

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Appalachian
State	North Carolina
Discipline Group	Water Management Engineering
Practice Code/Name	554 - Drainage Water Management
Scenario ID	1
Scenario Name	Drainage Water Management (DWM)
Scenario Description	This scenario is the process of managing water discharges from surface and/or subsurface agricultural drainage systems by reducing nutrient loading into surface waters. Typical systems consist of a 75 acre field with existing drainage tile lines and installed water control structures. The operator goes to the field in order to adjust water control structures (riser boards). While on site the date and adjustment information is recorded/logged. The number of yearly adjustments is based on 6 trips to a field 5 miles from headquarters. The field time to make and record each adjustment is 0.5 hours per structure (including travel time). The typical field will contain 5 water control structures; 3 structures control field water levels and 2 structures control a single denitrifying bioreactor. Resource Concern: Water Quality - Excess Nutrients in surface and ground waters. Associated Practices: 606-Subsurface Drain; 607-Surface Drain, Field Ditch; 608-Surface Drain, Main or Lateral; 587-Structure for Water Control; 590-Nutrient Management .
Before Practice Situation	Existing drainage systems are in place and water flows uncontrolled.
After Practice Situation	Existing drainage systems are managed to reduce flow of field drainage waters from the site and reduce nitrate loading by denitrification.
Scenario Feature Measure	Number of Control Structures
Scenario Unit	Each
Scenario Typical Size	5

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$0.00	\$0.00
Labor	\$359.70	\$71.94
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$126.28	\$25.26
Foregone Income	\$0.00	\$0.00
Total	\$485.98	\$97.20

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Labor	230	Skilled Labor	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$23.98	15	\$359.70
Acquisition of Technical Knowledge	295	Lodging	Hotel Accommodations	Each	\$77.00	0.66	\$50.82
Acquisition of Technical Knowledge	294	Training, Workshops	Educational seminar or series of meetings emphasizing interaction and exchange of information among a usually small number of participants.	Each	\$116.67	0.33	\$38.50
Acquisition of Technical Knowledge	297	Transportation	Mileage to attend a training conference, workshop, or TSP travel associated with developing Conservation Activity Plan.	Mile	\$0.56	66	\$36.96