

Appendix
Soil Loss Calculations

RUSLE2 SOIL LOSS CALCULATIONS

Methodology

RUSLE2

Type of Model

RUSLE2 does not replicate field processes. Instead, the RUSLE2 user describes the specific field condition, and RUSLE2 uses that description to compute erosion. RUSLE2 uses both empirical and process-based equations. In fact, some of RUSLE2's process-based equations are more sophisticated than those in any other model. RUSLE2 is a hybrid model that uses the USLE equation structure to provide great robustness along with process-based equations to extend RUSLE2 significantly beyond the limitations of the purely empirically based USLE. Robustness means that you can apply RUSLE2 with the confidence that RUSLE2 will give realistic answers even if the inputs are not right on the money. The following steps were followed to develop RUSLE2

RUSLE2 estimates rates of rill and interrill soil erosion caused by rainfall and its associated overland flow. Detachment (separation of soil particles from the soil mass) by surface runoff erodes small channels (rills between the rills, the interrill areas, is called interrill erosion). Detachment on interrill areas is by the impact of raindrops and waterdrops falling from vegetation. The detached particles (sediment) produced on interrill areas is transported laterally by thin flow to the rill areas where surface runoff transports the sediment downslope to concentrated flow areas (channels).

Factors Affecting Erosion

The four major factors of climate, soil, topography, and land use determine rates of rill and interrill erosion. A RUSLE2 user applies RUSLE2 to a specific site by describing field conditions at the site for these four factors. RUSLE2 uses this field description to compute erosion estimates.

RUSLE2 is land use independent. It is based on equations that describe how basic features like plant yield, vegetative canopy and rooting patterns, surface roughness, mechanical soil disturbance, amount of biomass on the soil surface and in the upper layer of soil, and related factors affect rill and interrill erosion. The RUSLE2 user conveniently selects information in the RUSLE2 database to describe these variables at a specific field site. The RUSLE2 user is not required to collect field data on these variables.

RUSLE2 takes advantage of the fact that erosion is directly related to the forces applied to the soil by erosive agents in relation to the soil's resisting forces regardless of the land use. RUSLE2 can be applied to cropland, rangeland, disturbed forestland, mined land, construction sites, reclaimed land, landfills, military training sites, parks, and any land where mineral soil is exposed to the direct forces of waterdrop impact and surface runoff generated by rainfall intensity being greater than the infiltration rate of water into the soil.

Climate: The most important climatic variable used by RUSLE2 is rainfall erosivity, which is related to rainfall amount (how much it rains) and intensity (how hard it rains). Another important climatic variable is temperature because temperature and precipitation together determine the longevity of biological materials like crop residue and applied mulch used to control erosion. Climate varies by location, and choosing a location in RUSLE2 chooses the erosivity, precipitation, and temperature values needed to apply RUSLE2 at a particular site.

Soils: Soils vary in their inherent erodibility as measured in a standard test involving a “unit plot.” A unit plot is 72.6 feet (22.1 meters) long on a 9 percent slope and is maintained in continuous tilled fallow (no vegetation) using periodic tillage up and down slope to leave a “seedbed-like” soil condition. The United States Department of Agriculture, Natural Resources Conservation Service (NRCS) has assigned soil erodibility values for most cropland and similar soils across the United States (U.S.). RUSLE2 includes a procedure for estimating soil erodibility for highly disturbed soils at construction sites and reclaimed mined land. The RUSLE2 user typically selects a soil by soil-map unit name from a list of soils in the RUSLE2 database.

Topography: Slope length, steepness, and shape are the topographic characteristics that most affect rill and interrill erosion. Site-specific values are entered for these variables. See the section on “Definitions” for additional information concerning these variables.

Land Use: Land use is the single most important factor affecting rill and interrill erosion because type of land use and land use condition are features that can be most easily changed to reduce excessive erosion. RUSLE2 uses the combination of cover-management (cultural) practices and support practices to describe land use.

Cover-management practices affect both the forces applied to the soil by erosive agents and the susceptibility of the soil to detachment. For a given land use like cropland, important features include the crops that are grown, yield level, and the type of tillage system such as clean, reduced, or no till. Important features on a construction site include whether or not the land is bare, the soil material is a cut or fill, mulch has been applied, or the slope has been recently reseeded. Important features on range and reclaimed land include the native or seeded vegetation, production level, and degree of ecological maturity. The description of any cover-management practice is created, named, and stored in the RUSLE2 database. When RUSLE2 is run, the cover-management practice that fits the site-specific field condition is selected from the menu of choices. Changes can be made in key variables such as production (yield) level or mulch application rate so that the practice fits the local climate, soil, and other conditions.

Support practices include ridging (e.g., contouring), vegetative strips and barriers (e.g., buffer strips, strip cropping, fabric fence, gravel bags), runoff interceptors (e.g., terraces, diversions), and small impoundments (e.g., sediment basins, impoundment terraces). These practices reduce erosion primarily by reducing the erosivity of surface runoff and by causing deposition. Support practices are selected from a list of these practices in the RUSLE2 database. Site-specific information, such as the location of a diversion on the hillslope, is entered as required for each practice.

Factors Used in Erosion Equations in RUSLE2

r factor: Annual erosivity R is the sum of the daily r values. The R factor represents the erosivity of the climate at a particular location. An average annual value of R is determined from historical weather records using erosivity values determined for individual storms. The erosivity of an individual storm is computed as the product of the storm's total energy, which is closely related to storm amount, and the storm's maximum 30-minute intensity. Erosivity ranges from less than 8 (US customary units) in the western U.S. to about 700 for New Orleans. All other factors being the same, soil loss is 100 times greater at New Orleans, Louisiana, than at Las Vegas, Nevada. (RUSLE2 can also work in metric units as well as U.S. customary units.)

The required erosivity information has been placed in the RUSLE2 database for individual U.S. counties in the eastern US where erosivity does not vary spatially over the county, and by precipitation zone and specific locations in counties in the western US where erosivity varies spatially because of elevation or other effects. A similar organization of the climate data can be used for RUSLE2 applications outside of the U.S.

k factor: In RUSLE2, the upper case K represents the base soil erodibility as determined using the soil erodibility nomograph. The lower case k represents the soil erodibility factor value on a given day during the year. RUSLE2 computes temporal values of soil erodibility as a function of temperature and precipitation. The K factor is an empirical measure of soil erodibility as affected by intrinsic soil properties. Erosion measurements based on unit-plot conditions were used to experimentally determine the values for K used to derive the soil erodibility nomograph.

The K factor is a measure of soil erodibility under the standard unit-plot condition. Land use, such as that involving plant roots and incorporation of organic material into the soil, affects soil erodibility, but such effects are considered in the cover-management c factor. The K factor represents the combination of detachability of the soil, runoff potential of the soil, and the transportability of the sediment eroded from the soil.

The main soil properties affecting K are soil texture, including the amount of very fine sand in addition to the usual sand, silt, and clay percentage used to describe soil texture; organic matter; structure; and runoff potential as related to permeability of the soil profile. In general terms, high clay soils have low K values because these soils are resistant to detachment. High sand soils have low K values because these soils have high infiltration rates and reduced runoff, and sediment eroded from these soils is not easily transported. Silt loam soils have moderate to high K values because soil particles are moderate to easily detached, infiltration is moderate to low producing moderate to high runoff, and the sediment is moderate to easily transported. Silt soils have the highest K values because these soils readily crust producing high runoff. Also, soil particles from silt soils are easily detached, and the sediment is easily transported.

This mixture of effects illustrates that K is empirical. It is not a soil property but is defined by RUSLE definitions. The definition for K, and for all RUSLE factors as well, must be carefully observed to achieve accurate results. For example, using K to account for reduced soil loss from incorporation of manure is not proper and produces incorrect results.

IS factor: The l and S factors jointly represent the effect of slope length, steepness, and shape on sediment production. The lowercase 'l' in RUSLE2 represents how the slope length factor varies daily as cover-management conditions vary. The upper case L represents an annual value that has been weighted based on the distribution of erosivity during the year. The S factor does not vary during the year in RUSLE2.

RUSLE2 represents the total of rill and interrill erosion. Rill erosion increases in a downslope direction because runoff, which is the primary erosive agent for rill erosion, increases in a downslope direction. In contrast, interrill does not vary with location on the slope because it is primarily caused by raindrop impact. Therefore, the slope length factor "l" is greater for those conditions where rill erosion is greater relative to interrill erosion.

Erosion increases with slope steepness. RUSLE2 makes no differentiation between rill and interrill erosion in the S factor that computes the effect of slope steepness on soil loss. The science for the effect

Slope shape is the spatial variation of steepness along the slope. Steepness at a position on the hillslope greatly affects erosion. Erosion is greatest for convex slopes that are steep near the end of the slope length where runoff is greatest. Erosion is least for concave slopes where the upper end of the slope is steep and runoff is least. Deposition occurs on concave slopes where transport capacity of the runoff is significantly reduced as the slope flattens. Sediment yield from these slopes is less than the amount of sediment produced by erosion.

c factor: The c factor accounts for the effects of cover-management. The lower case c in RUSLE2 refers to the cover-management factor for each day. The upper case C refers to an average annual C factor value where the individual daily c factor values have been weighted by the distribution of erosivity during the year.

Daily c factor values are computed using the subfactor method. RUSLE2 uses subfactors for canopy (cover above but not in contact with the soil surface), ground cover (cover directly in contact with the soil surface), surface roughness, time since last mechanical soil disturbance, amount and distribution of live and dead roots in the soil, organic material that has been incorporated into the soil, ridge height, and antecedent soil moisture, which is only used in the Northwest Wheat and Range Region (NWRR). These variables change through the year as plants grow and senesce, the soil is disturbed, materials are added to the soil surface, and vegetative or other organic materials are removed or incorporated into the soil.

p factor: The lower case p refers to a daily value of the support practices factor. The upper case P is an average annual value determined from the individual daily p values weighted by the erosivity distribution or by taking the ratio of soil loss with the practice to soil loss without the practice. The effect of ridging (contouring) is taken into account by how ridge height, row grade, and runoff affect detachment and transport of sediment. The effect of barriers like vegetative strips is taken into account by how these features reduce transport capacity by slowing the runoff (e.g., vegetative retardance) and cause deposition. The effect of runoff interceptors (diversions, terraces) is taken into account by how these practices reduce slope length and cause deposition in the channels created by these interceptors. The effect of small impoundments is taken into account by how these practices deposit sediment. Deposition that occurs on concave slopes is taken into account by solving the conservation of mass equation along the flow path.

T c transport capacity: Transport capacity is computed as a function of runoff rate, slope steepness, and hydraulic resistance. RUSLE2 uses the 10 year-24 hour precipitation amount and the NRCS curve number method to compute runoff. RUSLE2 computes how runoff potential changes daily as a function of cover-management conditions. RUSLE2 computes daily hydraulic roughness from the soil surface roughness, live ground cover, ground cover provided by crop residue and mulch, and vegetative retardance.

RUSLE2 Definitions

RUSLE2 uses a specific set of definitions, partly because the disciplines involved in soil erosion have not developed a common set of definitions. Observance of RUSLE2 definitions is required to obtain proper erosion estimates from RUSLE2 and to make the proper interpretation of those estimates.

Overland-Flow Path

The basic computational unit in RUSLE2 is an overland-flow path. The overland-flow path used in RUSLE2 is the path that runoff follows from the origin of overland flow to the point where it enters a concentrated flow area, defined as a channel. The topographic information entered into RUSLE2 by the user for a specific site describes the slope steepness along this path.

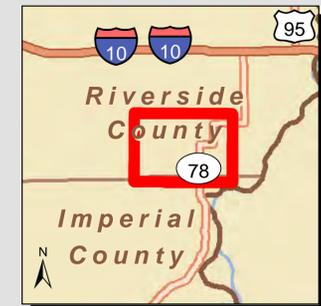
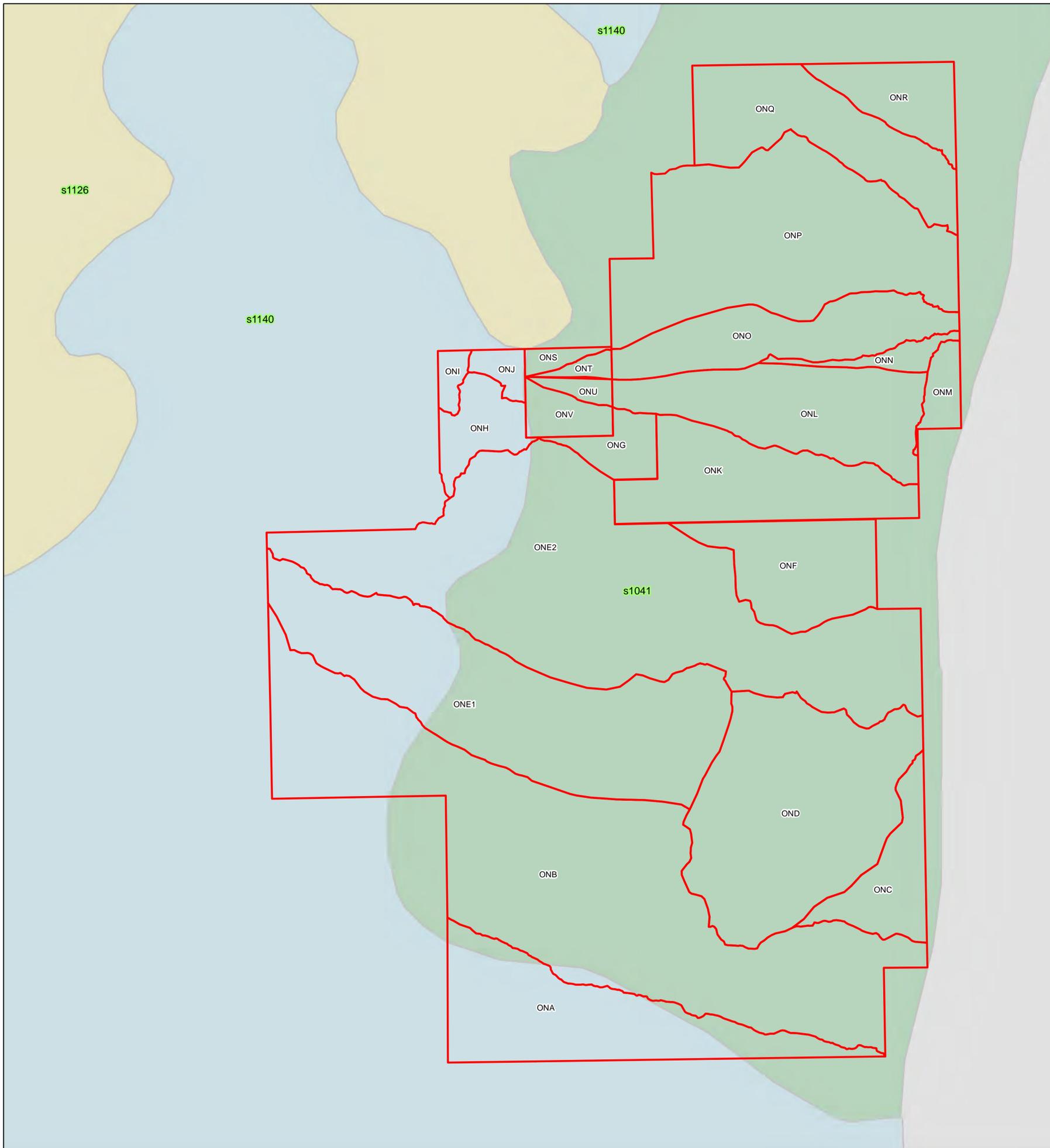
RUSLE2 estimates average annual soil loss from the eroding portion of the overland-flow path, deposition on the depositional portion of the path, and sediment load along the overland flow path. Sediment yield (delivery) is the sediment load at the end of the overland flow path, at the outlet of terrace/diversion channels, or discharged from sediment basins that are considered in the overland flow path (profile) representation used in a particular RUSLE2 computation. These quantities are expressed in units of mass per unit area per year.

This sediment yield is for a site only if the RUSLE2 flow path happens to end at the site boundary.

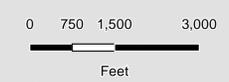
Detachment is the separation of soil particles from the soil mass. Net detachment adds sediment to the sediment load and causes sediment load to increase in a downslope direction. Deposition is the transfer of sediment from the sediment load back to the soil mass. Local deposition is the deposition of sediment very near to the point where the sediment was detached. Deposition of sediment eroded from soil clods in nearby depressions formed by the clods is an example of local deposition. Remote deposition is the deposition of sediment far from its point of origin, such as deposition in a terrace channel or on the toe of a concave slope.

Main RUSLE2 Outputs

RUSLE2 displays the four output values of: soil loss from the eroding portion of the slope, detachment for the entire overland flow path, conservation planning soil loss, and sediment delivery (yield). Soil loss has a specific meaning. Soil loss is the net loss of sediment from the eroding portion of the overland-flow path. This value is used in conservation planning to select cover-management and support practices to control soil loss to a value less than soil loss tolerance or some other conservation planning criteria. Detachment is the total sediment production for the overland flow path length represented in a RUSLE2 computation. Sediment delivery (yield) is the amount of sediment leaving the flow path represented in a RUSLE2 computation. Total deposition for the overland-flow path, which is not displayed, is the difference between total detachment (sediment production) and sediment yield. Conservation planning soil loss gives partial credit to remote deposition depending on where the deposition occurs along the overland-flow path. RUSLE2 gives very little credit as “soil saved” for deposition that occurs near the end of the overland-flow path. Conservation planning soil loss is generally less than total detachment (sediment production) and greater than sediment yield. Full credit is taken for local deposition as soil saved.



THE SOIL INFORMATION DEPICTED IN THIS EXHIBIT (CALIFORNIA GENERAL SOIL MAP) WAS OBTAINED FROM THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS-STATSGO).
<http://soildatamart.nrcs.usda.gov/USDGSM.aspx>



Legend

- Onsite Basin Boundaries (Red outline)
- California General Soils (STATSGO)
 - s1041 (Green)
 - s1126 (Yellow)
 - s1140 (Blue)



REV.	DATE	BY	REVISION
2	6/30/11	RV	Show soil symbol (color) legend per Bechtel. Fig. revised to depict aug. area onsite/offsite basins.
1	6/1/11	RV	

RIVERSIDE COUNTY, CA

BrightSource

227 S. Rainbow Boulevard
 San Bernardino, CA 92415
 Tel: (760) 872-7500
 Fax: (760) 362-2587
 www.brightsource.com

vtn

ONSITE SOILS EXHIBIT

RIO MESA VERDE SEGS

PROJECT NO: 7323
 DRAWN BY: RV
 DATE: 6/30/11
 SCALE: 1" = 1,500'

SHEET
7323HYD102

Soil Map Symbol	Soil Map Name	Composition %	Hydrologic Group	Texture
s1041	Rositas-Orita-Carizo-Aco	--	--	--
Sub Components	Carrizo	18%	A	Gravelly sand
	Aco	28%	B	Sandy loam/Gravelly loamy sand
	Orita	15%	B	Gravelly sandy loam
	Badland	7%	D	Weathered bedrock
	Rositas	19%	A	Fine Sand
	Carsitas	6%	A	Gravelly sand
	Chuckwalla	6%	B	Very gravelly silt loam
	Rock Outcrop	1%	D	Unweathered bedrock
s1140	Rillito-Gunsight	--	--	--
Sub Components	Gunsight	27%	B	Very gravelly sandy loam/Very Gravelly loam
	Rillito	19%	B	Gravelly loam
	Chuckwalla	8%	B	Very gravelly silt loam
	Carrizo	6%	A	Gravelly loamy sand
	Beeline	5%	D	Very gravelly sandy clay
	Cipriano	5%	D	Very gravelly sandy loam
	Denure	5%	B	Gravelly sandy loam
	Gilman	5%	B	Loam
	Mohall	5%	B	Clay loam
	Momoli	5%	B	Gravelly sandy loam
	Pinamt	5%	B	Extremely gravelly sandy loam
	Tremant	5%	B	Gravelly sandy loam

Notes:
 1. Soil information obtained from California / Nevada U.S. General Soils Map (STATSGO) obtained from: <http://soildatamart.nrcs.usda.gov/>
 2. Sub component soil texture is top layer as listed in the "Engineering Properties Report". Texture varies with depth.

BrightSource Rio Mesa SEGF

RUSLE2 Results

Soil Type s1041, Aco-Rositas-Carrizo (CA654)

Slope Length = 100 feet

Soil	Composition %	Texture	EXISTING CONDITION ¹			CONSTRUCTION - NO BMPS ²			CONSTRUCTION - WITH BMPS ³		
			Sediment Delivery Loss, tons/acre/year			Sediment Delivery, tons/acre/year			Sediment Delivery, tons/acre/year		
			Slope	Slope	Slope	Slope	Slope	Slope	Slope	Slope	Slope
			0.5%	1.0%	2.0%	0.5%	1.0%	2.0%	0.5%	1.0%	2.0%
Rositas	19%	Fine Sand (0-2% slopes)	0.11	0.18	0.34	0.25	0.43	0.80	0.054	0.062	0.078
Carrizo	18%	Gravelly sand	0.04	0.07	0.12	0.10	0.18	0.33	0.001	0.002	0.003
Orita	15%	Gravelly sandy loam	0.17	0.28	0.51	0.36	0.60	1.10	0.130	0.180	0.260
Aco	14%	Sandy Loam	0.10	0.16	0.29	0.21	0.36	0.66	0.044	0.051	0.068
Aco	14%	Gravelly loamy sand	0.06	0.10	0.18	0.15	0.26	0.47	0.005	0.007	0.018
Badland	7%	Weathered Bedrock	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Carsitas	6%	Gravelly sand (0-9% slopes)	0.07	0.11	0.21	0.18	0.30	0.55	0.007	0.007	0.009
Chuckwalla	6%	Very gravelly silt loam	0.07	0.11	0.20	0.14	0.23	0.43	0.037	0.048	0.072
Rock Outcrop	1%	Unweathered Bedrock	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100%	Weighted Average	0.08	0.14	0.25	0.19	0.32	0.59	0.04	0.05	0.07

Notes:

1 Management: bare smooth, no disturbance, Contouring: default

2 Management: Rough Bare, freshly disturbed

3 Management: Rough Bare, freshly disturbed with one silt fence at end of RUSLE 2 slope

BrightSource Rio Mesa SEGF

RUSLE2 Results

Soil Type s1140, Gusnight-Rillito-Chuckwalla (CA927)

Slope Length = 100 feet

Soil	Composition %	Texture	EXISTING CONDITION ¹			CONSTRUCTION - NO BMPs ²			CONSTRUCTION - WITH BMPs ³		
			Sediment Delivery Loss, tons/acre/year			Sediment Delivery, tons/acre/year			Sediment Delivery, tons/acre/year		
			Slope	Slope	Slope	Slope	Slope	Slope	Slope	Slope	Slope
			0.5%	1.0%	2.0%	0.5%	1.0%	2.0%	0.5%	1.0%	2.0%
Gunsight	27%	Very Gravelly Sandy Loam	0.10	0.16	0.29	0.21	0.35	0.65	0.047	0.054	0.072
Rillito	19%	Gravelly Loam	0.02	0.03	0.06	0.04	0.07	0.13	0.005	0.007	0.010
Chuckwalla	8%	Very gravelly silt loam	0.07	0.11	0.20	0.14	0.23	0.43	0.037	0.048	0.072
Carrizo	6%	Gravelly Loamy Sand	0.04	0.07	0.12	0.10	0.18	0.33	0.001	0.002	0.003
Miscellaneous	25%	Gravelly Sandy Loam	0.08	0.13	0.24	0.18	0.30	0.55	0.03	0.03	0.05
Miscellaneous	5%	Very gravelly sandy clay	0.11	0.18	0.33	0.22	0.38	0.69	0.09	0.12	0.16
Miscellaneous	5%	Loam	0.15	0.25	0.45	0.33	0.55	1.00	0.12	0.16	0.22
Miscellaneous	5%	Clay Loam	0.09	0.15	0.28	0.18	0.31	0.57	0.08	0.10	0.14
100% Weighted Average			0.07	0.12	0.23	0.16	0.27	0.50	0.04	0.05	0.07

Notes:

1 Management: bare smooth, no disturbance, Contouring: default

2 Management: Rough Bare, freshly disturbed

3 Management: Rough Bare, freshly disturbed with one silt fence at end of RUSLE 2 slope

EXISTING CONDITIONS RUSLE 2 OUTPUT

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Rositas loamy fine sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.18 t/ac/yr

Detachment on slope: 0.18 t/ac/yr

Soil loss for cons. plan: 0.18 t/ac/yr

Sediment delivery: 0.18 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
1/1/0	basic/general\no operation		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Carrizo gravelly sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.066 t/ac/yr

Detachment on slope: 0.066 t/ac/yr

Soil loss for cons. plan: 0.066 t/ac/yr

Sediment delivery: 0.066 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Orita gravel 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.28 t/ac/yr

Detachment on slope: 0.28 t/ac/yr

Soil loss for cons. plan: 0.28 t/ac/yr

Sediment delivery: 0.28 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Aco sandy loam 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.16 t/ac/yr

Detachment on slope: 0.16 t/ac/yr

Soil loss for cons. plan: 0.16 t/ac/yr

Sediment delivery: 0.16 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general\no operation		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Aco gravelly loamy sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.099 t/ac/yr

Detachment on slope: 0.099 t/ac/yr

Soil loss for cons. plan: 0.099 t/ac/yr

Sediment delivery: 0.099 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Carsitas gravelly sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.11 t/ac/yr

Detachment on slope: 0.11 t/ac/yr

Soil loss for cons. plan: 0.11 t/ac/yr

Sediment delivery: 0.11 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Chuckawalla gravelly silt loam 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.11 t/ac/yr

Detachment on slope: 0.11 t/ac/yr

Soil loss for cons. plan: 0.11 t/ac/yr

Sediment delivery: 0.11 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: GUNSIGHT very gravelly sandy loam 90%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.16 t/ac/yr

Detachment on slope: 0.16 t/ac/yr

Soil loss for cons. plan: 0.16 t/ac/yr

Sediment delivery: 0.16 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: Rillito, gravelly loam (subsoil, substratum) 15 to 60 pct coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default
 Strips/barriers: (none)
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.033 t/ac/yr
 Detachment on slope: 0.033 t/ac/yr
 Soil loss for cons. plan: 0.033 t/ac/yr
 Sediment delivery: 0.033 t/ac/yr

Crit. slope length:
 Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravely sandy loam (subsoil, substratum) 15 to 60 pct coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default
 Strips/barriers: (none)
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.13 t/ac/yr
 Detachment on slope: 0.13 t/ac/yr
 Soil loss for cons. plan: 0.13 t/ac/yr
 Sediment delivery: 0.13 t/ac/yr

Crit. slope length:
 Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravely sandy clay loam (subsoil, substratum) 15 to 60% coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default
 Strips/barriers: (none)
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.18 t/ac/yr
 Detachment on slope: 0.18 t/ac/yr
 Soil loss for cons. plan: 0.18 t/ac/yr
 Sediment delivery: 0.18 t/ac/yr

Crit. slope length:
 Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general\no operation		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: loam (l-m OM, m perm)

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.25 t/ac/yr

Detachment on slope: 0.25 t/ac/yr

Soil loss for cons. plan: 0.25 t/ac/yr

Sediment delivery: 0.25 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general\no operation		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Existing

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: clay loam (l-m OM, s-m perm)

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.15 t/ac/yr

Detachment on slope: 0.15 t/ac/yr

Soil loss for cons. plan: 0.15 t/ac/yr

Sediment delivery: 0.15 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
1/1/0	basic/general	no operation	

0

CONSTRUCTION WITH NO BMPs RUSLE 2 OUTPUT

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Rositas loamy fine sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.43 t/ac/yr

Detachment on slope: 0.43 t/ac/yr

Soil loss for cons. plan: 0.43 t/ac/yr

Sediment delivery: 0.43 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Carrizo gravelly sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.18 t/ac/yr

Detachment on slope: 0.18 t/ac/yr

Soil loss for cons. plan: 0.18 t/ac/yr

Sediment delivery: 0.18 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Orita gravel 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.60 t/ac/yr

Detachment on slope: 0.60 t/ac/yr

Soil loss for cons. plan: 0.60 t/ac/yr

Sediment delivery: 0.60 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land/heavy/offset disk		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Aco sandy loam 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.36 t/ac/yr

Detachment on slope: 0.36 t/ac/yr

Soil loss for cons. plan: 0.36 t/ac/yr

Sediment delivery: 0.36 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land/heavy/offset disk		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Aco gravelly loamy sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.26 t/ac/yr

Detachment on slope: 0.26 t/ac/yr

Soil loss for cons. plan: 0.26 t/ac/yr

Sediment delivery: 0.26 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Carsitas gravelly sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.30 t/ac/yr

Detachment on slope: 0.30 t/ac/yr

Soil loss for cons. plan: 0.30 t/ac/yr

Sediment delivery: 0.30 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Chuckawalla gravelly silt loam 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.23 t/ac/yr

Detachment on slope: 0.23 t/ac/yr

Soil loss for cons. plan: 0.23 t/ac/yr

Sediment delivery: 0.23 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: GUNSIGHT very gravelly sandy loam 90%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.35 t/ac/yr

Detachment on slope: 0.35 t/ac/yr

Soil loss for cons. plan: 0.35 t/ac/yr

Sediment delivery: 0.35 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land/heavy/offset disk		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravelly loam (subsoil, substratum) 15 to 60 pct coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default
 Strips/barriers: (none)
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.069 t/ac/yr
 Detachment on slope: 0.069 t/ac/yr
 Soil loss for cons. plan: 0.069 t/ac/yr
 Sediment delivery: 0.069 t/ac/yr

Crit. slope length:
 Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravely sandy loam (subsoil, substratum) 15 to 60 pct coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default
 Strips/barriers: (none)
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.30 t/ac/yr
 Detachment on slope: 0.30 t/ac/yr
 Soil loss for cons. plan: 0.30 t/ac/yr
 Sediment delivery: 0.30 t/ac/yr

Crit. slope length:
 Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land/heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravely sandy clay loam (subsoil, substratum) 15 to 60% coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	Yield (# of units)

Contouring: default
 Strips/barriers: (none)
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.38 t/ac/yr
 Detachment on slope: 0.38 t/ac/yr
 Soil loss for cons. plan: 0.38 t/ac/yr
 Sediment delivery: 0.38 t/ac/yr

Crit. slope length:
 Surf. cover after planting: 0 %

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/15/0	Highly disturbed land\heavy/offset disk		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: loam (l-m OM, m perm)

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.55 t/ac/yr

Detachment on slope: 0.55 t/ac/yr

Soil loss for cons. plan: 0.55 t/ac/yr

Sediment delivery: 0.55 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land/heavy/offset disk		0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction No BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: clay loam (l-m OM, s-m perm)

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>

Contouring: default

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.31 t/ac/yr

Detachment on slope: 0.31 t/ac/yr

Soil loss for cons. plan: 0.31 t/ac/yr

Sediment delivery: 0.31 t/ac/yr

Crit. slope length:

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land/heavy/offset disk		0

CONSTRUCTION WITH BMPs RUSLE 2 OUTPUT

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Rositas loamy fine sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.43 t/ac/yr

Detachment on slope: 0.43 t/ac/yr

Soil loss for cons. plan: 0.42 t/ac/yr

Sediment delivery: 0.062 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence	0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Carrizo gravelly sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds	50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.17 t/ac/yr

Detachment on slope: 0.17 t/ac/yr

Soil loss for cons. plan: 0.17 t/ac/yr

Sediment delivery: 0.0016 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Orita gravel 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.60 t/ac/yr

Detachment on slope: 0.59 t/ac/yr

Soil loss for cons. plan: 0.59 t/ac/yr

Sediment delivery: 0.18 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land/heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence	0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Aco sandy loam 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.35 t/ac/yr

Detachment on slope: 0.35 t/ac/yr

Soil loss for cons. plan: 0.35 t/ac/yr

Sediment delivery: 0.051 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence	0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Aco gravelly loamy sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>		<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence		pounds	

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.25 t/ac/yr

Detachment on slope: 0.25 t/ac/yr

Soil loss for cons. plan: 0.25 t/ac/yr

Sediment delivery: 0.0067 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>		<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0		Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: Carsitas gravelly sand 85%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.30 t/ac/yr

Detachment on slope: 0.29 t/ac/yr

Soil loss for cons. plan: 0.29 t/ac/yr

Sediment delivery: 0.0071 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>			<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0			Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence			

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: Chuckawalla gravelly silt loam 85%
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default
 Strips/barriers: 1 Silt fence at end of RUSLE slope
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.23 t/ac/yr
 Detachment on slope: 0.23 t/ac/yr
 Soil loss for cons. plan: 0.23 t/ac/yr
 Sediment delivery: 0.048 t/ac/yr

Crit. slope length: 100 ft
 Surf. cover after planting: 0 %

<i>Date</i>			<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0			Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence			

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: GUNSIGHT very gravelly sandy loam 90%

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.35 t/ac/yr

Detachment on slope: 0.35 t/ac/yr

Soil loss for cons. plan: 0.34 t/ac/yr

Sediment delivery: 0.054 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>			<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0			Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence			

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravelly loam (subsoil, substratum) 15 to 60 pct coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

<i>Management</i>		<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence		pounds	

50.0

Contouring: default
 Strips/barriers: 1 Silt fence at end of RUSLE slope
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.069 t/ac/yr
 Detachment on slope: 0.068 t/ac/yr
 Soil loss for cons. plan: 0.067 t/ac/yr
 Sediment delivery: 0.0065 t/ac/yr

Crit. slope length: 100 ft
 Surf. cover after planting: 0 %

<i>Date</i>		<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0		Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence		

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravely sandy loam (subsoil, substratum) 15 to 60 pct coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default
 Strips/barriers: 1 Silt fence at end of RUSLE slope
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.30 t/ac/yr
 Detachment on slope: 0.30 t/ac/yr
 Soil loss for cons. plan: 0.29 t/ac/yr
 Sediment delivery: 0.033 t/ac/yr

Crit. slope length: 100 ft
 Surf. cover after planting: 0 %

<i>Date</i>			<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0			Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence			

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: gravely sandy clay loam (subsoil, substratum) 15 to 60% coarse fragments
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds	50.0

Contouring: default
 Strips/barriers: 1 Silt fence at end of RUSLE slope
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.38 t/ac/yr
 Detachment on slope: 0.37 t/ac/yr
 Soil loss for cons. plan: 0.37 t/ac/yr
 Sediment delivery: 0.12 t/ac/yr

Crit. slope length: 100 ft
 Surf. cover after planting: 0 %

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0	Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence	

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa

Soil: loam (l-m OM, m perm)

Horiz. overland flow path length: 100 ft

Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default

Strips/barriers: 1 Silt fence at end of RUSLE slope

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.55 t/ac/yr

Detachment on slope: 0.54 t/ac/yr

Soil loss for cons. plan: 0.54 t/ac/yr

Sediment delivery: 0.16 t/ac/yr

Crit. slope length: 100 ft

Surf. cover after planting: 0 %

<i>Date</i>			<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0			Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence			

0

RUSLE2 Profile Erosion Calculation Record

Info: Profile is default that RUSLE2 uses when you have not specified a profile.

File: profiles\BSE Rio Mesa Construction with BMPs

Inputs:

Location: Riverside County\CA_Riverside R 3 rio mesa
 Soil: clay loam (l-m OM, s-m perm)
 Horiz. overland flow path length: 100 ft
 Avg. slope steepness: 1.0 %

<i>Management</i>			<i>Vegetation</i>	<i>Yield units</i>	<i>Yield (# of units)</i>
Strip/Barrier Managements\Silt fence	Permanent cover not harvested\silt fence	pounds			

50.0

Contouring: default
 Strips/barriers: 1 Silt fence at end of RUSLE slope
 Diversion/terrace, sediment basin: (none)
 Subsurface drainage: (none)
 Adjust res. burial level: Normal res. burial

Outputs:

Soil loss erod. portion: 0.31 t/ac/yr
 Detachment on slope: 0.31 t/ac/yr
 Soil loss for cons. plan: 0.30 t/ac/yr
 Sediment delivery: 0.10 t/ac/yr

Crit. slope length: 100 ft
 Surf. cover after planting: 0 %

<i>Date</i>			<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
4/15/0			Highly disturbed land\heavy/offset disk		0
1/1/1	Begin growth	Permanent cover not harvested\silt fence			

0