

Appendix 1: Cost Estimates for Fisher / Carpenter Creek Project Alternatives

Fisher/Carpenter Watershed Project Cost Estimate Worksheet

1. Riparian Reforestation Projects

Project No. C 05 Install stock watering station and 200' offencing to exclude livestock from creek.
 Plant about 0.1 acres of new trees on banks. Parcel No. P29715

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$50	40	\$2,000	Assumes done by SCD
Permitting	hours	\$90	0	\$0	
Subtotal				\$2,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes none needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nospump, and piping	lump sum	\$1,000	1	\$1,000	
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	200	\$600	
Plantings - buffer	acre	\$3,750	0.10	\$375	
Subtotal				\$3,175	
Tax				\$251	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.1	10	\$386
Subtotal					\$386

5. Summary

Total Present Worth Cost	\$5,812
Add 15% contingency	\$6,684

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers and 500 aquatic emergents per acre @ \$2.50 each for wetlands (i.e. only around the shoreline)
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. C 09 Plant conifer buffer on left bank of creek in several residential lots on Stackpole Rd
 Assume total area to be planted = 1600' long x 30' wide along the creek frontage

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$50	40	\$2,000	Assumes done by SCD
Subtotal				\$2,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	might not need none needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	1.1	\$4,125	Assumes 1600 lf by 30 LF
Subtotal				\$4,125	
Tax				\$326	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	1.1	10	\$4,247
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$6,563

5. Summary

Total Present Worth Cost	\$13,014
Add 15% contingency	\$14,966

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. SP 01 Clear knotweed and plant conifer buffer on both banks of mouth of Stackpole Creek
 Area = 200' x 40'. Parcel No. P16277

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	30	\$1,050	Assumes done by SCD
Subtotal				\$1,050	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes none needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Special site clearing and mob.	l.s.	\$800	1	\$800	
Planting	acre	\$3,750	0.2	\$750	Assumes 200 lf by 40 LF
Subtotal				\$800	
Tax				\$63	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.2	10	\$772
Buffer monitoring	l.s.	\$150	1	10	\$1,158
Subtotal					\$1,930

5. Summary

Total Present Worth Cost	\$3,844
Add 15% contingency	\$4,420

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher/Carpenter Watershed Project Cost Estimate Worksheet

Project No. H 01 Install stock watering station and fencing and plant about 2000' of conifer buffer.
 Assumes landowners will enroll land in CREP. Parcel Nos. P16585 and P16590.

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$40	60	\$2,400	Assumes done by SCD
Permitting	hours	\$90	0	\$0	
Subtotal				\$2,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Enroll in CREP	acre		4.6	\$0	Assumes CREP will pay
Transaction costs	lump sum		1	\$0	all transaction costs
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nospump, and piping	lump sum	\$1,000	1	\$1,000	
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	2000	\$6,000	
Plantings - buffer	acre	\$3,750	4.60	\$17,250	Assumes 100' x 2000' buffer
Subtotal				\$25,450	
Tax				\$2,011	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	4.6	10	\$17,760
Subtotal					\$17,760

5. Summary

Total Present Worth Cost	\$47,620
Add 15% contingency	\$54,764

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers
2. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. H 03 Plant conifer buffer on west side of dike, allowing 10' access lane for dike maintenance either on top of dike or between buffer and toe of dike. Area 6400' long x 30' wide. Several parcels between Johnson Creek and SR 534.

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	120	\$4,200	Assumes done by SCD
Subtotal				\$4,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	4.4	\$11,000	Assumes 30' wide conserv. easement
Transaction costs	lump sum	\$12,000	1	\$12,000	along 6400' feet of land
Subtotal				\$23,000	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	4.4	\$16,500	Assumes 6400 lf by 30 LF
Subtotal				\$16,500	
Tax				\$1,304	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	4.4	10	\$16,988
Buffer monitoring	l.s.	\$800	1	10	\$6,177
Subtotal					\$23,165

5. Summary

Total Present Worth Cost	\$68,169
Add 15% contingency	\$78,394

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
2. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. B 01 Plant conifer buffer on 400 feet of left floodplain. Includes clearing canary grass and blackberry thickets. (Parcels No. P16683 and P16741)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	60	\$2,100	Assumes done by SCD
Subtotal				\$2,100	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Extra site prep on Parcel #P16683	l.s	\$800	1	\$800	Blackberry thickets , includes mob.
Plantings - buffer	acre	\$3,750	0.3	\$1,125	
Subtotal				\$1,925	
Tax				\$152	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.3	10	\$1,158
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$3,475

5. Summary

Total Present Worth Cost	\$7,652
Add 15% contingency	\$8,800

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
2. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. BMF 02 Plant conifer buffer on left floodplain (600 feet) along SR 534 & install fencing & stockwatering
 Parcel No. P17098

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$40	60	\$2,400	Assumes done by SCD
Subtotal				\$2,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nose pump, and piping	lump sum	\$1,000	1	\$1,000	
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	600	\$1,800	
Plantings - buffer	acre	\$3,750	0.4	\$1,500	Assumes 600 ft x 30 ft
Subtotal				\$5,500	
Tax				\$435	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.4	10	\$1,544
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$3,861

5. Summary

Total Present Worth Cost	\$12,195
Add 15% contingency	\$14,025

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. BSF 01 Plant 1200' long by 30' wide conifer buffer on both banks on four parcels (P17391 - P17393).
 Includes installing 2400' of fencing & two livestock watering stations

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$40	80	\$3,200	Assumes done by SCD
Subtotal				\$3,200	Extra hours for 4 parcels

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nospump, and piping	lump sum	\$1,000	2	\$2,000	Assumes 2 watering stations
Hardened pad	sf	\$2	300	\$600	2 small pads (alpacas)
Fencing	LF	\$3	2400	\$7,200	1200 feet on both sides
Plantings - buffer	acre	\$3,750	1.7	\$6,375	Assumes 1200 ft x 30 ft each side
Subtotal				\$16,975	
Tax				\$1,341	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	1.7	10	\$6,563
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$8,880

5. Summary

Total Present Worth Cost	\$30,396
Add 15% contingency	\$34,955

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
2. Uses a present worth discount factor for 10 years at 5% of 7.7217
3. Not CREP eligible because creek not salmonid habitat at this location

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. SB 02 Plant 200' conifer buffer between driveway and creek (Parcel No. P17842)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	40	\$1,400	Assumes done by SCD
Subtotal				\$1,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	0.1	\$375	200' x 20'
Additional mobilization cost	l.s.	\$400	1	\$400	low planting cost doesn't cover mob
Subtotal				\$775	
Tax				\$61	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.1	10	\$386
Buffer monitoring	l.s.	\$300	0.5	10	\$1,158
Subtotal					\$1,544

5. Summary

Total Present Worth Cost	\$3,781
Add 15% contingency	\$4,348

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. SB 03 Plant 800' x 30' conifer buffer on left bank of Starbird Creek. Install 800' of fencing and a stockwatering station. Parcel No. P11794

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$40	60	\$2,400	Assumes done by SCD
Subtotal				\$2,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nospump, and piping	lump sum	\$1,000	1	\$1,000	
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	800	\$2,400	
Plantings - buffer	acre	\$3,750	0.6	\$2,250	Assumes 800 ft x 30 ft
Subtotal				\$6,850	
Tax				\$541	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.6	10	\$2,317
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$4,633

5. Summary

Total Present Worth Cost	\$14,424
Add 15% contingency	\$16,588

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. F 01 Enhance existing narrow buffer on 1000' of Fisher Creek (both banks)
 (Parcel No. 3-016 (Larson) and 3-017 (Brown))

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	60	\$2,100	Assumes done by SCD
Subtotal				\$2,100	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	1.4	\$5,250	1000' x 60'
Subtotal				\$5,250	
Tax				\$415	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	1.4	10	\$5,405
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$7,722

5. Summary

Total Present Worth Cost	\$15,486
Add 15% contingency	\$17,809

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. F 02 Plant narrow shrub buffer along 2,600 ' of Fisher Creek (both banks). Design to accommodate maintenance easement within gas pipeline ROW (Parcels 2-007, 2-002, 2-003 & 2-010)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	90	\$3,150	Assumes done by SCD
Subtotal				\$3,150	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	2.4	\$9,000	2600' x 40'
Subtotal				\$9,000	
Tax				\$711	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	2.4	10	\$9,266
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$11,583

5. Summary

Total Present Worth Cost	\$24,444
Add 15% contingency	\$28,110

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. F 04 Plant conifer buffer and livestock fencing on both banks (1000') & install stockwatering station
 Plants consistent with gas pipeline easement. (Parcels Nos. P17744, 17746, P17747)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$40	60	\$2,400	Assumes done by SCD
Subtotal				\$2,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.9	\$2,250	Could be eligible for CREP?
Transaction costs	lump sum	\$6,000	1	\$6,000	
Subtotal				\$8,250	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nose pump, and piping	lump sum	\$1,000	1	\$1,000	
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	2000	\$6,000	
Plantings - buffer	acre	\$3,750	0.9	\$3,375	Assumes 1000 ft x 40 ft
Subtotal				\$11,575	
Tax				\$914	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.9	10	\$3,475
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$5,791

5. Summary

Total Present Worth Cost	\$28,931
Add 15% contingency	\$33,270

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. F05 Enhance / plant 800' x 100' clearcut on steep slope along right bank of Fisher Creek.
 (Parcel No. P17407)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	40	\$1,400	Assumes done by SCD
Subtotal				\$1,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	1.8	\$6,750	800' x 100'
Subtotal				\$6,750	
Tax				\$533	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	1.8	10	\$6,950
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$9,266

5. Summary

Total Present Worth Cost	\$17,949
Add 15% contingency	\$20,642

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. F 06 Enhance existing narrow buffer on 600' of Fisher Creek (both banks)
 (Parcel No. P17459 and P 17461)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	60	\$2,100	Assumes done by SCD
Subtotal				\$2,100	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	0.8	\$3,000	600' x 60'
Subtotal				\$3,000	
Tax				\$237	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.8	10	\$3,089
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$5,405

5. Summary

Total Present Worth Cost	\$10,742
Add 15% contingency	\$12,354

Notes

- For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
- Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LF 01 Plant conifer buffer and livestock fencing on both banks (1600'x 60'). Install 3200' of fencing and two stockwatering stations. Parcel Nos. P17466, P17468, P17469.

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$40	80	\$3,200	Assumes done by SCD
Subtotal				\$3,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	2.2	\$5,500	Could be eligible for CREP
Transaction costs	lump sum	\$6,000	1	\$6,000	
Subtotal				\$11,500	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	l.s.	\$800	1	\$800	
Stocktank , nose pump, and piping	lump sum	\$1,000	2	\$2,000	
Hardened pad	sf	\$2	400	\$800	
Fencing	LF	\$3	3200	\$9,600	
Plantings - buffer	acre	\$3,750	2.2	\$8,250	Assumes 1600 ft x 60 ft
Subtotal				\$21,450	
Tax				\$1,695	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	2.2	10	\$8,494
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$10,810

5. Summary

Total Present Worth Cost	\$48,655
Add 15% contingency	\$55,953

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers, including site prep
2. Uses a present worth discount factor for 10 years at 5% of 7.7217
3. Parcels would be eligible for CREP, but reportedly owners have been contacted and declined to participate

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LF WF 01 Enhance existing buffer along creek (400' x 30' on both banks) (Parcel No. 32-4-5-1-005)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	40	\$1,400	Assumes done by SCD
Subtotal				\$1,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	0.6	\$2,250	400'X60'
Additional mobilization cost	l.s.	\$400	1	\$400	low planting cost doesn't cover mob
Subtotal				\$2,650	
Tax				\$209	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.6	10	\$2,317
Buffer monitoring	l.s.	\$300	1	10	\$2,317
Subtotal					\$4,633

5. Summary

Total Present Worth Cost	\$8,892
Add 15% contingency	\$10,226

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LF EF 03 Plant narrow shrub / conifer buffer in residential yards (600' x 15' on both banks)
 Parcel No. P17660)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$35	40	\$1,400	Assumes done by SCD
Subtotal				\$1,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Plantings - buffer	acre	\$3,750	0.4	\$1,500	600'x 30'
Additional mobilization cost	l.s.	\$400	1	\$400	low planting cost doesn't cover mob
Subtotal				\$1,900	
Tax				\$150	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.4	10	\$1,544
Buffer monitoring	l.s.	\$300	0.5	10	\$1,158
Subtotal					\$2,703

5. Summary

Total Present Worth Cost	\$6,153
Add 15% contingency	\$7,076

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LF EF 04 Plant 400' x 30' conifer buffer along Pacific Hwy road shoulder / left bank of creek
 Include installing 3 small rock weirs to correct head cut erosion in creek above the I-5 culvert.
 (on county road ROW)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$50	60	\$3,000	Assumes done by SCD
HPA and CAO permitting	hours	\$50	60	\$3,000	
Subtotal				\$6,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	Assumes no easements needed within county ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization and demobilization	lump sum	\$5,000	1	\$2,000	
Install small rock weir	each	\$1,000	3	\$3,000	
Place gravel in stream bed	CY	\$35	6	\$210	assume 50' x 6' x 6"
TESC seeding and mulching	acre	\$1,000	0.1	\$100	
Stream protection BMPs	lump sum	\$500	1	\$500	creek dry in summer
Plantings - buffer	acre	\$3,750	0.3	\$1,125	400' x 30'
Subtotal				\$6,935	
Tax				\$548	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0.3	10	\$1,158
Buffer monitoring	l.s.	\$300	0.5	10	\$1,158
Subtotal					\$2,317

5. Summary

Total Present Worth Cost	\$15,799
Add 15% contingency	\$18,169

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

2. Modification of Dam Spillways

Project No. C 02 Modification of Lang Dam Spillway. Parcel No. P29707

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	150	\$13,500	
HPA, 404 and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$22,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	
Transaction costs	lump sum	\$6,000	0	\$0	assumes none needed
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization / demobilization	lump sum	\$2,000	1	\$2,000	
Land clearing	acre	\$1,000	0.2	\$200	
Demolish old spillway	lump sum	\$1,000	1	\$1,000	
Strengthen earth dam	CY	\$20	400	\$8,000	Widen dam base with soil
New concrete outlet structure	lump sum	\$3,000	1	\$3,000	Outlet to by-pass creek
Widen existing bypass channel	CY	\$15	150	\$2,250	
Install log weirs for fish passage	ea	\$600	10	\$6,000	On new by-pass channel
Place gravel	CY	\$35	30	\$1,050	in new channel
Install new road crossing culvert	LF	\$400	24	\$9,600	10' diam CMP pipe arch
Reconstruct farm road over creek	CY	\$25	40	\$1,000	
Rock armor at culvert inlet/outlet	CY	\$35	5	\$175	
Stream side plantings	acre	\$3,750	0.10	\$375	
TESC seeding and mulching	acre	\$1,000	0.3	\$300	
Stream protection BMPs	lump sum	\$1,000	1.0	\$1,000	
Subtotal				\$35,950	
Tax				\$2,840	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0	10	\$0
Fish utilization monitoring	l.s.	\$800	1	10	\$6,177
Subtotal					\$6,177

5. Summary

Total Present Worth Cost	\$67,467
Add 15% contingency	\$77,588

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers
2. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LFWF 02 Modification of O'Malley Dam Spillway. Parcel No. 32 04 05 1-002

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	120	\$10,800	
HPA, 404 and CAO permitting	hours	\$90	80	\$7,200	
Subtotal				\$18,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	
Transaction costs	lump sum	\$6,000	0	\$0	assumes none needed
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization / demobilization	lump sum	\$2,000	1	\$2,000	
Demolish old spillway	lump sum	\$1,000	1	\$1,000	
New concrete fishway at outlet	lf	\$1,500	30	\$45,000	assume 8-weir pool & chute design
TESC seeding and mulching	acre	\$1,000	0.2	\$200	
Stream protection BMPs	lump sum	\$1,000	1.0	\$1,000	
Subtotal				\$49,200	
Tax				\$3,887	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plant buffers	acres	\$500	0	10	\$0
Fish utilization monitoring	l.s.	\$800	1	10	\$6,177
Subtotal					\$6,177

5. Summary

Total Present Worth Cost	\$77,264
Add 15% contingency	\$88,854

Notes

1. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each for buffers
2. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

3. Restoration of Stream Channels

Project No. S 01 Restore channel and reconnect floodplain of lowest reach of Sandy Creek. Parcel # P16585

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	150	\$13,500	
HPA, Sec. 404 & CAO permitting	hours	\$90	150	\$13,500	
Subtotal				\$27,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	2.8	\$7,000	see note
Transaction costs	lump sum	\$10,000	1	\$10,000	about 800' x 150' needed
Subtotal				\$17,000	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization / demobilization	lump sum	\$3,000	1	\$3,000	
Excavation of new channel	CY	\$15	1100	\$16,500	see note
Install new culvert at Kanako Ln	ft	\$500	20	\$10,000	12' diam CMP pipe arch
Restore road surface	lump sum	\$500	1	\$500	
Fill existing channel along K Ln	CY	\$15	850	\$12,750	
LWD for grade control and habitat	each	\$500	40	\$20,000	provide and install
Place spawning gravel in creek	CY	\$35	150	\$5,250	
Plant conifer buffer on new floodplain	acre	\$3,750	2.2	\$8,250	assume 800' x 120'
Install fencing	LF	\$3	1600	\$4,800	both sides of creek
TESC Seeding and mulching	acre	\$1,000	0.3	\$300	Disturbed soil not otherwise planted
Stream protection BMPs	lump sum	\$1,000	1.0	\$1,000	
Subtotal				\$82,350	
Tax				\$6,506	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	2.2	10	\$5,096
Fish use / effectiveness monitoring	lump sum	\$800	1	10	\$6,177
Maintaining LWD	lump sum	\$300	1	10	\$2,317
Subtotal					\$13,590

5. Summary

Total Present Worth Cost	\$135,172
Add 15% contingency	\$155,448

Notes

1. May be eligible for CREP, in which case USDA would pay rental, transaction cost and buffer planting costs.
2. Assumes 1000 feet of meandering channel with appropriate cross section assumed to be about 30 sf
3. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each
4. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. J 01 Restore channel and reconnect floodplain of lowest reach of Johnson Creek. Parcel # P16598

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	200	\$18,000	
HPA, Sec. 404 & CAO permitting	hours	\$90	150	\$13,500	
Subtotal				\$31,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	3.4	\$8,500	see note
Transaction costs	lump sum	\$10,000	1	\$10,000	about 1000' x 150' needed
Subtotal				\$18,500	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization / demobilization	lump sum	\$3,000	1	\$3,000	
Excavation of new channel	CY	\$15	1600	\$24,000	see note
Install new bridge at private road	lump sum	\$25,000	1	\$25,000	Assume 20' Janicki bridge or equiv.
Restore road surface	lump sum	\$500	1	\$500	
Fill existing chan along private rd	CY	\$15	550	\$8,250	
LWD for grade control and habitat	each	\$500	50	\$25,000	provide and install
Place spawning gravel in creek	CY	\$35	180	\$6,300	
Plant conifer buffer on new floodplain	acre	\$3,750	2.8	\$10,500	assume 1000' x 120'
Install fencing	LF	\$3	2000	\$6,000	both sides of creek
TESC Seeding and mulching	acre	\$1,000	0.5	\$500	Disturbed soil not otherwise planted
Stream protection BMPs	lump sum	\$1,000	1.0	\$1,000	
Subtotal				\$110,050	
Tax				\$8,694	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	2.8	10	\$6,486
Fish use / effectiveness monitoring	lump sum	\$800	1	10	\$6,177
Maintaining LWD	lump sum	\$300	1	10	\$2,317
Subtotal					\$14,980

5. Summary

Total Present Worth Cost	\$171,060
Add 15% contingency	\$196,720

Notes

1. May be eligible for CREP, in which case USDA would pay rental, transaction cost and buffer planting costs.
2. Assumes 1200 feet of meandering channel with appropriate cross section assumed to be about 36 sf
3. For plantings, assume 750 trees/shrubs per acre @ \$5.00 each
4. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. C 08 Remove concrete debris from channel and stabilize banks with bioengineered techniques
 Parcel No. P100882

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	80	\$7,200	
HPA, Sec. 404 & CAO permitting	hours	\$90	80	\$7,200	
Subtotal				\$14,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	not needed
Transaction costs	lump sum	\$10,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization / demobilization	lump sum	\$1,000	1	\$1,000	
Remove concrete debris & grade bar	days	\$1,000	1	\$1,000	excavator time
Trucking and disposal off-site	lump sum	\$2,000	1	\$2,000	assumes nearby disposal site
Install LWD barbs	each	\$500	15	\$7,500	assumes 3 pcs per barb x 5 barbs
Install jute bank covering	sf	\$0.35	4000	\$1,400	assume 20' x 200'
Plantings - bank and buffer	acre	\$5,000	0.2	\$1,000	assume 200' x 40'
TESC Seeding and mulching	acre	\$1,000	0.1	\$100	Disturbed soil
Stream protection BMPs	lump sum	\$1,000	1.0	\$1,000	
Subtotal				\$15,000	
Tax				\$1,185	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	0.2	10	\$463
Maintaining LWD	lump sum	\$300	1	10	\$2,317
Subtotal					\$2,780

5. Summary

Total Present Worth Cost	\$32,902
Add 15% contingency	\$37,837

Notes

1. For plantings, assume 1000 trees/shrubs per acre @ \$5.00 each
2. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. C 06 Remove tires from Carpenter Creek between Little Mountain Road and E. Hickox Road
 (several parcels)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Planning and management	hours	\$40	60	\$2,400	assumes managed by SCD
HPA, Sec. 404 & CAO permitting	hours	\$90	0	\$0	or City of MV staff
Subtotal				\$2,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	not needed
Transaction costs	lump sum	\$10,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization / demobilization	lump sum	\$1,000	1	\$1,000	
ATV rental/ use	days	\$400	3	\$1,200	to support labor crew
Trucking and disposal off-site	lump sum	\$600	1	\$600	assumes nearby disposal site
Labor to collect tires	person days	\$500	6	\$3,000	assumes a 2 person crew
Subtotal				\$5,800	
Tax				\$458	

4. Summary

Total Present Worth Cost	\$8,658
Add 15% contingency	\$9,957

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

4. Culvert Replacement Projects

Project No. C 03 Replace 18" culvert under Little Mtn Rd with 7' diam culvert. Parcel No. P29707

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	160	\$14,400	Coordination with DPW
HPA and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$23,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within County road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$4,000	1	\$4,000	15% of construction cost
Cut pavement	LF	\$5	60	\$300	
Excavate roadway and culvert	CY	\$30	150	\$4,500	
Dispose culvert offsite	lump sum	\$500	1	\$500	
Provide 7' diam pipe arch culvert	LF	\$150	40	\$6,000	
Gravel for footing and pipe bed	CY	\$35	25	\$875	
Install culvert and backfill	CY	\$30	130	\$3,900	excavator and truck time
Place gravel in pipe bed	CY	\$25	8	\$200	
Rock armoring at inlet and outlet	CY	\$50	10	\$500	light loose riprap
Repair pavement	CY	\$300	10	\$3,000	
TESC hydroseeding	SF	\$1	800	\$800	Disturbed soil
Dewatering and stream protection BA	lump sum	\$3,000	1.0	\$3,000	Creek mostly dry in summer
Traffic control during construction	days	\$1,000	4	\$4,000	
Subtotal				\$31,575	
Tax				\$2,494	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$57,469
Add 15% contingency	\$66,090

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. C 07 Place stable, natural bed in existing 10' diam culvert and improve rock sills at outlet.
 Parcel No. P6288

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	40	\$3,600	
HPA and CAO permitting	hours	\$90	40	\$3,600	
Subtotal				\$7,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	not needed
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$2,000	1	\$2,000	25% of construction cost
Staging of materials for hand labor	lump sum	\$500	1	\$500	(site is next to quarry so low cost)
Provide rock and gravel	CY	\$30	40	\$1,200	
Hand place gravel and rock sills	person days	\$500	6	\$3,000	Site is too steep for power equip
TESC Seeding and mulching	acre	\$1,000	0.1	\$100	Disturbed soil
Dewatering and stream protection BM	lump sum	\$2,000	1.0	\$2,000	Creek mostly dry in summer
Subtotal				\$8,800	
Tax				\$695	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$16,695
Add 15% contingency	\$19,199

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. BMF 01 Replace 4 small culverts under English Road and raise road grade to SR 534. Assume use 15' pipe arch. Parcel No. P17068

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	200	\$18,000	Coordination with DPW
HPA and CAO permitting	hours	\$90	150	\$13,500	includes wetland delineation
Subtotal				\$31,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within County road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$5,000	1	\$5,000	10% of construction cost
Cut pavement	LF	\$5	50	\$250	
Excavate roadway and culverts	CY	\$30	110	\$3,300	20' x 25' x 6'
Dispose culverts offsite	lump sum	\$500	1	\$500	
Provide new 15' pipe arch culvert	LF	\$300	30	\$9,000	
Provide concrete footings for pipe	each	\$500	2	\$1,000	precast footings
Gravel for footing and pipe bed	CY	\$35	30	\$1,050	15' x 25' x 2'
Install culvert and footings	lump sum	\$1,000	1	\$1,000	excavator time
Backfill culvert and raise road grade	CY	\$30	185	\$5,550	assume raise 100' of Engl. Rd 2 feet
Rock armoring at inlet and outlet	CY	\$50	20	\$1,000	light loose riprap
Reconstruct Engl. Rd pavement	CY	\$300	38	\$11,400	Repave 100' x 20 x 6"
TESC hydroseeding	SF	\$1	2000	\$2,000	Disturbed soil
Dewatering and stream protection BM	lump sum	\$5,000	1	\$5,000	Incl protect wetland & crk bypass
Traffic control during construction	days	\$1,000	5	\$5,000	
Subtotal				\$51,050	
Tax				\$4,033	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$86,583
Add 15% contingency	\$99,570

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. BSF 02 Replace blocked 36" culvert under English Rd with new 8' diam.culvert Parcel P17141

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	200	\$18,000	Coordination with DPW
HPA and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$27,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy temp easement for const.access	acre	\$2,500	0.5	\$1,250	
Transaction costs	lump sum	\$5,000	1	\$5,000	
Subtotal				\$6,250	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$14,000	1	\$14,000	5% of construction cost
Provide new 8" pipe arch culvert	LF	\$170	110	\$18,700	
Clear / grade temp access road	sf	\$2	3750	\$7,500	assume 250' x 15' cleared road
geotextile for road	SY	\$2	420	\$840	
quarry spall for haul road bed	CY	\$35	60	\$2,100	
Grade jacking pit	CY	\$20	200	\$4,000	assume 3' x 60' x 30'
Sheet piling along creek	SF	\$17	360	\$6,120	
surface with quarry spall	CY	\$35	60	\$2,100	
Boring jacking of culvert	LF	\$2,000	100	\$200,000	assumed cost (unsure)
Dispose soil and old culvert	CY	\$15	75	\$1,125	
Gravel for new culvert bed	CY	\$30	35	\$1,050	assume raise 100' of Engl. Rd 2 feet
Place gravel with bobcat	CY	\$15	35	\$525	
Rock armoring at inlet and outlet	CY	\$50	20	\$1,000	light loose riprap
restoration of pit and haul road	CY	\$20	220	\$4,400	regrading of stockpiled soil
Other restoration	lump sum	\$3,000	1	\$3,000	remove geofabric, sheet piling, spall
TESC hydroseeding	SF	\$1	5800	\$5,800	Disturbed soil
Replant trees/shrubs on haul road	ac	\$5,000	0.2	\$1,000	
Dewatering and stream protection BM	lump sum	\$4,000	1	\$4,000	Include creek bypass
Traffic control during construction	days	\$1,000	5	\$5,000	
Subtotal				\$282,260	
Tax				\$22,299	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	0.2	10	\$463
Effectiveness monitoring	lump sum	\$300	1	10	\$2,317
Subtotal					\$2,780

5. Summary

Total Present Worth Cost	\$340,588
Add 15% contingency	\$391,677

Notes

An alternative cost for excavating the culvert (instead of jacking) is provided below

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. BSF 02 Replace blocked 36" culvert under English Rd with new 8' diam.culvert Parcel P17141
(Alternative cost for excavating instead of jacking)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	180	\$16,200	Coordinate with DPW
HPA and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$25,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within county road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$12,000	1	\$12,000	5% of construction cost
Cut pavement	LF	\$5	30	\$150	
Excavate roadway and culvert	CY	\$25	3900	\$97,500	
Dispose culvert offsite	lump sum	\$500	1	\$500	
Provide 8' pipe arch culvert	LF	\$150	100	\$15,000	angle skewed to road
Gravel for footing and pipe bed	CY	\$35	70	\$2,450	
Install culvert and backfill	CY	\$25	3810	\$95,250	excavator and truck time
Place gravel in pipe bed	CY	\$25	30	\$750	use bobcat
Rock armoring at inlet and outlet	CY	\$50	10	\$500	light loose riprap
Repair pavement	CY	\$300	10	\$3,000	
TESC hydroseeding	SF	\$1	3600	\$3,600	Disturbed soil
Replanting trees at site	acre	\$5,000	0.1	\$500	
Dewatering and stream protection BA	lump sum	\$5,000	1.0	\$5,000	Includes temp bypass
Traffic control during construction	days	\$1,000	8	\$8,000	
Subtotal				\$244,200	
Tax				\$19,292	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	0.2	10	\$463
Effectiveness monitoring	lump sum	\$300	1	10	\$2,317
Subtotal					\$2,780

5. Summary

Total Present Worth Cost	\$291,472
Add 15% contingency	\$335,192

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. SB 04 Replace two undersized culverts under Starbird Crk Ln with an 10' pipe arch culvert.
 Parcel No. P17786

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	140	\$12,600	Private road, less coord.with county
HPA and CAO permitting	hours	\$90	80	\$7,200	
Subtotal				\$19,800	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within private road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$4,000	1	\$4,000	15% of construction cost
Cut pavement	LF	\$5	30	\$150	
Excavate roadway and culvert	CY	\$30	200	\$6,000	
Dispose culverts offsite	lump sum	\$500	1	\$500	
Provide 10' diam pipe arch culvert	LF	\$200	30	\$6,000	
Gravel for footing and pipe bed	CY	\$35	25	\$875	
Install culvert and backfill	CY	\$30	120	\$3,600	excavator and truck time
Place gravel in pipe bed	CY	\$25	10	\$250	
Rock armoring at inlet and outlet	CY	\$50	10	\$500	light loose riprap
Repair pavement	CY	\$300	10	\$3,000	
TESC hydroseeding	SF	\$1	800	\$800	Disturbed soil
Dewatering and stream protection BA	lump sum	\$3,000	1.0	\$3,000	Creek mostly dry in summer
Traffic control during construction	days	\$1,000	4	\$4,000	
Subtotal				\$32,675	
Tax				\$2,581	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$56,475
Add 15% contingency	\$64,946

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. F 03 Replace three undersized culverts under Bulson Road with a 12' x 6' concrete box culvert.
 Parcel No. P17746

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	180	\$16,200	Must coord. with Skagit & Sno. counties
HPA and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$25,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within county road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$6,000	1	\$6,000	10% of construction cost
Cut pavement	LF	\$5	30	\$150	
Excavate roadway and culvert	CY	\$30	270	\$8,100	
Dispose culverts offsite	lump sum	\$500	1	\$500	
Provide 12' x 6' concrete box culvert	LF	\$600	40	\$24,000	angle skewed to road
Gravel for footing and pipe bed	CY	\$35	30	\$1,050	
Install culvert and backfill	CY	\$30	150	\$4,500	excavator and truck time
Place gravel in pipe bed	CY	\$25	10	\$250	use bobcat
Rock armoring at inlet and outlet	CY	\$50	10	\$500	light loose riprap
Repair pavement	CY	\$300	10	\$3,000	
TESC hydroseeding	SF	\$1	800	\$800	Disturbed soil
Dewatering and stream protection BA	lump sum	\$5,000	1.0	\$5,000	Includes temp bypass
Traffic control during construction	days	\$1,000	6	\$6,000	
Subtotal				\$59,850	
Tax				\$4,728	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$89,778
Add 15% contingency	\$103,245

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. LFWF 03 Replace perched 4' culvert under County Line Rd with 8' diam pipe arch culvert.
 Parcel No. P17585

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	180	\$16,200	Must coord. with Skagit & Sno. counties
HPA and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$25,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within county road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$10,000	1	\$10,000	10% of construction cost
Cut pavement	LF	\$5	30	\$150	
Excavate roadway and culvert	CY	\$25	1160	\$29,000	
Dispose culverts offsite	lump sum	\$500	1	\$500	
Provide 8' pipe arch culvert	LF	\$150	90	\$13,500	angle skewed to road
Gravel for footing and pipe bed	CY	\$35	60	\$2,100	
Install culvert and backfill	CY	\$25	1075	\$26,875	excavator and truck time
Place gravel in pipe bed	CY	\$25	25	\$625	use bobcat
Rock armoring at inlet and outlet	CY	\$50	10	\$500	light loose riprap
Repair pavement	CY	\$300	10	\$3,000	
TESC hydroseeding	SF	\$1	2000	\$2,000	Disturbed soil
Replanting trees at site	acre	\$5,000	0	\$500	
Dewatering and stream protection BA	lump sum	\$5,000	1.0	\$5,000	Includes temp bypass
Traffic control during construction	days	\$1,000	6	\$6,000	
Subtotal				\$99,750	
Tax				\$7,880	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$132,830
Add 15% contingency	\$152,755

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. LFEF 02 Replace perched 24" culvert under Brunn Rd with 6' diam pipe arch culvert.
 Parcel No. P17667

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	100	\$9,000	
HPA and CAO permitting	hours	\$90	80	\$7,200	
Subtotal				\$16,200	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within county road ROW
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$3,000	1	\$3,000	15% of construction cost
Cut pavement	LF	\$5	20	\$100	
Excavate roadway and culvert	CY	\$25	100	\$2,500	
Dispose culvert offsite	lump sum	\$250	1	\$250	
Provide 6' pipe arch culvert	LF	\$120	25	\$3,000	angle skewed to road
Gravel for footing and pipe bed	CY	\$35	12	\$420	
Install culvert and backfill	CY	\$25	85	\$2,125	excavator and truck time
Place gravel in pipe bed	CY	\$25	5	\$125	manual shovelling
Rock armoring at inlet and outlet	CY	\$50	5	\$250	light loose riprap
Repair pavement	CY	\$300	7	\$2,100	
TESC hydroseeding	SF	\$1	500	\$500	Disturbed soil
Dewatering and stream protection BA	lump sum	\$3,000	1.0	\$3,000	Includes temp bypass
Traffic control during construction	days	\$1,000	2	\$2,000	
Subtotal				\$19,370	
Tax				\$1,530	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$37,100
Add 15% contingency	\$42,665

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. LFEF 05 Retrofit 150' long culvert under Bonnie View Rd for fish passage. Parcel Nos. P17584, P17603

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	120	\$10,800	
HPA and CAO permitting	hours	\$90	100	\$9,000	Corps permit for weirs
Subtotal				\$19,800	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$2,500	0.0	\$0	all within county road ROW ?
Transaction costs	lump sum	\$6,000	0	\$0	
Subtotal				\$0	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$3,000	1	\$3,000	15% of construction cost
Clear / grade temp access road	sf	\$2	3000	\$6,000	assume 200' x 15' cleared road
geotextile for road	SY	\$2	330	\$660	
quarry spall for haul road bed	CY	\$35	40	\$1,400	
Weld steel baffles inside exist pipe	each	\$600	6	\$3,600	
construct rock weirs	each	\$1,500	3	\$4,500	
Gravel for pipe and weirs	CY	\$35	15	\$525	
Place gravel in pipe and weirs	CY	\$25	15	\$375	manual shovelling
Restoration of haul road	CY	\$20	50	\$1,000	regrading of stockpiled soil
Other restoration	lump sum	\$3,000	1	\$3,000	remove geofabric, sheet piling, spall
TESC hydroseeding	SF	\$1	3000	\$3,000	Disturbed soil
Replant trees/shrubs on haul road	ac	\$5,000	0.1	\$500	
Dewatering and stream protection BA	lump sum	\$5,000	1.0	\$5,000	Flow needs to be pumped over BV Rd
Subtotal				\$32,560	
Tax				\$2,572	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	0.1	10	\$232
Effectiveness monitoring	lump sum	\$300	1	10	\$2,317
Subtotal					\$2,548

5. Summary

Total Present Worth Cost	\$57,480
Add 15% contingency	\$66,102

Notes

Fisher / Carpenter Creek Watershed Project Cost Estimate Worksheet

Project No. LFEF 06 Replace perched 4' culvert under Franklin Rd with 10' diam pipe culvert.
 Parcel No. P17469

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	150	\$13,500	Must coord. with Skagit Co. DPW
HPA and CAO permitting	hours	\$90	100	\$9,000	
Subtotal				\$22,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Temporary access easement	acre	\$2,500	1.0	\$2,500	Detour on DD3 dike road for Franklin Road residents during construction?
Transaction costs	lump sum	\$6,000	1	\$6,000	
Subtotal				\$8,500	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Cut pavement	LF	\$5	40	\$200	
Excavate roadway and culvert	CY	\$25	530	\$13,250	
Dispose culverts offsite	lump sum	\$500	1	\$500	
Provide 10' diam CMP culvert	LF	\$170	40	\$6,800	angle skewed to road
Gravel for footing and pipe bed	CY	\$35	30	\$1,050	
Install culvert and backfill	CY	\$20	480	\$9,600	excavator and truck time
Place gravel in pipe bed	CY	\$25	8	\$200	use bobcat
Rock armoring at inlet and outlet	CY	\$50	10	\$500	light loose riprap
Repair pavement	CY	\$300	10	\$3,000	
TESC hydroseeding	SF	\$1	1500	\$1,500	Disturbed soil
Dewatering and stream protection BA	lump sum	\$5,000	1.0	\$5,000	Includes temp bypass
Traffic control during construction	days	\$1,000	6	\$6,000	
Subtotal				\$47,600	
Tax				\$3,760	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintaining plantings	acres	\$300	NA	10	
Effectiveness monitoring	lump sum	\$300	NA	10	
Subtotal					

5. Summary

Total Present Worth Cost	\$82,360
Add 15% contingency	\$94,714

Notes

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

5. Typical Dike Setback Project

Project No. H 04 Typical Hill Ditch dike setback: assume move 3800' of the dike from Conway Hill Road to I-5 westward 150 feet. Regrade ditch cross section to narrow low flow channel and wide terraced floodplain. Plant terrace in emergent plants and floodplain in a CREP conifer buffer (13.1 ac.)

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$90	200	\$18,000	
Permitting	hours	\$90	160	\$14,400	Extensive: HPA, 404, Shorelines
Subtotal				\$32,400	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy land for setback	acre	\$7,000	13.1	\$91,700	Assume buy 150' x 3800' of land
Transaction costs	lump sum	\$15,000	1	\$15,000	
Subtotal				\$106,700	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$45,000	1	\$45,000	3% of construction cost
Earthwork - Remove existing dike	CY	\$10	63,300	\$633,000	see note 1
Earthwork - build new dike	CY	\$10	63,300	\$633,000	see note 1
Earthwork - regrade creek section	CY	\$12	8,400	\$100,800	See note 1
Plant emergents on terrace	acre	\$6,500	2.6	\$16,900	See note 2
Plant trees on floodplain	acre	\$3,750	8.7	\$32,625	See note 2
Hydroseeding sides of dike	sf	\$0.15	243,000	\$36,450	
Construct gravel road on dike	CY	\$30	460	\$13,800	
Install gates	each	\$800	2	\$1,600	
TESC and stream protection	lump sum	\$30,000	1	\$30,000	Install temp bypass culvert
Subtotal				\$1,498,175	
Tax				\$118,356	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Maintain plant buffers	acres	\$500	11.3	10	\$43,628
Monitoring	l.s.	\$2,000	1	10	\$15,443
Subtotal					\$59,071

5. Summary

Total Present Worth Cost	\$1,814,702
Add 20% contingency	\$2,086,907

Notes

1. Assumes Removing 3800' feet of existing dike with x/s area of about 450 sf (10' high x 15' at top with 3:1 slopes) and using dirt to build new dike with same dimensions. Regrade creek channel to wider and shallower cross section (e.g. 40' wide with 4' deep low flow channel and terraced sides). Spread extra soil on floodplain.
2. Plant 30' terrace slope with wetland emergent plants. Plant 100' floodplain with CREP buffer (trees)
3. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

6. Wetland Enhancement Projects

Project No. C 04 Enhance wetland on Little Mountain Road. Parcel No. P29725
 Include 800' of fencing, stock watering station, and beaver deceivers

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$50	100	\$5,000	SCD staff
Permitting	hours	\$50	40	\$2,000	HPA for beaver work
Subtotal				\$7,000	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Purchase conservation easement	acre	\$3,000	1.8	\$5,400	Assume 400' x 200' area
Transaction costs	lump sum	\$6,000	1	\$6,000	
Subtotal				\$11,400	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$1,000	1	\$1,000	
Stocktank , nose pump, and piping	lump sum	\$1,000	1	\$1,000	
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	800	\$2,400	
Plantings - buffer	acre	\$3,750	0.40	\$1,500	See note 1
Install beaver deceivers at dam	lump sum	\$1,000	1.00	\$1,000	See note 2
Subtotal				\$7,300	
Tax				\$577	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>	
Maintain plant buffers	acres	\$750	1.8	10	\$10,424	Note 3
Monitoring	l.s.	\$500	1	10	\$3,861	
Subtotal					\$14,285	

5. Summary

Total Present Worth Cost	\$40,562
Add 20% contingency	\$46,646

Notes

1. Assumes fencing off an area of flooded pasture 400' x 200'. Plant a 30' buffer of wetland shrubs and trees along 2 sides (other sides already forested).
2. Install beaver deceiver pipe(s) in existing dams at elevation to keep wetland area flooded year round.
3. Extra maintenance costs due to high beaver damage
4. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. H 02 Enhance wetland at upper reach of Hill Ditch. Parcel Nos. P16590, P16591 and P16576
 Includes 600' of fencing, stock watering station, and beaver deceivers

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$50	150	\$7,500	SCD staff
Permitting	hours	\$50	40	\$2,000	HPA for beaver work
Subtotal				\$9,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Purchase conservation easement	acre	\$2,000	41.3	\$82,600	Assume 3000' x 600' area
Transaction costs	lump sum	\$20,000	1	\$20,000	
Subtotal				\$102,600	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$2,000	1	\$2,000	
Stocktank , nose pump, and piping	lump sum	\$1,000	1	\$1,000	For Benson livestock
Hardened pad	sf	\$2	200	\$400	
Fencing	LF	\$3	600	\$1,800	
Plantings - conifer buffer	acre	\$3,750	3.4	\$12,750	See note 1
Install beaver deceivers at dam	lump sum	\$1,000	1	\$1,000	See note 2
Subtotal				\$18,950	
Tax				\$1,497	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>	
Maintain plant buffers	acres	\$750	3.4	10	\$19,690	Note 3
Monitoring	l.s.	\$500	1	10	\$3,861	
Subtotal					\$23,551	

5. Summary

Total Present Worth Cost	\$156,098
Add 20% contingency	\$179,513

Notes

1. Plant an approx. 50' conifer buffer along east edge of wetland / toe of hill and a narrow buffer (e.g. 10') along the top of the remnant dredge spoil berm between Hill Ditch and the west side of the wetland, where feasible.
2. Install beaver deceiver pipe(s) in existing beaver dams at elevation to keep wetland area flooded year round.
3. Extra maintenance costs due to high beaver damage
4. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. SB 01 Enhance wetland at upper reach of Starbird Creek. Several parcels, as available.
 Includes stripping canary grass, "de-leveling" , planting, and beaver deceivers

1. Design and Permitting

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Design and management	hours	\$50	150	\$7,500	SCD staff
Permitting	hours	\$50	100	\$5,000	Corps permit for delevelling, etc.
Subtotal				\$12,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Purchase conservation easement	acre	\$2,000	36.7	\$73,400	Assume 2000' x 800' area
Transaction costs	lump sum	\$20,000	1	\$20,000	
Subtotal				\$93,400	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Mobilization/demobilization	lump sum	\$2,000	1	\$2,000	
"De-leveling" and sod stripping	acre	\$600	5	\$3,000	Assume 5 acres - see note 1
Plantings - conifer buffer	acre	\$3,750	7.5	\$28,125	See note 2
Install beaver deceivers	lump sum	\$1,000	1	\$1,000	See note 3
Subtotal				\$34,125	
Tax				\$2,696	

4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>	
Maintain plant buffers	acres	\$750	7.5	10	\$43,435	Note 4
Monitoring	l.s.	\$500	1	10	\$3,861	
Subtotal					\$47,295	

5. Summary

Total Present Worth Cost	\$190,016
Add 20% contingency	\$218,519

Notes

1. Strip canary grass sod and pile into mounds per NRCS WRP "de-leveling" specs. Plant trees on mounds.
2. Plant an approx. 50' conifer buffer along edges of wetland, and spot plant conifers on "de-leveling" mounds of the remant dredge spoil berm between Hill Ditch and the west side of the wetland, where feasible.
3. Install beaver deceiver pipe(s) in existing beaver dam(s) at elevation to keep wetland area flooded year round.
4. Extra maintenance costs due to high beaver damage
4. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

7. Conservation Easement Projects

Project No. C 01 Purchase conservation easement on Lang wetlands. Parcel Nos. P29695 and P29707

1. Planning and Administration

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Project management/admin	hours	\$75	60	\$4,500	
Subtotal				\$4,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$3,000	11.0	\$33,000	assume 600' x 800' area
Transaction costs	lump sum	\$10,000	1	\$10,000	
Subtotal				\$43,000	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
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4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Site maintenance/stewardship	acres	\$200	11.0	10	\$16,988
Subtotal					\$16,988

5. Summary

Total Present Worth Cost	\$64,488
Add 15% contingency	\$74,161

Notes

1. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LFEF 01 Purchase conservation easement on Brunn Road wetlands. Parcel Nos. P17667 and P17661

1. Planning and Administration

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Project management/admin	hours	\$75	60	\$4,500	
Subtotal				\$4,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$3,000	6.9	\$20,700	Assume both entire parcels
Transaction costs	lump sum	\$10,000	1	\$10,000	
Subtotal				\$30,700	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
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4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Site maintenance/stewardship	acres	\$200	6.9	10	\$10,656
Subtotal					\$10,656

5. Summary

Total Present Worth Cost	\$45,856
Add 15% contingency	\$52,734

Notes

1. Uses a present worth discount factor for 10 years at 5% of 7.7217

Fisher / Carpenter Watershed Project Cost Estimate Worksheet

Project No. LF 01 Purchase conservation easement on land at confluence of forks of Little Fisher Creek.
 Parcel Nos. P17486 and P17469. (In conjunction with riparian planting and fencing.)

1. Planning and Administration

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Project management/admin	hours	\$75	60	\$4,500	
Subtotal				\$4,500	

2. Property Interest Acquisition

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
Buy conservation easement	acre	\$3,000	6.9	\$20,700	About 1000' x 300' along creek
Transaction costs	lump sum	\$12,000	1	\$12,000	
Subtotal				\$32,700	

3. Construction and Implementation

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Cost</u>	<u>Comment</u>
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4. Maintenance and Monitoring

<u>Item</u>	<u>Units</u>	<u>Unit Cost</u>	<u>No.</u>	<u>Years</u>	<u>Present Worth</u>
Site maintenance/stewardship	acres	\$200	6.9	10	\$10,656
Subtotal					\$10,656

5. Summary

Total Present Worth Cost	\$47,856
Add 15% contingency	\$55,034

Notes

1. Uses a present worth discount factor for 10 years at 5% of 7.7217

Summary of Project Cost Estimates

Project Type and No.	Stream Length (ft)	Acres	Project Design & Management	Property Acquisition	Construction & Implementation	10-year Maintenance & Monitoring	Total Present Worth
1. Riparian Reforestation Projects							
C 5	200	0.1	\$2,000	\$0	\$3,426	\$386	\$5,812
C 9	1600	1.1	\$2,000	\$0	\$4,451	\$6,563	\$13,014
SP 1	200	0.2	\$1,050	\$0	\$863	\$1,930	\$3,844
H 1	2000	4.6	\$2,400	\$0	\$27,461	\$17,760	\$47,620
H 3	6400	4.4	\$4,200	\$23,000	\$17,804	\$23,165	\$68,169
B 1	400	0.3	\$2,100	\$0	\$2,077	\$3,475	\$7,652
BMF 2	600	0.4	\$2,400	\$0	\$5,935	\$3,861	\$12,195
BSF 1	1200	1.7	\$3,200	\$0	\$18,316	\$8,880	\$30,396
SB 2	200	0.1	\$1,400	\$0	\$836	\$1,544	\$3,781
SB 3	800	0.6	\$2,400	\$0	\$7,391	\$4,633	\$14,424
F 1	1000	1.4	\$2,100	\$0	\$5,665	\$7,722	\$15,486
F 2	2600	2.4	\$3,150	\$0	\$9,711	\$11,583	\$24,444
F 4	1000	0.9	\$2,400	\$8,250	\$12,489	\$5,791	\$28,931
F 5	800	1.8	\$1,400	\$0	\$7,283	\$9,266	\$17,949
F 6	600	0.8	\$2,100	\$0	\$3,237	\$5,405	\$10,742
LF 1	1600	2.2	\$3,200	\$11,500	\$23,145	\$10,810	\$48,655
LFWF 1	400	0.6	\$1,400	\$0	\$2,859	\$4,633	\$8,892
LFEF 3	600	0.4	\$1,400	\$0	\$2,050	\$2,703	\$6,153
LFEF 4	400	0.3	\$6,000	\$0	\$7,483	\$2,317	\$15,799
Subtotal Planting Projects	22,600	24.3	\$46,300	\$42,750	\$162,482	\$132,427	\$383,958
2. Modification of Spillways							
C 2	N.A.	N.A.	\$22,500	\$0	\$38,790	\$6,177	\$67,467
LFWF 2	N.A.	N.A.	\$18,000	\$0	\$53,087	\$6,177	\$77,264
Subtotal Spillway projects			\$40,500	\$0	\$91,877	\$12,354	\$144,731
3. Stream Channel Restoration Projects							
S 1	1000	2.8	\$27,000	\$17,000	\$88,856	\$13,590	\$135,172
J 1	1200	3.4	\$31,500	\$18,500	\$118,744	\$14,980	\$171,060
C 8	100	0.2	\$14,400	\$0	\$16,185	\$2,780	\$32,902
C 6	N.A.	N.A.	\$2,400	\$0	\$6,258	\$0	\$8,658
LFEF 4 (included in planting project)							
Subtotal Channel Rest. Projects	2300	6.4	\$75,300	\$35,500	\$230,043	\$31,350	\$347,792

Summary of Project Cost Estimates (continued)

Project Type and No.	Acres	Project Design & Management	Property Acquisition	Construction & Implementation	10-year Maintenance & Monitoring	Total Present Worth		
4. Culvert Replacement Projects								
C3		\$23,400	\$0	\$34,069	\$0	\$57,469		
C 7		\$7,200	\$0	\$9,495	\$0	\$16,695		
BMF 1		\$31,500	\$0	\$55,088	\$0	\$86,583		
BSF 2		\$27,000	\$6,250	\$304,559	\$2,780	\$340,588		
SB 4		\$19,800	\$0	\$35,256	\$0	\$56,475		
F 3		\$25,200	\$0	\$64,578	\$0	\$89,788		
LFWF 3		\$25,200	\$0	\$107,630	\$0	\$132,830		
LFEF 2		\$16,200	\$0	\$20,900	\$0	\$37,100		
LFEF 5		\$19,800	\$0	\$35,132	\$2,548	\$57,480		
LFEF 6		\$22,500	\$8,500	\$51,360	\$0	\$82,360		
Subtotal Culvert Replacement Projects		\$217,800	\$14,750	\$718,067	\$5,328	\$957,368		
5. Typical Dike Setback Project	3800	13.1	\$32,400	\$106,700	\$1,616,531	\$59,071	\$1,814,702	
6. Wetland Enhancement Projects								
C 4	1.8	\$7,000	\$11,400	\$7,877	\$14,285	\$40,562		
H 2	41.3	\$9,500	\$102,600	\$20,447	\$23,551	\$156,098		
SB 1	36.7	\$12,500	\$93,400	\$36,821	\$47,295	\$190,016		
Subtotal Wetland Projects	79.8	\$29,000	\$207,400	\$65,145	\$85,131	\$386,676		
7. Conservation Easement Projects								
1 C 1	11.0	\$4,500	\$4,300	\$0	\$16,988	\$64,488		
2 LFEF 1	6.9	\$4,500	\$30,700	\$0	\$10,656	\$45,856		
3 LF 1	6.9	\$4,500	\$32,700	\$0	\$10,656	\$47,856		
Subtotal Conservation Easements	24.8	\$13,500	\$67,700	\$0	\$38,300	\$158,200		
TOTALS	42 Projects	28,700	161.5	\$454,800	\$474,800	\$2,884,145	\$363,961	\$4,193,427

Fisher / Carpenter CCWF Grant
FS Appendix 2

Add 15%
Contingency

\$6,684

\$14,966

\$4,421

\$54,763

\$78,394

\$8,800

\$14,024

\$34,955

\$4,348

\$16,588

\$17,809

\$28,111

\$33,271

\$20,641

\$12,353

\$55,953

\$10,226

\$7,076

\$18,169

\$441,552

\$77,587

\$88,854

\$166,441

\$155,448

\$196,719

\$37,837

\$9,957

2/1/2008 **\$399,961**

Fisher / Carpenter CCWF Grant
FS Appendix 2

Add 15%
Contin-
gency

\$66,089

\$19,199

\$99,570

\$391,676

\$64,946

\$103,256

\$152,755

\$42,665

\$66,102

\$94,714

\$1,100,973

\$2,086,907

\$46,646

\$179,513

\$218,518

\$444,677

\$74,161

\$52,734

\$55,034

\$181,930

\$4,822,441