

Coyote Creek Annual Sediment Basin Yield Report for 2000

WS#1

Full 2000 Survey points avg.: $248.8 / 80 = 3.09$
Elevation calculation: $3.09 - 1.794 = 1.296$
Empty 2002 Survey points avg.: $273.44 / 80 = 3.42$
Elevation calculation: $3.42 - 1.698 = 1.722$
Elevation difference: $1.722 - 1.296 = 0.426$
Square Footage used in calculation (80 pts x 4) x .0929 = 29.728 m²
Sediment volume: $29.728 \text{ m}^2 \times .426\text{m} = 12.66 \text{ m}^3$
Basin wide: $12.66 \text{ m}^3 / 69.2 \text{ ha.} = 0.18 \text{ m}^3/\text{ha}$

WS#2

Full 2000 Survey points avg.: $196.97 / 70 = 2.81$
Elevation calculation: $2.81 - 1.543 = 1.267$
Empty 2000 Survey points avg.: $192.75 / 70 = 2.75$
Elevation calculation: $2.75 - 1.405 = 1.345$
Elevation difference: $1.345 - 1.267 = 0.078$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \times 0.078 = 2.03 \text{ m}^3$
Basin wide: $2.03\text{m}^3 / 68.4 \text{ ha.} = 0.03 \text{ m}^3/\text{ha}$

WS#3

Full 2000 Survey points avg.: $166.27 / 70 = 2.38$
Elevation calculation: $2.38 - 1.501 = 0.879$
Empty 2000 Survey points avg.: $225.6 / 70 = 3.22$
Elevation calculation: $3.22 - 1.612 = 1.608$
Elevation difference: $1.608 - 0.879 = 0.729$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \times 0.972 = 18.96 \text{ m}^3$
Basin wide: $18.96 \text{ m}^3 / 49.8 \text{ ha.} = 0.381 \text{ m}^3/\text{ha}$

WS#4

Full 2000 Survey points avg.: $154.02 / 70 = 2.20$
Elevation calculation: $2.20 - 1.394 = 0.806$
Empty 2000 Survey points avg.: $224.54 / 70 = 3.21$
Elevation calculation: $3.21 - 1.173 = 2.037$
Elevation difference: $2.037 - 0.806 = 1.231$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \times 0.972 = 32.02 \text{ m}^3$
Basin wide: $18.96 \text{ m}^3 / 49.8 \text{ ha.} = 0.66 \text{ m}^3/\text{ha}$

2017 Note: These sediment volume calculations are in question because the WS#1 and WS#2 values are much higher than any of the bucket count calculations that we have recorded since 2003. The WS#3 and #4 values are more reasonable for those sites but the Empty / Full surveys lines are offset by 1 ft. The Empty survey was performed starting at 2 ft. from the basin wall on the gaging station side, where as the Full survey was performed starting at the 1 ft point from the basin wall on the gaging station site so the individual survey points aren't exactly comparable. Further examination of the data should be done to decide if the data is useable or not.

Coyote Creek Annual Sediment Basin Yield Report for 2001

WS#1

Full 2001 Survey points avg.: $265.61 / 90 = 2.95$
Elevation calculation: $2.95 - 1.610 = 1.340$
Empty 2002 Survey points avg.: $298.31 / 90 = 3.31$
Elevation calculation: $3.31 - 1.698 = 1.612$
Elevation difference: $1.612 - 1.340 = 0.272$
Square Footage used in calculation (90 pts x 4) x .0929 = 33.444 m²
Sediment volume: $33.444 \text{ m}^2 \times .272 \text{ m} = 9.10 \text{ m}^3$
Basin wide: $9.10 \text{ m}^3 / 69.2 \text{ ha.} = 0.132 \text{ m}^3/\text{ha}$

WS#2

Full 2001 Survey points avg.: $197.8 / 70 = 2.83$
Elevation calculation: $2.83 - 1.549 = 1.281$
Empty 2000 Survey points avg.: $192.75 / 70 = 2.75$
Elevation calculation: $2.75 - 1.405 = 1.345$
Elevation difference: $1.345 - 1.281 = 0.064$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \text{ m}^2 \times 0.064 = 1.66 \text{ m}^3$
Basin wide: $1.66 \text{ m}^3 / 68.4 \text{ ha.} = 0.024 \text{ m}^3/\text{ha}$

WS#3

Full 2001 Survey points avg.: $205.57 / 70 = 2.94$
Elevation calculation: $2.94 - 1.213 = 1.727$
Empty 2000 Survey points avg.: $225.61 / 70 = 3.22$
Elevation calculation: $3.22 - 1.612 = 1.608$
Elevation difference: $1.727 - 1.608 = 0.119$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \text{ m}^2 \times 0.119 = 3.095 \text{ m}^3$
Basin wide: $3.095 \text{ m}^3 / 49.8 \text{ ha.} = 0.062 \text{ m}^3/\text{ha}$

WS#4

Full 2001 Survey points avg.: $249.77 / 70 = 3.54$
Elevation calculation: $3.54 - 1.499 = 2.041$
Empty 2000 Survey points avg.: $224.54 / 70 = 3.21$
Elevation calculation: $3.21 - 1.173 = 2.037$
Elevation difference: $2.041 - 2.037 = 0.004$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \text{ m}^2 \times 0.004 = 0.104 \text{ m}^3$
Basin wide: $0.104 \text{ m}^3 / 49.8 \text{ ha.} = 0.002 \text{ m}^3/\text{ha}$

2017 Note: These sediment volume calculations are in question because the WS#1 and WS#2 values are much higher than any of the bucket count calculations that we have recorded since 2003. The WS#3 and #4 values are more reasonable for those sites but the Empty / Full surveys lines are offset by 1 ft. The Empty survey was performed starting at 2 ft. from the basin wall on the gaging station side, where as the Full survey was performed starting at the 1 ft point from the basin wall on the gaging station site so the individual survey points aren't exactly comparable. Further examination of the data should be done to decide if the data is useable or not.

Coyote Creek Annual Sediment Basin Yield Report for 2002

WS#1

Full 2002 Survey points avg.: $281.05 / 90 = 3.12$
Elevation calculation: $3.12 - 1.794 = 1.326$
Empty 2000 Survey points avg.: $298.31 / 90 = 3.31$
Elevation calculation: $3.31 - 1.698 = 1.612$
Elevation difference: $1.612 - 1.326 = 0.286$
Square Footage used in calculation (90 pts x 4) x .0929 = 33.444 m²
Sediment volume: $33.444 \text{ m}^2 \times 0.286 \text{ m} = 9.57 \text{ m}^3$
Basin wide: $9.57 \text{ m}^3 / 69.2 \text{ ha.} = 0.138 \text{ m}^3/\text{ha}$

WS#2

Full 2002 Survey points avg.: $206.43 / 70 = 2.95$
Elevation calculation: $2.95 - 1.698 = 1.252$
Empty 2000 Survey points avg.: $192.75 / 70 = 2.75$
Elevation calculation: $2.75 - 1.405 = 1.345$
Elevation difference: $1.345 - 1.252 = 0.093$
Square Footage used in calculation (70 pts x 4) x .0929 = 26.012 m²
Sediment volume: $26.012 \text{ m}^2 \times 0.093 \text{ m} = 2.419 \text{ m}^3$
Basin wide: $2.419 \text{ m}^3 / 68.4 \text{ ha.} = 0.035 \text{ m}^3/\text{ha}$

WS#3

Total # of 5 gallon buckets = 22
Sediment Volume = $22 \times 0.019 = 0.418 \text{ m}^3$
Basin wide: $0.418 \text{ cubic meters} / 49.8 \text{ hectares} = 0.008 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = 50.5
Sediment Volume = $50.5 \times 0.019 = 0.960 \text{ m}^3$
Basin wide: $0.960 \text{ cubic meters} / 48.6 \text{ hectares} = 0.020 \text{ m}^3 / \text{ha}$

2017 Note: These sediment volume calculations for WS# 1 and WS#2 are in question because the WS#1 and WS#2 values are much higher than any of the bucket count calculations that we have recorded since 2003. The WS#3 and #4 values are bucket counts so we have confidence in those values.

Coyote Creek Annual Sediment Basin Yield Report for 2003

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = 5.5

Sediment Volume = $5.5 \times 0.019 = .105 \text{ m}^3$

Basin wide: $0.105 \text{ cubic meters} / 69.2 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = 6

Sediment Volume = $6 \times 0.019 = 0.114 \text{ m}^3$

Basin wide: $0.114 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = 45

Sediment Volume = $45 \times 0.019 = 0.855 \text{ m}^3$

Basin wide: $0.855 \text{ cubic meters} / 49.8 \text{ hectares} = 0.017 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = 18

Sediment Volume = $18 \times 0.019 = 0.342 \text{ m}^3$

Basin wide: $0.342 \text{ cubic meters} / 48.6 \text{ hectares} = 0.007 \text{ m}^3 / \text{ha}$

Coyote Creek Annual Sediment Basin Yield Report for 2004

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = 23.5

Sediment Volume = $23.5 \times 0.019 = 0.447 \text{ m}^3$

Basin wide: $0.447 \text{ cubic meters} / 69.2 \text{ hectares} = 0.007 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = 7.5

Sediment Volume = $7.5 \times 0.019 = 0.143 \text{ m}^3$

Basin wide: $0.143 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = 137.5

Sediment Volume = $137.5 \times 0.019 = 2.613 \text{ m}^3$

Basin wide: $2.613 \text{ cubic meters} / 49.8 \text{ hectares} = 0.053 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = 23.5

Sediment Volume = $23.5 \times 0.019 = 0.447 \text{ m}^3$

Basin wide: $0.447 \text{ cubic meters} / 48.6 \text{ hectares} = 0.009 \text{ m}^3 / \text{ha}$

Coyote Creek Annual Sediment Basin Yield Report for 2005

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = 14.5

Sediment Volume = $14.5 \times 0.019 = 0.274 \text{ m}^3$

Basin wide: $0.274 \text{ cubic meters} / 69.2 \text{ hectares} = 0.004 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = 19

Sediment Volume = $12 \times 0.019 = 0.228 \text{ m}^3$

Basin wide: $0.228 \text{ cubic meters} / 68.4 \text{ hectares} = 0.003 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = 181

Sediment Volume = $181 \times 0.019 = 3.439 \text{ m}^3$

Basin wide: $3.439 \text{ cubic meters} / 49.8 \text{ hectares} = 0.069 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = 36

Sediment Volume = $36 \times 0.019 = 0.684 \text{ m}^3$

Basin wide: $0.684 \text{ cubic meters} / 48.6 \text{ hectares} = 0.014 \text{ m}^3 / \text{ha}$

Coyote Creek Annual Sediment Basin Yield Calculations for 2006

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = 66

Sediment Volume = $66 \times 0.019 = 1.254 \text{ m}^3$

Basin wide: $1.254 \text{ cubic meters} / 69.2 \text{ hectares} = 0.018 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = 19

Sediment Volume = $19 \times 0.019 = 0.361 \text{ m}^3$

Basin wide: $0.361 \text{ cubic meters} / 68.4 \text{ hectares} = 0.005 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = 884

Sediment Volume = $884 \times 0.019 = 16.796 \text{ m}^3$

Basin wide: $16.796 \text{ cubic meters} / 49.8 \text{ hectares} = 0.337 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = 57

Sediment Volume = $57 \times 0.019 = 1.083 \text{ m}^3$

Basin wide: $1.083 \text{ cubic meters} / 48.6 \text{ hectares} = 0.022 \text{ m}^3 / \text{ha}$

Coyote Creek Annual Sediment Basin Yield Report for 2007

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $14 \text{ half buckets} / 2 = 7$

Sediment Volume = $7 \times 0.019 = 0.133 \text{ m}^3$

Basin wide: $0.133 \text{ cubic meters} / 69.2 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $23 \text{ half buckets} / 2 = 11.5$

Sediment Volume = $11.5 \times 0.019 = 0.219 \text{ m}^3$

Basin wide: $0.219 \text{ cubic meters} / 68.4 \text{ hectares} = 0.003 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $327 \text{ half buckets} / 2 = 163.5 \text{ full buckets}$

Sediment Volume = $163.5 \times 0.019 = 3.107 \text{ m}^3$

Basin wide: $3.107 \text{ cubic meters} / 49.8 \text{ hectares} = 0.063 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $41 \text{ half buckets} / 2 = 20.5 \text{ full buckets}$

Sediment Volume = $20.5 \times 0.019 = 0.390 \text{ m}^3$

Basin wide: $0.390 \text{ cubic meters} / 48.6 \text{ hectares} = 0.008 \text{ m}^3 / \text{ha}$

Originally, in the field, the bucket tally was recorded in half buckets. I did not realize this so I am correcting my bucket count by dividing the tally by 2 and rounding to the next highest bucket. 7-18-2008

Coyote Creek Annual Sediment Basin Yield Report for 2008

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $7 \text{ half buckets} / 2 = 3.5$

Sediment Volume = $3.5 \times 0.019 = .067 \text{ m}^3$

Basin wide: $0.067 \text{ cubic meters} / 69.2 \text{ hectares} = 0.001 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $11 \text{ half buckets} / 2 = 5.5$ or 6

Sediment Volume = $6 \times 0.019 = 0.114 \text{ m}^3$

Basin wide: $0.114 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $114 \text{ half buckets} / 2 = 57$ full buckets

Sediment Volume = $57 \times 0.019 = 1.083 \text{ m}^3$

Basin wide: $1.083 \text{ cubic meters} / 49.8 \text{ hectares} = 0.022 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $23 \text{ half buckets} / 2 = 11.5$ or 12 full buckets

Sediment Volume = $12 \times 0.019 = 0.228 \text{ m}^3$

Basin wide: $0.228 \text{ cubic meters} / 48.6 \text{ hectares} = 0.005 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2009

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $33 \text{ half buckets} / 2 = 16.5$

Sediment Volume = $16.5 \times 0.019 = 0.314 \text{ m}^3$

Basin wide: $0.314 \text{ cubic meters} / 69.2 \text{ hectares} = 0.005 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $34 \text{ half buckets} / 2 = 17$

Sediment Volume = $17 \times 0.019 = 0.323 \text{ m}^3$

Basin wide: $0.323 \text{ cubic meters} / 68.4 \text{ hectares} = 0.005 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $165 \text{ half buckets} / 2 = 82.5 \text{ full buckets}$

Sediment Volume = $82.5 \times 0.019 = 1.568 \text{ m}^3$

Basin wide: $1.568 \text{ cubic meters} / 49.8 \text{ hectares} = 0.032 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $81 \text{ half buckets} / 2 = 40.5 \text{ full buckets}$

Sediment Volume = $40.5 \times 0.019 = 0.770 \text{ m}^3$

Basin wide: $0.770 \text{ cubic meters} / 48.6 \text{ hectares} = 0.016 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2010

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $7 \text{ half buckets} / 2 = 3.5$

Sediment Volume = $3.5 \times 0.019 = 0.067 \text{ m}^3$

Basin wide: $0.067 \text{ cubic meters} / 69.2 \text{ hectares} = 0.001 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $8 \text{ half buckets} / 2 = 4$

Sediment Volume = $4 \times 0.019 = 0.076 \text{ m}^3$

Basin wide: $0.076 \text{ cubic meters} / 68.4 \text{ hectares} = 0.001 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $94 \text{ half buckets} / 2 = 47 \text{ full buckets}$

Sediment Volume = $47 \times 0.019 = 0.893 \text{ m}^3$

Basin wide: $0.893 \text{ cubic meters} / 49.8 \text{ hectares} = 0.018 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $23 \text{ half buckets} / 2 = 11.5 \text{ full buckets}$

Sediment Volume = $11.5 \times 0.019 = 0.219 \text{ m}^3$

Basin wide: $\text{cubic meters } 0.219 \text{ m}^3 / 48.6 \text{ hectares} = 0.005 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2011

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $51 \text{ half buckets} / 2 = 25.5$

Sediment Volume = $25.5 \times 0.019 = 0.485 \text{ m}^3$

Basin wide: $0.485 \text{ cubic meters} / 69.2 \text{ hectares} = 0.007 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $17 \text{ half buckets} / 2 = 8.5$

Sediment Volume = $8.5 \times 0.019 = 0.162 \text{ m}^3$

Basin wide: $0.162 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $949 \text{ half buckets} / 2 = 474.5 \text{ full buckets}$

Sediment Volume = $474.5 \times 0.019 = 9.016 \text{ m}^3$

Basin wide: $9.016 \text{ cubic meters} / 49.8 \text{ hectares} = 0.181 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $253 \text{ half buckets} / 2 = 126.5 \text{ full buckets}$

Sediment Volume = $126.5 \times 0.019 = 2.404 \text{ m}^3$

Basin wide: $\text{cubic meters } 2.404 \text{ m}^3 / 48.6 \text{ hectares} = 0.050 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2012

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $8 \text{ half buckets} / 2 = 4$

Sediment Volume = $4 \times 0.019 = 0.076 \text{ m}^3$

Basin wide: $0.076 \text{ cubic meters} / 69.2 \text{ hectares} = 0.001 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $13 \text{ half buckets} / 2 = 6.5$

Sediment Volume = $6.5 \times 0.019 = 0.124 \text{ m}^3$

Basin wide: $0.124 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $420 \text{ half buckets} / 2 = 210 \text{ full buckets}$

Sediment Volume = $210 \times 0.019 = 3.99 \text{ m}^3$

Basin wide: $3.99 \text{ cubic meters} / 49.8 \text{ hectares} = 0.080 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $65 \text{ half buckets} / 2 = 32.5 \text{ full buckets}$

Sediment Volume = $32.5 \times 0.019 = 0.618 \text{ m}^3$

Basin wide: $0.618 \text{ cubic meters} / 48.6 \text{ hectares} = 0.013 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2013

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $14 \text{ half buckets} / 2 = 7$

Sediment Volume in sediment basin = $7 \times 0.019 = 0.133 \text{ m}^3$

Sediment volume/ha calculation: Volume in sediment basin \div watershed (ha's)

Sed. Volume/ha : $0.133 \text{ cubic meters} / 69.2 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $4 \text{ half buckets} / 2 = 2$

Sediment Volume = $2 \times 0.019 = 0.038 \text{ m}^3$

Sediment volume/ha: $0.038 \text{ cubic meters} / 68.4 \text{ hectares} = 0.0005 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $543 \text{ half buckets} / 2 = 271.5 \text{ full buckets}$

Sediment Volume = $271.5 \times 0.019 = 5.159 \text{ m}^3$

Sediment volume/ha: $5.159 \text{ cubic meters} / 49.8 \text{ hectares} = 0.104 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $125 \text{ half buckets} / 2 = 62.5 \text{ full buckets}$

Sediment Volume = $62.5 \times 0.019 = 1.188 \text{ m}^3$

Sediment volume/ha: $\text{cubic meters } 1.188 \text{ m}^3 / 48.6 \text{ hectares} = 0.024 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2014

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $105 \text{ half buckets} / 2 = 52.5$

Sediment Volume in sediment basin = $\times 0.019 = 0. \text{ m}^3$

Sediment volume/ha calculation: Volume in sediment basin \div watershed (ha's)

Sed. Volume/ha : $1.00 \text{ cubic meters} / 69.2 \text{ hectares} = 0.015 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $13 \text{ half buckets} / 2 = 6.5$

Sediment Volume = $6.5 \times 0.019 = 0.124 \text{ m}^3$

Sediment volume/ha: $0.124 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$

WS#3

Total # of 5 gallon buckets = $1113 \text{ half buckets} / 2 = 556.5 \text{ full buckets}$

Sediment Volume = $556.5 \times 0.019 = 10.574 \text{ m}^3$

Sediment volume/ha: $10.574 \text{ cubic meters} / 49.8 \text{ hectares} = 0.212 \text{ m}^3 / \text{ha}$

WS#4

Total # of 5 gallon buckets = $537 \text{ half buckets} / 2 = 268.5 \text{ full buckets}$

Sediment Volume = $268.5 \times 0.019 = 5.102 \text{ m}^3$

Sediment volume/ha: $\text{cubic meters } 5.102 \text{ m}^3 / 48.6 \text{ hectares} = 0.105 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2015

WS#1

$$1 \text{ liquid gallon} = 0.003785 \text{ m}^3$$

$$\text{Volume of a 5 gallon bucket} = 5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$$

$$\text{Total \# of 5 gallon buckets} = 46 \text{ half buckets} / 2 = 23$$

$$\text{Sediment Volume in sediment basin} = 23 \times 0.019 = 0.437 \text{ m}^3$$

Sediment volume/ha calculation: Volume in sediment basin \div watershed (ha's)

$$\text{Sed. Volume/ha} : 0.437 \text{ cubic meters} / 69.2 \text{ hectares} = 0.006 \text{ m}^3 / \text{ha}$$

WS#2

$$\text{Total \# of 5 gallon buckets} = 16 \text{ half buckets} / 2 = 8$$

$$\text{Sediment Volume} = 8 \times 0.019 = 0.152 \text{ m}^3$$

$$\text{Sediment volume/ha} : 0.152 \text{ cubic meters} / 68.4 \text{ hectares} = 0.002 \text{ m}^3 / \text{ha}$$

WS#3

$$\text{Total \# of 5 gallon buckets} = 1484 \text{ half buckets} / 2 = 742 \text{ full buckets}$$

$$\text{Sediment Volume} = 742 \times 0.019 = 14.098 \text{ m}^3$$

$$\text{Sediment volume/ha} : 14.098 \text{ cubic meters} / 49.8 \text{ hectares} = 0.283 \text{ m}^3 / \text{ha}$$

WS#4

$$\text{Total \# of 5 gallon buckets} = 944 \text{ half buckets} / 2 = 472 \text{ full buckets}$$

$$\text{Sediment Volume} = 472 \times 0.019 = 8.968 \text{ m}^3$$

$$\text{Sediment volume/ha} : \text{cubic meters } 8.968 \text{ m}^3 / 48.6 \text{ hectares} = 0.185 \text{ m}^3 / \text{ha}$$

In the field, sediment was tallied in half buckets.

Coyote Creek Annual Sediment Basin Yield Report for 2016

WS#1

1 liquid gallon = 0.003785 m^3

Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$

Total # of 5 gallon buckets = $76 \text{ half buckets} / 2 = 38$

Sediment Volume in sediment basin = $38 \times 0.019 = 0.722 \text{ m}^3$

Sediment volume/ha calculation: Volume in sediment basin \div watershed (ha's)

Sed. Volume/ha : $0.722 \text{ cubic meters} / 69.2 \text{ hectares} = 0.010 \text{ m}^3 / \text{ha}$

WS#2

Total # of 5 gallon buckets = $28 \text{ half buckets} / 2 = 14$

Sediment Volume = $14 \times 0.019 = 0.266 \text{ m}^3$

Sediment volume/ha: $0.266 \text{ cubic meters} / 68.4 \text{ hectares} = 0.004 \text{ m}^3 / \text{ha}$

WS#3

1 excavator bucket = 33 full - 5 gallon buckets

Total # of excavator buckets = $11.5 \quad 11.5 \times 33 = 379.5 \text{ 5 gallon buckets}$

Total # of 5 gallon buckets $379.5 + 3 \text{ extra} = 382.5$

Sediment Volume = $382.5 \times 0.019 = 7.268 \text{ m}^3$

Sediment volume/ha: $7.268 \text{ cubic meters} / 49.8 \text{ hectares} = 0.146 \text{ m}^3 / \text{ha}$

WS#4

11 full excavator buckets = $11 \times 33 = 363 \text{ full 5 gallon buckets}$

Also $304 \frac{1}{2}$ buckets collected $304 / 2 = 152 + 10 \text{ extra} = 162 \text{ full buckets}$

Total # of 5 gallon buckets = $363 + 162 = 525 \text{ full buckets}$

Sediment Volume = $525 \times 0.019 = 9.975 \text{ m}^3$

Sediment volume/ha: $\text{cubic meters } 9.975 \text{ m}^3 / 48.6 \text{ hectares} = 0.205 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets of a 5 gallon bucket.

Also in an excavator bucket that holds 33 , full, 5 gallon buckets

Coyote Creek Annual Sediment Basin Yield Report for 2017

WS#1

1 liquid gallon = 0.003785 m^3
Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$
Total number of $\frac{1}{2}$ buckets = 25
Total # of 5 gallon buckets = $25 \text{ half buckets} / 2 = 12.5$
Sediment Volume in sediment basin = $12.5 \times 0.019 = 0.238 \text{ m}^3$
Sediment volume/ha calculation: Volume in sediment basin \div watershed (ha's)
Sed. Volume/ha : $0.238 \text{ cubic meters} / 69.2 \text{ hectares} = 0.003 \text{ m}^3 / \text{ha}$

WS#2

Total # of $\frac{1}{2}$ buckets = 5
Total # of 5 gallon buckets = $5 \text{ half buckets} / 2 = 2.5$
Sediment Volume = $2.5 \times 0.019 = 0.048 \text{ m}^3$
Sediment volume/ha: $0.048 \text{ cubic meters} / 68.4 \text{ hectares} = 0.0007 \text{ m}^3 / \text{ha}$

WS#3

Total number of $\frac{1}{2}$ buckets = 194
Total # of 5 gallon buckets = $194/2 = 97 \text{ full buckets}$
Sediment Volume = $97 \times 0.019 = 1.843 \text{ m}^3$
Sediment volume/ha: $1.843 \text{ cubic meters} / 49.8 \text{ hectares} = 0.037 \text{ m}^3 / \text{ha}$

WS#4

Total number of $\frac{1}{2}$ buckets
 $264 \text{ half buckets} / 2 = 132 \text{ full 5 gallon buckets}$
Sediment Volume = $132 \times 0.019 = 2.508 \text{ m}^3$
Sediment volume/ha: $\text{cubic meters } 2.508 \text{ m}^3 / 48.6 \text{ hectares} = 0.052 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets of a 5 gallon bucket.

We did not need to use an excavator or backhoe to empty any of the basins, there was not enough sediment in the basins to justify the time and expense.

Coyote Creek Annual Sediment Basin Yield Report for 2018

WS#1

1 liquid gallon = 0.003785 m^3
Volume of a 5 gallon bucket = $5 \text{ gal} \times 0.003785 \text{ m}^3 = 0.019 \text{ m}^3$
Total number of $\frac{1}{2}$ buckets = 8
Total # of 5 gallon buckets = $8 \text{ half buckets} / 2 = 4$
Sediment Volume in sediment basin = $4 \times 0.019 = 0.076 \text{ m}^3$
Sediment volume/ha calculation: Volume in sediment basin \div watershed (ha's)
Sed. Volume/ha : $0.076 \text{ m}^3 / 69.2 \text{ hectares} = 0.001 \text{ m}^3 / \text{ha}$

WS#2

Total # of $\frac{1}{2}$ buckets = 5
Total # of 5 gallon buckets = $5 \text{ half buckets} / 2 = 2.5$
Sediment Volume = $2.5 \times 0.019 = 0.048 \text{ m}^3$
Sediment volume/ha: $0.048 \text{ m}^3 / 68.4 \text{ hectares} = 0.0007 \text{ m}^3 / \text{ha}$

WS#3

Total number of $\frac{1}{2}$ buckets = 19
Total # of 5 gallon buckets = $19 / 2 = 9.5 \text{ full buckets}$
Sediment Volume = $9.5 \times 0.019 = 0.181 \text{ m}^3$
Sediment volume/ha: $0.181 \text{ m}^3 / 49.8 \text{ hectares} = 0.0036 \text{ m}^3 / \text{ha}$

WS#4

Total number of $\frac{1}{2}$ buckets = 19
Total # of 5 gallon buckets = $19 / 2 = 9.5 \text{ full 5 gallon buckets}$
Sediment Volume = $9.5 \times 0.019 = 0.181 \text{ m}^3$
Sediment volume/ha: $0.181 \text{ m}^3 / 48.6 \text{ hectares} = 0.0037 \text{ m}^3 / \text{ha}$

In the field, sediment was tallied in half buckets of a 5 gallon bucket.

We did not need to use an excavator or backhoe to empty any of the basins, there was not enough sediment in the basins to justify the time and expense.