | 5,420 | 5,420 | 5,420 | 5,420 | 54,200 |
| fuel | 10 % of fuel | 542 | 542 | 542 | 542 | 542 | 542 | 542 | 542 | 542 | 542 | 5,420 |
| oil | | 5,962 | 5,962 | 5,962 | 5,962 | 5,962 | 5,962 | 5,962 | 5,962 | 5,962 | 5,962 | 59,620 |
| sub-total | 10 % | 596 | 596 | 596 | 596 | 596 | 596 | 596 | 596 | 596 | 596 | 5,960 |
| physical contingency | 13 % | 775 | 775 | 775 | 775 | 775 | 775 | 775 | 775 | 775 | 775 | 7,750 |
| VAT | | 7,333 | 7,333 | 7,333 | 7,333 | 7,333 | 7,333 | 7,333 | 7,333 | 7,333 | 7,333 | 73,330 |
| operation cost total | | | | | | | | | | | | |
| maintenance | 10 % of vehicle | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 500,000 |
| maintenance | 10 % | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 50,000 |
| physical contingency | 13 % | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 65,000 |
| VAT | | 61,500 | 61,500 | 61,500 | 61,500 | 61,500 | 61,500 | 61,500 | 61,500 | 61,500 | 61,500 | 615,000 |
| maintenance total | | 90,833 | 90,833 | 90,833 | 90,833 | 90,833 | 90,833 | 90,833 | 90,833 | 90,833 | 90,833 | 908,330 |
| O&M total | | 90,833 | 90,833 | 349,133 | 90,833 | 478,283 | 90,833 | 90,833 | 90,833 | 90,833 | 349,133 | 1,812,380 |
| Total cost | | | | | | | | | | | | |

2. Without Master Plan

a. Collection

18yd3: 2.621 ton/hour

11yd3: 1.998 ton/hour

| Muni. | destination | collection | transport | others | total | collection ability | |
|-------|-------------|------------|-----------|--------|-------|--------------------|-------|
| | | | | | | 18yd3 | 11yd3 |
| 011SS | NJ SL | 212 | 118 | 120 | 450 | 9.3 | 7.1 |
| 012SS | NJ SL | 218 | 112 | 120 | 450 | 9.5 | 7.3 |
| 013SS | NJ SL | 210 | 120 | 120 | 450 | 9.2 | 7.0 |
| 014SS | NJ SL | 194 | 136 | 120 | 450 | 8.5 | 6.5 |
| 015SS | NJ SL | 196 | 134 | 120 | 450 | 8.6 | 6.5 |
| 02MJ | NJ SL | 230 | 100 | 120 | 450 | 10.0 | 7.7 |
| 03CD | NJ SL | 233 | 97 | 120 | 450 | 10.2 | 7.8 |
| 04CT | Espiga CD | 190 | 140 | 120 | 450 | 8.3 | 6.3 |
| 05AY | NJ SL | 237 | 93 | 120 | 450 | 10.4 | 7.9 |
| 06SM | NJ SL | 174 | 156 | 120 | 450 | 7.6 | 5.8 |
| 07ST | NJ SL | 187 | 143 | 120 | 450 | 8.2 | 6.2 |
| 08AC | Espiga CD | 190 | 140 | 120 | 450 | 8.3 | 6.3 |
| 09SY | NJ SL | 202 | 128 | 120 | 450 | 8.8 | 6.7 |
| 10IL | NJ SL | 186 | 144 | 120 | 450 | 8.1 | 6.2 |
| 11SMT | SMT OD | 318 | 12 | 120 | 450 | 13.9 | 10.6 |
| 12AP | NJ SL | 277 | 53 | 120 | 450 | 12.1 | 9.2 |
| 13NJ | NJ SL | 293 | 37 | 120 | 450 | 12.8 | 9.8 |
| 14TN | TN OD | 318 | 12 | 120 | 450 | 13.9 | 10.6 |

Estimate of fuel cost before introduction of the transfer stations

| | | |
|-------------------------|-------------------|--------------------|
| Operation | | |
| working day | 312 day/year | |
| 18yd3 | | |
| fuel (diesel) | 2.38 colon/liter | 0.27 US\$/liter |
| mileage | 2.0 km/liter | |
| velocity for collection | 3 km/hour | 0.0068 US\$/minute |
| velocity for transport | 30 km/hour | 0.0675 US\$/minute |
| oil | 10 % of fuel cost | |
| 11yd3 | | |
| fuel (diesel) | 2.38 colon/liter | 0.27 US\$/liter |
| mileage | 2.4 km/liter | |
| velocity for collection | 3 km/hour | 0.0056 US\$/minute |
| velocity for transport | 30 km/hour | 0.0563 US\$/minute |
| oil | 10 % of fuel cost | |

| Muni. | Time (minute) | | 18yd3 | | | | 11yd3 | | | |
|-------|---------------|-----------|------------|-----------|-------|-----------|------------|-----------|-------|-------|
| | | | US\$/day | | | US\$/year | US\$/day | | | year |
| | collection | transport | collection | transport | total | total | collection | transport | total | total |
| 011SS | 212 | 118 | 1.44 | 7.97 | 9.41 | 2,936 | 1.19 | 6.64 | 7.83 | 2,443 |
| 012SS | 218 | 112 | 1.48 | 7.56 | 9.04 | 2,820 | 1.22 | 6.31 | 7.53 | 2,349 |
| 013SS | 210 | 120 | 1.43 | 8.10 | 9.53 | 2,973 | 1.18 | 6.76 | 7.94 | 2,477 |
| 014SS | 194 | 136 | 1.32 | 9.18 | 10.50 | 3,276 | 1.09 | 7.66 | 8.75 | 2,730 |
| 015SS | 196 | 134 | 1.33 | 9.05 | 10.38 | 3,239 | 1.10 | 7.54 | 8.64 | 2,696 |
| 02MJ | 230 | 100 | 1.56 | 6.75 | 8.31 | 2,593 | 1.29 | 5.63 | 6.92 | 2,159 |
| 03CD | 233 | 97 | 1.58 | 6.55 | 8.13 | 2,537 | 1.30 | 5.46 | 6.76 | 2,109 |
| 04CT | 190 | 140 | 1.29 | 9.45 | 10.74 | 3,351 | 1.06 | 7.88 | 8.94 | 2,789 |
| 05AY | 237 | 93 | 1.61 | 6.28 | 7.89 | 2,462 | 1.33 | 5.24 | 6.57 | 2,050 |
| 06SM | 174 | 156 | 1.18 | 10.53 | 11.71 | 3,654 | 0.97 | 8.78 | 9.75 | 3,042 |
| 07ST | 187 | 143 | 1.27 | 9.65 | 10.92 | 3,407 | 1.05 | 8.05 | 9.10 | 2,839 |
| 08AC | 190 | 140 | 1.29 | 9.45 | 10.74 | 3,351 | 1.06 | 7.88 | 8.94 | 2,789 |
| 09SY | 202 | 128 | 1.37 | 8.64 | 10.01 | 3,123 | 1.13 | 7.21 | 8.34 | 2,602 |
| 10IL | 186 | 144 | 1.26 | 9.72 | 10.98 | 3,426 | 1.04 | 8.11 | 9.15 | 2,855 |
| 11SMT | 318 | 12 | 2.16 | 0.81 | 2.97 | 927 | 1.78 | 0.68 | 2.46 | 768 |
| 12AP | 277 | 53 | 1.88 | 3.58 | 5.46 | 1,704 | 1.55 | 2.98 | 4.53 | 1,413 |
| 13NJ | 293 | 37 | 1.99 | 2.50 | 4.49 | 1,401 | 1.64 | 2.08 | 3.72 | 1,161 |
| 14TN | 318 | 12 | 2.16 | 0.81 | 2.97 | 927 | 1.78 | 0.68 | 2.46 | 768 |

Number of collection vehicle

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|-----------------------|--------------------------------|------|------|------|------|------|------|------|------|------|------|-------|
| San Salvador | required number of vehicle (1) | 59.8 | 62.4 | 64.8 | 67.3 | 69.6 | 72.2 | 74.5 | 76.9 | 79.4 | 81.6 | |
| | required number of vehicle (2) | 13.8 | 14.6 | 15.0 | 15.6 | 16.1 | 16.9 | 17.3 | 17.8 | 18.4 | 18.8 | |
| | operatable vehicle | 60 | 62 | 65 | 68 | 69 | 72 | 75 | 78 | 80 | 81 | |
| | purchase of vehicle | 14 | 16 | 16 | 16 | 17 | 17 | 18 | 19 | 19 | 19 | |
| Mejicanos | required number of vehicle (1) | 8.0 | 8.2 | 8.5 | 8.7 | 8.9 | 9.2 | 9.4 | 9.6 | 9.8 | 10.1 | |
| | required number of vehicle (2) | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | |
| | operatable vehicle | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 10 | 10 | 10 | |
| | purchase of vehicle | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Ciudad Delgado | required number of vehicle (1) | 3.4 | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.0 | 4.1 | 4.2 | 4.3 | |
| | required number of vehicle (2) | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | |
| | operatable vehicle | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | purchase of vehicle | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Cuscatancingo | required number of vehicle (1) | 3.5 | 3.7 | 3.8 | 3.9 | 4.0 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | |
| | required number of vehicle (2) | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| | operatable vehicle | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | purchase of vehicle | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | |
| Total | required number of vehicle (1) | 80 | 82 | 85 | 87 | 89 | 92 | 94 | 96 | 98 | 101 | |
| | required number of vehicle (2) | 18 | 19 | 19 | 20 | 20 | 21 | 22 | 22 | 23 | 23 | |
| | operatable vehicle | 80 | 82 | 85 | 87 | 89 | 92 | 94 | 96 | 98 | 101 | |
| | purchase of vehicle | 14 | 16 | 16 | 16 | 17 | 17 | 18 | 19 | 19 | 19 | |
| Total | required number of vehicle (1) | 35 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 37 | 148 |
| | required number of vehicle (2) | 11 | 0 | 5 | 0 | 1 | 0 | 1 | 12 | 0 | 5 | 35 |
| | operatable vehicle | 11 | 0 | 5 | 0 | 1 | 0 | 1 | 12 | 0 | 5 | 35 |
| | purchase of vehicle | 11 | 0 | 5 | 0 | 1 | 0 | 1 | 12 | 0 | 5 | 35 |

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--|------------|------|------|------|------|------|------|------|------|------|------|-------|
| Ayutxtepeque required number of vehicle (1) required number of vehicle (2) operable vehicle purchase of vehicle | 18yd3 unit | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | |
| | 11yd3 unit | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | |
| | 18yd3 unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 11yd3 unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| San Marcos required number of vehicle (1) required number of vehicle (2) operable vehicle purchase of vehicle | 18yd3 unit | 4.7 | 4.8 | 5.0 | 5.1 | 5.2 | 5.4 | 5.5 | 5.6 | 5.8 | 5.9 | |
| | 11yd3 unit | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | |
| | 18yd3 unit | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | |
| | 11yd3 unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Nueva San Salvador required number of vehicle (1) required number of vehicle (2) operable vehicle purchase of vehicle | 18yd3 unit | 11.9 | 12.2 | 12.6 | 13.0 | 13.3 | 13.6 | 14.0 | 14.3 | 14.6 | 15.0 | |
| | 11yd3 unit | 2.8 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.3 | 3.4 | 3.5 | |
| | 18yd3 unit | 12 | 12 | 13 | 13 | 13 | 14 | 14 | 14 | 15 | 15 | |
| | 11yd3 unit | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| Antiguo Cuscatlan required number of vehicle (1) required number of vehicle (2) operable vehicle purchase of vehicle | 18yd3 unit | 4 | 13 | 9 | 13 | 13 | 13 | 14 | 5 | 14 | 11 | |
| | 11yd3 unit | 1 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | |
| | 18yd3 unit | 9 | 0 | 4 | 0 | 0 | 1 | 0 | 9 | 1 | 4 | |
| | 11yd3 unit | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | |
| Soyapango required number of vehicle (1) required number of vehicle (2) | 18yd3 unit | 5.8 | 6.0 | 6.2 | 6.4 | 6.6 | 6.8 | 7.0 | 7.2 | 7.4 | 7.6 | |
| | 11yd3 unit | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | |
| | 18yd3 unit | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | 11yd3 unit | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Soyapango required number of vehicle (1) required number of vehicle (2) | 18yd3 unit | 16.8 | 17.4 | 18.0 | 18.7 | 19.3 | 19.9 | 20.5 | 21.1 | 21.7 | 22.4 | |
| | 11yd3 unit | 3.9 | 4.0 | 4.2 | 4.3 | 4.5 | 4.6 | 4.8 | 4.9 | 5.0 | 5.2 | |
| | 18yd3 unit | 17 | 17 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 22 | |
| | 11yd3 unit | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---------------------|------------|------|------|------|------|------|------|------|------|------|------|-------|
| operable vehicle | 11yd3 unit | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 18yd3 unit | 10 | 19 | 9 | 19 | 19 | 19 | 20 | 12 | 21 | 12 | 12 |
| | 11yd3 unit | 3 | 5 | 2 | 5 | 5 | 5 | 5 | 3 | 5 | 2 | 2 |
| | 18yd3 unit | 9 | 0 | 10 | 0 | 0 | 1 | 1 | 9 | 1 | 10 | 41 |
| purchase of vehicle | 11yd3 unit | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 10 |
| | 18yd3 unit | 6.0 | 6.2 | 6.4 | 6.6 | 6.7 | 6.9 | 7.1 | 7.3 | 7.4 | 7.6 | |
| | 11yd3 unit | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | |
| | 18yd3 unit | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | |
| operable vehicle | 11yd3 unit | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 18yd3 unit | 4 | 7 | 3 | 7 | 7 | 7 | 7 | 4 | 7 | 3 | 3 |
| | 11yd3 unit | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 |
| | 18yd3 unit | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 15 |
| purchase of vehicle | 11yd3 unit | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| | 18yd3 unit | 2.0 | 2.0 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | |
| | 11yd3 unit | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | |
| | 18yd3 unit | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | |
| operable vehicle | 11yd3 unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 18yd3 unit | 3 | 3 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 |
| | 11yd3 unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| | 18yd3 unit | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 |
| purchase of vehicle | 11yd3 unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 18yd3 unit | 4.3 | 4.4 | 4.6 | 4.7 | 4.8 | 4.9 | 5.1 | 5.2 | 5.3 | 5.4 | |
| | 11yd3 unit | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | |
| | 18yd3 unit | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| operable vehicle | 11yd3 unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 18yd3 unit | 4 | 4 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 |
| | 11yd3 unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| | 18yd3 unit | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 10 |
| purchase of vehicle | 11yd3 unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 18yd3 unit | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | 11yd3 unit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| | 18yd3 unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| operable vehicle | 11yd3 unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 18yd3 unit | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 11yd3 unit | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 18yd3 unit | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| purchase of vehicle | 11yd3 unit | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 18yd3 unit | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | 11yd3 unit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| | 18yd3 unit | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--------------------------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 11yd3 unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tonacatepeque | required number of vehicle (1) | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | |
| | 11yd3 unit | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | required number of vehicle (2) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 11yd3 unit | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | |
| operable vehicle | 18yd3 unit | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | |
| | 11yd3 unit | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | |
| purchase of vehicle | 18yd3 unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 |
| | 11yd3 unit | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | | | | | | | | | | | | |
| required number of vehicle (1) | 18yd3 unit | 129.4 | 134.1 | 139.1 | 143.9 | 148.1 | 153.0 | 157.4 | 161.9 | 166.4 | 171.0 | |
| | 11yd3 unit | 30.0 | 31.1 | 32.1 | 33.3 | 34.3 | 35.6 | 36.6 | 37.5 | 38.5 | 39.6 | |
| required number of vehicle (2) | 18yd3 unit | 131 | 134 | 141 | 146 | 148 | 153 | 158 | 162 | 166 | 171 | |
| | 11yd3 unit | 30 | 32 | 33 | 34 | 37 | 37 | 38 | 39 | 39 | 40 | |
| operable vehicle | 18yd3 unit | 81 | 144 | 64 | 145 | 146 | 148 | 153 | 95 | 160 | 85 | |
| | 11yd3 unit | 20 | 37 | 17 | 35 | 35 | 37 | 37 | 21 | 39 | 21 | |
| purchase of vehicle | 18yd3 unit | 63 | 2 | 81 | 1 | 2 | 5 | 5 | 67 | 6 | 86 | 318 |
| | 11yd3 unit | 17 | 0 | 18 | 0 | 2 | 0 | 1 | 18 | 0 | 19 | 75 |

Summary of collection cost

| | year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total | |
|--------------|--------------------------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| San Salvador | collection amount ton/day | 489.5 | 510.0 | 530.3 | 550.1 | 570.1 | 590.0 | 609.5 | 628.9 | 648.3 | 668.0 | - | |
| | collection amount 1000ton/year | 179.0 | 186.0 | 194.0 | 201.0 | 208.0 | 215.0 | 222.0 | 230.0 | 237.0 | 244.0 | 2,116.0 | |
| | Investment 1000US\$/year | 3,798 | 98 | 3,915 | 98 | 176 | 294 | 372 | 4,170 | 294 | 294 | 17,228 | |
| | O&M 1000US\$/year | 2,741 | 2,865 | 2,969 | 3,087 | 3,192 | 3,318 | 3,418 | 3,526 | 3,642 | 3,739 | 32,497 | |
| | total 1000US\$/year | 6,539 | 2,963 | 6,884 | 3,185 | 3,368 | 3,612 | 3,790 | 7,696 | 3,936 | 3,936 | 49,725 | |
| | Investment per ton US\$/ton | 21.22 | 0.53 | 20.18 | 0.49 | 0.85 | 1.37 | 1.68 | 18.13 | 1.24 | 1.24 | 16.45 | 8.14 |
| | O&M per ton US\$/ton | 15.31 | 15.40 | 15.30 | 15.36 | 15.35 | 15.43 | 15.40 | 15.33 | 15.33 | 15.37 | 15.32 | 15.36 |
| | total US\$/ton | 36.53 | 15.93 | 35.48 | 15.85 | 16.20 | 16.80 | 17.08 | 33.46 | 16.61 | 16.61 | 31.77 | 23.50 |
| | Mejicanos | collection amount ton/day | 72.0 | 74.2 | 76.5 | 78.7 | 80.8 | 83.0 | 84.9 | 87.0 | 89.0 | 91.0 | - |
| | | collection amount 1000ton/year | 26.0 | 27.0 | 28.0 | 29.0 | 29.0 | 30.0 | 31.0 | 32.0 | 32.0 | 33.0 | 297.0 |

| year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Investment | | | | | | | | | | | |
| O&M | 392 | 370 | 381 | 392 | 400 | 414 | 425 | 489 | 0 | 646 | 2,173 |
| total | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year |
| Investment per ton | 751 | 370 | 1,027 | 392 | 400 | 414 | 425 | 921 | 443 | 454 | 4,070 |
| O&M per ton | 15.08 | 0.00 | 23.07 | 0.00 | 0.00 | 0.00 | 0.00 | 15.28 | 0.00 | 1,100 | 6,243 |
| total | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton |
| | 13.81 | 13.70 | 13.61 | 13.52 | 13.79 | 13.80 | 13.71 | 13.50 | 13.84 | 13.76 | 13.70 |
| | 28.89 | 13.70 | 36.68 | 13.52 | 13.79 | 13.80 | 13.71 | 28.78 | 13.84 | 33.34 | 21.02 |
| Ciudad Delgado | | | | | | | | | | | |
| collection amount | 31.4 | 32.4 | 33.4 | 34.3 | 35.2 | 36.1 | 37.0 | 37.8 | 38.7 | 39.5 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year |
| Investment | 0 | 0 | 470 | 0 | 0 | 0 | 0 | 0 | 0 | 470 | 940 |
| O&M | 153 | 157 | 161 | 168 | 172 | 175 | 179 | 183 | 190 | 194 | 1,732 |
| total | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year |
| Investment per ton | 0.00 | 0.00 | 39.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.57 | 7.23 |
| O&M per ton | 13.91 | 13.08 | 13.42 | 12.92 | 13.23 | 13.46 | 12.79 | 13.07 | 13.57 | 13.86 | 13.32 |
| total | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton |
| | 13.91 | 13.08 | 52.59 | 12.92 | 13.23 | 13.46 | 12.79 | 13.07 | 13.57 | 47.43 | 20.55 |
| Cuscatancingo | | | | | | | | | | | |
| collection amount | 26.7 | 27.6 | 28.4 | 29.2 | 30.0 | 30.7 | 31.5 | 32.2 | 32.9 | 33.6 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year |
| Investment | 0 | 98 | 470 | 0 | 0 | 0 | 0 | 0 | 98 | 568 | 1,234 |
| O&M | 162 | 170 | 177 | 181 | 185 | 192 | 196 | 199 | 203 | 207 | 1,872 |
| total | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year |
| Investment per ton | 0.00 | 9.80 | 47.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.17 | 775 | 3,106 |
| O&M per ton | 16.20 | 17.00 | 17.70 | 16.45 | 16.82 | 17.45 | 17.82 | 16.58 | 16.92 | 17.25 | 11.22 |
| total | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton |
| | 16.20 | 26.80 | 64.70 | 16.45 | 16.82 | 17.45 | 17.82 | 16.58 | 25.09 | 64.58 | 17.02 |
| | 16.20 | 26.80 | 64.70 | 16.45 | 16.82 | 17.45 | 17.82 | 16.58 | 25.09 | 64.58 | 28.24 |
| Ayutuxtepeque | | | | | | | | | | | |
| collection amount | 10.5 | 10.8 | 11.1 | 11.5 | 11.8 | 12.1 | 12.3 | 12.6 | 12.9 | 13.2 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year |
| Investment | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 196 |
| O&M | 51 | 51 | 55 | 55 | 58 | 58 | 58 | 58 | 62 | 62 | 568 |
| total | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year |
| Investment per ton | 0.00 | 0.00 | 24.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.60 | 4.56 |
| O&M per ton | 12.75 | 12.75 | 13.75 | 13.75 | 14.50 | 14.50 | 14.50 | 11.60 | 12.40 | 12.40 | 13.21 |
| total | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton | US\$/ton |
| | 12.75 | 12.75 | 38.25 | 13.75 | 14.50 | 14.50 | 14.50 | 11.60 | 12.40 | 32.00 | 17.77 |
| San Marcos | | | | | | | | | | | |
| collection amount | 32.2 | 33.1 | 34.1 | 35.1 | 36.0 | 36.9 | 37.8 | 38.7 | 39.6 | 40.5 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year |
| Investment | 0 | 0 | 274 | 0 | 0 | 0 | 98 | 294 | 0 | 274 | 1,234 |

| year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| O&M | 221 | 224 | 232 | 239 | 243 | 251 | 258 | 262 | 270 | 277 | 2,477 |
| total | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 1000US\$/year | 3,711 |
| Investment per ton | 515 | 224 | 506 | 239 | 243 | 251 | 356 | 556 | 270 | 551 | 9,35 |
| O&M per ton | 24.50 | 0.00 | 22.83 | 0.00 | 0.00 | 0.00 | 7.00 | 21.00 | 0.00 | 18.27 | 18.77 |
| total | 18.42 | 18.67 | 19.33 | 18.38 | 18.69 | 19.31 | 18.43 | 18.71 | 19.29 | 18.47 | 28.12 |
| | 42.92 | 18.67 | 42.16 | 18.38 | 18.69 | 19.31 | 25.43 | 39.71 | 19.29 | 36.74 | |
| Nueva San Salvador | | | | | | | | | | | |
| collection amount | 88.2 | 90.9 | 93.6 | 96.2 | 98.8 | 101.3 | 103.8 | 106.2 | 108.6 | 111.0 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 365.0 |
| Investment | 32.0 | 33.0 | 34.0 | 35.0 | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 3,290 |
| O&M | 1,038 | 0 | 470 | 0 | 0 | 98 | 0 | 1,038 | 98 | 548 | 6,251 |
| total | 554 | 566 | 585 | 603 | 618 | 633 | 652 | 664 | 679 | 697 | 9,541 |
| Investment per ton | 1,592 | 566 | 1,055 | 603 | 618 | 731 | 652 | 1,702 | 777 | 1,245 | 9,01 |
| O&M per ton | 32.44 | 0.00 | 13.82 | 0.00 | 0.00 | 2.65 | 0.00 | 26.62 | 2.45 | 13.37 | 17.13 |
| total | 17.31 | 17.15 | 17.21 | 17.23 | 17.17 | 17.11 | 17.16 | 17.03 | 16.98 | 17.00 | 26.14 |
| | 49.75 | 17.15 | 31.03 | 17.23 | 17.17 | 19.76 | 17.16 | 43.65 | 19.43 | 30.37 | |
| Antiguo Cuscatlan | | | | | | | | | | | |
| collection amount | 43.3 | 44.8 | 46.5 | 48.0 | 49.6 | 51.1 | 52.6 | 54.1 | 55.6 | 57.1 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 184.0 |
| Investment | 16.0 | 16.0 | 17.0 | 18.0 | 18.0 | 19.0 | 19.0 | 20.0 | 20.0 | 21.0 | 1,684 |
| O&M | 568 | 0 | 176 | 0 | 98 | 0 | 0 | 568 | 0 | 274 | 3,104 |
| total | 267 | 278 | 286 | 297 | 305 | 316 | 324 | 335 | 343 | 353 | 4,788 |
| Investment per ton | 835 | 278 | 462 | 297 | 403 | 316 | 324 | 903 | 343 | 627 | 9.15 |
| O&M per ton | 35.50 | 0.00 | 10.35 | 0.00 | 5.44 | 0.00 | 0.00 | 28.40 | 0.00 | 13.05 | 16.87 |
| total | 16.69 | 17.38 | 16.82 | 16.50 | 16.94 | 16.63 | 17.05 | 16.75 | 17.15 | 16.81 | 26.02 |
| | 52.19 | 17.38 | 27.17 | 16.50 | 22.38 | 16.63 | 17.05 | 45.15 | 17.15 | 29.86 | |
| Soyapango | | | | | | | | | | | |
| collection amount | 133.4 | 138.5 | 143.6 | 148.7 | 153.7 | 158.7 | 163.6 | 168.4 | 173.2 | 178.3 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 569.0 |
| Investment | 49.0 | 51.0 | 52.0 | 54.0 | 56.0 | 58.0 | 60.0 | 61.0 | 63.0 | 65.0 | 4,798 |
| O&M | 1,038 | 0 | 1,214 | 0 | 0 | 98 | 98 | 1,038 | 98 | 1,214 | 9,004 |
| total | 773 | 799 | 829 | 859 | 888 | 915 | 944 | 970 | 997 | 1,030 | 13,802 |
| Investment per ton | 1,811 | 799 | 2,043 | 859 | 888 | 1,013 | 1,042 | 2,008 | 1,095 | 2,244 | 8.43 |
| O&M per ton | 21.18 | 0.00 | 23.35 | 0.00 | 0.00 | 1.69 | 1.63 | 17.02 | 1.56 | 18.68 | 15.82 |
| total | 15.78 | 15.67 | 15.94 | 15.91 | 15.86 | 15.78 | 15.73 | 15.90 | 15.83 | 15.85 | 24.25 |
| | 36.96 | 15.67 | 39.29 | 15.91 | 15.86 | 17.47 | 17.36 | 32.92 | 17.39 | 34.53 | |
| Ilopango | | | | | | | | | | | |
| collection amount | 44.1 | 45.5 | 46.9 | 48.2 | 49.5 | 50.8 | 52.0 | 53.2 | 54.4 | 55.7 | - |
| collection amount | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 1000ton/year | 183.0 |
| Investment | 16.0 | 17.0 | 17.0 | 18.0 | 18.0 | 19.0 | 19.0 | 19.0 | 20.0 | 20.0 | 1,782 |
| O&M | 372 | 0 | 470 | 0 | 0 | 0 | 0 | 372 | 0 | 568 | 3,170 |
| total | 279 | 287 | 298 | 306 | 313 | 321 | 329 | 340 | 343 | 354 | |

| year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| total | | | | | | | | | | | |
| 1000US\$/year | 651 | 287 | 768 | 306 | 313 | 321 | 329 | 712 | 343 | 922 | 4,952 |
| Investment per ton | 23.25 | 0.00 | 27.65 | 0.00 | 0.00 | 0.00 | 0.00 | 19.58 | 0.00 | 28.40 | 9.74 |
| O&M per ton | 17.44 | 16.88 | 17.53 | 17.00 | 17.39 | 16.89 | 17.32 | 17.89 | 17.15 | 17.70 | 17.32 |
| total | 40.69 | 16.88 | 45.18 | 17.00 | 17.39 | 16.89 | 17.32 | 37.47 | 17.15 | 46.10 | 27.06 |
| San Martin | | | | | | | | | | | |
| collection amount | 25.0 | 25.7 | 26.5 | 27.2 | 27.9 | 28.7 | 29.4 | 30.0 | 30.7 | 31.4 | - |
| 1000ton/year | 9.0 | 9.0 | 10.0 | 10.0 | 10.0 | 10.0 | 11.0 | 11.0 | 11.0 | 11.0 | 102.0 |
| Investment | 0 | 0 | 274 | 0 | 0 | 0 | 0 | 0 | 0 | 372 | 646 |
| 1000US\$/year | 86 | 86 | 89 | 93 | 93 | 97 | 97 | 103 | 103 | 107 | 954 |
| O&M | 86 | 86 | 363 | 93 | 93 | 97 | 97 | 103 | 103 | 107 | 1,600 |
| total | 0.00 | 0.00 | 27.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.82 | 6.33 |
| Investment per ton | 9.56 | 9.56 | 8.90 | 9.30 | 9.30 | 9.70 | 8.82 | 9.36 | 9.36 | 9.73 | 9.35 |
| O&M per ton | 9.56 | 9.56 | 36.30 | 9.30 | 9.30 | 9.70 | 8.82 | 9.36 | 9.36 | 43.55 | 15.68 |
| total | 19.12 | 19.12 | 44.20 | 18.60 | 18.60 | 19.40 | 17.64 | 18.72 | 18.72 | 43.28 | 25.03 |
| Apopa | | | | | | | | | | | |
| collection amount | 47.0 | 48.5 | 49.9 | 51.3 | 52.7 | 54.0 | 55.3 | 56.6 | 57.9 | 59.2 | - |
| 1000ton/year | 17.0 | 18.0 | 18.0 | 19.0 | 19.0 | 20.0 | 20.0 | 21.0 | 21.0 | 22.0 | 195.0 |
| Investment | 0 | 0 | 568 | 0 | 0 | 0 | 0 | 0 | 0 | 568 | 1,136 |
| 1000US\$/year | 188 | 192 | 202 | 206 | 209 | 213 | 223 | 227 | 231 | 237 | 2,128 |
| O&M | 188 | 192 | 770 | 206 | 209 | 213 | 223 | 227 | 231 | 237 | 3,264 |
| total | 0.00 | 0.00 | 31.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.82 | 5.83 |
| Investment per ton | 11.06 | 10.67 | 11.22 | 10.84 | 11.00 | 10.65 | 11.15 | 10.81 | 11.00 | 10.77 | 10.91 |
| O&M per ton | 11.06 | 10.67 | 42.78 | 10.84 | 11.00 | 10.65 | 11.15 | 10.81 | 11.00 | 36.59 | 16.74 |
| total | 22.12 | 21.34 | 54.00 | 21.68 | 22.00 | 21.30 | 22.30 | 21.62 | 22.00 | 47.36 | 27.65 |
| Nejapa | | | | | | | | | | | |
| collection amount | 4.9 | 5.1 | 5.2 | 5.4 | 5.5 | 5.7 | 5.8 | 5.9 | 6.1 | 6.2 | - |
| 1000ton/year | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 20.0 |
| Investment | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 196 |
| 1000US\$/year | 17 | 17 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 202 |
| O&M | 17 | 17 | 119 | 21 | 21 | 21 | 21 | 21 | 21 | 119 | 398 |
| total | 0.00 | 0.00 | 49.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 49.00 | 9.80 |
| Investment per ton | 8.50 | 8.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.10 |
| O&M per ton | 8.50 | 8.50 | 59.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 | 59.50 | 19.90 |
| total | 17.00 | 17.00 | 70.00 | 21.00 | 21.00 | 21.00 | 21.00 | 21.00 | 21.00 | 70.00 | 29.80 |
| Tonacatepeque | | | | | | | | | | | |
| collection amount | 21.7 | 22.4 | 23.0 | 23.7 | 24.3 | 24.9 | 25.5 | 26.1 | 26.7 | 27.3 | - |
| 1000ton/year | 8.0 | 8.0 | 8.0 | 9.0 | 9.0 | 9.0 | 9.0 | 10.0 | 10.0 | 10.0 | 90.0 |
| Investment | 0 | 0 | 196 | 0 | 78 | 0 | 0 | 0 | 0 | 196 | 470 |
| 1000US\$/year | 72 | 76 | 76 | 79 | 82 | 86 | 86 | 89 | 89 | 93 | 828 |
| O&M | 72 | 76 | 272 | 79 | 160 | 86 | 86 | 89 | 89 | 289 | 1,298 |
| total | 72 | 76 | 272 | 79 | 160 | 86 | 86 | 89 | 89 | 289 | 1,298 |

| | year | | | | | | | | | | | Total |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | | |
| Investment per ton | 0.00 | 0.00 | 24.50 | 0.00 | 8.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.60 | 5.22 |
| O&M per ton | 9.00 | 9.50 | 9.50 | 8.78 | 9.11 | 9.56 | 9.56 | 8.90 | 8.90 | 8.90 | 9.30 | 9.20 |
| total | 9.00 | 9.50 | 34.00 | 8.78 | 17.78 | 9.56 | 9.56 | 8.90 | 8.90 | 8.90 | 28.90 | 14.42 |
| Total | | | | | | | | | | | | |
| collection amount | 1,069.9 | 1,109.5 | 1,149.0 | 1,187.6 | 1,225.9 | 1,264.0 | 1,301.0 | 1,337.7 | 1,374.6 | 1,412.0 | - | - |
| collection amount | 391 | 405 | 419 | 433 | 447 | 461 | 475 | 488 | 502 | 515 | 4,536 | 4,536 |
| Investment | 7,500 | 196 | 9,339 | 98 | 352 | 490 | 568 | 7,969 | 588 | 9,907 | 37,007 | 37,007 |
| O&M | 5,923 | 6,138 | 6,361 | 6,586 | 6,779 | 7,010 | 7,210 | 7,409 | 7,616 | 7,825 | 68,857 | 68,857 |
| total | 13,423 | 6,334 | 15,700 | 6,684 | 7,131 | 7,500 | 7,778 | 15,378 | 8,204 | 17,732 | 105,864 | 105,864 |
| Investment per ton | 19.18 | 0.48 | 22.29 | 0.23 | 0.79 | 1.06 | 1.20 | 16.33 | 1.17 | 19.24 | 8.16 | 8.16 |
| O&M per ton | 15.15 | 15.16 | 15.18 | 15.21 | 15.17 | 15.21 | 15.18 | 15.18 | 15.17 | 15.19 | 15.18 | 15.18 |
| total | 34.33 | 15.64 | 37.47 | 15.44 | 15.95 | 16.27 | 16.37 | 31.51 | 16.34 | 34.43 | 23.34 | 23.34 |