

様式3-様式4

費用集計表
(治山事業)

事業名：直轄地すべり防止事業
施行箇所：南小川地区

都道府県名：高知県

(単位：千円)

| 年度 | 事業費 | 割引率 | デフレター | 現在価値額 | 年度 | 事業費 | 割引率 | デフレター | 現在価値額 |
|------|---------|---------|-------|-----------|------|--------|--------|-------|------------|
| 1963 | | 10.1150 | | | 2039 | 0 | 0.5134 | | 0 |
| 1964 | 35,386 | 9.7260 | 40.4 | 866,967 | 2040 | 0 | 0.4936 | | 0 |
| 1965 | 40,000 | 9.3519 | 41.7 | 913,682 | 2041 | 0 | 0.4746 | | 0 |
| 1966 | 47,600 | 8.9922 | 44.4 | 980,459 | 2042 | 0 | 0.4564 | | 0 |
| 1967 | 48,000 | 8.6464 | 47.8 | 884,244 | 2043 | 0 | 0.4388 | | 0 |
| 1968 | 43,000 | 8.3138 | 51.3 | 708,724 | 2044 | 0 | 0.4220 | | 0 |
| 1969 | 45,000 | 7.9941 | 55.6 | 658,535 | 2045 | 0 | 0.4057 | | 0 |
| 1970 | 55,000 | 7.6866 | 60.1 | 716,094 | 2046 | 25,000 | 0.3901 | | 9,753 |
| 1971 | 93,919 | 7.3910 | 64.5 | 1,095,582 | 2047 | 0 | 0.3751 | | 0 |
| 1972 | 74,000 | 7.1067 | 71.3 | 750,858 | 2048 | 0 | 0.3607 | | 0 |
| 1973 | 68,400 | 6.8333 | 73.1 | 650,904 | 2049 | 0 | 0.3468 | | 0 |
| 1974 | 105,378 | 6.5705 | 76.0 | 927,433 | 2050 | 0 | 0.3335 | | 0 |
| 1975 | 140,341 | 6.3178 | 79.8 | 1,131,085 | 2051 | 0 | 0.3207 | | 0 |
| 1976 | 111,366 | 6.0748 | 81.0 | 850,251 | 2052 | 0 | 0.3083 | | 0 |
| 1977 | 185,164 | 5.8412 | 82.7 | 1,331,377 | 2053 | 0 | 0.2965 | | 0 |
| 1978 | 245,470 | 5.6165 | 85.1 | 1,649,234 | 2054 | 0 | 0.2851 | | 0 |
| 1979 | 231,689 | 5.4005 | 85.9 | 1,482,839 | 2055 | 0 | 0.2741 | | 0 |
| 1980 | 281,603 | 5.1928 | 84.0 | 1,772,178 | 2056 | 25,000 | 0.2636 | | 6,590 |
| 1981 | 265,700 | 4.9931 | 85.0 | 1,588,878 | 2057 | 0 | 0.2534 | | 0 |
| 1982 | 256,500 | 4.8010 | 87.1 | 1,439,291 | 2058 | 0 | 0.2437 | | 0 |
| 1983 | 287,122 | 4.6164 | 87.9 | 1,535,072 | 2059 | 0 | 0.2343 | | 0 |
| 1984 | 278,300 | 4.4388 | 88.9 | 1,414,571 | 2060 | 0 | 0.2253 | | 0 |
| 1985 | 319,100 | 4.2681 | 90.0 | 1,540,518 | 2061 | 0 | 0.2166 | | 0 |
| 1986 | 319,117 | 4.1039 | 92.4 | 1,442,854 | 2062 | 0 | 0.2083 | | 0 |
| 1987 | 431,046 | 3.9461 | 94.6 | 1,830,410 | 2063 | 0 | 0.2003 | | 0 |
| 1988 | 377,899 | 3.7943 | 97.1 | 1,503,266 | 2064 | 0 | 0.1926 | | 0 |
| 1989 | 366,990 | 3.6484 | 97.5 | 1,397,976 | 2065 | 0 | 0.1852 | | 0 |
| 1990 | 362,912 | 3.5081 | 98.1 | 1,321,150 | 2066 | 25,000 | 0.1780 | | 4,450 |
| 1991 | 331,650 | 3.3731 | 98.5 | 1,156,168 | 2067 | 0 | 0.1712 | | 0 |
| 1992 | 377,259 | 3.2434 | 99.2 | 1,255,672 | 2068 | 0 | 0.1646 | | 0 |
| 1993 | 360,657 | 3.1187 | 100.0 | 1,145,027 | 2069 | 0 | 0.1583 | | 0 |
| 1994 | 447,263 | 2.9987 | 102.0 | 1,338,578 | 2070 | 0 | 0.1522 | | 0 |
| 1995 | 238,811 | 2.8834 | 104.6 | 670,155 | 2071 | 0 | 0.1463 | | 0 |
| 1996 | 216,505 | 2.7725 | 106.2 | 575,391 | 2072 | 0 | 0.1407 | | 0 |
| 1997 | 225,201 | 2.6658 | 105.1 | 581,491 | 2073 | 0 | 0.1353 | | 0 |
| 1998 | 197,143 | 2.5633 | 104.7 | 491,340 | 2074 | 0 | 0.1301 | | 0 |
| 1999 | 339,337 | 2.4647 | 105.8 | 804,743 | 2075 | 0 | 0.1251 | | 0 |
| 2000 | 310,453 | 2.3699 | 106.5 | 703,273 | 2076 | 25,000 | 0.1203 | | 3,008 |
| 2001 | 266,619 | 2.2788 | 106.9 | 578,585 | | | | | |
| 2002 | 245,046 | 2.1911 | 106.4 | 513,708 | | | | | |
| 2003 | 231,662 | 2.1068 | 106.9 | 464,781 | | | | | |
| 2004 | 182,229 | 2.0258 | 107.0 | 351,219 | | | | | |
| 2005 | 218,127 | 1.9479 | 108.3 | 399,388 | | | | | |
| 2006 | 175,203 | 1.8730 | 108.4 | 308,175 | | | | | |
| 2007 | 112,355 | 1.8009 | 108.1 | 190,548 | | | | | |
| 2008 | 280,729 | 1.7317 | 105.1 | 470,874 | | | | | |
| 2009 | 247,105 | 1.6651 | 105.0 | 398,915 | | | | | |
| 2010 | 170,015 | 1.6010 | 106.3 | 260,671 | | | | | |
| 2011 | 213,350 | 1.5395 | 106.3 | 314,548 | | | | | |
| 2012 | 163,382 | 1.4802 | 106.1 | 232,037 | | | | | |
| 2013 | 314,386 | 1.4233 | 104.6 | 435,488 | | | | | |
| 2014 | 408,690 | 1.3686 | 101.4 | 561,540 | | | | | |
| 2015 | 323,799 | 1.3159 | 101.7 | 426,506 | | | | | |
| 2016 | 427,791 | 1.2653 | 102.1 | 539,693 | | | | | |
| 2017 | 464,660 | 1.2167 | 101.7 | 565,908 | | | | | |
| 2018 | 268,089 | 1.1699 | 101.4 | 314,875 | | | | | |
| 2019 | 335,105 | 1.1249 | 100.9 | 380,322 | | | | | |
| 2020 | 351,268 | 1.0816 | 100.3 | 385,613 | | | | | |
| 2021 | 212,526 | 1.0400 | 101.8 | 221,027 | | | | | |
| 2022 | 513,392 | 1.0000 | 101.8 | 513,392 | | | | | |
| 2023 | 199,542 | 0.9615 | | 191,860 | | | | | |
| 2024 | 208,633 | 0.9246 | | 192,902 | | | | | |
| 2025 | 199,542 | 0.8890 | | 177,393 | | | | | |
| 2026 | 72,269 | 0.8548 | | 61,776 | | | | | |
| 2027 | 0 | 0.8219 | | 0 | | | | | |
| 2028 | 0 | 0.7903 | | 0 | | | | | |
| 2029 | 0 | 0.7599 | | 0 | | | | | |
| 2030 | 0 | 0.7307 | | 0 | | | | | |
| 2031 | 0 | 0.7026 | | 0 | | | | | |
| 2032 | 0 | 0.6756 | | 0 | | | | | |
| 2033 | 0 | 0.6496 | | 0 | | | | | |
| 2034 | 0 | 0.6246 | | 0 | | | | | |
| 2035 | 0 | 0.6006 | | 0 | | | | | |
| 2036 | 25,000 | 0.5775 | | 14,438 | | | | | |
| 2037 | 0 | 0.5553 | | 0 | | | | | |
| 2038 | 0 | 0.5339 | | 0 | | | | | |
| | | | | | 合 計 | | | | 50,596,253 |
| | | | | | C = | | | | 50,596,253 |
| | | | | | | | | | 千円 |

デフレター：厚生労働省毎月勤労統計調査「実質賃金指数—決まって支給する給与（30人以上）」

山地保全便益
土砂流出防止便益
事業対象区域

19,748,793 千円

$$B = \left[\sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \right] \times \frac{(V1-V2) \times A \times U}{1.0}$$

- U: 下流のダムに堆積した1m3の土砂を除去するコスト(円/m3) 4,120
- 出典:(一社)ダム水源地土砂対策技術研究会「ダム堆積対策工法の概要」2014、国土交通省「令和4年度施工パッケージ型積算方式標準単価表」
- V1: 事業実施前における1ha当りの年間流出土砂量(m3) 600.00
- 出典:「治山全体調査の考え方進め方」**山腹崩壊地** 多
- V2: 事業実施後における1ha当りの年間流出土砂量(m3) 1.30
- 出典:「治山全体調査の考え方進め方」**整備済森林**
- A: 事業対象区域面積(ha) 0.26 ~ 109.56
- T: 整備期間 63
- Y: 評価期間 113
- t: 経過年数(治山事業の便益の算出に当たっては、各年度の事業費の累計を用いている。)
- i: 社会的割引率(0.04)

事業効果面積: 経過年ごとに発生する事業対象区域面積に対して、それぞれ年間流出土砂量等の安定する期間(t/T)を考慮して面積に換算して年度ごとに累計した面積

| 年度 | 社会的割引率 | 事業対象区域面積 ha | 効果額 千円 | 現在価値 千円 |
|------|---------|-------------|---------|---------|
| 1963 | 10.1150 | 0.00 | | |
| 1964 | 9.7260 | 0.26 | 641 | 6,234 |
| 1965 | 9.3519 | 0.54 | 1,332 | 12,457 |
| 1966 | 8.9922 | 0.89 | 2,195 | 19,738 |
| 1967 | 8.6464 | 1.24 | 3,059 | 26,449 |
| 1968 | 8.3138 | 1.56 | 3,848 | 31,992 |
| 1969 | 7.9941 | 1.89 | 4,662 | 37,268 |
| 1970 | 7.6866 | 2.30 | 5,673 | 43,606 |
| 1971 | 7.3910 | 2.99 | 7,375 | 54,509 |
| 1972 | 7.1067 | 3.53 | 8,707 | 61,878 |
| 1973 | 6.8333 | 4.03 | 9,941 | 67,930 |
| 1974 | 6.5705 | 4.80 | 11,840 | 77,795 |
| 1975 | 6.3178 | 5.83 | 14,381 | 90,856 |
| 1976 | 6.0748 | 6.64 | 16,379 | 99,499 |
| 1977 | 5.8412 | 8.00 | 19,733 | 115,264 |
| 1978 | 5.6165 | 9.80 | 24,173 | 135,768 |
| 1979 | 5.4005 | 11.50 | 28,366 | 153,191 |
| 1980 | 5.1928 | 13.56 | 33,448 | 173,689 |
| 1981 | 4.9931 | 15.51 | 38,258 | 191,026 |
| 1982 | 4.8010 | 17.38 | 42,870 | 205,819 |
| 1983 | 4.6164 | 19.48 | 48,050 | 221,818 |
| 1984 | 4.4388 | 21.52 | 53,082 | 235,620 |
| 1985 | 4.2681 | 23.85 | 58,829 | 251,088 |
| 1986 | 4.1039 | 26.18 | 64,577 | 265,018 |
| 1987 | 3.9461 | 29.34 | 72,371 | 285,583 |
| 1988 | 3.7943 | 32.11 | 79,204 | 300,524 |
| 1989 | 3.6484 | 34.79 | 85,815 | 313,087 |
| 1990 | 3.5081 | 37.44 | 92,351 | 323,977 |
| 1991 | 3.3731 | 39.87 | 98,345 | 331,728 |
| 1992 | 3.2434 | 42.63 | 105,153 | 341,053 |
| 1993 | 3.1187 | 45.27 | 111,665 | 348,250 |
| 1994 | 2.9987 | 48.55 | 119,756 | 359,112 |
| 1995 | 2.8834 | 50.30 | 124,072 | 357,749 |
| 1996 | 2.7725 | 51.88 | 127,969 | 354,794 |
| 1997 | 2.6658 | 53.53 | 132,039 | 351,990 |
| 1998 | 2.5633 | 54.97 | 135,591 | 347,560 |
| 1999 | 2.4647 | 57.46 | 141,733 | 349,329 |
| 2000 | 2.3699 | 59.74 | 147,357 | 349,221 |
| 2001 | 2.2788 | 61.69 | 152,167 | 346,758 |
| 2002 | 2.1911 | 63.49 | 156,607 | 343,142 |
| 2003 | 2.1068 | 65.18 | 160,776 | 338,723 |
| 2004 | 2.0258 | 66.52 | 164,081 | 332,395 |
| 2005 | 1.9479 | 68.12 | 168,028 | 327,302 |
| 2006 | 1.8730 | 69.40 | 171,185 | 320,630 |
| 2007 | 1.8009 | 70.22 | 173,208 | 311,930 |
| 2008 | 1.7317 | 72.28 | 178,289 | 308,743 |
| 2009 | 1.6651 | 74.09 | 182,754 | 304,304 |
| 2010 | 1.6010 | 75.33 | 185,812 | 297,485 |
| 2011 | 1.5395 | 76.90 | 189,685 | 292,020 |
| 2012 | 1.4802 | 78.09 | 192,620 | 285,116 |
| 2013 | 1.4233 | 80.39 | 198,294 | 282,232 |
| 2014 | 1.3686 | 83.38 | 205,669 | 281,479 |
| 2015 | 1.3159 | 85.75 | 211,515 | 278,333 |
| 2016 | 1.2653 | 88.88 | 219,235 | 277,398 |
| 2017 | 1.2167 | 92.29 | 227,647 | 276,978 |
| 2018 | 1.1699 | 94.25 | 232,481 | 271,980 |
| 2019 | 1.1249 | 96.70 | 238,524 | 268,316 |
| 2020 | 1.0816 | 99.27 | 244,864 | 264,845 |
| 2021 | 1.0400 | 100.83 | 248,712 | 258,660 |
| 2022 | 1.0000 | 104.59 | 257,986 | 257,986 |
| 2023 | 0.9615 | 106.05 | 261,588 | 251,517 |

| | | | | |
|------|--------|--------|---------|------------|
| 2024 | 0.9246 | 107.57 | 265,337 | 245,331 |
| 2025 | 0.8890 | 109.04 | 268,963 | 239,108 |
| 2026 | 0.8548 | 109.56 | 270,246 | 231,006 |
| 2027 | 0.8219 | 109.56 | 270,246 | 222,115 |
| 2028 | 0.7903 | 109.56 | 270,246 | 213,575 |
| 2029 | 0.7599 | 109.56 | 270,246 | 205,360 |
| 2030 | 0.7307 | 109.56 | 270,246 | 197,469 |
| 2031 | 0.7026 | 109.56 | 270,246 | 189,875 |
| 2032 | 0.6756 | 109.56 | 270,246 | 182,578 |
| 2033 | 0.6496 | 109.56 | 270,246 | 175,552 |
| 2034 | 0.6246 | 109.56 | 270,246 | 168,796 |
| 2035 | 0.6006 | 109.56 | 270,246 | 162,310 |
| 2036 | 0.5775 | 109.56 | 270,246 | 156,067 |
| 2037 | 0.5553 | 109.56 | 270,246 | 150,068 |
| 2038 | 0.5339 | 109.56 | 270,246 | 144,284 |
| 2039 | 0.5134 | 109.56 | 270,246 | 138,744 |
| 2040 | 0.4936 | 109.56 | 270,246 | 133,393 |
| 2041 | 0.4746 | 109.56 | 270,246 | 128,259 |
| 2042 | 0.4564 | 109.56 | 270,246 | 123,340 |
| 2043 | 0.4388 | 109.56 | 270,246 | 118,584 |
| 2044 | 0.4220 | 109.56 | 270,246 | 114,044 |
| 2045 | 0.4057 | 109.56 | 270,246 | 109,639 |
| 2046 | 0.3901 | 109.56 | 270,246 | 105,423 |
| 2047 | 0.3751 | 109.56 | 270,246 | 101,369 |
| 2048 | 0.3607 | 109.56 | 270,246 | 97,478 |
| 2049 | 0.3468 | 109.56 | 270,246 | 93,721 |
| 2050 | 0.3335 | 109.56 | 270,246 | 90,127 |
| 2051 | 0.3207 | 109.56 | 270,246 | 86,668 |
| 2052 | 0.3083 | 109.56 | 270,246 | 83,317 |
| 2053 | 0.2965 | 109.56 | 270,246 | 80,128 |
| 2054 | 0.2851 | 109.56 | 270,246 | 77,047 |
| 2055 | 0.2741 | 109.56 | 270,246 | 74,074 |
| 2056 | 0.2636 | 109.56 | 270,246 | 71,237 |
| 2057 | 0.2534 | 109.56 | 270,246 | 68,480 |
| 2058 | 0.2437 | 109.56 | 270,246 | 65,859 |
| 2059 | 0.2343 | 109.56 | 270,246 | 63,319 |
| 2060 | 0.2253 | 109.56 | 270,246 | 60,886 |
| 2061 | 0.2166 | 109.56 | 270,246 | 58,535 |
| 2062 | 0.2083 | 109.56 | 270,246 | 56,292 |
| 2063 | 0.2003 | 109.56 | 270,246 | 54,130 |
| 2064 | 0.1926 | 109.56 | 270,246 | 52,049 |
| 2065 | 0.1852 | 109.56 | 270,246 | 50,050 |
| 2066 | 0.1780 | 109.56 | 270,246 | 48,104 |
| 2067 | 0.1712 | 109.56 | 270,246 | 46,266 |
| 2068 | 0.1646 | 109.56 | 270,246 | 44,482 |
| 2069 | 0.1583 | 109.56 | 270,246 | 42,780 |
| 2070 | 0.1522 | 109.56 | 270,246 | 41,131 |
| 2071 | 0.1463 | 109.56 | 270,246 | 39,537 |
| 2072 | 0.1407 | 109.56 | 270,246 | 38,024 |
| 2073 | 0.1353 | 109.56 | 270,246 | 36,564 |
| 2074 | 0.1301 | 109.56 | 270,246 | 35,159 |
| 2075 | 0.1251 | 109.56 | 270,246 | 33,808 |
| 2076 | 0.1203 | 109.56 | 270,246 | 32,511 |
| 合計 | | | | 19,748,793 |

山地保全便益
土砂流出防止便益
保全効果区域

80,816,939 千円

$$B = \sum_{t=1}^Y \frac{(V1-V2) \times t \times A \times U}{Y \times 1.0 \times (1+i)^t}$$

| | | |
|-----|--|----------------|
| U: | 下流のダムに堆積した1m3の土砂を除去するコスト(円/m3) | 4,120 |
| V1: | 事業を実施しない場合に想定される保全効果区域における将来の年間流出土砂量(m3) 出典:「(一社)ダム水源土砂対策技術研究会「ダム堆積対策工法の概要」2014、国土交通省「令和4年度施工パッケージ型積算方式標準単価表」 | 山腹崩壊地 多 600.00 |
| V2: | 保全効果区域における現在の1ha当りの年間流出土砂量(m3) 出典:「治山全体調査の考え方進め方」 「森林の公益的機能に関する文献要約集」 「森林水文」 | 整備済森林 1.30 |
| A: | 保全効果区域面積(ha) 出典:「治山全体調査の考え方進め方」 「森林の公益的機能に関する文献要約集」 「森林水文」 | 1,040.90 |
| Y: | 評価期間 | 113 |
| i: | 社会的割引率(0.04) | |

| 年度 | 社会的割引率 | t/Y | 事業効果面積 ha | 効果額 千円 | 現在価値 千円 |
|------|---------|--------|-----------|-----------|-----------|
| 1963 | 10.1150 | | | | |
| 1964 | 9.7260 | 0.0088 | 2.46 | 53 | 515 |
| 1965 | 9.3519 | 0.0177 | 5.24 | 229 | 2,142 |
| 1966 | 8.9922 | 0.0265 | 8.55 | 559 | 5,027 |
| 1967 | 8.6464 | 0.0354 | 11.89 | 1,038 | 8,975 |
| 1968 | 8.3138 | 0.0442 | 14.88 | 1,622 | 13,485 |
| 1969 | 7.9941 | 0.0531 | 18.01 | 2,359 | 18,858 |
| 1970 | 7.6866 | 0.0619 | 21.84 | 3,335 | 25,635 |
| 1971 | 7.3910 | 0.0708 | 28.37 | 4,954 | 36,615 |
| 1972 | 7.1067 | 0.0796 | 33.52 | 6,581 | 46,769 |
| 1973 | 6.8333 | 0.0885 | 38.27 | 8,354 | 57,085 |
| 1974 | 6.5705 | 0.0973 | 45.60 | 10,944 | 71,908 |
| 1975 | 6.3178 | 0.1062 | 55.37 | 14,505 | 91,640 |
| 1976 | 6.0748 | 0.1150 | 63.11 | 17,902 | 108,751 |
| 1977 | 5.8412 | 0.1239 | 75.99 | 23,224 | 135,656 |
| 1978 | 5.6165 | 0.1327 | 93.06 | 30,461 | 171,084 |
| 1979 | 5.4005 | 0.1416 | 109.18 | 38,134 | 205,943 |
| 1980 | 5.1928 | 0.1504 | 128.76 | 47,768 | 248,050 |
| 1981 | 4.9931 | 0.1593 | 147.24 | 57,856 | 288,881 |
| 1982 | 4.8010 | 0.1681 | 165.08 | 68,449 | 328,624 |
| 1983 | 4.6164 | 0.1770 | 185.05 | 80,792 | 372,968 |
| 1984 | 4.4388 | 0.1858 | 204.41 | 93,682 | 415,836 |
| 1985 | 4.2681 | 0.1947 | 226.60 | 108,826 | 464,480 |
| 1986 | 4.1039 | 0.2035 | 248.80 | 124,888 | 512,528 |
| 1987 | 3.9461 | 0.2124 | 278.78 | 146,057 | 576,356 |
| 1988 | 3.7943 | 0.2212 | 305.06 | 166,447 | 631,550 |
| 1989 | 3.6484 | 0.2301 | 330.59 | 187,635 | 684,568 |
| 1990 | 3.5081 | 0.2389 | 355.83 | 209,684 | 735,592 |
| 1991 | 3.3731 | 0.2478 | 378.89 | 231,591 | 781,180 |
| 1992 | 3.2434 | 0.2566 | 405.13 | 256,423 | 831,682 |
| 1993 | 3.1187 | 0.2655 | 430.22 | 281,748 | 878,687 |
| 1994 | 2.9987 | 0.2743 | 461.33 | 312,136 | 936,002 |
| 1995 | 2.8834 | 0.2832 | 477.94 | 333,867 | 962,672 |
| 1996 | 2.7725 | 0.2920 | 492.99 | 355,081 | 984,462 |
| 1997 | 2.6658 | 0.3009 | 508.66 | 377,534 | 1,006,430 |
| 1998 | 2.5633 | 0.3097 | 522.37 | 399,049 | 1,022,882 |
| 1999 | 2.4647 | 0.3186 | 545.97 | 429,063 | 1,057,512 |
| 2000 | 2.3699 | 0.3274 | 567.56 | 458,350 | 1,086,244 |
| 2001 | 2.2788 | 0.3363 | 586.11 | 486,197 | 1,107,946 |
| 2002 | 2.1911 | 0.3451 | 603.15 | 513,425 | 1,124,966 |
| 2003 | 2.1068 | 0.3540 | 619.26 | 540,733 | 1,139,216 |
| 2004 | 2.0258 | 0.3628 | 631.94 | 565,522 | 1,145,634 |
| 2005 | 1.9479 | 0.3717 | 647.11 | 593,304 | 1,155,697 |
| 2006 | 1.8730 | 0.3805 | 659.29 | 618,782 | 1,158,979 |
| 2007 | 1.8009 | 0.3894 | 667.11 | 640,767 | 1,153,957 |
| 2008 | 1.7317 | 0.3982 | 686.63 | 674,420 | 1,167,893 |
| 2009 | 1.6651 | 0.4071 | 703.82 | 706,755 | 1,176,818 |
| 2010 | 1.6010 | 0.4159 | 715.65 | 734,169 | 1,175,405 |
| 2011 | 1.5395 | 0.4248 | 730.48 | 765,419 | 1,178,363 |
| 2012 | 1.4802 | 0.4336 | 741.85 | 793,436 | 1,174,444 |
| 2013 | 1.4233 | 0.4425 | 763.71 | 833,582 | 1,186,437 |
| 2014 | 1.3686 | 0.4513 | 792.14 | 881,807 | 1,206,841 |
| 2015 | 1.3159 | 0.4602 | 814.66 | 924,761 | 1,216,893 |
| 2016 | 1.2653 | 0.4690 | 844.41 | 976,861 | 1,236,022 |
| 2017 | 1.2167 | 0.4779 | 876.73 | 1,033,497 | 1,257,456 |
| 2018 | 1.1699 | 0.4867 | 895.38 | 1,074,918 | 1,257,547 |
| 2019 | 1.1249 | 0.4956 | 918.69 | 1,123,070 | 1,263,341 |
| 2020 | 1.0816 | 0.5044 | 943.12 | 1,173,407 | 1,269,157 |
| 2021 | 1.0400 | 0.5133 | 957.90 | 1,212,824 | 1,261,337 |
| 2022 | 1.0000 | 0.5221 | 993.61 | 1,279,606 | 1,279,606 |
| 2023 | 0.9615 | 0.5310 | 1007.48 | 1,319,585 | 1,268,781 |
| 2024 | 0.9246 | 0.5398 | 1022.00 | 1,360,787 | 1,258,184 |
| 2025 | 0.8890 | 0.5487 | 1035.87 | 1,401,996 | 1,246,374 |
| 2026 | 0.8548 | 0.5575 | 1040.90 | 1,431,398 | 1,223,559 |

| | | | | | |
|------|--------|--------|---------|-----------|------------|
| 2027 | 0.8219 | 0.5664 | 1040.90 | 1,454,249 | 1,195,247 |
| 2028 | 0.7903 | 0.5752 | 1040.90 | 1,476,843 | 1,167,149 |
| 2029 | 0.7599 | 0.5841 | 1040.90 | 1,499,694 | 1,139,617 |
| 2030 | 0.7307 | 0.5929 | 1040.90 | 1,522,288 | 1,112,336 |
| 2031 | 0.7026 | 0.6018 | 1040.90 | 1,545,139 | 1,085,615 |
| 2032 | 0.6756 | 0.6106 | 1040.90 | 1,567,734 | 1,059,161 |
| 2033 | 0.6496 | 0.6195 | 1040.90 | 1,590,585 | 1,033,244 |
| 2034 | 0.6246 | 0.6283 | 1040.90 | 1,613,179 | 1,007,592 |
| 2035 | 0.6006 | 0.6372 | 1040.90 | 1,636,030 | 982,600 |
| 2036 | 0.5775 | 0.6460 | 1040.90 | 1,658,624 | 957,855 |
| 2037 | 0.5553 | 0.6549 | 1040.90 | 1,681,475 | 933,723 |
| 2038 | 0.5339 | 0.6637 | 1040.90 | 1,704,069 | 909,802 |
| 2039 | 0.5134 | 0.6726 | 1040.90 | 1,726,921 | 886,601 |
| 2040 | 0.4936 | 0.6814 | 1040.90 | 1,749,515 | 863,561 |
| 2041 | 0.4746 | 0.6903 | 1040.90 | 1,772,366 | 841,165 |
| 2042 | 0.4564 | 0.6991 | 1040.90 | 1,794,960 | 819,220 |
| 2043 | 0.4388 | 0.7080 | 1040.90 | 1,817,811 | 797,655 |
| 2044 | 0.4220 | 0.7168 | 1040.90 | 1,840,405 | 776,651 |
| 2045 | 0.4057 | 0.7257 | 1040.90 | 1,863,256 | 755,923 |
| 2046 | 0.3901 | 0.7345 | 1040.90 | 1,885,851 | 735,670 |
| 2047 | 0.3751 | 0.7434 | 1040.90 | 1,908,702 | 715,954 |
| 2048 | 0.3607 | 0.7522 | 1040.90 | 1,931,296 | 696,618 |
| 2049 | 0.3468 | 0.7611 | 1040.90 | 1,954,147 | 677,698 |
| 2050 | 0.3335 | 0.7699 | 1040.90 | 1,976,741 | 659,243 |
| 2051 | 0.3207 | 0.7788 | 1040.90 | 1,999,592 | 641,269 |
| 2052 | 0.3083 | 0.7876 | 1040.90 | 2,022,186 | 623,440 |
| 2053 | 0.2965 | 0.7965 | 1040.90 | 2,045,037 | 606,353 |
| 2054 | 0.2851 | 0.8053 | 1040.90 | 2,067,632 | 589,482 |
| 2055 | 0.2741 | 0.8142 | 1040.90 | 2,090,483 | 573,001 |
| 2056 | 0.2636 | 0.8230 | 1040.90 | 2,113,077 | 557,007 |
| 2057 | 0.2534 | 0.8319 | 1040.90 | 2,135,928 | 541,244 |
| 2058 | 0.2437 | 0.8407 | 1040.90 | 2,158,522 | 526,032 |
| 2059 | 0.2343 | 0.8496 | 1040.90 | 2,181,373 | 511,096 |
| 2060 | 0.2253 | 0.8584 | 1040.90 | 2,203,968 | 496,554 |
| 2061 | 0.2166 | 0.8673 | 1040.90 | 2,226,819 | 482,329 |
| 2062 | 0.2083 | 0.8761 | 1040.90 | 2,249,413 | 468,553 |
| 2063 | 0.2003 | 0.8850 | 1040.90 | 2,272,264 | 455,134 |
| 2064 | 0.1926 | 0.8938 | 1040.90 | 2,294,858 | 441,990 |
| 2065 | 0.1852 | 0.9027 | 1040.90 | 2,317,709 | 429,240 |
| 2066 | 0.1780 | 0.9115 | 1040.90 | 2,340,303 | 416,574 |
| 2067 | 0.1712 | 0.9204 | 1040.90 | 2,363,154 | 404,572 |
| 2068 | 0.1646 | 0.9292 | 1040.90 | 2,385,749 | 392,694 |
| 2069 | 0.1583 | 0.9381 | 1040.90 | 2,408,600 | 381,281 |
| 2070 | 0.1522 | 0.9469 | 1040.90 | 2,431,194 | 370,028 |
| 2071 | 0.1463 | 0.9558 | 1040.90 | 2,454,045 | 359,027 |
| 2072 | 0.1407 | 0.9646 | 1040.90 | 2,476,639 | 348,463 |
| 2073 | 0.1353 | 0.9735 | 1040.90 | 2,499,490 | 338,181 |
| 2074 | 0.1301 | 0.9823 | 1040.90 | 2,522,084 | 328,123 |
| 2075 | 0.1251 | 0.9912 | 1040.90 | 2,544,935 | 318,371 |
| 2076 | 0.1203 | 1.0000 | 1040.90 | 2,567,530 | 308,874 |
| 合計 | | | | | 80,816,939 |

山地保全便益

土砂崩壊防止便益 施設整備主体の場合（施設整備のみで効果が発揮される場合）

52,664 千円

$$B = \sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \times U \times V$$

$$V = \frac{0.01 \times (A + (L \times H) / 20,000) \times R \times N \times H \times 10,000}{10,000}$$

- U: 下流のダムに堆積した1m3の土砂を除去するコスト(円/m3) 4,120
- 出典: (一)ダム水源地土砂対策技術研究会「ダム堆積対策工法の概要」2014、国土交通省「令和4年度施工パッケージ型積算方式標準単価表」
- V: 崩壊見込み量 (m3/年) 0.00 ~ 174.89
- A: 事業対象区域面積 (ha) 0.26 ~ 109.56
- R: 流域内崩壊率 166 吉野川 0.0046
- 出典: 「治山全体調査」S42からS46
- N: 雨量比=50年確率日雨量/既往最大日雨量 1.1000
- L: 事業対象区域の周囲長 (m) (治山事業のみ算定対象) 37670
- 0 周囲面積 L×H/10,000 (ha) 0.00 ~ 11.30
- H: 平均崩壊深 (m) 3.0
- T: 整備期間 (便益の算出に当たっては、整備期間までの事業費の合計を用いている。) 63
- Y: 評価期間 113
- i: 社会的割引率 (0.04)
- 10,000: 単位合わせのための調整値

| 年度 | 社会的割引率 | 崩壊見込み量 m3 | 効果額 千円 | 現在価値 千円 |
|------|---------|-----------|--------|---------|
| 1963 | 10.1150 | | | |
| 1964 | 9.7260 | 0.42 | 2 | 19 |
| 1965 | 9.3519 | 0.87 | 4 | 37 |
| 1966 | 8.9922 | 1.43 | 6 | 54 |
| 1967 | 8.6464 | 1.99 | 8 | 69 |
| 1968 | 8.3138 | 2.50 | 10 | 83 |
| 1969 | 7.9941 | 3.03 | 12 | 96 |
| 1970 | 7.6866 | 3.67 | 15 | 115 |
| 1971 | 7.3910 | 4.77 | 20 | 148 |
| 1972 | 7.1067 | 5.63 | 23 | 163 |
| 1973 | 6.8333 | 6.44 | 27 | 184 |
| 1974 | 6.5705 | 7.66 | 32 | 210 |
| 1975 | 6.3178 | 9.30 | 38 | 240 |
| 1976 | 6.0748 | 10.60 | 44 | 267 |
| 1977 | 5.8412 | 12.77 | 53 | 310 |
| 1978 | 5.6165 | 15.64 | 64 | 359 |
| 1979 | 5.4005 | 18.35 | 76 | 410 |
| 1980 | 5.1928 | 21.63 | 89 | 462 |
| 1981 | 4.9931 | 24.75 | 102 | 509 |
| 1982 | 4.8010 | 27.74 | 114 | 547 |
| 1983 | 4.6164 | 31.10 | 128 | 591 |
| 1984 | 4.4388 | 34.35 | 142 | 630 |
| 1985 | 4.2681 | 38.07 | 157 | 670 |
| 1986 | 4.1039 | 41.80 | 172 | 706 |
| 1987 | 3.9461 | 46.84 | 193 | 762 |
| 1988 | 3.7943 | 51.26 | 211 | 801 |
| 1989 | 3.6484 | 55.55 | 229 | 835 |
| 1990 | 3.5081 | 59.78 | 246 | 863 |
| 1991 | 3.3731 | 63.66 | 262 | 884 |
| 1992 | 3.2434 | 68.07 | 280 | 908 |
| 1993 | 3.1187 | 72.28 | 298 | 929 |
| 1994 | 2.9987 | 77.51 | 319 | 957 |
| 1995 | 2.8834 | 80.31 | 331 | 954 |
| 1996 | 2.7725 | 82.83 | 341 | 945 |
| 1997 | 2.6658 | 85.47 | 352 | 938 |
| 1998 | 2.5633 | 87.76 | 362 | 928 |
| 1999 | 2.4647 | 91.73 | 378 | 932 |
| 2000 | 2.3699 | 95.37 | 393 | 931 |
| 2001 | 2.2788 | 98.48 | 406 | 925 |
| 2002 | 2.1911 | 101.35 | 418 | 916 |
| 2003 | 2.1068 | 104.04 | 429 | 904 |
| 2004 | 2.0258 | 106.18 | 437 | 885 |
| 2005 | 1.9479 | 108.73 | 448 | 873 |
| 2006 | 1.8730 | 110.78 | 456 | 854 |
| 2007 | 1.8009 | 112.09 | 462 | 832 |
| 2008 | 1.7317 | 115.37 | 475 | 823 |
| 2009 | 1.6651 | 118.26 | 487 | 811 |
| 2010 | 1.6010 | 120.24 | 495 | 792 |
| 2011 | 1.5395 | 122.74 | 506 | 779 |
| 2012 | 1.4802 | 124.64 | 514 | 761 |
| 2013 | 1.4233 | 128.32 | 529 | 753 |
| 2014 | 1.3686 | 133.09 | 548 | 750 |
| 2015 | 1.3159 | 136.87 | 564 | 742 |
| 2016 | 1.2653 | 141.87 | 585 | 740 |
| 2017 | 1.2167 | 147.31 | 607 | 739 |
| 2018 | 1.1699 | 150.44 | 620 | 725 |
| 2019 | 1.1249 | 154.36 | 636 | 715 |

| | | | | |
|------|--------|--------|-----|--------|
| 2020 | 1.0816 | 158.47 | 653 | 706 |
| 2021 | 1.0400 | 160.95 | 663 | 690 |
| 2022 | 1.0000 | 166.95 | 688 | 688 |
| 2023 | 0.9615 | 169.28 | 697 | 670 |
| 2024 | 0.9246 | 171.71 | 707 | 654 |
| 2025 | 0.8890 | 174.05 | 717 | 637 |
| 2026 | 0.8548 | 174.89 | 721 | 616 |
| 2027 | 0.8219 | 174.89 | 721 | 593 |
| 2028 | 0.7903 | 174.89 | 721 | 570 |
| 2029 | 0.7599 | 174.89 | 721 | 548 |
| 2030 | 0.7307 | 174.89 | 721 | 527 |
| 2031 | 0.7026 | 174.89 | 721 | 507 |
| 2032 | 0.6756 | 174.89 | 721 | 487 |
| 2033 | 0.6496 | 174.89 | 721 | 468 |
| 2034 | 0.6246 | 174.89 | 721 | 450 |
| 2035 | 0.6006 | 174.89 | 721 | 433 |
| 2036 | 0.5775 | 174.89 | 721 | 416 |
| 2037 | 0.5553 | 174.89 | 721 | 400 |
| 2038 | 0.5339 | 174.89 | 721 | 385 |
| 2039 | 0.5134 | 174.89 | 721 | 370 |
| 2040 | 0.4936 | 174.89 | 721 | 356 |
| 2041 | 0.4746 | 174.89 | 721 | 342 |
| 2042 | 0.4564 | 174.89 | 721 | 329 |
| 2043 | 0.4388 | 174.89 | 721 | 316 |
| 2044 | 0.4220 | 174.89 | 721 | 304 |
| 2045 | 0.4057 | 174.89 | 721 | 293 |
| 2046 | 0.3901 | 174.89 | 721 | 281 |
| 2047 | 0.3751 | 174.89 | 721 | 270 |
| 2048 | 0.3607 | 174.89 | 721 | 260 |
| 2049 | 0.3468 | 174.89 | 721 | 250 |
| 2050 | 0.3335 | 174.89 | 721 | 240 |
| 2051 | 0.3207 | 174.89 | 721 | 231 |
| 2052 | 0.3083 | 174.89 | 721 | 222 |
| 2053 | 0.2965 | 174.89 | 721 | 214 |
| 2054 | 0.2851 | 174.89 | 721 | 206 |
| 2055 | 0.2741 | 174.89 | 721 | 198 |
| 2056 | 0.2636 | 174.89 | 721 | 190 |
| 2057 | 0.2534 | 174.89 | 721 | 183 |
| 2058 | 0.2437 | 174.89 | 721 | 176 |
| 2059 | 0.2343 | 174.89 | 721 | 169 |
| 2060 | 0.2253 | 174.89 | 721 | 162 |
| 2061 | 0.2166 | 174.89 | 721 | 156 |
| 2062 | 0.2083 | 174.89 | 721 | 150 |
| 2063 | 0.2003 | 174.89 | 721 | 144 |
| 2064 | 0.1926 | 174.89 | 721 | 139 |
| 2065 | 0.1852 | 174.89 | 721 | 134 |
| 2066 | 0.1780 | 174.89 | 721 | 128 |
| 2067 | 0.1712 | 174.89 | 721 | 123 |
| 2068 | 0.1646 | 174.89 | 721 | 119 |
| 2069 | 0.1583 | 174.89 | 721 | 114 |
| 2070 | 0.1522 | 174.89 | 721 | 110 |
| 2071 | 0.1463 | 174.89 | 721 | 105 |
| 2072 | 0.1407 | 174.89 | 721 | 101 |
| 2073 | 0.1353 | 174.89 | 721 | 98 |
| 2074 | 0.1301 | 174.89 | 721 | 94 |
| 2075 | 0.1251 | 174.89 | 721 | 90 |
| 2076 | 0.1203 | 174.89 | 721 | 87 |
| 合計 | | | | 52,664 |