

Practice: 394 - Firebreak

Scenario # 1 Constructed - Light Equipment

Scenario Description: **Actual Scenario # 1**

New York

Installation of a bare-ground firebreak of a minimum width of 15' around a 20 acre field/farm using farm equipment (2 passes). Due to limited obstructions and topography, field/farm equipment is sufficient. Generally water control devices such as water bars are not needed due either to the lack of steep terrain or the temporary nature of the firebreak. Resource concerns include Wildfire hazard from excessive biomass accumulation, Undesirable plant productivity and health, Inadequate plant structure and composition, and Habitat degradation. Associated Practice: Prescribed Burning (338)

Before Practice Situation:

Tract, field, or farm lacks adequate firebreaks to either reduce the spread of wildfires or contain a prescribed burn. Installation will be accomplished by making two passes with the use of typical farm equipment such as tractors, plows, disks, or similar implements.

After Practice Situation:

The property is adequately protected from wildfire or can be safely prescribe burned.

Scenario Feature Measure:

Length of firebreak

Scenario Typical Size:	4000	Feet	Tot Unit Cost	\$0.05
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Tillage, Light	2.75	Acre	\$11.57	\$31.82
Equip./Install.	Tillage, Primary	2.75	Acre	\$17.24	\$47.41
Equip./Install.	Truck, Pickup	2	Hour	\$40.77	\$81.54
Labor	General Labor	2	Hour	\$23.16	\$46.32

Total Cost: \$207.09

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$0.04	EQIP-HU	\$0.05
WHIP	\$0.04	WHIP-HU	\$0.05

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Scenario # 2 Constructed - Medium equipment, flat-medium slopes

New York

Scenario Description: Actual Scenario # 2

Use of medium equipment such as small dozers to blade, disk, plow, etc. bare-soil firebreaks on slopes less than 15%. Generally, water control devices such as water bars are limited to 10 or less per 1,000 feet when properly planned and installed using the same equipment. Resource concerns include Wildfire hazards from excessive biomass accumulation, Undesirable plant productivity and health, Inadequate plant structure and composition, and Habitat degradation.

Associated Practice: Prescribed Burning (338)

Before Practice Situation:

Tract, field, or farm lacks adequate firebreaks to either reduce the spread of wildfires or contain a prescribed burn. Conditions such as topography, the presence of brush and trees, etc. make the use of typical farm equipment impractical.

After Practice Situation:

The property is adequately protected from wildfire or can be safely prescribe burned and the potential for excessive erosion from the firebreak is negligible.

Scenario Feature Measure:

Length of firebreak

Scenario Typical Size:	3000	Feet	Tot Unit Cost	\$0.39
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Dozer, 80 HP	4	Hour	\$73.71	\$294.84
Equip./Install.	Water Bars	150	Foot	\$3.04	\$456.00
Labor	Equipment Operators, Heavy	4	Hour	\$36.55	\$146.20
Mobilization	Mobilization, medium equipment	1	Each	\$282.78	\$282.78

Total Cost: \$1,179.82

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$0.29	EQIP-HU	\$0.35
WHIP	\$0.29	WHIP-HU	\$0.35

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Scenario # 3 Constructed - Medium equipment, steep slopes

Scenario Description: Actual Scenario # 3

New York

Use of equipment such as small dozers to blade bare-soil firebreaks on slopes greater than 15%. Water control devices such as water bars placed at approximately 15 to 25 per 1,000 ft section of firebreak, are necessary to control erosion. These will be installed with the same equipment. Resource concerns include Wildfire hazard from excessive biomass accumulation, Undesirable plant productivity and health, Inadequate plant structure and composition, Habitat degradation, Soil erosion, and Excessive sediment in surface waters.

Associated Practice: Prescribed Burning (338)

Before Practice Situation:

Tract, field, or farm lacks adequate firebreaks to either reduce the spread of wildfires or contain a prescribed burn. Conditions such as topography, the presence of brush and trees, etc. make the use of typical farm equipment impractical. As slopes increase, the potential for excessive erosion increases from soil disturbances. Therefore the installation of water control devices such as water bars will be important in protecting the resource base.

After Practice Situation:

The property is adequately protected from wildfire or can be safely prescribe burned and the potential for excessive erosion from the firebreak is minimized.

Scenario Feature Measure:

Length of firebreak

Scenario Typical Size:	1000	Feet	Tot Unit Cost	\$2.02
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Dozer, 80 HP	4	Hour	\$73.71	\$294.84
Equip./Install.	Water Bars	425	Foot	\$3.04	\$1,292.00
Labor	Equipment Operators, Heavy	4	Hour	\$36.55	\$146.20
Mobilization	Mobilization, medium equipment	1	Each	\$282.78	\$282.78

Total Cost: \$2,015.82

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$1.51	EQIP-HU	\$1.81
WHIP	\$1.51	WHIP-HU	\$1.81

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Scenario # 4 Vegetated permanent firebreak

Scenario Description: Actual Scenario # 4

New York

Establishing a 20 foot wide strip of permanent vegetation that will serve as a green firebreak. Scenario includes clearing the site, preparing the seedbed, seeding (typically cool season grasses and/or legumes), and applying needed soil amendments. Clearing will be achieved with the use of a bush hog or similar equipment. Seedbed preparation and vegetation establishment will be accomplished with farm equipment. Soil amendments will be applied according to local FOTG guidance. This scenario does not include follow-up maintenance operations such as weed control, mowing, etc. Resource concerns include Wildfire hazard from excessive biomass accumulation, Soil erosion, and Excessive sediment in surface waters.

Associated Practice: Prescribed Burning (338)

Before Practice Situation:

Tract, field, or farm lacks adequate firebreaks to either reduce the spread of wildfires or contain a prescribed burn.

After Practice Situation:

The property is adequately protected from wildfire or can be safely prescribe burned. Wildlife habitat will also be enhanced and the potential for erosion from the firebreak is minimized.

Scenario Feature Measure:

Length of firebreak

Scenario Typical Size:	3000	Feet	Tot Unit Cost	\$0.54
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Phosphorus, P2O5	96	Pound	\$0.39	\$37.44
Materials	Potassium, K2O	96	Pound	\$0.28	\$26.88
Materials	Lime, ENM	2.75	Ton	\$119.94	\$329.84
Materials	One Species, Cool Season,	1.37	Acre	\$30.44	\$41.70
Equip./Install.	Truck, Pickup	8	Hour	\$40.77	\$326.16
Equip./Install.	Mower, Bush Hog	4	Hour	\$55.71	\$222.84
Equip./Install.	Tillage, Light	2.75	Acre	\$11.57	\$31.82
Equip./Install.	Tillage, Primary	5.5	Acre	\$17.24	\$94.82
Equip./Install.	Fertilizer, ground application, dry	1.37	Acre	\$7.04	\$9.64
Equip./Install.	Lime application	1.37	Acre	\$10.54	\$14.44
Equip./Install.	Seeding Operation, No Till/Grass Drill	1.37	Acre	\$22.17	\$30.37
Labor	General Labor	8	Hour	\$23.16	\$185.28
Mobilization	Mobilization, very small equipment	1	Each	\$78.08	\$78.08
Mobilization	Mobilization, small equipment	1	Each	\$190.19	\$190.19

Total Cost: \$1,619.50

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$0.40	EQIP-HU	\$0.49
WHIP	\$0.40	WHIP-HU	\$0.49

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Scenario # 5 Constructed - Wide, bladed or disked firebreak

Scenario Description: Actual Scenario # 5

New York

Installing a bare-ground firebreak with a width of 30' or more on gently to strongly sloping slopes with equipment such as a dozer with a heavy disk. Using smaller equipment, erosion control devices such as water bars will be installed at approximately 15 to 25 per 1,000 feet of firebreak length. Devices will have stable outlets. Resource concerns include Wildfire hazard from excessive biomass accumulation, Undesirable plant productivity and health, Inadequate plant structure and composition, Habitat degradation, Soil erosion, and Excessive sediment in surface waters.

Associated Practice: Prescribed Burning (338)

Before Practice Situation:

Tract, field, or farm lacks adequate firebreaks to either reduce the spread of wildfires or contain a prescribed burn. Wide firebreaks are needed due to topography, high wildfire risk or to their use as down-wind breaks for prescribed burns. Conditions such as topography, the presence of brush and trees, etc. make the use of typical farm equipment impractical. As slopes increase, the potential for excessive erosion increases from soil disturbances. Therefore the installation of water control devices such as water bars will be important in protecting the resource base.

After Practice Situation:

The property is adequately protected from wildfire or can be safely prescribe burned and the potential for excessive erosion from the firebreak is minimized.

Scenario Feature Measure:

Length of firebreak

Scenario Typical Size:	1000	Feet	Tot Unit Cost	\$4.21
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Dozer, 80 HP	8	Hour	\$73.71	\$589.68
Equip./Install.	Fire Plow	4	Hour	\$51.60	\$206.40
Equip./Install.	Water Bars	850	Foot	\$3.04	\$2,584.00
Labor	Equipment Operators, Heavy	8	Hour	\$36.55	\$292.40
Mobilization	Mobilization, large equipment	1	Each	\$539.90	\$539.90

Total Cost: \$4,212.38

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$3.16	EQIP-HU	\$3.79
WHIP	\$3.16	WHIP-HU	\$3.79