

**Practice: 430 - Irrigation Pipeline**

**Scenario # 1 PVC (Iron Pipe Size), 8 inches or less**

**Scenario Description: Actual Scenario # 1**

**New York**

Description: Below ground installation of PVC (Iron Pipe Size) pipeline. PVC (IPS) is manufactured in sizes (nominal diameter) from ½-inch to 36-inch; typical practice sizes range from 2-inch to 24-inch; and typical scenario size is 6-inch. Construct 1/4 mile (1,320 feet) of 6-inch, Class 125 (SDR-32.5), PVC pipeline with appurtenances, installed below ground with a minimum of 2 feet of ground cover. The unit is weight of pipe material in pounds. 1,320 feet of 6-inch, Class 125 (SDR-32.5) PVC pipe weighs 2.596 lb/ft, or a total of 3,427 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	3427	Pound	Tot Unit Cost	\$2.62
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	3769	Pound	\$1.43	\$5,389.67
Equip./Install.	Trenching, Earth, 12" x 48"	1320	Foot	\$1.45	\$1,914.00
Labor	General Labor	48	Hour	\$23.16	\$1,111.68
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$8,980.91

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$1.97	EQIP-HU	\$2.36
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 2 PVC (Iron Pipe Size) 10" or greater**

**Scenario Description: Actual Scenario # 2**

**New York**

Description: Below ground installation of PVC (Iron Pipe Size) pipeline. PVC (IPS) is manufactured in sizes (nominal diameter) from ½-inch to 36-inch; typical practice sizes range from 2-inch to 24-inch; and typical scenario size is 12-inch. Construct 1/4 mile (1,320 feet) of 12-inch, Class 125 (SDR-32.5), PVC pipeline with appurtenances, installed below ground with a minimum of 2 feet of ground cover. The unit is weight of pipe material in pounds. 1,320 feet of 12-inch, Class 125 (SDR-32.5) PVC pipe weighs 9.505 lb/ft, or a total of 12,547 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	12547	Pound	Tot Unit Cost	\$2.09
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	13801	Pound	\$1.43	\$19,735.43
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1320	Foot	\$3.30	\$4,356.00
Labor	General Labor	48	Hour	\$23.16	\$1,111.68
Mobilization	Mobilization, large equipment	2	Each	\$539.90	\$1,079.80

Total Cost: \$26,282.91

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$1.57	EQIP-HU	\$1.89
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 3 PVC (Plastic Irrigation Pipe) 8" or less**

**Scenario Description: Actual Scenario # 3**

**New York**

Description: Below ground installation of PVC (Plastic Irrigation Pipe) pipeline. PVC (PIP) is manufactured in sizes (nominal diameter) from 4-inch to 27-inch; typical practice sizes range from 4-inch to 24-inch; and typical scenario size is 6-inch. Construct 1/4 mile (1,320 feet) of 6-inch, Class 50 (SDR-81.0), PVC PIP with appurtenances, installed below ground with a minimum of 2 feet of ground cover. The unit is weight of pipe in pounds. 1,320 feet of 6-inch, Class 50 (SDR-81.0) PVC PIP weighs 0.936 lb/ft, or a total of 1,236 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	1236	Pound	Tot Unit Cost	\$4.48
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	1359	Pound	\$1.43	\$1,943.37
Equip./Install.	Trenching, Earth, 12" x 48"	1320	Foot	\$1.45	\$1,914.00
Labor	General Labor	48	Hour	\$23.16	\$1,111.68
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

**Payment types:** Total Cost: \$5,534.61

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$3.36	EQIP-HU	\$4.03
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 4 PVC (Plastic Irrigation Pipe) 10" or greater**

**Scenario Description:** Actual Scenario # 4

**New York**

Description: Below ground installation of PVC (Plastic Irrigation Pipe) pipeline. PVC (PIP) is manufactured in sizes (nominal diameter) from 4-inch to 27-inch; typical practice sizes range from 4-inch to 24-inch; and typical scenario size is 12-inch. Construct 1/4 mile (1,320 feet) of 12-inch, Class 50 (SDR-81.0), PVC PIP with appurtenances, installed below ground with a minimum of 2 feet of ground cover. The unit is weight of pipe in pounds. 1,320 feet of 12-inch, Class 50 (SDR-81.0) PVC PIP weighs 3.594 lb/ft, or a total of 4,744 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	4744	Pound	Tot Unit Cost	\$2.92
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, PVC, dia. < 18", weight priced	5218	Pound	\$1.43	\$7,461.74
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1320	Foot	\$3.30	\$4,356.00
Labor	General Labor	64	Hour	\$23.16	\$1,482.24
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$13,865.54

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$2.19	EQIP-HU	\$2.63
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 5 HDPE (Iron Pipe Size & Tubing) 8" or less**

**Scenario Description:** Actual Scenario # 5

**New York**

Description: Below ground installation of HDPE (Iron Pipe Size & Tubing) pipeline. HDPE (IPS & Tubing) is manufactured in sizes (nominal diameter) from ½-inch to 24-inch; typical practice sizes range from 2-inch to 24-inch; and typical scenario size is 6-inch. Construct 1/4 mile (1,320 feet) of 6-inch, Class 130 (SDR-13.5), HDPE pipeline with appurtenances, installed below ground with a minimum 2 feet of ground cover. The unit is weight of pipe material in pounds. 1,320 feet of 8-inch, Class 130 (SDR-13.5), HDPE weighs 4.024 lb/ft, or a total of 5,312 pounds. Appurtenances include: fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	5312	Pound	Tot Unit Cost	\$4.60
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, HDPE, smooth wall, weight	5843	Pound	\$3.51	\$20,508.93
Equip./Install.	Fuser for HDPE Pipe	16	Hour	\$22.18	\$354.88
Equip./Install.	Trenching, Earth, 12" x 48"	1320	Foot	\$1.45	\$1,914.00
Labor	General Labor	48	Hour	\$23.16	\$1,111.68
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$24,455.05

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$3.45	EQIP-HU	\$4.14
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 6 HDPE (Iron Pipe Size & Tubing) 10" or greater**

**Scenario Description:** Actual Scenario # 6

**New York**

Description: Below ground installation of HDPE (Iron Pipe Size & Tubing) pipeline. HDPE (IPS & Tubing) is manufactured in sizes (nominal diameter) from ½-inch to 24-inch; typical practice sizes range from 2-inch to 24-inch; and typical scenario size is 12-inch. Construct 1/4 mile (1,320 feet) of 12-inch, Class 130 (SDR-13.5), HDPE pipeline with appurtenances, installed below ground with a minimum 2 feet of ground cover. The unit is weight of pipe material in pounds. 1,320 feet of 8-inch, Class 130 (SDR-13.5), HDPE weighs 14.89 lb/ft, or a total of 19,655 pounds. Appurtenances include: fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	19655	Pound	Tot Unit Cost	\$4.19
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, HDPE, smooth wall, weight	21620	Pound	\$3.51	\$75,886.20
Equip./Install.	Fuser for HDPE Pipe	16	Hour	\$22.18	\$354.88
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1320	Foot	\$3.30	\$4,356.00
Labor	General Labor	48	Hour	\$23.16	\$1,111.68
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$82,274.32

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$3.14	EQIP-HU	\$3.77
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 7 Surface HDPE (Iron Pipe Size & Tubing)**

**Scenario Description:** Actual Scenario # 7

**New York**

Description: On-ground surface installation of HDPE (Iron Pipe Size & Tubing) pipeline. HDPE (IPS & Tubing) is manufactured in sizes (nominal diameter) from ½-inch to 24-inch; typical practice sizes range from 2-inch to 24-inch; and typical scenario size is 2-inch. Construct 1/4 mile (1,320 feet) of 2-inch, Class 200 (SDR-9.0), HDPE pipeline with appurtenances, installed on the ground surface. The unit is weight of pipe material in pounds. 1,320 feet of 2-inch, Class 200 (SDR-9.0), HDPE weighs 0.744 lb/ft, or a total of 982 pounds. Appurtenances include: fittings, air vents, pressure relief valves, anchors, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 15% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	982	Pound	Tot Unit Cost	\$4.75
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, HDPE, smooth wall, weight	1129	Pound	\$3.51	\$3,962.79
Equip./Install.	Fuser for HDPE Pipe	8	Hour	\$22.18	\$177.44
Labor	General Labor	16	Hour	\$23.16	\$370.56
Mobilization	Mobilization, very small equipment	2	Each	\$78.08	\$156.16

Total Cost: \$4,666.95

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$3.56	EQIP-HU	\$4.28
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 8 HDPE (Corrugated Plastic Pipe)**

**Scenario Description: Actual Scenario # 8**

**New York**

Description: Below ground installation of HDPE (Corrugated Plastic Pipe) pipeline. HDPE (CPP) Twin-Wall is manufactured in sizes (nominal diameter) from 4-inch to 60-inch; typical practice sizes range from 12-inch to 24-inch; and typical scenario size is 18-inch. Construct 1/8 mile (660 feet) of 18-inch, Twin-Wall, HDPE Corrugated Plastic Pipe (CPP) with a smooth interior, and appurtenances, installed below ground with a minimum 2 feet of ground cover. The unit is in weight of pipe material in pounds. 660 feet of 18-inch, Twin-Wall, HDPE CPP weighs 6.40 lb/ft, or a total of 4,224 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	4224	Pound	Tot Unit Cost	\$2.81
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, HDPE, corrugated single wall, ≤	4646	Pound	\$1.54	\$7,154.84
Equip./Install.	Trenching, Earth, 30" x 48"	660	Foot	\$4.03	\$2,659.80
Labor	General Labor	64	Hour	\$23.16	\$1,482.24
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$11,862.44

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$2.11	EQIP-HU	\$2.53
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 9 Steel (Iron Pipe Size) 8" or less**

**Scenario Description: Actual Scenario # 9**

**New York**

Description: Below ground installation of Steel (Iron Pipe Size) pipeline. Steel (IPS) is manufactured in sizes (nominal diameter) from ½-inch to 36-inch; typical practice sizes range from 2-inch to 18-inch; and typical scenario size is 6-inch. Construct 1/4 mile (1,320 feet) of 6-inch, Schedule 10, Galvanized Steel Pipe with appurtenances, installed below ground with a minimum feet of ground cover. The unit is the weight of pipe material in pounds. 1,320 feet of 6-inch, Schedule 10, Galvanized Steel Pipe weighs 9.289 lb/ft, for a total of 12,261 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	12261	Pound	Tot Unit Cost	\$2.06
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, steel, smooth wall, galvanized,	13488	Pound	\$1.58	\$21,311.04
Equip./Install.	Trenching, Earth, 12" x 48"	1320	Foot	\$1.45	\$1,914.00
Labor	General Labor	64	Hour	\$23.16	\$1,482.24
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$25,272.84

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$1.55	EQIP-HU	\$1.86
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 10 Steel (Iron Pipe Size) 10" or greater**

**Scenario Description: Actual Scenario # 10**

**New York**

Description: Below ground installation of Steel (Iron Pipe Size) pipeline. Steel (IPS) is manufactured in sizes (nominal diameter) from ½-inch to 36-inch; typical practice sizes range from 2-inch to 18-inch; and typical scenario size is 12-inch. Construct 1/4 mile (1,320 feet) of 12-inch, Schedule 10, Galvanized Steel Pipe with appurtenances, installed below ground with a minimum feet of ground cover. The unit is the weight of pipe material in pounds. 1,320 feet of 12-inch, Schedule 10, Galvanized Steel Pipe weighs 24.16 lb/ft, for a total of 31,891 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

**Scenario Typical Size:**

31891	Pound	Tot Unit Cost	\$1.96
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, steel, smooth wall, galvanized,	35080	Pound	\$1.58	\$55,426.40
Equip./Install.	Trenching, Earth, loam, 24" x 48"	1320	Foot	\$3.30	\$4,356.00
Labor	General Labor	96	Hour	\$23.16	\$2,223.36
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$62,571.32

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$1.47	EQIP-HU	\$1.77
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 11 Surface Steel (Iron Pipe Size)**

**Scenario Description: Actual Scenario # 11**

**New York**

Description: On-ground surface installation of Steel (Iron Pipe Size) pipeline. Steel (IPS) is manufactured in sizes (nominal diameter) from ½-inch to 36-inch; typical practice sizes range from 2-inch to 18-inch; and typical scenario size is 2-inch. Construct 1/4 mile (1,320 feet) of 2-inch, Schedule 40, Galvanized Steel Pipe with appurtenances, installed on the ground surface. The unit is weight of pipe material in pounds. 1,320 feet of 2-inch, Schedule 40, Galvanized Steel Pipe weighs 3.653 lb/ft, or a total of 4,822 pounds . Appurtenances include: couplings, fittings, air vents, pressure relief valves, anchors, expansion joints, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 15% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements.Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	4822	Pound	Tot Unit Cost	\$2.05
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, steel, smooth wall, galvanized,	5545	Pound	\$1.58	\$8,761.10
Labor	General Labor	48	Hour	\$23.16	\$1,111.68
				Total Cost:	\$9,872.78

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$1.54	EQIP-HU	\$1.84
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 12 Steel (Corrugated Steel Pipe)**

**Scenario Description: Actual Scenario # 12**

**New York**

Description: Below ground installation of Corrugated Steel Pipe (CSP) pipeline. Steel (CSP) is manufactured in sizes (nominal diameter) from 12-inch to 72-inch; typical practice sizes range from 12-inch to 24-inch; and typical scenario size is 18-inch. Construct 1/8 mile (660 feet) of 18-inch, 14-gauge, Galvanized Corrugated Steel Pipe (CSP) with appurtenances, installed below ground with a minimum 2 feet of ground cover. The unit is weight of pipe material in pounds. 660 feet of 18-inch, 14-gauge, Galvanized CSP weighs 18.0 lb/ft, or a total of 11,800 pounds. Appurtenances include: couplings, fittings, air vents, pressure relief valves, thrust blocks, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	11880	Pound	Tot Unit Cost	\$1.29
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, CMP, 14-12 gauge, weight	13662	Pound	\$0.75	\$10,246.50
Equip./Install.	Trenching, Earth, 30" x 48"	660	Foot	\$4.03	\$2,659.80
Labor	General Labor	80	Hour	\$23.16	\$1,852.80
Mobilization	Mobilization, medium equipment	2	Each	\$282.78	\$565.56

Total Cost: \$15,324.66

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$0.97	EQIP-HU	\$1.16
WHIP	\$0.00	WHIP-HU	\$0.00

**Practice: 430 - Irrigation Pipeline**

**Scenario # 13 Surface Aluminum (Aluminum Irrigation Pipe)**

**Scenario Description:** Actual Scenario # 13

**New York**

Description: On-ground surface installation of Aluminum Irrigation Pipe (AIP) pipeline. AIP is manufactured in sizes (nominal diameter) from 2-inch to 12-inch; typical practice sizes range from 6-inch to 12-inch; and typical scenario size is 8-inch. Construct 1/8 mile (660 feet) of 8-inch, 0.050-inch wall, Aluminum Irrigation Pipe (AIP) with appurtenances, installed on the ground surface. The unit is weight of pipe in pounds of pipe material. 660 feet of 8-inch, 0.050-inch wall, AIP weighs 1.47 lb/ft, or a total of 970 pounds. Appurtenances include: couplings, fittings, air vents, risers, and inline valves, and are included in the cost of pipe material (additional 10% of pipe material quantity). Cost of appurtenances does not include flow meters or backflow preventers. Typical installation applies to soils with no special bedding requirements. Resource Concerns: Inefficient Use of Irrigation Water; Inefficient Energy Use. Associated Practices: 436 - Irrigation Reservoir; 441 - Irrigation System, Microirrigation; 442 - Irrigation System, Sprinkler; 443 - Irrigation System, Surface & Subsurface; 447 - Irrigation System, Tailwater Recovery; 533 - Pumping Plant; 634 - Waste Transfer.

**Before Practice Situation:**

Pipeline needed to replace or supplement inefficient irrigation conveyance systems.

**After Practice Situation:**

Pipeline installed to convey and/or distribute water to irrigation systems or reservoirs, minimizing non-beneficial water use, reducing soil erosion, and/or reducing energy use.

**Scenario Feature Measure:**

Weight of Pipe

<b>Scenario Typical Size:</b>	970	Pound	Tot Unit Cost	\$5.26
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Pipe, aluminum, smooth wall,	1067	Pound	\$4.61	\$4,918.87
Labor	General Labor	8	Hour	\$23.16	\$185.28
				Total Cost:	\$5,104.15

**Payment types:**

PayType	Unit Payment	PayType	Unit Payment
EQIP	\$3.95	EQIP-HU	\$4.74
WHIP	\$0.00	WHIP-HU	\$0.00