



Annex 8.2

Analytical calculations

for option analysis on transfer stations

Variant 0: No Transfer Stations

Table 1.3: Investment cost for direct transport to WMC

| Process | | | | | |
|---------------------------------------|------------|--|----------------|-----------------------|-----------------|
| | Quantities | Unit Cost (€/t) & (€/m ²) for landfill | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Civil works | | | | | |
| | | | | 7,6885 | 0 |
| | | | | | 0 |
| | | | | | 0 |
| | | | | | 0 |
| | | | | | 0 |
| | | | | | 0 |
| Total Cost for Civil works (i) | | 0 | 0 | | 0 |

| Process | | | | | |
|--|------------|---------------|------------------|-----------------------|-------------------|
| | Quantities | Unit Cost (€) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Mobile equipment | | | | | |
| Trucks of 16 m3 | 14 | 140.000 | 1.960.000 | | 15.069.460 |
| Trucks of 8 m3 | 13 | 110.000 | 1.430.000 | | 10.994.555 |
| | | | | | 0 |
| | | | | | 0 |
| | | | | | 0 |
| | | | | | 0 |
| Total Cost for Mobile equipment (i) | | - | 3.390.000 | | 26.064.015 |

| Intangible components | | | | | |
|--|-----------------|------------------|----------------|-----------------------|-----------------|
| | Quantities (no) | Unit Cost (€/no) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| TA & Supervision during implementation | - | | | | |
| Publicity | - | | | | |
| Public Utilities Works | - | | | | |
| Total Cost of Intangible components (v) | | | | | |

| | | | | | |
|--------------------------------|---|---|------------------|--|----------|
| Grand Total Cost for TS | - | - | 3.390.000 | | 0 |
|--------------------------------|---|---|------------------|--|----------|

Operating Costs

| | | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 |
|------------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Dubrovnik | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 9.427 | 9.461 | 9.495 | 9.529 | 9.563 | 9.597 | 9.632 | 9.666 | 9.700 | 9.729 | 9.758 | 9.787 | 9.815 | 9.844 | 9.873 | 9.903 | 9.932 | 9.961 | 9.990 | 10.013 | 10.036 | 10.059 | 10.083 | 10.106 | 10.129 |
| Operating costs - fixed | Th EUR | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 | 173 |
| Operating costs - variable | EUR/Ton | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 | 4,90 |
| Korcula | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 1.233 | 1.238 | 1.242 | 1.247 | 1.251 | 1.256 | 1.260 | 1.265 | 1.269 | 1.273 | 1.277 | 1.280 | 1.284 | 1.288 | 1.292 | 1.296 | 1.299 | 1.303 | 1.307 | 1.310 | 1.313 | 1.316 | 1.319 | 1.322 | 1.325 |
| Operating costs - fixed | Th EUR | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Operating costs - variable | EUR/Ton | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 | 10,78 |
| Metkovic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 3.197 | 3.209 | 3.220 | 3.232 | 3.243 | 3.255 | 3.267 | 3.278 | 3.290 | 3.300 | 3.309 | 3.319 | 3.329 | 3.339 | 3.349 | 3.359 | 3.368 | 3.378 | 3.388 | 3.396 | 3.404 | 3.412 | 3.420 | 3.427 | 3.435 |
| Operating costs - fixed | Th EUR | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Operating costs - variable | EUR/Ton | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 | 5,39 |
| Opuzen | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 363 | 364 | 366 | 367 | 368 | 370 | 371 | 372 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 384 | 385 | 386 | 386 | 387 | 388 | 389 | 390 |
| Operating costs - fixed | Th EUR | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| Operating costs - variable | EUR/Ton | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 | 10,98 |
| Ploce | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 1.543 | 1.549 | 1.555 | 1.560 | 1.566 | 1.571 | 1.577 | 1.583 | 1.588 | 1.593 | 1.598 | 1.602 | 1.607 | 1.612 | 1.617 | 1.621 | 1.626 | 1.631 | 1.636 | 1.639 | 1.643 | 1.647 | 1.651 | 1.655 | 1.658 |
| Operating costs - fixed | Th EUR | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 |
| Operating costs - variable | EUR/Ton | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 | 6,76 |
| Blato | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 760 | 762 | 765 | 768 | 771 | 773 | 776 | 779 | 782 | 784 | 786 | 789 | 791 | 793 | 796 | 798 | 800 | 803 | 805 | 807 | 809 | 811 | 812 | 814 | 816 |
| Operating costs - fixed | Th EUR | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Operating costs - variable | EUR/Ton | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 | 24,51 |
| Dubrovacko Primorje | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste direct transfer to WMC | Tons | 590 | 592 | 594 | 596 | 598 | 600 | 602 | 605 | 607 | 608 | 610 | 612 | 614 | 616 | 617 | 619 | 621 | 623 | 625 | 626 | 628 | 629 | 631 | 632 | 633 |
| Operating costs - fixed | Th EUR | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| Operating costs - variable | EUR/Ton | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 | 3,14 |
| Janjina | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste direct transfer to WMC | Tons | 100 | 101 | 101 | 102 | 102 | 102 | 103 | 103 | 103 | 104 | 104 | 104 | 105 | 105 | 105 | 106 | 106 | 106 | 106 | 107 | 107 | 107 | 107 | 108 | 108 |
| Operating costs - fixed | Th EUR | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| Operating costs - variable | EUR/Ton | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 | 10,39 |
| Konavle | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 1.941 | 1.948 | 1.955 | 1.962 | 1.969 | 1.976 | 1.983 | 1.990 | 1.997 | 2.003 | 2.009 | 2.015 | 2.021 | 2.027 | 2.033 | 2.039 | 2.045 | 2.051 | 2.057 | 2.061 | 2.066 | 2.071 | 2.076 | 2.081 | 2.085 |
| Operating costs - fixed | Th EUR | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Operating costs - variable | EUR/Ton | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 |
| Kula Norinska | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 141 | 142 | 143 | 143 | 144 | 144 | 145 | 145 | 146 | 146 | 146 | 147 | 147 | 148 | 148 | 149 | 149 | 150 | 150 | 150 | 151 | 151 | 151 | 152 | 152 |
| Operating costs - fixed | Th EUR | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| Operating costs - variable | EUR/Ton | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 | 14,12 |
| Lastovo | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 135 | 136 | 136 | 137 | 137 | 138 | 138 | 139 | 139 | 140 | 140 | 140 | 141 | 141 | 142 | 142 | 142 | 143 | 143 | 144 | 144 | 144 | 145 | 145 | 145 |
| Operating costs - fixed | Th EUR | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Operating costs - variable | EUR/Ton | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 | 33,33 |
| Lumbarda | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 492 | 494 | 496 | 498 | 500 | 501 | 503 | 505 | 507 | 508 | 510 | 511 | 513 | 514 | 516 | 517 | 519 | 520 | 522 | 523 | 524 | 526 | 527 | 528 | 529 |
| Operating costs - fixed | Th EUR | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Operating costs - variable | EUR/Ton | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 | 17,65 |
| Mljet | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 122 | 122 | 123 | 123 | 123 | 124 | 124 | 125 | 125 | 126 | 126 | 126 | 127 | 127 | 127 | 128 | 128 | 129 | 129 | 129 | 130 | 130 | 130 | 130 | 131 |
| Operating costs - fixed | Th EUR | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Operating costs - variable | EUR/Ton | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 | 9,80 |
| Orebic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste received in TS | Tons | 2.301 | 2.309 | 2.317 | 2.326 | 2.334 | 2.342 | 2.351 | 2.359 | 2.367 | 2.374 | 2.381 | 2.388 | 2.395 | 2.403 | 2.410 | 2.417 | 2.424 | 2.431 | 2.438 | 2.444 | 2.449 | 2.455 | 2.461 | 2.466 | 2.472 |
| Operating costs - fixed | Th EUR | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Operating costs - variable | EUR/Ton | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 | 8,04 |
| Poljערje | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total waste direct transfer to WMC | Tons | 169 | 170 | 170 | 171 | 171 | 172 | 173 | 173 | 174 | 174 | 17 | | | | | | | | | | | | | | |

| | | |
|--------------------------------|---------|--------|
| Avg speed during transport | 60 | km/hr |
| Working Days per week | 5 | d/wk |
| Working Days per Year | 260 | d/yr |
| Consumption of fuel | 0,25 | l/km |
| Fuel price | 1,2 | EUR/l |
| Investment cost for truck 8m3 | 110.000 | EUR |
| Investment cost for truck 16m3 | 140.000 | EUR |
| Driver cost | 13.780 | EUR/yr |

Direct Hauling to TS

| | | Dubrovnik | Korcula | Metkovic | Opuzen | Ploce | Blato | Dubrovacko primorje | Janjina |
|--|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------|--------------|
| Average 2020-2044 | t | 9.804 | 1.283 | 3.325 | 378 | 1.605 | 790 | 613 | 104 |
| Waste to be collected daily | t/d | 37,7 | 4,9 | 12,8 | 1,5 | 6,2 | 3,0 | 2,4 | 0,4 |
| Trips/day | | 2,6 | 0,7 | 1,8 | 0,4 | 1,7 | 0,8 | 0,7 | 0,1 |
| Trips/day/truck | | 1,3 | 0,7 | 1,8 | 0,4 | 1,7 | 0,8 | 0,7 | 0,1 |
| Daily total trip time | hr. | 1,3 | 1,4 | 0,2 | 0,2 | 1,6 | 0,3 | 0,2 | 0,0 |
| Loading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Unloading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Daily total loading/unloading time | hr. | 2,6 | 0,7 | 1,8 | 0,4 | 1,7 | 0,8 | 0,7 | 0,1 |
| Working day | hr. | 4,0 | 3,0 | 3,0 | 1,0 | 4,0 | 2,0 | 1,0 | 1,0 |
| Capacity of trucks (Assumption) | m3/truck | 16,0 | 16,0 | 16,0 | 8,0 | 8,0 | 8,0 | 8,0 | 8,0 |
| Density of waste in truck (Assumption) | ton/m3 | 0,45 | 0,45 | 0,45 | 0,45 | 0,45 | 0,45 | 0,45 | 0,45 |
| Truck capacity | t | 7,20 | 7,20 | 7,20 | 3,60 | 3,60 | 3,60 | 3,60 | 3,60 |
| Average haulage capacity per truck per day | t/day | 18,9 | 4,9 | 12,8 | 1,5 | 6,2 | 3,0 | 2,4 | 0,4 |
| Annual haulage capacity | t/year | 4901,8 | 1282,6 | 3324,9 | 377,5 | 1605,2 | 789,9 | 613,1 | 104,4 |
| Number of trucks required (Assumption) | | 2,0 | 1,0 | 1,0 | 1,0 | 1,0 | 1,0 | 1,0 | 1,0 |
| Number of loads | load/day | 2,6 | 0,7 | 1,8 | 0,4 | 1,7 | 0,8 | 0,7 | 0,1 |
| Distance to TS | km | 15,0 | 60,8 | 4,2 | 13,0 | 28,8 | 9,6 | 9,6 | 1,5 |
| Travelled distance | km/day | 30 | 122 | 8 | 26 | 58 | 19 | 19 | 3 |
| Travelled distance | km/year | 20.424 | 21.661 | 3.879 | 2.726 | 25.682 | 4.213 | 3.270 | 87 |
| Fuel consumption | l/yr | 5.106 | 5.415 | 970 | 682 | 6.421 | 1.053 | 817 | 22 |
| Fuel price | EUR/yr | 6.127 | 6.498 | 1.164 | 818 | 7.705 | 1.264 | 981 | 26 |
| Maintenance cost (4%) | EUR | 5.600 | 5.600 | 5.600 | 4.400 | 4.400 | 4.400 | 4.400 | 4.400 |
| Insurance cost (0.7%) | EUR | 980 | 980 | 980 | 770 | 770 | 770 | 770 | 770 |
| Drivers | EUR | 55.120 | 9.441 | 24.475 | 13.780 | 27.560 | 11.630 | 9.026 | 1.538 |
| Admin cost (20%) | EUR | 11.024 | 1.888 | 4.895 | 2.756 | 5.512 | 2.326 | 1.805 | 308 |
| Annual cost ferry price | EUR | 0 | 27.432 | | | | | | |
| Depreciation | EUR | | | | | | | | |
| TOTAL | EUR | 78.851 | 51.840 | 37.114 | 22.524 | 45.947 | 20.390 | 16.983 | 7.041 |
| | | 8 | 40 | 11 | 60 | 29 | 26 | 28 | 67 |

Variant 1: Six (6) Transfer Stations

METKOVIC

PLOCE

JANJINA

SITNICA

LASTOVO

MLJET

| VARIANT 1 (6 TS) | | | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 |
|-------------------------------|---------------------|--------------|------------------|---------|---------|---------|---------|---------|---------|---------|------------------|---------|---------|---------|---------|---------|---------|---------|------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| TS METKOVIC | Metkovic | t | 3.197 | 3.209 | 3.220 | 3.232 | 3.243 | 3.255 | 3.267 | 3.278 | 3.290 | 3.300 | 3.309 | 3.319 | 3.329 | 3.339 | 3.349 | 3.359 | 3.368 | 3.378 | 3.388 | 3.396 | 3.404 | 3.412 | 3.420 | 3.427 | 3.435 |
| | Opuzen | t | 363 | 364 | 366 | 367 | 368 | 370 | 371 | 372 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 384 | 385 | 386 | 386 | 387 | 388 | 389 | 390 |
| | Kula Norinska | t | 141 | 142 | 143 | 143 | 144 | 144 | 145 | 145 | 146 | 146 | 147 | 147 | 148 | 148 | 149 | 149 | 150 | 150 | 150 | 151 | 151 | 151 | 151 | 152 | 152 |
| | Pojezerje | t | 169 | 170 | 170 | 171 | 171 | 172 | 173 | 173 | 174 | 174 | 175 | 175 | 176 | 176 | 177 | 177 | 178 | 178 | 179 | 179 | 180 | 180 | 181 | 181 | 182 |
| | Zasabljje | t | 92 | 92 | 93 | 93 | 93 | 94 | 94 | 94 | 95 | 95 | 95 | 96 | 96 | 96 | 97 | 97 | 97 | 97 | 98 | 98 | 98 | 98 | 98 | 99 | 99 |
| TOTAL | 20,44 | EUR/t | 80.987 | 81.280 | 81.573 | 81.866 | 82.160 | 82.454 | 82.747 | 83.042 | 83.336 | 83.583 | 83.830 | 84.078 | 84.327 | 84.576 | 84.825 | 85.074 | 85.325 | 85.575 | 85.826 | 86.024 | 86.222 | 86.421 | 86.621 | 86.822 | 87.023 |
| TS PLOCE | Ploce | t | 1.543 | 1.549 | 1.555 | 1.560 | 1.566 | 1.571 | 1.577 | 1.583 | 1.588 | 1.593 | 1.598 | 1.602 | 1.607 | 1.612 | 1.617 | 1.621 | 1.626 | 1.631 | 1.636 | 1.639 | 1.643 | 1.647 | 1.651 | 1.655 | 1.658 |
| | Slivno | t | 389 | 391 | 392 | 393 | 395 | 396 | 398 | 399 | 400 | 402 | 403 | 404 | 405 | 406 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 |
| | TOTAL | 32,91 | EUR/t | 63.601 | 63.831 | 64.061 | 64.291 | 64.522 | 64.752 | 64.983 | 65.214 | 65.445 | 65.639 | 65.834 | 66.028 | 66.223 | 66.419 | 66.615 | 66.811 | 67.007 | 67.204 | 67.401 | 67.598 | 67.795 | 67.992 | 68.189 | 68.386 |
| TS JANJINA | Janjina | t | 100 | 101 | 101 | 102 | 102 | 103 | 103 | 103 | 103 | 104 | 104 | 104 | 105 | 105 | 105 | 106 | 106 | 106 | 107 | 107 | 107 | 107 | 108 | 108 | |
| | Orebic | t | 2.301 | 2.309 | 2.317 | 2.326 | 2.334 | 2.342 | 2.351 | 2.359 | 2.367 | 2.374 | 2.381 | 2.388 | 2.396 | 2.403 | 2.410 | 2.417 | 2.424 | 2.431 | 2.438 | 2.444 | 2.449 | 2.455 | 2.461 | 2.466 | 2.472 |
| | Trpanj | t | 108 | 108 | 108 | 109 | 109 | 109 | 110 | 110 | 111 | 111 | 111 | 112 | 112 | 113 | 113 | 113 | 113 | 114 | 114 | 114 | 114 | 115 | 115 | 115 | 116 |
| | Korcula | t | 1.233 | 1.238 | 1.242 | 1.247 | 1.251 | 1.256 | 1.260 | 1.265 | 1.269 | 1.273 | 1.277 | 1.280 | 1.284 | 1.288 | 1.292 | 1.296 | 1.299 | 1.303 | 1.307 | 1.310 | 1.313 | 1.316 | 1.319 | 1.322 | 1.325 |
| | Lumbarda | t | 492 | 494 | 496 | 498 | 500 | 501 | 503 | 505 | 507 | 508 | 510 | 511 | 513 | 514 | 516 | 517 | 519 | 520 | 522 | 523 | 524 | 526 | 527 | 528 | 529 |
| | TOTAL | 12,47 | EUR/t | 53.594 | 53.788 | 53.981 | 54.175 | 54.370 | 54.564 | 54.758 | 54.953 | 55.148 | 55.311 | 55.475 | 55.639 | 55.804 | 55.968 | 56.133 | 56.298 | 56.464 | 56.630 | 56.796 | 56.927 | 57.058 | 57.190 | 57.322 | 57.455 |
| TS SITAVICA | Blato | t | 760 | 762 | 765 | 768 | 771 | 773 | 776 | 779 | 782 | 784 | 786 | 789 | 791 | 793 | 796 | 798 | 800 | 803 | 805 | 807 | 808 | 811 | 812 | 814 | 816 |
| | Vela Luka | t | 883 | 886 | 890 | 893 | 896 | 899 | 902 | 906 | 909 | 912 | 914 | 917 | 920 | 922 | 925 | 928 | 931 | 933 | 936 | 938 | 940 | 943 | 945 | 947 | 949 |
| | TOTAL | 52,15 | EUR/t | 85.670 | 85.979 | 86.289 | 86.599 | 86.910 | 87.220 | 87.531 | 87.842 | 88.154 | 88.415 | 88.677 | 88.939 | 89.202 | 89.465 | 89.729 | 89.993 | 90.257 | 90.522 | 90.788 | 90.997 | 91.207 | 91.417 | 91.629 | 91.841 |
| | TOTAL | 314,04 | EUR/t | 42.452 | 42.606 | 42.759 | 42.913 | 43.067 | 43.221 | 43.375 | 43.529 | 43.683 | 43.813 | 43.942 | 44.072 | 44.203 | 44.333 | 44.464 | 44.595 | 44.726 | 44.857 | 44.989 | 45.092 | 45.196 | 45.300 | 45.405 | 45.510 |
| TS LASTOVO | Lastovo | t | 135 | 136 | 136 | 137 | 137 | 138 | 138 | 139 | 139 | 140 | 140 | 141 | 141 | 142 | 142 | 142 | 143 | 143 | 144 | 144 | 144 | 145 | 145 | 145 | |
| | TOTAL | 314,04 | EUR/t | 42.452 | 42.606 | 42.759 | 42.913 | 43.067 | 43.221 | 43.375 | 43.529 | 43.683 | 43.813 | 43.942 | 44.072 | 44.203 | 44.333 | 44.464 | 44.595 | 44.726 | 44.857 | 44.989 | 45.092 | 45.196 | 45.300 | 45.405 | |
| TS MIJET | Mijet | t | 122 | 122 | 123 | 123 | 123 | 124 | 124 | 125 | 125 | 126 | 126 | 127 | 127 | 127 | 127 | 128 | 128 | 129 | 129 | 129 | 130 | 130 | 130 | 131 | |
| | TOTAL | 344,11 | EUR/t | 41.865 | 42.017 | 42.168 | 42.320 | 42.471 | 42.623 | 42.775 | 42.927 | 43.079 | 43.207 | 43.335 | 43.463 | 43.592 | 43.720 | 43.849 | 43.978 | 44.107 | 44.237 | 44.367 | 44.469 | 44.571 | 44.674 | 44.778 | |
| DIRECT TO NAC | Dubrovačko primorje | t | 590 | 592 | 594 | 596 | 598 | 600 | 602 | 605 | 607 | 608 | 610 | 612 | 614 | 616 | 617 | 619 | 621 | 623 | 625 | 626 | 628 | 629 | 631 | 632 | 633 |
| | Ston | t | 1.249 | 1.254 | 1.258 | 1.263 | 1.267 | 1.272 | 1.276 | 1.281 | 1.286 | 1.289 | 1.293 | 1.297 | 1.301 | 1.305 | 1.309 | 1.312 | 1.316 | 1.320 | 1.324 | 1.327 | 1.330 | 1.333 | 1.336 | 1.342 | |
| | Dubrovnik | t | 9.427 | 9.461 | 9.495 | 9.529 | 9.563 | 9.597 | 9.632 | 9.666 | 9.700 | 9.729 | 9.758 | 9.787 | 9.815 | 9.844 | 9.873 | 9.903 | 9.932 | 9.961 | 9.990 | 10.013 | 10.036 | 10.059 | 10.083 | 10.106 | |
| | Konavle | t | 1.941 | 1.948 | 1.955 | 1.962 | 1.969 | 1.976 | 1.983 | 1.990 | 1.997 | 2.003 | 2.009 | 2.015 | 2.021 | 2.027 | 2.033 | 2.039 | 2.045 | 2.051 | 2.057 | 2.061 | 2.066 | 2.071 | 2.076 | 2.081 | 2.085 |
| | Zupa Dubrovačka | t | 1.109 | 1.113 | 1.117 | 1.121 | 1.125 | 1.129 | 1.133 | 1.137 | 1.141 | 1.145 | 1.148 | 1.151 | 1.155 | 1.158 | 1.162 | 1.165 | 1.168 | 1.172 | 1.175 | 1.178 | 1.181 | 1.183 | 1.186 | 1.189 | |
| | TOTAL | 70 | EUR/t | 14.315 | 14.367 | 14.419 | 14.471 | 14.523 | 14.575 | 14.626 | 14.678 | 14.731 | 14.774 | 14.818 | 14.862 | 14.906 | 14.950 | 14.994 | 15.038 | 15.082 | 15.126 | 15.171 | 15.206 | 15.241 | 15.276 | 15.311 | |
| | | 35 | EUR/t | 43.821 | 43.980 | 44.138 | 44.297 | 44.456 | 44.615 | 44.774 | 44.933 | 45.092 | 45.226 | 45.360 | 45.494 | 45.628 | 45.763 | 45.898 | 46.033 | 46.168 | 46.304 | 46.440 | 46.546 | 46.654 | 46.761 | 46.870 | |
| | | 23 | EUR/t | 212.820 | 213.590 | 214.360 | 215.130 | 215.901 | 216.673 | 217.445 | 218.218 | 218.992 | 219.641 | 220.291 | 220.943 | 221.596 | 222.249 | 222.904 | 223.560 | 224.218 | 224.876 | 225.535 | 226.055 | 226.576 | 227.099 | 227.624 | |
| | | 28 | EUR/t | 54.232 | 54.428 | 54.625 | 54.821 | 55.017 | 55.214 | 55.411 | 55.608 | 55.805 | 55.970 | 56.136 | 56.302 | 56.468 | 56.635 | 56.802 | 56.969 | 57.137 | 57.304 | 57.472 | 57.605 | 57.738 | 57.871 | 58.005 | |
| | | 43 | EUR/t | 47.356 | 47.528 | 47.699 | 47.870 | 48.042 | 48.214 | 48.386 | 48.558 | 48.730 | 48.874 | 49.019 | 49.164 | 49.309 | 49.455 | 49.600 | 49.746 | 49.893 | 50.039 | 50.186 | 50.301 | 50.417 | 50.534 | 50.651 | |
| | #DIV/0! | EUR/t | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | |
| | #DIV/0! | EUR/t | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | |
| | #DIV/0! | EUR/t | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | |
| #DIV/0! | EUR/t | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAPEX TS | EUR | | 3.158.540 | | | | | | | | 50.000 | | | | | | | | 50.000 | | | | | | | | |
| CAPEX MOBILE EQUIPMENT | EUR | | 3.008.000 | | | | | | | | 3.008.000 | | | | | | | | 3.008.000 | | | | | | | | |

Table 1.3: Investment cost for TS

| Process | | | | | |
|---------------------------------------|------------|---------------|------------------|-----------------------|-----------------|
| | Quantities | Unit Cost (€) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Civil works | | | | | |
| METKOVIC | | 633.000 | 633.000 | 7,6885 | 4.866.821 |
| PLOCE | | 530.750 | 530.750 | | 4.080.671 |
| JANJINA | | 530.750 | 530.750 | | 4.080.671 |
| SITNICA | | 521.270 | 521.270 | | 4.007.784 |
| LASTOVO | | 456.160 | 456.160 | | |
| MLJET | | 486.610 | 486.610 | | 3.741.301 |
| Total Cost for Civil works (i) | | - | 3.158.540 | | |

| Process | | | | | |
|--|------------|-----------|------------------|-----------------------|-------------------|
| | Quantities | Unit Cost | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Mobile equipment | | | | | |
| METKOVIC | | 518.000 | 518.000 | 7,6885 | 3.982.643 |
| PLOCE | | 280.000 | 280.000 | | 2.152.780 |
| JANJINA | | 280.000 | 280.000 | | 2.152.780 |
| SITNICA | | 280.000 | 280.000 | | 2.152.780 |
| LASTOVO | | 280.000 | 280.000 | | 2.152.780 |
| MLJET | | 280.000 | 280.000 | | 2.152.780 |
| | | | | | |
| Trucks of 16 m3 | 7 | 140.000 | 980.000 | | 7.534.730 |
| Trucks of 8 m3 | 1 | 110.000 | 110.000 | | 845.735 |
| Total Cost for Mobile equipment (i) | | - | 3.008.000 | | 23.127.008 |

| Intangible components | | | | | |
|--|-----------------|------------------|----------------|-----------------------|-----------------|
| | Quantities (no) | Unit Cost (€/no) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| TA & Supervision during implementation | - | | | | |
| Publicity | - | | | | |
| Public Utilities Works | - | | | | |
| Total Cost of Intangible components (v) | | | | | |

| | | | | | |
|--------------------------------|---|---|------------------|--|-------------------|
| Grand Total Cost for TS | - | - | 6.166.540 | | 43.904.257 |
|--------------------------------|---|---|------------------|--|-------------------|

| Data | Units | METKOVIC | PLOCE | JANJINA | SITNICA | LASTOVO | MLJET |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Waste quantity | t/a | 4.121 | 2.010 | 4.470 | 1.709 | 141 | 127 |
| Trips /a/truck | | 206 | 100 | 224 | 85 | 7 | 6 |
| Trips/day | | 0,8 | 0,4 | 0,9 | 0,3 | 0,0 | 0,0 |
| Truck capacity | t | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 |
| Average haulage capacity per truck per day | t/day | 15,85 | 7,73 | 8,60 | 6,57 | 0,54 | 0,49 |
| Average haulage capacity per truck per week | t/week | 79,25 | 38,65 | 42,98 | 32,86 | 2,70 | 2,43 |
| Annual haulage capacity | t/year | 4121 | 2010 | 2235 | 1709 | 141 | 127 |
| Number of trucks required | | 1,0 | 1,0 | 2,0 | 1,0 | 1,0 | 1,0 |
| Trips/week/truck | | 4 | 2 | 4 | 2 | 0,1 | 0,1 |
| Fuel cost | | | | | | | |
| Transported distance per day | km | 96 | 149 | 107 | 249 | 263 | 66 |
| Speed | km/hr | 50 | 50 | 50 | 50 | 50 | 50 |
| Daily total trip time | hr. | 1,5 | 1,2 | 0,9 | 1,7 | 0,1 | 0,0 |
| Loading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Unloading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Daily total loading/unloading time | hr. | 0,8 | 0,4 | 0,4 | 0,3 | 0,0 | 0,0 |
| Working day | hr. | 3,0 | 2,0 | 2,0 | 2,0 | 1,0 | 1,0 |
| Fuel consumption | l/km | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 |
| Total fuel consumed | l | 33,46 | 52,08 | 37,52 | 87,29 | 91,98 | 23,10 |
| Fuel price | EUR/l | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 |
| Fuel cost | €/a | 7.377 | 5.600 | 8.973 | 7.979 | 692 | 156 |
| Electricity cost | | | | | | | |
| Electricity cost (€/year) | €/year | 9.000 | 8.000 | 8.000 | 8.000 | 3.000 | 3.000 |
| Maintenance and Insurance cost | | | | | | | |
| Insurance cost (EUR) | 0,7% | 8.057 | 5.675 | 5.675 | 5.609 | 5.153 | 5.366 |
| Maintenance (EUR) equipment | 4,0% | 20.720 | 11.200 | 11.200 | 11.200 | 11.200 | 11.200 |
| Maintenance (EUR) total | 1,0% | 11.510 | 8.108 | 8.108 | 8.013 | 7.362 | 7.666 |
| Maintenance and Insurance cost | €/a | 40.287 | 24.983 | 24.983 | 24.822 | 23.715 | 24.232 |
| Staff cost | | | | | | | |
| Number of staff (including drivers) | | 2 | 2 | 1 | 2 | 1 | 1 |
| Total Cost (13780 EUR/a) | | 27.560 | 27.560 | 13.780 | 27.560 | 13.780 | 13.780 |
| Ferry cost | | | | | | | |
| One way cost | HRK | | | | | | |
| | EUR | | | | | | |
| Annual cost | EUR | | | | 20.733 | 2.962 | 2.370 |
| Total cost | €/a | 84.224 | 66.143 | 55.736 | 89.093 | 44.149 | 43.538 |
| Cost per t | €/t | 20,44 | 32,91 | 12,47 | 52,15 | 314,04 | 344,11 |

Total operational cost for 6transfer stations

382.882

30,44 €/t

Variant 1: Seven (7) Transfer Stations

METKOVIC

PLOCE

JANJINA

SITNICA

LASTOVO

MLJET

DUBROVNIK

Table 1.3: Investment cost for TS

| Process | | | | | |
|---------------------------------------|------------|---------------|------------------|-----------------------|-----------------|
| | Quantities | Unit Cost (€) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Civil works | | | | | |
| METKOVIC | | 633.000 | 633.000 | 7,6885 | 4.866.821 |
| PLOCE | | 530.750 | 530.750 | | 4.080.671 |
| JANJINA | | 530.750 | 530.750 | | 4.080.671 |
| SITNICA | | 521.270 | 521.270 | | 4.007.784 |
| LASTOVO | | 456.160 | 456.160 | | |
| MLJET | | 486.610 | 486.610 | | 3.741.301 |
| DUBROVNIK | | 1.087.500 | 1.087.500 | | 8.361.244 |
| Total Cost for Civil works (i) | | - | 4.246.040 | | |

| Process | | | | | |
|--|------------|-----------|------------------|-----------------------|-----------------|
| | Quantities | Unit Cost | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Mobile equipment | | | | | |
| METKOVIC | | 518.000 | 518.000 | 7,6885 | 3.982.643 |
| PLOCE | | 280.000 | 280.000 | | 2.152.780 |
| JANJINA | | 280.000 | 280.000 | | 2.152.780 |
| SITNICA | | 280.000 | 280.000 | | 2.152.780 |
| LASTOVO | | 280.000 | 280.000 | | 2.152.780 |
| MLJET | | 280.000 | 280.000 | | 2.152.780 |
| DUBROVNIK | | 698.000 | 698.000 | | 5.366.573 |
| Trucks of 16 m3 | 1 | 140.000 | 140.000 | | 1.076.390 |
| Trucks of 8 m3 | 1 | 110.000 | 110.000 | | 845.735 |
| Total Cost for Mobile equipment (i) | | - | 2.866.000 | | |

| Intangible components | | | | | |
|--|-----------------|------------------|----------------|-----------------------|-----------------|
| | Quantities (no) | Unit Cost (€/no) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| TA & Supervision during implementation | - | | | | |
| Publicity | - | | | | |
| Public Utilities Works | - | | | | |
| Total Cost of Intangible components (v) | | | | | |

| | | | | | |
|--------------------------------|---|---|------------------|--|-------------------|
| Grand Total Cost for TS | - | - | 7.112.040 | | 51.173.733 |
|--------------------------------|---|---|------------------|--|-------------------|

| Data | Units | METKOVIC | PLOCE | JANJINA | SITNICA | LASTOVO | MLJET | DUBROVNIK |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Waste quantity | t/a | 4.121 | 2.010 | 4.470 | 1.709 | 141 | 127 | 12.975 |
| Trips /a/truck | | 206 | 100 | 224 | 85 | 7 | 6 | 649 |
| Trips/day | | 0,8 | 0,4 | 0,9 | 0,3 | 0,0 | 0,0 | 2,5 |
| Truck capacity | t | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 |
| Average haulage capacity per truck per day | t/day | 15,85 | 7,73 | 8,60 | 6,57 | 0,54 | 0,49 | 24,95 |
| Average haulage capacity per truck per week | t/week | 79,25 | 38,65 | 42,98 | 32,86 | 2,70 | 2,43 | 124,76 |
| Annual haulage capacity | t/year | 4121 | 2010 | 2235 | 1709 | 141 | 127 | 6488 |
| Number of trucks required | | 1,0 | 1,0 | 2,0 | 1,0 | 1,0 | 1,0 | 2,0 |
| Trips/week/truck | | 4 | 2 | 4 | 2 | 0,1 | 0,1 | 12 |
| Fuel cost | | | | | | | | |
| Transported distance per day | km | 96 | 149 | 107 | 249 | 263 | 66 | 97 |
| Speed | km/hr | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Daily total trip time | hr. | 1,5 | 1,2 | 0,9 | 1,7 | 0,1 | 0,0 | 2,4 |
| Loading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Unloading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Daily total loading/unloading time | hr. | 0,8 | 0,4 | 0,4 | 0,3 | 0,0 | 0,0 | 1,3 |
| Working day | hr. | 3,0 | 2,0 | 2,0 | 2,0 | 1,0 | 1,0 | 4,0 |
| Fuel consumption | l/km | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 |
| Total fuel consumed | l | 33,46 | 52,08 | 37,52 | 87,29 | 91,98 | 23,10 | 33,81 |
| Fuel price | EUR/l | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 |
| Fuel cost | €/a | 7.377 | 5.600 | 8.973 | 7.979 | 692 | 156 | 23.470 |
| Electricity cost | | | | | | | | |
| Electricity cost (€/year) | €/year | 9.000 | 8.000 | 8.000 | 8.000 | 3.000 | 3.000 | 9.000 |
| Maintenance and Insurance cost | | | | | | | | |
| Insurance cost (EUR) | 0,7% | 8.057 | 5.675 | 5.675 | 5.609 | 5.153 | 5.366 | 12.499 |
| Maintenance (EUR) equipment | 4,0% | 20.720 | 11.200 | 11.200 | 11.200 | 11.200 | 11.200 | 27.920 |
| Maintenance (EUR) total | 1,0% | 11.510 | 8.108 | 8.108 | 8.013 | 7.362 | 7.666 | 17.855 |
| Maintenance and Insurance cost | €/a | 40.287 | 24.983 | 24.983 | 24.822 | 23.715 | 24.232 | 58.274 |
| Staff cost | | | | | | | | |
| Number of staff (including drivers) | | 2 | 2 | 1 | 2 | 1 | 1 | 2 |
| Total Cost (13780 EUR/a) | | 27.560 | 27.560 | 13.780 | 27.560 | 13.780 | 13.780 | 27.560 |
| Ferry cost | | | | | | | | |
| One way cost | HRK | | | | | | | |
| | EUR | | | | | | | |
| Annual cost | EUR | | | | 20.733 | 2.962 | 2.370 | |
| Total cost | €/a | 84.224 | 66.143 | 55.736 | 89.093 | 44.149 | 43.538 | 118.303 |
| Cost per t | €/t | 20,44 | 32,91 | 12,47 | 52,15 | 314,04 | 344,11 | 9,12 |

Total operational cost for 6transfer stations

501.186

19,61 €/t

Variant 3: Seven (6) Transfer Stations

METKOVIC

JANJINA

SITNICA

LASTOVO

MLJET

DUBROVNIK

Table 1.3: Investment cost for TS

| Process | | | | | |
|---------------------------------------|------------|---------------|------------------|-----------------------|-------------------|
| | Quantities | Unit Cost (€) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Civil works | | | | | |
| METKOVIC | | 633.000 | 633.000 | 7,6885 | 4.866.821 |
| JANJINA | | 530.750 | 530.750 | | 4.080.671 |
| VELA LUKA | | 521.270 | 521.270 | | 4.007.784 |
| LASTOVO | | 456.160 | 456.160 | | |
| MLJET | | 486.610 | 486.610 | | 3.741.301 |
| DUBROVNIK | | 1.087.500 | 1.087.500 | | 8.361.244 |
| Total Cost for Civil works (i) | | - | 3.715.290 | | 25.057.821 |

| Process | | | | | |
|--|------------|-----------|------------------|-----------------------|-------------------|
| | Quantities | Unit Cost | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Mobile equipment | | | | | |
| METKOVIC | | 518.000 | 518.000 | 7,6885 | 3.982.643 |
| JANJINA | | 280.000 | 280.000 | | 2.152.780 |
| SITNICA | | 280.000 | 280.000 | | 2.152.780 |
| LASTOVO | | 280.000 | 280.000 | | 2.152.780 |
| MLJET | | 280.000 | 280.000 | | 2.152.780 |
| DUBROVNIK | | 698.000 | 698.000 | | 5.366.573 |
| Trucks of 16 m3 | 1 | 140.000 | 140.000 | | 1.076.390 |
| Trucks of 8 m3 | 1 | 110.000 | 110.000 | | 845.735 |
| Total Cost for Mobile equipment (i) | | - | 2.586.000 | | 19.882.461 |

| Intangible components | | | | | |
|--|-----------------|------------------|----------------|-----------------------|-----------------|
| | Quantities (no) | Unit Cost (€/no) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| TA & Supervision during implementation | - | | | | |
| Publicity | - | | | | |
| Public Utilities Works | - | | | | |
| Total Cost of Intangible components (v) | | | | | |

| | | | | | |
|--------------------------------|---|---|------------------|--|-------------------|
| Grand Total Cost for TS | - | - | 6.301.290 | | 44.940.282 |
|--------------------------------|---|---|------------------|--|-------------------|

| Data | Units | METKOVIC | JANJINA | SITNICA | LASTOVO | MLJET | DUBROVNIK |
|--|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Waste quantity | t/a | 6.131 | 4.470 | 1.709 | 141 | 127 | 12.975 |
| Trips /a/truck | | 307 | 224 | 85 | 7 | 6 | 649 |
| Trips/day | | 1,2 | 0,9 | 0,3 | 0,0 | 0,0 | 2,5 |
| Trips/day/truck | | 0,6 | 0,4 | 0,3 | 0,0 | 0,0 | 1,3 |
| Truck capacity | t | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 |
| Average haulage capacity per truck per day | t/day | 11,79 | 8,60 | 6,57 | 0,54 | 0,49 | 24,95 |
| Average haulage capacity per truck per week | t/week | 58,95 | 42,98 | 32,86 | 2,70 | 2,43 | 124,76 |
| Annual haulage capacity | t/year | 3065 | 2235 | 1709 | 141 | 127 | 6488 |
| Number of trucks required | | 2,0 | 2,0 | 1,0 | 1,0 | 1,0 | 2,0 |
| Trips/week/truck | | 6 | 4 | 2 | 0,1 | 0,1 | 12 |
| Fuel cost | | | | | | | |
| Transported distance per day | km | 96 | 107 | 249 | 263 | 66 | 97 |
| Speed | km/hr | 50 | 50 | 50 | 50 | 50 | 50 |
| Daily total trip time | hr. | 1,1 | 0,9 | 1,7 | 0,1 | 0,0 | 2,4 |
| Loading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Unloading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Daily total loading/unloading time | hr. | 0,6 | 0,4 | 0,3 | 0,0 | 0,0 | 1,3 |
| Working day | hr. | 2,0 | 2,0 | 2,0 | 1,0 | 1,0 | 4,0 |
| Fuel consumption | l/km | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 |
| Total fuel consumed | l | 33,46 | 37,52 | 87,29 | 91,98 | 23,10 | 33,81 |
| Fuel price | EUR/l | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 |
| Fuel cost | €/a | 10.975 | 8.973 | 7.979 | 692 | 156 | 23.470 |
| Electricity cost | | | | | | | |
| Electricity cost (€/year) | €/year | 8.000 | 8.000 | 8.000 | 3.000 | 3.000 | 9.000 |
| Maintenance and Insurance cost | | | | | | | |
| Insurance cost (EUR) | 0,7% | 8.057 | 5.675 | 5.609 | 5.153 | 5.366 | 12.499 |
| Maintenance (EUR) equipment | 4,0% | 20.720 | 11.200 | 11.200 | 11.200 | 11.200 | 27.920 |
| Maintenance (EUR) total | 1,0% | 11.510 | 8.108 | 8.013 | 7.362 | 7.666 | 17.855 |
| Maintenance and Insurance cost | €/a | 40.287 | 24.983 | 24.822 | 23.715 | 24.232 | 58.274 |
| Staff cost | | | | | | | |
| Number of staff (including drivers) | | 2 | 1 | 2 | 1 | 1 | 2 |
| Total Cost (13780 EUR/a) | | 27.560 | 13.780 | 27.560 | 13.780 | 13.780 | 27.560 |
| Ferry cost | | | | | | | |
| One way cost | HRK | | | | | | |
| | EUR | | | | | | |
| Annual cost | EUR | | | 20.942 | 2.992 | 2.394 | |
| Total cost | €/a | 86.822 | 55.736 | 89.303 | 44.179 | 43.562 | 118.303 |
| Cost per t | €/t | 14,16 | 12,47 | 52,27 | 314,25 | 344,30 | 9,12 |

Total operational cost for 6transfer stations

437.904

17,14 €/t

PRESENT VALUE OF COSTS IN PRICES OF 2018 (€)

| YEAR | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | |
|---|-------------------|------|------|-----------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| Investment costs | 0 | 0 | 0 | 3.715.290 | 2.586.000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.636.000 | 0 | | | | | | | 2.636.000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Operational costs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed costs | 0 | 0 | 0 | 0 | 0 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 | 430.296 |
| Variable costs | 0 | 0 | 0 | 0 | 0 | 92.513 | 92.847 | 93.182 | 93.517 | 93.852 | 94.188 | 94.523 | 94.859 | 95.196 | 95.478 | 95.760 | 96.044 | 96.327 | 96.612 | 96.896 | 97.181 | 97.467 | 97.753 | 98.040 | 98.266 | 98.492 | 98.720 | 98.948 | 99.177 | 99.407 | |
| Total operational costs | 0 | 0 | 0 | 0 | 0 | 522.808 | 523.143 | 523.478 | 523.812 | 524.148 | 524.483 | 524.819 | 525.155 | 525.491 | 525.773 | 526.056 | 526.339 | 526.623 | 526.907 | 527.192 | 527.477 | 527.763 | 528.049 | 528.336 | 528.561 | 528.788 | 529.015 | 529.244 | 529.473 | 529.703 | |
| Total cost, Capex & Opex | 0 | 0 | 0 | 3.715.290 | 2.586.000 | 522.808 | 523.143 | 523.478 | 523.812 | 524.148 | 524.483 | 524.819 | 525.155 | 3.161.491 | 525.773 | 526.056 | 526.339 | 526.623 | 526.907 | 527.192 | 527.477 | 3.163.763 | 528.049 | 528.336 | 528.561 | 528.788 | 529.015 | 529.244 | 529.473 | 529.703 | |
| Present value all costs at discount rate 4% p.a. | 15.276.345 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waste treated, t | 0 | 0 | 0 | 0 | 0 | 26.408 | 26.504 | 26.599 | 26.695 | 26.791 | 26.887 | 26.982 | 27.078 | 27.174 | 27.255 | 27.336 | 27.416 | 27.497 | 27.578 | 27.660 | 27.741 | 27.823 | 27.904 | 27.986 | 28.051 | 28.115 | 28.180 | 28.245 | 28.311 | 28.377 | |
| Present quantity of waste at discount rate 4% p.a. | 364.522 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dynamic prime cost at discount rate 4% p.a. | 41,9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Variant 1: Five (5) Transfer Stations

METKOVIC

JANJINA

SITNICA

LASTOVO

MLJET

Table 1.3: Investment cost for TS

| Process | | | | | |
|---------------------------------------|------------|---------------|------------------|-----------------------|-----------------|
| | Quantities | Unit Cost (€) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Civil works | | | | | |
| METKOVIC | | 633.000 | 633.000 | 7,6885 | 4.866.821 |
| JANJINA | | 530.750 | 530.750 | | 4.080.671 |
| SITNICA | | 521.270 | 521.270 | | 4.007.784 |
| LASTOVO | | 456.160 | 456.160 | | |
| MLJET | | 486.610 | 486.610 | | 3.741.301 |
| Total Cost for Civil works (i) | | - | 2.627.790 | | |

| Process | | | | | |
|--|------------|-----------|------------------|-----------------------|-------------------|
| | Quantities | Unit Cost | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| Mobile equipment | | | | | |
| METKOVIC | | 518.000 | 518.000 | 7,6885 | 3.982.643 |
| JANJINA | | 280.000 | 280.000 | | 2.152.780 |
| SITNICA | | 280.000 | 280.000 | | 2.152.780 |
| LASTOVO | | 280.000 | 280.000 | | 2.152.780 |
| MLJET | | 280.000 | 280.000 | | 2.152.780 |
| Trucks of 16 m3 | 7 | 140.000 | 980.000 | | 7.534.730 |
| Trucks of 8 m3 | 1 | 110.000 | 110.000 | 845.735 | |
| Total Cost for Mobile equipment (i) | | - | 2.728.000 | | 20.974.228 |

| Intangible components | | | | | |
|--|-----------------|------------------|----------------|-----------------------|-----------------|
| | Quantities (no) | Unit Cost (€/no) | Total Cost (€) | Exchange rate kn/EURO | Total Cost (kn) |
| | (1) | (2) | (3)=(1)*(2) | (4) | (5)=(3)*(4) |
| TA & Supervision during implementation | - | | | | |
| Publicity | - | | | | |
| Public Utilities Works | - | | | | |
| Total Cost of Intangible components (v) | | | | | |

| | | | | | |
|--------------------------------|---|---|------------------|--|-------------------|
| Grand Total Cost for TS | - | - | 5.355.790 | | 37.670.805 |
|--------------------------------|---|---|------------------|--|-------------------|

| Data | Units | METKOVIC | JANJINA | SITNICA | LASTOVO | MLJET |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| Waste quantity | t/a | 6.131 | 4.470 | 1.709 | 141 | 127 |
| Trips /a/truck | | 307 | 224 | 85 | 7 | 6 |
| Trips/day | | 1,2 | 0,9 | 0,3 | 0,0 | 0,0 |
| Truck capacity | t | 19,80 | 19,80 | 19,80 | 19,80 | 19,80 |
| Average haulage capacity per truck per day | t/day | 11,79 | 8,60 | 6,57 | 0,54 | 0,49 |
| Average haulage capacity per truck per week | t/week | 58,95 | 42,98 | 32,86 | 2,70 | 2,43 |
| Annual haulage capacity | t/year | 3065 | 2235 | 1709 | 141 | 127 |
| Number of trucks required | | 2,0 | 2,0 | 1,0 | 1,0 | 1,0 |
| Trips/week/truck | | 6 | 4 | 2 | 0,1 | 0,1 |
| Fuel cost | | | | | | |
| Transported distance per day | km | 96 | 107 | 249 | 263 | 66 |
| Speed | km/hr | 50 | 50 | 50 | 50 | 50 |
| Daily total trip time | hr. | 1,1 | 0,9 | 1,7 | 0,1 | 0,0 |
| Loading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Unloading time | hr. | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 |
| Daily total loading/unloading time | hr. | 0,6 | 0,4 | 0,3 | 0,0 | 0,0 |
| Working day | hr. | 2,0 | 2,0 | 2,0 | 1,0 | 1,0 |
| Fuel consumption | l/km | 0,35 | 0,35 | 0,35 | 0,35 | 0,35 |
| Total fuel consumed | l | 33,46 | 37,52 | 87,29 | 91,98 | 23,10 |
| Fuel price | EUR/l | 1,07 | 1,07 | 1,07 | 1,07 | 1,07 |
| Fuel cost | €/a | 10.975 | 8.973 | 7.979 | 692 | 156 |
| | | | | | | |
| Electricity cost | | | | | | |
| Electricity cost (€/year) | €/year | 8.000 | 8.000 | 8.000 | 3.000 | 3.000 |
| | | | | | | |
| Maintenance and Insurance cost | | | | | | |
| Insurance cost (EUR) | 0,7% | 8.057 | 5.675 | 5.609 | 5.153 | 5.366 |
| Maintenance (EUR) equipment | 4,0% | 20.720 | 11.200 | 11.200 | 11.200 | 11.200 |
| Maintenance (EUR) total | 1,0% | 11.510 | 8.108 | 8.013 | 7.362 | 7.666 |
| Maintenance and Insurance cost | €/a | 40.287 | 24.983 | 24.822 | 23.715 | 24.232 |
| | | | | | | |
| Staff cost | | | | | | |
| Number of staff (including drivers) | | 2 | 1 | 2 | 1 | 1 |
| Total Cost (13780 EUR/a) | | 27.560 | 13.780 | 27.560 | 13.780 | 13.780 |
| | | | | | | |
| Ferry cost | | | | | | |
| One way cost | HRK | | | | | |
| | EUR | | | | | |
| Annual cost | EUR | | | 20.733 | 2.962 | 2.370 |
| | | | | | | |
| Total cost | €/a | 86.822 | 55.736 | 89.093 | 44.149 | 43.538 |
| Cost per t | €/t | 14,16 | 12,47 | 52,15 | 314,04 | 344,11 |

Total operational cost for 6transfer stations

319.337

25,39 €/t

