

EL DORADO IRRIGATION DISTRICT FERC NO. 184 PROJECT

Recreation Component Cost Impact Study



Ferguson Point Picnic Area - El Dorado National Forest

December 10, 2002

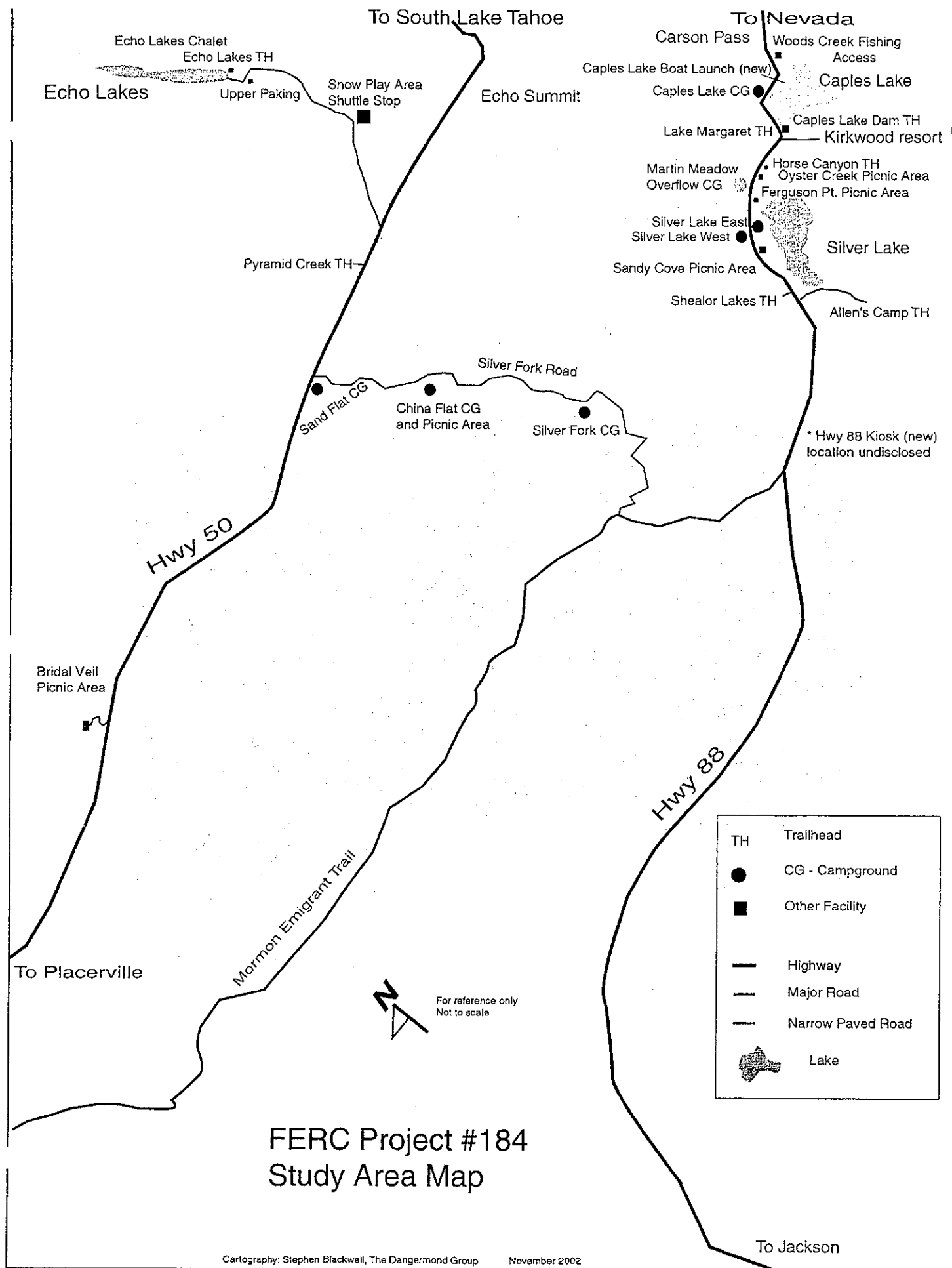


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Introduction

This cost impact study was undertaken for the El Dorado Irrigation (EID) to determine the District's share of cost for the, reconstruction, new construction, heavy maintenance, and routine operations and maintenance of recreational facilities located in the National Forest as proposed by the US Forest Service in conjunction with the FERC Relicensing Project 184. This study estimates the annual and extended cost impacts associated with each of the USFS 4E Document conditions and recommendations pertaining to recreation facilities.

The report is formatted to follow the same order as that of the 4E Document, which is organized by type of service required. Under each type of service there are several developed recreation sites identified and details specified. The types of sites include trailheads, day use/picnic areas, campgrounds, an information kiosk, a boat launch facility, and parking facilities.

Background and Methodology

Report preparation included several steps, a general visit to most sites with Don Pearson (EID Recreation Director), researching the facility brochures, reviewing site plans or as-built drawings (where available), field trips to inventory the sites, interviews with staff at EID, the Forest Service, and with retired Forest Service personnel, and concessionaires. An inventory of facilities at each site was compiled, and then unit costs were established and extended. A list of the study resource and contact people is included in the appendix.

The recreation sites proposed by the USFS to be included in the Project 184 license are in three districts of El Dorado National Forest, Amador, Placerville, and the Lake Tahoe Basin Municipal Unit (LTBMU). In the Amador ranger district the sites are near Silver Lake, Caples Lake, and Hwy 88 toward Carson Pass. In the Placerville and LTBMU they are on both sides of Hwy 50 between Placerville and Echo Summit. These trailheads, day use, and campground facilities are located on the west slope of the central Sierra Nevada Mountains, where they range from about 3500 feet at Bridal Veil picnic area to over 7500

feet near the passes. The facilities are subject to heavy winter snows at higher elevations. See project map provided in the appendix to this report.

The region serves as a playground to the large cities of Sacramento, the Bay Area and all the smaller communities of Northern California. Several detailed recreation use studies were recently conducted by the Regional and Economic Sciences Department at Chico State University. During the study surveys were conducted to determine the recreational user preferences and opinions when visiting the project region of the National Forest.

Review of Facilities

A brief review of the conditions and recommendations for routine operations and maintenance, heavy maintenance, redevelopment, and new development as outlined by the US Forest Service in their 4E Document follows.

Reconstruction Projects: Several sites are suggested for reconstruction to bring them up to current USFS standards and ADA accessibility standards. These sites, which are identified in Condition #23 of the 4E Document are as follows:

USFS owned facilities

- Silver Lake Campground-West (begin within 5 years)
- Caples Lake Campground (begin within 5 years)
- Caples Lake Dam Trailhead (begin within 5 years)
- Martin Meadow Overflow Camping Area (begin within 5 years)
- China Flat Campground (begin within 10 years)
- China Flat Picnic Area (begin within 10 years)
- Silver Fork campground (begin within 10 years)
- Caples Lake Dam Gate (begin within 5 years)
- Echo Lakes Upper Parking Facility (begin within 10 years)

EID Owned Facilities

- Ferguson Point (begin within 5 years)
- Sandy Cove (begin within 5 years)
- Silver Lake West Campground (begin within 5 years)

- Woods Creek Fishing Access (begin within 5 years)

New Construction Projects: The following USFS owned areas are proposed in condition #23 of the 4E Document for new facility construction:

- Caples Lake Boat Launching Facility (construct within 10 years)
- Information Kiosk on Hwy 88 (construct within 5 years)
- Pacific Crest National Scenic Trail Conduit Crossing (construct within 5 years)

Routine Maintenance and Operations Projects: Condition #24 of the 4E Document identifies the following USFS owned sites for regular operation and maintenance by EID in the future. This includes removing trash and pumping restroom facilities, etc.:

- Caples Lake Dam Trailhead (begin within 5 years of license issuance)
- Caples Lake Boat launching Facility-new (begin after construction - Year 10)
- Echo Lakes Trailhead (begin within 5 years of license issuance)

Heavy Maintenance Projects: Facilities proposed by the Forest Service for EID scheduling and performance of heavy maintenance over the 40-year life of the new FERC License is identified in Condition #24. These items include paving of roads and campsites, replacing picnic tables, fire rings, etc.

USFS Owned Facilities

- Silver Lake East Campground (begin after reconstruction scheduled for year 5)
- Caples Lake Campground (begin after reconstruction scheduled for year 5)
- Caples Lake Dam Trailhead (begin after reconstruction scheduled for year 5)
- Caples Lake Boat launching Facility (begin after construction in year 10)
- Information Kiosk on Hwy 88 (begin after construction in 5 years)
- Echo Lakes Trailhead Upper Parking (begin after reconstruction – 10 years)
- Pyramid Lake Trailhead (begin within 5 years of license issuance)
- Silver Fork Campground (begin after reconstruction -10 years)
- China Flat Campground (begin after reconstruction - 10 years)
- China Flat Picnic Area (begin after reconstruction - 10 years)

- Martin Meadows Overflow Camp (begin after reconstruction - 10 years)
- Sand Flat Campground (Assume begin HM - 5 years)
- Bridal Veil Picnic Area (Assume begin HM - 5 years)
- Shealor Lake Trailhead (Assume begin HM - 5 years)
- Lake Margaret Trailhead (Assume begin HM - 5 years)
- Allen's Camp Trailhead (Assume begin HM - 5 years)
- Horse Canyon Trailhead (Assume begin HM - 5 years)

EID Owned Facilities: The Forest Service has also proposed in recommendations 3 and 4 that the following EID owned facilities be maintained to USFS standards:

- Ferguson Point (Assume begin HM - 10 years)
- Sandy Cove (Assume begin HM - 10 years)
- Silver Lake West (Assume begin HM - 10 years)
- Woods Creek Fishing Access (Assume begin HM - 10 years)

Dispersed Area Patrols and O/M Projects: The Forest Service also proposes that EID assume a share of the cost of future dispersed patrol, operations, and maintenance services. These services are presently performed by the USFS. They include:

- The Upcountry HWY 88 Unit (begin year 2 of new license)
- The Silver Fork/ South Fork Unit (begin year 2 of new license)
- The Pyramid Creek Unit (begin year 2 of new license)
- The Lake Aloha/Echo Lakes Unit (begin year 2 of new license)

Proposed Upgrade of EID Owned Facilities: Recommendations 3 and 4 of the 4E Document propose that EID bring several EID owned facilities into compliance with current Forest Service design standards and ADA accessibility standards. Reconstruction and heavy maintenance standards have been applied to these sites which include:

- Ferguson Point (Reconstruct within 5 years)
- Sandy Cove (Reconstruct within 5 years)
- Silver Lake-West facilities (Reconstruct within 5 years)
- Woods Creek Fishing Access (Reconstruct within 5 years)

Summary of Cost Impacts to EID

Costs are summarized below for each category of project. That is reconstruction projects, new construction projects, heavy maintenance projects, and routine maintenance and operations projects. Costs indicated have been factored by 3% per year for inflation over an estimated FERC License period of 40 years.

Reconstruction Projects

USFS Properties	\$ 4,600,156
EID Properties	\$ 1,463,510
Total Reconstruction Projects	\$ 6,063,666

New Construction Projects

USFS Properties	0
EID Properties	\$ 2,539,465
Total New Construction Projects	\$ 2,539,465

Heavy Maintenance Projects

USFS Properties	\$ 20,534,054
EID Properties	\$ 4,500,918
Total Heavy Maintenance Projects	\$ 25,034,972

Routine Operation & Maintenance Projects

USFS Properties	\$ 761,359
EID Properties	\$ 0
Total Operation & Maintenance Projects	\$ 761,359

Dispersed Operation & Maintenance Units

USFS Units	\$ 5,014,566
EID Units	\$ 0
Total Dispersed Operation & Maintenance Units	\$ 5,014,566

Total All Categories 40 Year Period	\$ 39,414,028
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Table 1 *EID Cost Impact Summary* provides detail for each park unit, which includes ownership, year activity is scheduled to start, and the adjusted cost of the activity (factored by 3% inflation over the estimated 40 year term of the new FERC License).

Table 2 *Heavy Maintenance Unit Cost and Replacement Frequency Schedule* sets forth the unit cost and replacement frequency information for each category of facility found in all of the park sites visited and inventoried. These unit costs have been universally applied to each facility in 2002 dollars. Three percent annual inflation was then applied to these figures. Additional worksheets are included in the appendix that were developed to extend costs for all categories of facility including reconstruction, new construction, heavy maintenance, routine maintenance & operations of park sites, and patrol and maintenance & operation of dispersed areas within the National Forest.

TABLE 1**EID COST IMPACT SUMMARY**

Project Description	USFS Project	EID Project	Year Start	Adjusted Cost
Redevelopment Projects				
Silver Lake East Campground	X		2008	\$2,196,198
Caples Lake Campground	X		2008	\$1,192,477
Caples Lake Dam Trailhead	X		2008	\$6,529
Martin Meadow Overflow Camping Area	X		2008	\$233,079
China Flat Campground	X		2013	\$77,766
China Flat Picnic Area	X		2013	\$632,162
Silver Fork Campground	X		2013	\$101,096
Caples Lake Dam Gate	X		2008	\$8,060
Echo Lakes Upper Parking/Trailhead	X		2013	\$161,814
Ferguson Point		X	2008	\$139,913
Sandy Cove		X	2008	\$201,926
Silver Lake West Campground		X	2008	\$1,034,646
Woods Creek Fishing Access		X	2008	\$87,025
Sub Total				<u>\$6,072,691</u>
New development Projects				
Caples Lake Boat Launch	X		2013	\$2,353,008
Highway 88 Information Kiosk	X		2008	\$61,082
PC Trail Crossing	X		2008	\$125,375
Sub Total				<u>\$2,539,465</u>
Heavy Maintenance Projects				
Silver Lake Campground (East)	X		2013	\$4,257,428
Caples Lake Campground	X		2013	\$2,498,511
Caples Lake Dam Trailhead	X		2013	\$648,292
Caples Lake Launch ramp	X		2018	\$1,533,574
Echo Lakes Trailhead/Upper Parking Area	X		2018	\$557,689
Hwy 88 Information Kiosk	X		2013	\$150,061
Pyramid Creek Trailhead	X		2008	\$700,863
Silver Fork Campground	X		2018	\$2,077,674
China Flat Campground and Picnic Area	X		2018	\$1,538,143
Sand Flat Campground	X		2008	\$2,104,133
Bridal Veil Picnic Area	X		2008	\$1,907,350
Shealor Lake Trailhead	X		2013	\$976,584
Lake Margaret Trailhead	X		2008	\$499,570
Allen's Camp Trailhead	X		2008	\$153,072
Martin Meadows Overflow Camping Area	X		2013	611941
Horse Canyon Trailhead	X		2008	\$319,169
Ferguson Point Picnic Area		X	2013	\$275,901
Sandy Cove Picnic Area		X	2013	\$545,517
Silver Lake Campground		X	2013	\$3,037,964
Woods Creek Fishing Access		X	2013	\$642,631
Sub Total				<u>\$25,036,067</u>

Routine Operation & Maint. Projects			
Caples Lake Dam Trailhead	X	2008	\$269,794
Caples Lake Launch Ramp	X	2013	\$94,651
Highway 88 Information Kiosk	X	2008	\$39,118
Echo Lake Dam Trailhead	X	2008	\$357,796
Sub Total			<u>\$761,359</u>
Dispersed Operation & Maint. Projects			
(See Note 1)	X		
Sub Total		2003	<u>\$5,014,566</u>
Total			\$39,424,148


Notes:

1. Dispersed projects include Upcountry Highway 88 Unit, Silver Fork/South Fork Unit, Pyramid Creek Unit, and Lake Aloha/Echo Lakes Unit

TABLE 2

HEAVY MAINTENANCE UNIT COST AND REPLACEMENT FREQUENCY SCHEDULE

Description	Material	Unit Meas.	Unit Cost	Replace Freq./yrs.	Comments
Toilet	concrete	ea	\$18,000	50	
Kiosk (3 panels unit)	wood	sf	\$18,000	15	
Water system (source to site)	galvanized 3" pipe	lf	\$16	20	
Water system (site lines)	pvc 3/4' to 2'	lt	\$16	20	
Water faucet (HC accessible)	pvc pipe/galv. Foscet	ea	\$800	10	foscet, riser, drain box, post unit
Roads & parking	asphalt concrete	sf	\$3	20	
Roads & parking	slurry seal	sf	\$1	5	
Roads & parking	aggregate base	sf	\$2.75	3	
Road striping	paint	lf	\$0.66	5	
Parking space striping	paint	ea	\$12.00	5	
Retaining wall	wood	lf	\$200	15	3' high
Campsite spur	asphalt concrete	sf	\$3	20	
Path	leveling, compacting	lf	\$2	5	
BBQ grill	steel	ea	\$400	15	
BBQ grill (group)	steel	ea	\$500	15	
Fire ring	steel	ea	\$400	15	
Fire ring (group)	steel	ea	\$500	15	
Picnic table (accessible)	wood	ea	\$750	15	
Group serving table	wood	ea	\$950	15	
Food storage box (bear proof)	steel	ea	\$1,200	15	
Trash container (bear proof & accessible)	Steel	ea	\$1,175	15	
Entry sign	wood	ea	\$2,400	10	

STATEMENT OF PROBABLE COST		Work Sheet 1b				
EID/FERC Project # 184						
Various Upgrade Projects						
per the "Preliminary" USFS 4 E Document Recommendations 3 and 4						
November 10, 2002						
ITEM #	AREA/DESCRIPTION	QUANTITY	UNITS	COST/UNIT	TOTAL COST	
1.00	FERGUSON POINT (EID FACILITY)					
A.	Demo sub-standard restroom unit(s)	2	Ea.	\$2,500.00		\$5,000.00
B.	New ADA accessible restroom units (single units)	2	Ea.	\$18,000.00		\$36,000.00
C.	Paved service/parking turnouts @ restrooms (AC)	900	Sq.Ft.	\$3.00		\$2,700.00
D.	Paved access routes to restrooms (AC)	250	Sq.Ft.	\$3.00		\$750.00
E.	Repalce all water faucets w/ accessable ones	4	Ea.	\$1,200.00		\$4,800.00
F.	ADA accessable paved areas @ all faucets (AC)	4	Ea.	\$300.00		\$1,200.00
G.	Replace all distribution water lines to faucet locations (assumed 750 l. ft.)	750	L. Ft.	\$15.00		\$11,250.00
H.	Prepare parking lot (for re-surfacing) - patch, scarify, etc.	4,600	Sq.Ft.	\$1.25		\$5,750.00
I.	Asphalt (AC) overlay (re-surface) of parking lot & re-striping	4,600	Sq.Ft.	\$2.00		\$9,200.00
J.	Van accessible parking space(s) w/ markings & signage (re-stripe lot)	1	Ea.	\$1,000.00		\$1,000.00
K.	Widen & re-grade all paths (remove all grade protrusions)	2,000	Sq.Ft.	\$2.00		\$4,000.00
L.	Construct accessible path to lake frontage (assumed 250 l. ft.)	1,250	Sq.Ft.	\$4.50		\$5,625.00
M.	Re-grade picnic sites (to meet ADA access stds.)	8	Sq.Ft.	\$1,350.00		\$10,800.00
N.	Remove wood barriers (assumed quantity)	25	Ea.	\$35.00		\$875.00
O.	Import & place boulder barriers (@ 7' o.c. w/4' clear - typ)	35	Ea.	\$200.00		\$7,000.00
P.	Replace all non-accessable tables	8	Ea.	\$750.00		\$6,000.00
Q.	Replace all pedestal grills (to meet accessibility stds.)	8	Ea.	\$400.00		\$3,200.00
R.	Construct concrete refuse bin pads	80	Sq.Ft.	\$5.00		\$400.00
S.	(AC) Pave refuse bin access	150	Sq.Ft.	\$3.00		\$450.00
T.	Install bear proof dumpsters (by refuse service company - no cost item)	1	Ea.	\$0.00		\$0.00
U.	Install bear proof trash cans	3	Ea.	\$1,175.00		\$1,175.00
	FERGUSON POINT SUBTOTAL:					\$117,175.00
2.00	SANDY COVE (EID FACILITY)					
A.	Demo sub-standard restroom unit(s) (one 2 unit)	2	Ea.	\$2,500.00		\$5,000.00
B.	New ADA accessible restroom units (single units)	2	Ea.	\$18,000.00		\$36,000.00
C.	Paved service/parking turnouts @ restrooms (AC)	900	Sq.Ft.	\$3.00		\$2,700.00
D.	Paved access routes to restrooms (AC)	250	Sq.Ft.	\$3.00		\$750.00
E.	Repalce all water faucets w/ accessable ones	2	Ea.	\$1,200.00		\$2,400.00
F.	ADA accessable paved areas @ all faucets (AC)	2	Ea.	\$300.00		\$600.00

ITEM #	AREA/DESCRIPTION	QUANTITY	UNITS	COST/UNIT	TOTAL COST
G.	Replace all distribution water lines to faucet locations (assumed 1200 l. ft.)	1,200	L. Ft.	\$15.00	\$18,000.00
H.	Prepare parking lot & road (for re-surfacing) - patch, scarify, etc.	18,480	Sq.Ft.	\$1.25	\$23,100.00
I.	Asphalt (AC) overlay (re-surface) of parking lot & road w/ re-striping	18,480	Sq.Ft.	\$2.00	\$36,960.00
J.	Van accessible parking space(s) w/ markings & signage (re-stripe lot)	1	L.S.	\$1,000.00	\$1,000.00
K.	Widen & re-grade all paths (remove all grade protrusions)	625	Sq.Ft.	\$2.00	\$1,250.00
L.	Construct accessible path to lake frontage (assumed 450 l. ft.)	2,250	Sq.Ft.	\$4.50	\$10,125.00
M.	Re-grade picnic sites (to meet ADA access stds.)	5	Sq.Ft.	\$1,350.00	\$6,750.00
N.	Remove wood barriers in all spurs (assumed quantity)	20	Ea.	\$35.00	\$700.00
O.	Import & place boulder barriers (@ 7' o.c. w/4' clear - typ) (assumed quantity)	80	Ea.	\$200.00	\$16,000.00
P.	Replace all non-accessable tables	5	Ea.	\$750.00	\$3,750.00
Q.	Replace all pedestal grills (to meet accessibility stds.)	5	Ea.	\$400.00	\$2,000.00
R.	Construct concrete refuse bin pads	80	Sq.Ft.	\$5.00	\$400.00
S.	(AC) Pave refuse bin access	150	Sq.Ft.	\$3.00	\$450.00
T.	Install bear proof dumpsters (by refuse service company - no cost item)	1	Ea.	\$0.00	\$0.00
U.	Install bear proof trash cans	1	Ea.	\$1,175.00	\$1,175.00
	SANDY COVE SUBTOTAL:				\$169,110.00
3.00 SILVER LAKE WEST (42 Unit EID FACILITY)					
A.	Demo sub-standard restroom units	6	Ea.	\$2,500.00	\$15,000.00
B.	New ADA accessible restroom units (single units)	6	Ea.	\$18,000.00	\$108,000.00
C.	Paved service/parking turnouts @ restrooms (AC)	2,700	Sq.Ft.	\$3.00	\$8,100.00
D.	Paved access routes to restrooms (AC)	750	Sq.Ft.	\$3.00	\$2,250.00
E.	Repalce all water faucets w/ accessable ones (adjacent to camp roadway)	11	Ea.	\$1,200.00	\$13,200.00
F.	ADA accessable paved areas @ all faucets (AC)	11	Ea.	\$300.00	\$3,300.00
G.	Replace water service line: from source (Slvr Lk. East) (assumed 750' l. ft.)	750	L.Ft.	\$15.00	\$11,250.00
H.	Replace all distribution water lines in campground	2,120	L.Ft.	\$15.00	\$31,800.00
I.	Widen & re-grade, camp paths (remove all grade protrusions)	5,250	Sq.Ft.	\$2.00	\$10,500.00
J.	Prepare camp road (for re-surfacing) & AC overlay (two way roads)	150	L.Ft.	\$65.00	\$9,750.00
K.	Prepare camp road (for re-surfacing) & AC overlay (one way loops)	2,994	L.Ft.	\$55.00	\$164,670.00
L.	Widen, & re-grade all unit spurs	43	Ea.	\$900.00	\$38,700.00
M.	Pave all spurs (AC)	34,400	Sq.Ft.	\$3.00	\$103,200.00
N.	Remove wood barriers (in all spurs)	278	Ea.	\$35.00	\$9,730.00
O.	Import & place boulder barriers (in spurs only @ 7' o.c. w/4' clear - typ)	668	Ea.	\$200.00	\$133,600.00
P.	Re-grade camp units (to meet ADA access stds.) + enlarge to 1200 sq. ft.	42	Ea.	\$1,800.00	\$75,600.00
Q.	Replace all non-accessable tables	43	Ea.	\$750.00	\$32,250.00
R.	Replace all pedestal grills (to meet accessibility stds.)	43	Ea.	\$400.00	\$17,200.00
S.	Replace all fire rings (to meet accessibility stds.)	43	Ea.	\$400.00	\$17,200.00
T.	Construct concrete refuse bin pads	240	Sq.Ft.	\$5.00	\$1,200.00
U.	(AC) Pave refuse bin access	450	Sq.Ft.	\$3.00	\$1,350.00

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STATEMENT OF PROBABLE COST:			Work Sheet 1a		
EID/FERC # 184					
Various Re-developement/Rennovation &/or New Projects per the "Preliminary" USFS Relicensing 4e Conditions of Approval November 15, 2002					
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LAND
ARCHITECTURE
INCORPORATED

ITEM #	AREA/DESCRIPTION	QTY.	UNITS	COST UNIT	TOTAL COST
	SILVER LAKE CAMPGROUND - EAST: A&E/PM FEES (Assumed @ 15%)				\$220,714
	"ESTIMATED" PROJECT COST TOTAL:				\$1,839,281
2.00	CAPLES LAKE CAMPGROUND (35 Unit USFS Facility)				
A.	Demo sub-standard restroom units (two - 4 unit)	8	Ea.	\$2,500.00	\$20,000
B.	New ADA accessible restroom units (single units)	8	Ea.	\$18,000.00	\$144,000
C.	Paved service/parking turnouts @ restrooms (AC)	3,600	Sq.Ft.	\$3.00	\$10,800
D.	Paved access routes to restrooms (AC)	1,000	Sq.Ft.	\$3.00	\$3,000
E.	Replace all water faucets w/ accessible ones (adjacent to camp roadway)	8	Ea.	\$800.00	\$6,400
F.	ADA accessible paved areas @ all faucets (AC)	8	Ea.	\$300.00	\$2,400
G.	Replace water service line: from source to facility	7,920	L.Ft.	\$15.50	\$122,760
H.	Replace all distribution water lines in campground	1,575	L.Ft.	\$15.00	\$23,625
I.	Replace informational signage (3 - 4 X 4' panels)	3	Ea.	\$600.00	\$1,800
J.	Level & (AC) pave viewing area @ signage	300	Sq.Ft.	\$3.00	\$900
K.	Widen parking turnout @ signage to 16 ft. and (AC) pave area	450	Sq.Ft.	\$3.00	\$1,350
L.	Widen & re-grade, camp paths (remove all grade protrusions)	7,000	Sq.Ft.	\$2.00	\$14,000
M.	Re-grade units 2,3,4,5,7,11,23,24,33,34, & 35 to meet ADA access standards	11	Ea.	\$1,800.00	\$19,800
N.	Clear, widen, & re-grade all unit spurs	35	Ea.	\$900.00	\$31,500
O.	Pave all spurs (AC)	28,240	Sq.Ft.	\$3.00	\$84,720
P.	Remove wood barriers (in all spurs)	4	Ea.	\$35.00	\$140
Q.	Import & place boulder barriers (in spurs only - @ 7' o.c. w/4' Clear - typ)	252	Ea.	\$200.00	\$50,400
R.	Prepare camp road (for re-surfacing) & AC overlay (two way roads)	100	L.Ft.	\$65.00	\$6,500
S.	Prepare camp road (for re-surfacing) & AC overlay (one way loops)	2,200	L.Ft.	\$55.00	\$121,000
T.	Re-grade all camp units + enlarge to 900 sq. ft.	24	Sq.Ft.	\$1,350.00	\$32,400
U.	Replace all non-accessable tables	35	Ea.	\$750.00	\$26,250
V.	Replace all pedestal grills (to meet accessibility stds.)	35	Ea.	\$400.00	\$14,000
W.	Replace all fire rings (to meet accessibility stds.)	35	Ea.	\$400.00	\$14,000
X.	Construct concrete refuse bin pads	320	Sq.Ft.	\$5.00	\$1,600
Y.	(AC) Pave refuse bin access	1,200	Sq.Ft.	\$3.00	\$3,600
Z.	Install bear proof food storage containers	35	Ea.	\$1,200.00	\$42,000
AA.	Install bear proof dumpsters (by refuse service company - no cost item)	8	Ea.	\$0.00	\$0
BB.	Install bear proof trash cans (@ ADA accessible sites only) N/A Per USFS	0	Ea.	\$1,175.00	\$0
	CAPLES LAKE CAMPGROUND SUBTOTAL:				\$798,945
	CAPLES LAKE CAMPGROUND: 10% PROJECT CONTINGENCY				\$79,895
	CAPLES LAKE CAMPGROUND: A&E/PM FEES (Assumed @ 15%)				\$119,842
	"ESTIMATED" PROJECT COST TOTAL:				\$998,681

ITEM #	AREA/DESCRIPTION	QTY.	UNITS	COST UNIT	TOTAL COST
3.00	CAPLES LAKE - DAM TRAILHEAD (USFS Facility)				
A.	Replace toilet risers (to meet ADA std.)	2	Ea.	\$750.00	\$1,500
B.	Install approved accessible restroom signage	3	Ea.	\$50.00	\$150
C.	Replace (1) trash container (w/ accessible one)	1	Ea.	\$1,200.00	\$1,200
D.	Van accessible parking space w/ markings & signage (re-stripe lot)	1	Ea.	\$1,200.00	\$1,200
	CAPLES LAKE - DAM TRAILHEAD SUBTOTAL:				\$4,050
	CAPLES LAKE - DAM TRAILHEAD: 10% PROJECT CONTINGENCY				\$405
	CAPLES LAKE - DAM TRAILHEAD: A&E/PM FEES (Assumed @ 25%)				\$1,013
	"ESTIMATED" PROJECT COST TOTAL:				\$5,468
4.00	CAPLES LAKE - BOAT LAUNCHING/PICNIC FACILITY (New USFS Facility)				
A.	Highway 88 decel/accel lanes w/markings & signage (excl. acquiring property)	1	L.S.	\$88,000.00	\$88,000
B.	Access road w/ culvert (incl all cut & fill grading)	1	L.S.	\$185,000.00	\$185,000
C.	Water service line (assumed distance - 1/2 mile)	2,640	L.Ft.	\$15.50	\$40,920
D.	Distribution water lines throughout facility (assumed distance)	1,500	L.Ft.	\$15.00	\$22,500
E.	Accessible water faucets	3	Ea.	\$800.00	\$2,400
F.	ADA accessible paved areas @ all faucets (AC)	3	Ea.	\$300.00	\$900
G.	Entry gates (one pair)	1	Ea.	\$3,800.00	\$3,800
H.	Access isles & parking lot (for min. 50 car/trailer spaces)	52,000	Sq.Ft.	\$4.50	\$234,000
I.	Vault restrooms (for both boat launch and day use picnic areas)	2	Ea.	\$18,000.00	\$36,000
J.	Paved /service parking turnouts @ restrooms (AC)	900	Sq.Ft.	\$3.00	\$2,700
K.	Paved access routes to restrooms (AC)	250	Sq.Ft.	\$3.00	\$750
L.	Boat ramp grading (lake bottom excavation & shore-side fill)	1,266	C. Yds.	\$20.00	\$25,320
M.	Boat ramp bulkheads (if needed)	2	L.S.	\$100,000.00	\$200,000
N.	Two lane concrete boat launch ramp w/ two boarding floats	1	L.S.	\$275,000.00	\$275,000
O.	Shoreline rock rip-rap	1	L.S.	\$150,000.00	\$150,000
P.	Signage	1	L.S.	\$2,400.00	\$2,400
Q.	Grading for accessible day use picnic area sites	8	Ea.	\$1,800.00	\$14,400
R.	Picnic area parking lot (8 Cars)	6,400	Sq.Ft.	\$4.50	\$28,800
S.	Accessible trail to lake	300	L. Ft.	\$27.00	\$8,100
T.	Accessible picnic tables	8	Ea.	\$750.00	\$6,000
U.	Pedestal grills (to meet accessibility stds)	4	Ea.	\$400.00	\$1,600
V.	Construct concrete refuse bin pads	80	Sq.Ft.	\$5.00	\$400
W.	(AC) Pave refuse bin access	300	Sq.Ft.	\$3.00	\$900
X.	Install bear proof dumpsters (by refuse service company - no cost item)	2	Ea.	\$0.00	\$0
Y.	Install bear proof trash cans (@ ADA accessible sites only) N/A Per USFS	0	Ea.	\$1,175.00	\$0
Z.	Import & place boulder barriers (@ 4' o.c.typ)	150	Ea.	\$200.00	\$30,000

ITEM #	AREA/DESCRIPTION	QTY.	UNITS	COST UNIT	TOTAL COST
	CAPLES LAKE - BOAT LAUNCHING/PICNIC FACILITY SUBTOTAL:				\$1,359,890
	CAPLES LAKE BOAT LAUNCH/PICNIC: 10% PROJECT CONTINGENCY				\$135,989
	CAPLES LAKE BOAT LAUNCH/PICNIC: A&E/PM FEES (Assumed @ 15%)				\$203,984
	"ESTIMATED" PROJECT COST TOTAL:				\$1,699,863
5.00	HIGHWAY 88 INFORMATION KIOSK (New USFS Facility)				
A.	Paved parking/turnout area (six cars)	4800	Sq.Ft.	\$4.50	\$21,600
B.	Parking lot markings (striping) & HC signage	1	L.S.	\$350.00	\$350
C.	Kiosk structure	1	L.S.	\$15,000.00	\$15,000
D.	Signage	1	L.S.	\$2,400.00	\$2,400
	HIGHWAY 88 INFORMATION KIOSK SUBTOTAL:				\$39,350
	HIGHWAY 88 KIOSK: 10% PROJECT CONTINGENCY				\$3,935
	HIGHWAY 88 KIOSK: A&E/PM FEES (Assumed @ 20%)				\$7,870
	"ESTIMATED" PROJECT COST TOTAL:				\$51,155
6.00	MARTIN MEADOW OVERFLOW CAMPING AREA (USFS Facility)				
A.	Demo existing worn (AC) roadway	19,440	Sq.Ft.	\$1.00	\$19,440
B.	Re-grade camp roads	25,280	Sq.Ft.	\$1.25	\$31,600
C.	Install compacted aggregate camp road surfacing	25,280	Sq.Ft.	\$1.50	\$37,920
D.	Import & place boulder barriers (@ 7' o.c. w/4' Clear - typ)	330	Ea.	\$200.00	\$66,000
E.	Install (1) information sign board (2 panels)	2	Ea.	\$600.00	\$1,200
	MARTIN MEADOW OVERFLOW CAMPING AREA SUBTOTAL:				\$156,160
	MARTIN MEADOW: 10% PROJECT CONTINGENCY				\$15,616
	MARTIN MEADOW: A&E/PM FEES (Assumed @ 15%)				\$23,424
	"ESTIMATED" PROJECT COST TOTAL:				\$195,200
7.00	CHINA FLAT CAMPGROUND - WEST SIDE (USFS Facility)				
A.	Install (1) new (single unit) vault restroom	1	Ea.	\$18,000	\$18,000
B.	Grade access route/install comp. aggregate (bridge to group site + g.s to rr)	6,720	Sq.Ft.	2.75	\$18,480
C.	Install (3) accessible faucets at group camp site (west side of river)	3	Ea.	\$800.00	\$2,400
D.	ADA accessible paved areas @ faucets (AC)	3	Ea.	\$300.00	\$900
E.	Grade, lvl., & comp. native surface @ grp. assembly site (assume 3,600 s.ft.)	1	L.S.	\$5,400.00	\$5,400

ITEM #	AREA/DESCRIPTION	QTY.	UNITS	COST UNIT	TOTAL COST
ITEM #	AREA/DESCRIPTION	QUANTITY	UNITS	COST/UNIT	TOTAL COST
F.	Install (7) accessible picnic tables	7	Ea.	\$750.00	\$5,250
G.	Install (2) serving tables	2	Ea.	\$950.00	\$1,900
H.	Install (2) group pedestal grills	2	Ea.	\$500.00	\$1,000
I.	Install (1) group fire ring	1	Ea.	\$500.00	\$500
J.	Install (2) accessible trash containers near group site	2	Ea.	\$1,175.00	\$2,350
	CHINA FLAT CAMPGROUND - WEST SIDE SUBTOTAL:				\$56,180
	CHINA FLAT CAMPGROUND (WEST): 10% PROJECT CONTINGENCY				\$5,618
	CHINA FLAT CAMPGROUND (WEST): A&E/PM FEES (Assumed @ 20%)				\$11,236
	"ESTIMATED" PROJECT COST TOTAL:				\$73,034
8.00	CHINA FLAT PICNIC AREA (USFS Facility)				
A.	Demo existing restroom	1	Ea.	\$2,500.00	\$2,500
B.	Install (1) new (single unit) vault restroom	1	Ea.	\$18,000.00	\$18,000
C.	Install (1) accessible faucet at picnic site (west side of river)	1	Ea.	\$1,200.00	\$1,200
D.	ADA accessible paved areas @ all faucets (AC)	1	Ea.	\$300.00	\$300
F.	Grade access route/install comp. aggregate (brdg. to picnic site - +/-12x300')	3,600	Sq.Ft.	\$2.75	\$9,900
G.	Install (2) informational panels (near the bridge)	2	Ea.	\$600.00	\$1,200
H.	Grade, level, & compact native surface for (2) picnic units	2	Ea.	\$1,800.00	\$3,600
I.	Install (2) accessible picnic tables	2	Ea.	\$750.00	\$1,500
	CHINA FLAT PICNIC AREA SUBTOTAL:				\$38,200
	CHINA FLAT FLAT PICNIC AREA: 10% PROJECT CONTINGENCY				\$3,820
	CHINA FLAT FLAT PICNIC AREA: A&E/PM FEES (Assumed @ 20%)				\$7,640
	"ESTIMATED" PROJECT COST TOTAL:				\$49,660
9.00	SILVER FORK CAMPGROUND (34 Unit USFS Facility)				
A.	Demo (3 - 2 hole) sub-standard restroom units	6	Ea.	\$2,500.00	\$15,000
B.	Install (6) new ADA accessible restroom units (single units)	6	Ea.	\$18,000.00	\$108,000
C.	Paved service/parking turnouts @ restrooms (AC)	2,700	Sq.Ft.	\$3.00	\$8,100
D.	Paved access routes to restrooms (AC)	750	Sq.Ft.	\$3.00	\$2,250
F.	Repalce all water faucets w/ accessible ones (adjacent to camp roadway)	12	Ea.	\$800.00	\$9,600
G.	ADA accessible paved areas @ all faucets (AC)	12	Sq.Ft.	\$300.00	\$3,600
H.	Raise grades @ all faucet sumps	12	Ea.	\$250.00	\$3,000
G.	Replace the campground information signs	2	Ea.	\$600.00	\$1,200

ITEM #	AREA/DESCRIPTION	QTY.	UNITS	COST UNIT	TOTAL COST
H.	Widen, re-grade, & compact camp paths from spurs (remove grade protrusions)	4,250	Sq.Ft.	\$2.00	\$8,500
I.	Widen, & re-grade spurs for units 6,8,11,14,32,33,& 35	7	Ea.	\$900.00	\$6,300
J.	Pave spurs (AC) for units 6,8,11,14,32,33,& 35	7,000	Sq.Ft.	\$3.00	\$21,000
K.	Remove wood barriers (in all spurs) (assumed 10/spur)	340	Ea.	\$35.00	\$11,900
L.	Import & place boulder barriers (in spurs only - @ 7' o.c. w/4' Clear - typ)	265	Ea.	\$200.00	\$53,000
M.	Re-grade camp units + enlarge to 1200 sq. ft.	34	Ea.	\$1,800.00	\$61,200
N.	Replace all non-accessable tables	34	Ea.	\$750.00	\$25,500
O.	Re-set all pedestal grills (to meet accessibility stds.)	34	Ea.	\$400.00	\$13,600
P.	Replace all fire rings (to meet accessibility stds.)	34	Ea.	\$400.00	\$13,600
	SILVER FORK CAMPGROUND SUBTOTAL:				\$365,350
	SILVER FORK CAMPGROUND: 10% PROJECT CONTINGENCY				\$36,535
	SILVER FORK CAMPGROUND: A&E/PM FEES (Assumed @ 15%)				\$54,803
	"ESTIMATED" PROJECT CONSTRUCTION COST TOTAL:				\$456,688
10.00	CAPLES LAKE DAM GATE (USFS Facility)				
A.	Replace vehicle gate(s) (one pair) at Caples Lake 2nd dam	1	L.S.	\$5,000.00	\$5,000
	CAPLES LAKE - DAM GATE SUBTOTAL:				\$5,000
	CAPLES LAKE - DAM GATE: 10% PROJECT CONTINGENCY				\$500
	CAPLES LAKE - DAM GATE: A&E/PM FEES (Assumed @ 25%)				\$1,250
	"ESTIMATED" PROJECT COST TOTAL:				\$6,750
11.00	ECHO LAKES - UPPER PARKING/TRAILHEAD FACILITY (USFS Facility)				
A.	Prepare parking lot (for re-surfacing) - patch, scarify, etc.	28,175	Sq.Ft.	\$1.25	\$35,219
B.	Asphalt (AC) overlay (re-surface) of parking lot	28,175	Sq.Ft.	\$2.00	\$56,350
C.	Parking lot markings (striping) & HC signage	1	L.S.	\$750.00	\$750
D.	Replace existing information sign boards	2	Ea.	600	\$1,200
	ECHO LAKES - UPPER PARKING/TRAILHEAD FACILITY SUBTOTAL:				\$93,519
	ECHO LAKES - UPPER PARKING: 10% PROJECT CONTINGENCY				\$9,352
	ECHO LAKES - UPPER PARKING: A&E/PM FEES (Assumed @ 15%)				\$14,028
	"ESTIMATED" PROJECT COST TOTAL:				\$116,898
12.00	PACIFIC CREST TRAIL/ECHO CONDUIT CROSSING (USFS Facility)				

				COST	TOTAL
ITEM #	AREA/DESCRIPTION	QTY.	UNITS	UNIT	COST
A.	Ped. bridge crossing - assumed @ 70' Span X 6' (Steel, Trussed, or Arched) (Including concrete abutments)	420	Sq. Ft.	\$250.00	\$105,000
	PACIFIC CREST TRAIL/ECHO CONDUIT CROSSING SUBTOTAL:				\$105,000
	PCT/ECHO CONDUIT CROSSING: 10% PROJECT CONTINGENCY				\$10,500
	PCT/ECHO CONDUIT CROSSING: A&E/PM FEES (Assumed @ 15%)				\$15,750
	"ESTIMATED" PROJECT COST TOTAL:				\$131,250
	"ESTIMATED" MULTI-PROJECT COST TOTAL:				\$5,623,927
	* Note that this statement of probable cost does not include cost(s) for environmental studies, any required contract bonds, construction plan check fees, approval processing, and permits that may be required for implementation of the various projects.				

Work Sheet 2**SILVER LAKE CAMPGROUND RECONSTRUCTION PROJECT**

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$1,839,281	\$55,178	\$1,894,459	
	2003	\$1,894,459	\$56,834	\$1,951,293	FERC Liscense Issued
	2004	\$1,951,293	\$58,539	\$2,009,832	
	2005	\$2,009,832	\$60,295	\$2,070,127	
	2006	\$2,070,127	\$62,104	\$2,132,231	
	2007	\$2,132,231	\$63,967	\$2,196,198	
Year to Start	2008	\$2,196,198			

Work Sheet 2a**SILVER LAKE WEST CAMPGROUND RECONSTRUCTION PROJECT**

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$866,500	\$25,995	\$892,495	
	2003	\$892,495	\$26,775	\$919,270	FERC Liscense Issued
	2004	\$919,270	\$27,578	\$946,848	
	2005	\$946,848	\$28,405	\$975,253	
	2006	\$975,253	\$29,258	\$1,004,511	
	2007	\$1,004,511	\$30,135	\$1,034,646	
Year to Start	2008	\$1,034,646			

Work Sheet 3**CAPLES LAKE CAMPGROUND RECONSTRUCTION PROJECT**

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$998,681	\$29,960	\$1,028,641	
	2003	\$1,028,641	\$30,859	\$1,059,501	FERC Liscense Issued
	2004	\$1,059,501	\$31,785	\$1,091,286	
	2005	\$1,091,286	\$32,739	\$1,124,024	
	2006	\$1,124,024	\$33,721	\$1,157,745	
	2007	\$1,157,745	\$34,732	\$1,192,477	
Year to Start	2008	\$1,192,477			

WOODS CREEK FISHING ACCESS REDEVELOPMENT PROJECT

Estimated	3 Percent	Adjusted
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	Year	Cost	Inflation	Cost	Comments
	2002	\$72,882	\$2,186	\$75,068	
	2003	\$75,068	\$2,252	\$77,321	FERC Liscense Issued
	2004	\$77,321	\$2,320	\$79,640	
	2005	\$79,640	\$2,389	\$82,029	
	2006	\$82,029	\$2,461	\$84,490	
	2007	\$84,490	\$2,535	\$87,025	
Year to Start	2008	\$87,025			

SANDY COVE REDEVELOPMENT PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$169,110	\$5,073	\$174,183	
	2003	\$174,183	\$5,225	\$179,409	FERC Liscense Issued
	2004	\$179,409	\$5,382	\$184,791	
	2005	\$184,791	\$5,544	\$190,335	
	2006	\$190,335	\$5,710	\$196,045	
	2007	\$196,045	\$5,881	\$201,926	
Year to Start	2008	\$201,926			

Work Sheet 5

ECHO LAKES UPPER PARKING/TRAILHEAD RECONSTRUCTION PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$116,898	\$3,507	\$120,405	
	2003	\$120,405	\$3,612	\$124,017	FERC Liscense Issued
	2004	\$124,017	\$3,721	\$127,738	
	2005	\$127,738	\$3,832	\$131,570	
	2006	\$131,570	\$3,947	\$135,517	
	2007	\$135,517	\$4,066	\$139,582	
	2008	\$139,582	\$4,187	\$143,770	
	2009	\$143,770	\$4,313	\$148,083	
	2012	\$148,083	\$4,442	\$152,525	
	2011	\$152,525	\$4,576	\$157,101	
	2012	\$157,101	\$4,713	\$161,814	
Year to Start	2013	\$161,814			

Work Sheet 6

CAPLES LAKE DAM TRAILHEAD RECONSTRUCTION PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
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	2002	\$5,468	\$164	\$5,632	
	2003	\$5,632	\$169	\$5,801	FERC Liscense Issued
	2004	\$5,801	\$174	\$5,975	
	2005	\$5,975	\$179	\$6,154	
	2006	\$6,154	\$185	\$6,339	
	2007	\$6,339	\$190	\$6,529	
Year to Start	2008	\$6,529			

Work Sheet 7

CAPLES LAKE DAM GATE RECONSTRUCTION PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$6,750	\$203	\$6,953	
	2003	\$6,953	\$209	\$7,161	FERC Liscense Issued
	2004	\$7,161	\$215	\$7,376	
	2005	\$7,376	\$221	\$7,597	
	2006	\$7,597	\$228	\$7,825	
	2007	\$7,825	\$235	\$8,060	
Year to Start	2008	\$8,060			

Work Sheet 8

SILVER FORK CAMPGROUND RECONSTRUCTION PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$456,687	\$13,701	\$470,388	
	2003	\$470,388	\$14,112	\$484,499	FERC Liscense Issued
	2004	\$484,499	\$14,535	\$499,034	
	2005	\$499,034	\$14,971	\$514,005	
	2006	\$514,005	\$15,420	\$529,425	
	2007	\$529,425	\$15,883	\$545,308	
	2008	\$545,308	\$16,359	\$561,667	
	2009	\$561,667	\$16,850	\$578,517	
	2012	\$578,517	\$17,356	\$595,873	
	2011	\$595,873	\$17,876	\$613,749	
	2012	\$613,749	\$18,412	\$632,162	
Year to Start	2013	\$632,162			

Work Sheet 9

CHINA FLAT PICNIC AREA (EAST) RECONSTRUCTION PROJECT

Estimated	3 Percent	Adjusted
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	Year	Cost	Inflation	Cost	Comments
	2002	\$49,660	\$1,490	\$51,150	
	2003	\$51,150	\$1,534	\$52,684	FERC Liscense Issued
	2004	\$52,684	\$1,581	\$54,265	
	2005	\$54,265	\$1,628	\$55,893	
	2006	\$55,893	\$1,677	\$57,570	
	2007	\$57,570	\$1,727	\$59,297	
	2008	\$59,297	\$1,779	\$61,076	
	2009	\$61,076	\$1,832	\$62,908	
	2012	\$62,908	\$1,887	\$64,795	
	2011	\$64,795	\$1,944	\$66,739	
	2012	\$66,739	\$2,002	\$68,741	
Year to Start	2013	\$68,741			

Work Sheet 10

CHINA FLAT CAMPGROUND (WEST) RECONSTRUCTION PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$73,034	\$2,191	\$75,225	
	2003	\$75,225	\$2,257	\$77,482	FERC Liscense Issued
	2004	\$77,482	\$2,324	\$79,806	
	2005	\$79,806	\$2,394	\$82,200	
	2006	\$82,200	\$2,466	\$84,666	
	2007	\$84,666	\$2,540	\$87,206	
	2008	\$87,206	\$2,616	\$89,823	
	2009	\$89,823	\$2,695	\$92,517	
	2012	\$92,517	\$2,776	\$95,293	
	2011	\$95,293	\$2,859	\$98,152	
	2012	\$98,152	\$2,945	\$101,096	
Year to Start	2013	\$101,096			

Work Sheet 11

MARTIN MEADOW OVERFLOW CAMPING RECONSTRUCTION PROJECT

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$195,200	\$5,856	\$201,056	
	2003	\$201,056	\$6,032	\$207,088	FERC Liscense Issued
	2004	\$207,088	\$6,213	\$213,300	
	2005	\$213,300	\$6,399	\$219,699	
	2006	\$219,699	\$6,591	\$226,290	
	2007	\$226,290	\$6,789	\$233,079	
Year to Start	2008	\$233,079			

Work Sheet 12**CAPLES LAKE BOAT LAUNCH RAMP NEW CONSTRUCTION PROJECT**

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$1,699,863	\$50,996	\$1,750,859	
	2003	\$1,750,859	\$52,526	\$1,803,385	FERC Liscense Issued
	2004	\$1,803,385	\$54,102	\$1,857,486	
	2005	\$1,857,486	\$55,725	\$1,913,211	
	2006	\$1,913,211	\$57,396	\$1,970,607	
	2007	\$1,970,607	\$59,118	\$2,029,725	
	2008	\$2,029,725	\$60,892	\$2,090,617	
	2009	\$2,090,617	\$62,719	\$2,153,336	
	2012	\$2,153,336	\$64,600	\$2,217,936	
	2011	\$2,217,936	\$66,538	\$2,284,474	
	2012	\$2,284,474	\$68,534	\$2,353,008	
Year to Start	2013	\$2,353,008			

Work Sheet 13**HIGHWAY 88 INFORMATION KIOSK NEW CONSTRUCTION PROJECT**

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$51,155	\$1,535	\$52,690	
	2003	\$52,690	\$1,581	\$54,270	FERC Liscense Issued
	2004	\$54,270	\$1,628	\$55,898	
	2005	\$55,898	\$1,677	\$57,575	
	2006	\$57,575	\$1,727	\$59,303	
	2007	\$59,303	\$1,779	\$61,082	
Year to Start	2008	\$61,082			

HEAVY MAINTENANCE PROBABLE COSTS

AREA/DESCRIPTION	MAINT. FREQ.	MATERIAL	QTY.	UNIT	COST UNIT	TOTAL COST (2008)	2008	2013	2018	2023	2028	2033	2038	2043	Total 40 yr. cost	NOTES
	in years					G*1	3% / 5 yrs.									
Silver Lake Campground East	2008															
Water system line (source to site)	20	3" galvanized pipe	4140	LFL	\$ 16	\$ 66,240	\$ 76,790	\$ 89,021	\$ 103,200	\$ 119,637	\$ 138,692	\$ 160,782	\$ 186,390	\$ 216,077	\$ 138,692	Source is spring on mountain to the NE
Water system line (internal distribution)	20	pvc 3/4" - 2"	4080	LFL	\$ 16	\$ 65,280	\$ 75,677	\$ 87,731	\$ 101,704	\$ 117,903	\$ 136,682	\$ 158,452	\$ 183,689	\$ 212,946	\$ 136,682	Some replaced pieces and PVC in campground
Water risers	10	1" pvc pipe w/gal. faucet	17	EA.	\$ 800	\$ 13,600	\$ 15,766	\$ 18,277	\$ 21,188	\$ 24,563	\$ 28,475	\$ 33,011	\$ 38,269	\$ 44,364	\$ 87,932	Faucet, pipe, concrete, gravel
Roads and parking - Pave	20	Asphalt	123968	SqFl.	\$ 3	\$ 371,904	\$ 431,139	\$ 499,808	\$ 579,414	\$ 671,700	\$ 778,684	\$ 902,709	\$ 1,046,487	\$ 1,213,165	\$ 778,684	roads - 91,008 sq ft., Camp site spurs - 32,960 sq ft.
Roads and parking - reseal	5	Slurry seal	123968	SqFl.	\$ 1	\$ 123,968	\$ 143,713	\$ 166,603	\$ 193,138	\$ 223,900	\$ 259,561	\$ 300,903	\$ 348,829	\$ 404,388	\$ 1,637,761	roads - 91,008 sq ft., Camp site spurs - 32,960 sq ft.
Roads - striping	5	paint	5056	LFL	\$ 0.66	\$ 3,337	\$ 3,868	\$ 4,485	\$ 5,199	\$ 6,027	\$ 6,987	\$ 8,100	\$ 9,390	\$ 10,885	\$ 51,072	
Parking - striping	5	paint	65	EA.	\$ 12	\$ 780	\$ 904	\$ 1,048	\$ 1,215	\$ 1,409	\$ 1,633	\$ 1,893	\$ 2,195	\$ 2,544	\$ 11,938	
Foot paths	5	compact, grade	12400	LFL	\$ 2	\$ 24,800	\$ 28,750	\$ 33,329	\$ 38,638	\$ 44,792	\$ 51,926	\$ 60,196	\$ 69,784	\$ 80,899	\$ 379,562	3.0 foot width
BBQ grills	15	Steel	62	EA.	\$ 400	\$ 24,800	\$ 28,750	\$ 33,329	\$ 38,638	\$ 44,792	\$ 51,926	\$ 60,196	\$ 69,784	\$ 80,899	\$ 114,575	
Fireirings	15	Steel	62	EA.	\$ 400	\$ 24,800	\$ 28,750	\$ 33,329	\$ 38,638	\$ 44,792	\$ 51,926	\$ 60,196	\$ 69,784	\$ 80,899	\$ 114,575	
Picnic tables	15	wood	62	EA.	\$ 750	\$ 46,500	\$ 53,906	\$ 62,492	\$ 72,445	\$ 83,984	\$ 97,361	\$ 112,868	\$ 130,845	\$ 151,685	\$ 214,829	
Restrooms (6-one unit, 5-two unit)	50	concrete	16	EA.	\$ 18,000	\$ 288,000	\$ 333,871	\$ 387,048	\$ 448,695	\$ 520,160	\$ 603,008	\$ 699,052	\$ 810,392	\$ 939,467		All replaced 2008 under redevelopment
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	On Hwy
Singboards	10	wood	4	EA.	\$ 600	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	Just inside entry
Regulatory sign - ie. HC accessible	10	metal	3	EA.	\$ 150	\$ 450	\$ 522	\$ 605	\$ 701	\$ 813	\$ 942	\$ 1,092	\$ 1,266	\$ 1,468	\$ 2,910	
Dumpsters pad at each restroom	20	Concrete (5'X8')	440	SqFl.	\$ 3	\$ 1,320	\$ 1,530	\$ 1,774	\$ 2,057	\$ 2,384	\$ 2,764	\$ 3,204	\$ 3,714	\$ 4,306	\$ 2,764	At each restroom
Dumpsters (bear proof)	15	Steel	11	EA.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Dumpsters provided by refuse company
Food storage containers (bear proof)	15	Steel	62	EA.	\$ 1,200	\$ 74,400	\$ 86,250	\$ 99,987	\$ 115,913	\$ 134,375	\$ 155,777	\$ 180,588	\$ 209,351	\$ 242,696	\$ 343,726	One per campsite
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	One entry
Sub-total															\$ 4,054,693	
Administrative overhead (5%)															\$ 202,735	
Total															\$ 4,257,428	
Caples Lake Campground	2008															
Water system line (source to site)	20	3" galvanized pipe	7920	LFL	\$ 16	\$ 126,720	\$ 146,903	\$ 170,301	\$ 197,426	\$ 228,870	\$ 265,324	\$ 307,583	\$ 356,573	\$ 413,365	\$ 265,324	Source is spring on mountain to the NE
Water system line (internal distribution)	20	pvc 3/4" - 2"	1575	LFL	\$ 16	\$ 25,200	\$ 29,214	\$ 33,867	\$ 39,261	\$ 45,514	\$ 52,763	\$ 61,167	\$ 70,909	\$ 82,203	\$ 52,763	Some replaced pieces and PVC in campground
Water risers	10	1" pvc pipe w/gal. faucet	8	EA.	\$ 800	\$ 6,400	\$ 7,419	\$ 8,601	\$ 9,971	\$ 11,559	\$ 13,400	\$ 15,534	\$ 18,009	\$ 20,877	\$ 41,380	Faucet, pipe, concrete, gravel
Roads and parking - Pave	20	Asphalt	66700	SqFl.	\$ 3	\$ 200,100	\$ 231,971	\$ 268,918	\$ 311,749	\$ 361,403	\$ 418,965	\$ 485,695	\$ 563,054	\$ 652,734	\$ 418,965	roads - 91,008 sq ft., Camp site spurs - 32,960 sq ft.
Roads and parking - reseal	5	Slurry seal	66700	SqFl.	\$ 1	\$ 66,700	\$ 77,324	\$ 89,639	\$ 103,916	\$ 120,468	\$ 139,655	\$ 161,898	\$ 187,685	\$ 217,578	\$ 881,184	roads - 91,008 sq ft., Camp site spurs - 32,960 sq ft.
Roads - striping	5	paint	2300	LFL	\$ 0.66	\$ 1,518	\$ 1,760	\$ 2,040	\$ 2,365	\$ 2,742	\$ 3,178	\$ 3,685	\$ 4,271	\$ 4,952	\$ 23,233	
Parking - striping	5	paint	38	EA.	\$ 12	\$ 456	\$ 529	\$ 613	\$ 710	\$ 824	\$ 955	\$ 1,107	\$ 1,283	\$ 1,487	\$ 6,979	
Foot paths	5	compact, grade	7000	LFL	\$ 2	\$ 14,000	\$ 16,230	\$ 18,815	\$ 21,812	\$ 25,286	\$ 29,313	\$ 33,982	\$ 39,394	\$ 45,669	\$ 214,269	3.0 foot width
BBQ grills	15	Steel	35	EA.	\$ 400	\$ 14,000	\$ 16,230	\$ 18,815	\$ 21,812	\$ 25,286	\$ 29,313	\$ 33,982	\$ 39,394	\$ 45,669	\$ 64,680	
Fireirings	15	Steel	35	EA.	\$ 400	\$ 14,000	\$ 16,230	\$ 18,815	\$ 21,812	\$ 25,286	\$ 29,313	\$ 33,982	\$ 39,394	\$ 45,669	\$ 64,680	
Picnic tables	15	wood	35	EA.	\$ 750	\$ 26,250	\$ 30,431	\$ 35,278	\$ 40,897	\$ 47,410	\$ 54,962	\$ 63,716	\$ 73,864	\$ 85,628	\$ 121,274	
Restrooms (6-one unit, 5-two unit)	50	concrete	2	EA.	\$ 18,000	\$ 36,000	\$ 41,734	\$ 48,381	\$ 56,087	\$ 65,020	\$ 75,376	\$ 87,381	\$ 101,299	\$ 117,433		All replaced 2008 under redevelopment
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	On Hwy
Singboards	10	wood	1	EA.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 3,879	Just inside entry
Regulatory sign - ie. HC accessible	10	metal	3	EA.	\$ 150	\$ 450	\$ 522	\$ 605	\$ 701	\$ 813	\$ 942	\$ 1,092	\$ 1,266	\$ 1,468	\$ 2,910	
Dumpsters pad at each restroom	20	Concrete (5'X8')	80	SqFl.	\$ 3	\$ 240	\$ 278	\$ 323	\$ 374	\$ 433	\$ 503	\$ 583	\$ 675	\$ 783	\$ 503	At each restroom
Food storage containers (bear proof)	15	Steel	35	EA.	\$ 1,200	\$ 42,000	\$ 48,690	\$ 56,444	\$ 65,435	\$ 75,857	\$ 87,939	\$ 101,945	\$ 118,182	\$ 137,006	\$ 194,039	One per campsite
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	One at campground entry
Sub-total															\$ 2,379,535	
Administrative overhead															\$ 118,977	
Total															\$ 2,498,511	
Caples Lake Dam Trailhead	2008															\$ 5 Yr. Cycles of maint. by USFS and BJD at present
Traffic control barriers - replace with concrete	15	concrete	22	EA.	\$ 20	\$ 440	\$ 510	\$ 591	\$ 686	\$ 795	\$ 921	\$ 1,068	\$ 1,238	\$ 1,435	\$ 2,033	
Roads and parking - Pave	20	Asphalt	29360	SqFl.	\$ 3	\$ 88,080	\$ 102,109	\$ 118,372	\$ 137,226	\$ 159,082	\$ 184,420	\$ 213,793	\$ 247,845	\$ 287,320	\$ 184,420	roads - 91,008 sq ft., Camp site spurs - 32,960 sq ft.
Roads and parking - reseal	5	Slurry seal	29360	SqFl.	\$ 1	\$ 29,360	\$ 34,036	\$ 39,457	\$ 45,742	\$ 53,027	\$ 61,473	\$ 71,264	\$ 82,615	\$ 95,775	\$ 387,880	roads - 91,008 sq ft., Camp site spurs - 32,960 sq ft.
Roads - striping	5	paint	820	LFL	\$ 0.66	\$ 541	\$ 627	\$ 727	\$ 843	\$ 977	\$ 1,133	\$ 1,314	\$ 1,523	\$ 1,765	\$ 8,283	
Parking - striping	5	paint	22	EA.	\$ 12	\$ 264	\$ 306	\$ 355	\$ 411	\$ 477	\$ 553	\$ 641	\$ 743	\$ 861	\$ 4,041	
Restrooms (6-one unit, 5-two unit)	50	concrete	2	EA.	\$ 18,000	\$ 36,000	\$ 41,734	\$ 48,381	\$ 56,087	\$ 65,020	\$ 75,376	\$ 87,381	\$ 101,299	\$ 117,433		All replaced 2008 under redevelopment
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	On Hwy
Singboards	10	wood	1	EA.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 3,879	Just inside entry
Regulatory sign - ie. HC accessible	10	metal	3	EA.	\$ 150	\$ 450	\$ 522	\$ 605	\$ 701	\$ 813	\$ 942	\$ 1,092	\$ 1,266	\$ 1,468	\$ 2,910	

AREA/DESCRIPTION	MAINT. FREQ.	MATERIAL	QTY.	UNIT	COST UNIT	TOTAL COST (2002)	2008	2013	2018	2023	2028	2033	2038	2043	Total 40 yr. cost	NOTES
Dumpsters pad at each restroom	20	Concrete (5'X8')	80	SqFl	\$ 3	\$ 240	\$ 278	\$ 323	\$ 374	\$ 433	\$ 503	\$ 583	\$ 675	\$ 783	\$ 503	At each restroom
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	One at campground entry
Sub-total															\$ 617,421	
Administrative overhead															\$ 30,871	
Total															\$ 648,292	
Cisples Lake Boat Launching Facility (future)	2013															Future Project
Water system line (source to site)	20	3" galvanized pipe	2640	LFL	\$ 16	\$ 42,240	\$ 48,968	\$ 56,767	\$ 65,809	\$ 76,290	\$ 88,441	\$ 102,528	\$ 118,858	\$ 137,788	\$ 102,528	
Water system line (internal distribution)	20	pvc 3/4" - 2"	1500	LFL	\$ 16	\$ 24,000	\$ 27,823	\$ 32,254	\$ 37,391	\$ 43,347	\$ 50,251	\$ 58,254	\$ 67,533	\$ 78,289	\$ 58,254	Some replaced pieces and PVC in campground
Water risers	10	1" galvanized	3	EA.	\$ 800	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 5,825	
Traffic control barriers - concrete	15	concrete	8	EA.	\$ 20	\$ 160	\$ 185	\$ 215	\$ 249	\$ 289	\$ 335	\$ 388	\$ 450	\$ 522	\$ 388	
Roads and parking - Pave	20	Asphalt	52000	SqFl	\$ 3	\$ 156,000	\$ 180,847	\$ 209,651	\$ 243,043	\$ 281,753	\$ 326,629	\$ 378,653	\$ 438,963	\$ 508,878	\$ 378,653	
Roads and parking - reseal	5	Slurry seal	52000	SqFl	\$ 1	\$ 52,000	\$ 60,282	\$ 69,884	\$ 81,014	\$ 93,918	\$ 108,876	\$ 126,218	\$ 146,321	\$ 169,626	\$ 126,218	
Roads - striping	5	paint	8000	LFL	\$ 0.66	\$ 5,280	\$ 6,121	\$ 7,096	\$ 8,226	\$ 9,536	\$ 11,055	\$ 12,816	\$ 14,857	\$ 17,224	\$ 12,816	
Parking - striping	5	paint	58	EA.	\$ 12	\$ 696	\$ 807	\$ 935	\$ 1,084	\$ 1,257	\$ 1,457	\$ 1,689	\$ 1,958	\$ 2,270	\$ 1,689	
Two lane launch ramp	50	concrete	1	LS.	\$ 177,000	\$ 177,000	\$ 205,192	\$ 237,873	\$ 275,760	\$ 319,682	\$ 370,599	\$ 429,625	\$ 498,054	\$ 577,381	\$ 429,625	
Tieup floats	20	Concrete/ foam	2	EA.	\$ 24,000	\$ 48,000	\$ 55,645	\$ 64,508	\$ 74,782	\$ 86,693	\$ 100,501	\$ 116,509	\$ 135,065	\$ 156,578	\$ 116,509	
BBQ grills	15	Steel	8	EA.	\$ 400	\$ 3,200	\$ 3,710	\$ 4,301	\$ 4,985	\$ 5,780	\$ 6,700	\$ 7,767	\$ 9,004	\$ 10,439	\$ 7,767	
Picnic tables	15	wood	8	EA.	\$ 750	\$ 6,000	\$ 6,956	\$ 8,063	\$ 9,348	\$ 10,837	\$ 12,563	\$ 14,564	\$ 16,883	\$ 19,572	\$ 14,564	
Restrooms	50	Concrete	3	EA.	\$ 18,000	\$ 54,000	\$ 62,601	\$ 72,571	\$ 84,130	\$ 97,530	\$ 113,064	\$ 131,072	\$ 151,949	\$ 176,150	\$ 113,064	
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 5,825	
Singboards	10	wood	1	EA.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 1,456	
Regulatory sign - ie. HC accessible	10	metal	3	EA.	\$ 150	\$ 450	\$ 522	\$ 605	\$ 701	\$ 813	\$ 942	\$ 1,092	\$ 1,266	\$ 1,468	\$ 1,092	
Dumpsters pad at each restroom	20	Concrete (5'X8')	120	SqFl	\$ 3	\$ 360	\$ 417	\$ 484	\$ 561	\$ 650	\$ 754	\$ 874	\$ 1,013	\$ 1,174	\$ 874	Dumpsters provided by refuse company
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 9,224	
Sub-total															\$ 1,460,547	
Administrative overhead															\$ 73,027	
Total															\$ 1,533,574	
Echo Lakes Trailhead / Upper Parking Area	2013															Parking problem between upper parking and Trailhead
Roads and parking - Pave	20	Asphalt	28175	SqFl	\$ 3	\$ 84,525	\$ 97,988	\$ 113,595	\$ 131,687	\$ 152,662	\$ 176,977	\$ 205,164	\$ 237,842	\$ 275,724	\$ 205,164	
Roads and parking - reseal	5	Slurry seal	28175	SqFl	\$ 1	\$ 28,175	\$ 32,663	\$ 37,865	\$ 43,896	\$ 50,887	\$ 58,992	\$ 68,388	\$ 79,281	\$ 91,908	\$ 68,388	
Roads - striping	5	paint	1565	LFL	\$ 0.66	\$ 1,033	\$ 1,197	\$ 1,388	\$ 1,609	\$ 1,866	\$ 2,163	\$ 2,507	\$ 2,906	\$ 3,369	\$ 2,507	
Parking - striping	5	paint	44	EA.	\$ 12	\$ 528	\$ 612	\$ 710	\$ 822	\$ 954	\$ 1,106	\$ 1,282	\$ 1,486	\$ 1,722	\$ 1,282	
Restrooms	50	Concrete	4	EA.	\$ 18,000	\$ 72,000	\$ 83,468	\$ 96,762	\$ 112,174	\$ 130,040	\$ 150,752	\$ 174,763	\$ 202,598	\$ 234,867	\$ 150,752	
Entry sign	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 5,825	
Singboards	10	wood	2	EA.	\$ 600	\$ 1,200	\$ 1,391	\$ 1,613	\$ 1,870	\$ 2,167	\$ 2,513	\$ 2,913	\$ 3,377	\$ 3,914	\$ 2,913	
Regulatory sign - ie. HC accessible	10	metal	1	EA.	\$ 150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 364	
Dumpsters pad at each restroom	20	Concrete (5'X8')	120	SqFl	\$ 3	\$ 360	\$ 417	\$ 484	\$ 561	\$ 650	\$ 754	\$ 874	\$ 1,013	\$ 1,174	\$ 874	Dumpsters provided by refuse company
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 9,224	
Sub-total															\$ 531,133	
Administrative overhead															\$ 26,557	
Total															\$ 557,690	
Hwy. 88 Information Kiosk	2008															
Traffic control barriers - concrete	15	concrete	6	EA.	\$ 20	\$ 120	\$ 139	\$ 161	\$ 187	\$ 217	\$ 251	\$ 291	\$ 338	\$ 391	\$ 251	
Roads and parking - Pave	20	Asphalt	4800	SqFl	\$ 3	\$ 14,400	\$ 16,694	\$ 19,352	\$ 22,435	\$ 26,008	\$ 30,150	\$ 34,953	\$ 40,520	\$ 46,973	\$ 30,150	
Roads and parking - reseal	5	Slurry seal	4800	SqFl	\$ 1	\$ 4,800	\$ 5,565	\$ 6,451	\$ 7,478	\$ 8,669	\$ 10,050	\$ 11,651	\$ 13,507	\$ 15,658	\$ 10,050	
Parking - striping	5	paint	6	EA.	\$ 12	\$ 72	\$ 83	\$ 97	\$ 112	\$ 130	\$ 151	\$ 175	\$ 203	\$ 235	\$ 151	
Kiosk Structure	10	Wood	1	EA.	\$ 5,000	\$ 5,000	\$ 5,796	\$ 6,720	\$ 7,790	\$ 9,031	\$ 10,469	\$ 12,136	\$ 14,069	\$ 16,310	\$ 10,469	
Entry Sign	10	Wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 5,825	
Sub-total															\$ 142,915	
Administrative overhead															\$ 7,146	
Total															\$ 150,061	
Pyramid Creek Trailhead	2008															Entire Site recently rehabed no heavy maintenance required
Traffic control barriers	Indefinite	rock	OK													
Roads and parking - Pave	20	Asphalt	21660	SqFl	\$ 3	\$ 64,980	\$ 75,330	\$ 87,328	\$ 101,237	\$ 117,361	\$ 136,054	\$ 157,724	\$ 182,845	\$ 211,967	\$ 136,054	
Roads and parking - reseal	5	Slurry seal	21660	SqFl	\$ 1	\$ 21,660	\$ 25,110	\$ 29,109	\$ 33,746	\$ 39,120	\$ 45,351	\$ 52,575	\$ 60,948	\$ 70,656	\$ 45,351	
Roads - striping	5	paint	900	LFL	\$ 0.66	\$ 594	\$ 689	\$ 798	\$ 925	\$ 1,073	\$ 1,244	\$ 1,442	\$ 1,671	\$ 1,938	\$ 1,244	
Parking - striping (#of spaces)	5	paint	37	EA.	\$ 12	\$ 444	\$ 515	\$ 597	\$ 692	\$ 802	\$ 930	\$ 1,078	\$ 1,249	\$ 1,448	\$ 930	

AREA/DESCRIPTION	MAINT. FREQ.	MATERIAL	QTY.	UNIT	COST UNIT	TOTAL COST 2002	2008	2013	2018	2023	2028	2033	2038	2043	Total 40 yr. cost	NOTES
Restrooms	50	Concrete	3	EA	\$ 18,000	\$ 54,000	\$ 62,601	\$ 72,571	\$ 84,130	\$ 97,530	\$ 113,064	\$ 131,072	\$ 151,949	\$ 176,150	\$ -	new cement rest rooms at trailhead
Entry sign	10	wood	1	EA	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 21,214	good
Singboards	10	wood	1	EA	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 5,304	good - HC access
Regulatory sign - ie. HC accessible	10	metal	1	EA	\$ 150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 1,326	
Dumpsters pad at each restroom	20	Concrete (5'X8')	120	SqFt.	\$ 3	\$ 360	\$ 417	\$ 484	\$ 561	\$ 650	\$ 754	\$ 874	\$ 1,013	\$ 1,174	\$ 1,825	Dumpsters provided by refuse company
Entry gate	20	welded 4" pipe	1	EA	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub-total															\$ 667,489	
Administrative overhead															\$ 33,374	
Total															\$ 700,863	
Silver Fork Campground	2018															
Water system line (source to site)	20	3" galvanized pipe	2640	LFL	\$ 16	\$ 42,240	\$ 48,968	\$ 56,767	\$ 65,809	\$ 76,290	\$ 88,441	\$ 102,528	\$ 118,858	\$ 137,788	\$ 102,528	
Water system line (internal distribution)	20	pvc 3/4" - 2"	1500	LFL	\$ 16	\$ 24,000	\$ 27,823	\$ 32,254	\$ 37,391	\$ 43,347	\$ 50,251	\$ 58,254	\$ 67,533	\$ 78,289	\$ 58,254	Some replaced pieces and PVC in campground
Water risers	10	1" galvanized	12	EA	\$ 800	\$ 9,600	\$ 11,129	\$ 12,902	\$ 14,956	\$ 17,339	\$ 20,100	\$ 23,302	\$ 27,013	\$ 31,316	\$ 71,956	no heavy maintenance required
Traffic control barriers	indefinite	rock	ok		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Roads and parking - Pave	20	Asphalt	60535	SqFL	\$ 3	\$ 181,605	\$ 210,530	\$ 244,062	\$ 282,935	\$ 327,999	\$ 380,241	\$ 440,803	\$ 511,011	\$ 592,402	\$ 440,803	Asphalt in good condition
Roads and parking - resal	5	Slurry seal	60535	SqFL	\$ 1	\$ 60,535	\$ 70,177	\$ 81,354	\$ 94,312	\$ 109,333	\$ 126,747	\$ 146,934	\$ 170,337	\$ 197,467	\$ 68,196	
Roads - striping	5	paint	3364	LFL	\$ 0.66	\$ 2,220	\$ 2,574	\$ 2,984	\$ 3,439	\$ 4,010	\$ 4,649	\$ 5,380	\$ 6,247	\$ 7,243	\$ 30,997	
Parking - striping	5	paint	3	EA	\$ 12	\$ 36	\$ 42	\$ 48	\$ 56	\$ 65	\$ 75	\$ 87	\$ 101	\$ 117	\$ 503	
Foot paths	5	grade, compact	1420	LFL	\$ 2	\$ 2,840	\$ 3,292	\$ 3,817	\$ 4,425	\$ 5,129	\$ 5,946	\$ 6,893	\$ 7,991	\$ 9,264	\$ 39,649	
BBQ grills	15	Steel	34	EA	\$ 400	\$ 13,600	\$ 15,766	\$ 18,277	\$ 21,188	\$ 24,563	\$ 28,475	\$ 33,011	\$ 38,269	\$ 44,364	\$ 72,839	
Fireingns	15	Steel	34	EA	\$ 400	\$ 13,600	\$ 15,766	\$ 18,277	\$ 21,188	\$ 24,563	\$ 28,475	\$ 33,011	\$ 38,269	\$ 44,364	\$ 72,839	
Picnic tables	15	wood	34	EA	\$ 750	\$ 25,500	\$ 29,561	\$ 34,270	\$ 39,728	\$ 46,056	\$ 53,391	\$ 61,895	\$ 71,753	\$ 83,182	\$ 136,573	
Restrooms	50	Concrete	6	EA	\$ 18,000	\$ 108,000	\$ 125,202	\$ 145,143	\$ 168,260	\$ 195,060	\$ 226,128	\$ 262,144	\$ 303,897	\$ 352,300	\$ -	Replaced in reconstruction
Entry signs	10	wood	1	EA	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 17,989	
Singboards	10	wood	1	EA	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 4,497	
Regulatory sign - ie. HC accessible	10	metal	3	EA	\$ 150	\$ 450	\$ 522	\$ 605	\$ 701	\$ 813	\$ 942	\$ 1,092	\$ 1,266	\$ 1,468	\$ 3,373	
Dumpsters pad at each restroom	20	Concrete (5'X8')	120	SqFt.	\$ 3	\$ 360	\$ 417	\$ 484	\$ 561	\$ 650	\$ 754	\$ 874	\$ 1,013	\$ 1,174	\$ 1,825	Dumpsters provided by refuse company
Food storage containers (bear proof)	15	Steel	34	EA	\$ 1,200	\$ 40,800	\$ 47,298	\$ 54,832	\$ 63,565	\$ 73,689	\$ 85,426	\$ 99,032	\$ 114,806	\$ 133,091	\$ 218,517	
Entry gate	20	welded 4" pipe	1	EA	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub-total															\$ 1,978,737	
Administrative overhead															\$ 98,937	
Total															\$ 2,077,674	
China Flat Campground and Picnic Area	2018															
Water system line (source to site)	20	3" galvanized pipe	2640	LFL	\$ 16	\$ 42,240	\$ 48,968	\$ 56,767	\$ 65,809	\$ 76,290	\$ 88,441	\$ 102,528	\$ 118,858	\$ 137,788	\$ 102,528	
Water system line (internal distribution)	20	pvc 3/4" - 2"	1500	LFL	\$ 16	\$ 24,000	\$ 27,823	\$ 32,254	\$ 37,391	\$ 43,347	\$ 50,251	\$ 58,254	\$ 67,533	\$ 78,289	\$ 58,254	
Water risers	10	1" galvanized	6	EA	\$ 800	\$ 4,800	\$ 5,565	\$ 6,451	\$ 7,478	\$ 8,669	\$ 10,050	\$ 11,651	\$ 13,507	\$ 15,658	\$ 35,978	
Traffic control barriers	indefinite	rock	ok		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	no heavy maintenance required
Roads and parking - Pave	20	Asphalt	42840	SqFL	\$ 3	\$ 128,520	\$ 148,990	\$ 172,720	\$ 200,230	\$ 232,121	\$ 269,092	\$ 311,952	\$ 361,638	\$ 419,237	\$ 311,952	
Roads and parking - resal	5	Slurry seal	42840	SqFL	\$ 1	\$ 42,840	\$ 49,663	\$ 57,573	\$ 66,743	\$ 77,374	\$ 89,697	\$ 103,984	\$ 120,546	\$ 139,746	\$ 404,409	
Roads - striping	5	paint	2380	LFL	\$ 0.66	\$ 1,571	\$ 1,821	\$ 2,111	\$ 2,447	\$ 2,837	\$ 3,289	\$ 3,813	\$ 4,420	\$ 5,124	\$ 21,930	
Parking - striping (day use parking)	5	paint	14	EA	\$ 12	\$ 168	\$ 195	\$ 226	\$ 262	\$ 305	\$ 352	\$ 408	\$ 473	\$ 548	\$ 2,345	
Foot paths	5	compact, grade	1000	LFL	\$ 2	\$ 2,000	\$ 2,319	\$ 2,688	\$ 3,116	\$ 3,612	\$ 4,188	\$ 4,855	\$ 5,628	\$ 6,524	\$ 27,922	
BBQ grills	15	Steel	24	EA	\$ 400	\$ 9,600	\$ 11,129	\$ 12,902	\$ 14,956	\$ 17,339	\$ 20,100	\$ 23,302	\$ 27,013	\$ 31,316	\$ 51,416	
BBQ grill - group site	15	Steel	1	EA	\$ 500	\$ 500	\$ 580	\$ 672	\$ 779	\$ 903	\$ 1,047	\$ 1,214	\$ 1,407	\$ 1,631	\$ 2,678	
Fireingns	15	Steel	24	EA	\$ 400	\$ 9,600	\$ 11,129	\$ 12,902	\$ 14,956	\$ 17,339	\$ 20,100	\$ 23,302	\$ 27,013	\$ 31,316	\$ 51,416	
Fireingn - group site	15	Steel	1	EA	\$ 500	\$ 500	\$ 580	\$ 672	\$ 779	\$ 903	\$ 1,047	\$ 1,214	\$ 1,407	\$ 1,631	\$ 2,678	
Picnic tables	15	wood	24	EA	\$ 750	\$ 18,000	\$ 20,867	\$ 24,190	\$ 28,043	\$ 32,510	\$ 37,688	\$ 43,691	\$ 50,650	\$ 58,717	\$ 96,485	
Picnic table - group site	15	wood	1	EA	\$ 950	\$ 950	\$ 1,101	\$ 1,277	\$ 1,480	\$ 1,716	\$ 1,989	\$ 2,306	\$ 2,673	\$ 3,099	\$ 5,088	
Restrooms	50	Concrete	7	EA	\$ 18,000	\$ 126,000	\$ 146,069	\$ 169,333	\$ 196,304	\$ 227,570	\$ 263,816	\$ 305,835	\$ 354,347	\$ 411,017	\$ -	Replaced in reconstruction
Entry signs	10	wood	2	EA	\$ 2,400	\$ 4,800	\$ 5,565	\$ 6,451	\$ 7,478	\$ 8,669	\$ 10,050	\$ 11,651	\$ 13,507	\$ 15,658	\$ 35,978	
Singboards	10	wood	2	EA	\$ 600	\$ 1,200	\$ 1,391	\$ 1,613	\$ 1,870	\$ 2,167	\$ 2,513	\$ 2,913	\$ 3,377	\$ 3,914	\$ 8,994	
Regulatory sign - ie. HC accessible	10	steel	3	EA	\$ 150	\$ 450	\$ 522	\$ 605	\$ 701	\$ 813	\$ 942	\$ 1,092	\$ 1,266	\$ 1,468	\$ 3,373	
Dumpsters pad at each restroom	20	Concrete (5'X8')	280	SqFL	\$ 3	\$ 840	\$ 974	\$ 1,129	\$ 1,309	\$ 1,517	\$ 1,759	\$ 2,039	\$ 2,364	\$ 2,740	\$ 2,039	Dumpsters provided by refuse company
Food storage containers (bear proof)	15	Steel	26	EA	\$ 1,200	\$ 31,200	\$ 36,169	\$ 41,930	\$ 48,609	\$ 56,351	\$ 65,326	\$ 75,731	\$ 87,793	\$ 101,776	\$ 167,101	
Retaining Wall	10	wood	36	LFL	\$ 200	\$ 7,200	\$ 8,347	\$ 9,676	\$ 11,217	\$ 13,004	\$ 15,075	\$ 17,476	\$ 20,260	\$ 23,487	\$ 53,967	wall dimensions 3'H X 36' L
Entry gate	20	welded 4" pipe	2	EA	\$ 3,800	\$ 7,600	\$ 8,810	\$ 10,214	\$ 11,841	\$ 13,726	\$ 15,913	\$ 18,447	\$ 21,385	\$ 24,791	\$ 18,447	
Sub-total															\$ 1,464,898	
Administrative overhead															\$ 73,245	
Total															\$ 1,538,143	

AREA/DESCRIPTION	MAINT. FREQ.	MATERIAL	QTY.	UNIT		COST UNIT	TOTAL									Total 40 yr. cost	NOTES
							OST (2002)	2008	2013	2018	2023	2028	2033	2038	2043		
Sand Flat Campground	2008																
Water system line (source to site)	20	3" galvanized pipe	2640	LFL	\$	16	\$ 42,240	\$ 48,968	\$ 56,767	\$ 65,809	\$ 76,290	\$ 88,441	\$ 102,528	\$ 118,858	\$ 137,788	\$ 214,079	
Water system line (internal distribution)	20	pvc 3/4" - 2"	1500	LFL	\$	16	\$ 24,000	\$ 27,823	\$ 32,254	\$ 37,391	\$ 43,347	\$ 50,251	\$ 58,254	\$ 67,533	\$ 78,289	\$ 121,636	Some replaced pieces and PVC in campground
Water risers	10	1" galvanized	5	EA.	\$	800	\$ 4,000	\$ 4,637	\$ 5,376	\$ 6,232	\$ 7,224	\$ 8,375	\$ 9,709	\$ 11,255	\$ 13,048	\$ 35,357	
Traffic control barriers	indefinite	rock		EA.			\$ -									\$ -	no heavy maintenance required
Roads and parking - Pave	20	Asphalt	42840	SqFt.	\$	3	\$ 128,520	\$ 148,990	\$ 172,720	\$ 200,230	\$ 232,121	\$ 269,092	\$ 311,952	\$ 361,638	\$ 419,237	\$ 651,359	
Roads and parking - reseal	5	Slurry seal	42840	SqFt.	\$	1	\$ 42,840	\$ 49,663	\$ 57,373	\$ 66,743	\$ 77,374	\$ 89,697	\$ 103,984	\$ 120,546	\$ 139,746	\$ 468,207	
Roads - striping	5	paint	2380	LFL	\$	0.66	\$ 1,571	\$ 1,821	\$ 2,111	\$ 2,447	\$ 2,837	\$ 3,289	\$ 3,813	\$ 4,420	\$ 5,124	\$ 25,862	
Parking - striping	5	paint	6	EA.	\$	12	\$ 72	\$ 83	\$ 97	\$ 112	\$ 130	\$ 151	\$ 175	\$ 203	\$ 235	\$ 1,185	
Foot paths	5	compact dirt	1000	LFL	\$	2	\$ 2,000	\$ 2,319	\$ 2,668	\$ 3,116	\$ 3,612	\$ 4,188	\$ 4,855	\$ 5,628	\$ 6,524	\$ 37,928	
BBQ grills	15	Steel	29	EA.	\$	400	\$ 11,600	\$ 13,448	\$ 15,589	\$ 18,072	\$ 20,951	\$ 24,288	\$ 28,156	\$ 32,641	\$ 37,840	\$ 55,912	
Firerings	15	Steel	29	EA.	\$	400	\$ 11,600	\$ 13,448	\$ 15,589	\$ 18,072	\$ 20,951	\$ 24,288	\$ 28,156	\$ 32,641	\$ 37,840	\$ 55,912	
Picnic tables	15	wood	29	EA.	\$	750	\$ 21,750	\$ 25,214	\$ 29,230	\$ 33,866	\$ 39,283	\$ 45,540	\$ 52,793	\$ 61,202	\$ 70,949	\$ 104,835	
Restrooms	50	concrete	4	EA.	\$	18,000	\$ 72,000	\$ 83,468	\$ 96,762	\$ 112,174	\$ 130,040	\$ 150,752	\$ 174,763	\$ 202,598	\$ 234,867	\$ -	Replaced in reconstruction
Dumpsters pad at each restroom	20	Concrete (5'X8')	120	SqFt.	\$	3	\$ 360	\$ 417	\$ 484	\$ 561	\$ 650	\$ 754	\$ 874	\$ 1,013	\$ 1,174	\$ 1,825	Dumpsters provided by refuse company
Entry signs	10	wood	1	EA.	\$	2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 21,214	
Singboards	10	wood	1	EA.	\$	600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 5,304	
Regulatory sign - ie. HC accessible	10	Steel	1	EA.	\$	150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 1,326	
Food storage containers (bear proof)	15	Steel	29	EA.	\$	1,200	\$ 34,800	\$ 40,343	\$ 46,768	\$ 54,217	\$ 62,853	\$ 72,863	\$ 84,469	\$ 97,922	\$ 113,519	\$ 167,736	
Entry gate	20	welded 4" pipe	1	EA.	\$	3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Other																	
Sub-total																\$ 2,003,936	
Administrative overhead																\$ 100,197	
Total																\$ 2,104,133	
Bridal Veil Picnic Area	2008																
Water system line (source to site)	20	3" galvanized pipe	1000	LFL	\$	16	\$ 16,000	\$ 18,548	\$ 21,503	\$ 24,927	\$ 28,898	\$ 33,500	\$ 38,836	\$ 45,022	\$ 52,193	\$ 60,339	estimate distance from source
Water system line (internal distribution)	20	pvc 3/4" - 2"	1000	LFL	\$	16	\$ 16,000	\$ 18,548	\$ 21,503	\$ 24,927	\$ 28,898	\$ 33,500	\$ 38,836	\$ 45,022	\$ 52,193	\$ 60,339	estimated internal distribution
Water risers	10	1" galvanized	3	EA.	\$	800	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 9,051	
Traffic control barriers	indefinite	rock		OK EA.													no heavy maint required
Roads and parking - Pave	20	Asphalt	48010	SqFt.	\$	3	\$ 144,030	\$ 166,970	\$ 193,564	\$ 224,394	\$ 260,104	\$ 301,567	\$ 349,599	\$ 405,281	\$ 469,831	\$ 729,966	
Roads and parking - reseal	5	Slurry seal	48010	SqFt.	\$	1	\$ 48,010	\$ 55,657	\$ 64,521	\$ 74,798	\$ 86,711	\$ 100,522	\$ 116,533	\$ 135,094	\$ 156,610	\$ 703,735	
Roads - striping	5	paint	1950	LFL	\$	0.66	\$ 1,287	\$ 1,492	\$ 1,730	\$ 2,005	\$ 2,324	\$ 2,695	\$ 3,124	\$ 3,621	\$ 4,198	\$ 21,189	
Parking - striping	5	paint	43	EA.	\$	12	\$ 516	\$ 598	\$ 693	\$ 804	\$ 932	\$ 1,080	\$ 1,252	\$ 1,452	\$ 1,683	\$ 8,496	
Foot paths	5	compact, grade	600	LFL	\$	2	\$ 1,200	\$ 1,391	\$ 1,613	\$ 1,870	\$ 2,162	\$ 2,513	\$ 2,913	\$ 3,377	\$ 3,914	\$ 19,757	
BBQ grills	15	Steel	6	EA.	\$	400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 9,565	
Picnic tables	15	wood	11	EA.	\$	750	\$ 8,250	\$ 9,564	\$ 11,087	\$ 12,853	\$ 14,900	\$ 17,274	\$ 20,025	\$ 23,214	\$ 26,912	\$ 32,878	
Restrooms	50	stone block	3	EA.	\$	18,000	\$ 54,000	\$ 62,601	\$ 72,571	\$ 84,130	\$ 97,530	\$ 113,064	\$ 131,072	\$ 151,949	\$ 176,150	\$ -	New block 4 holes
Dumpsters pad at each restroom	20	Concrete (5'X8')	120	SqFt.	\$	3	\$ 360	\$ 417	\$ 484	\$ 561	\$ 650	\$ 754	\$ 874	\$ 1,013	\$ 1,174	\$ 1,825	Dumpsters provided by refuse company
Entry signs	10	wood	1	EA.	\$	2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 9,051	
Singboards	10	wood	1	EA.	\$	600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 2,263	
Regulatory sign - ie. HC accessible	10	Steel	1	EA.	\$	150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 566	
Fencing	20	welded Metal	3721	LFL	\$	10	\$ 37,210	\$ 43,137	\$ 50,007	\$ 57,922	\$ 67,205	\$ 77,909	\$ 90,318	\$ 104,704	\$ 121,350	\$ 188,586	steel welded fencing
Entry gate	20	welded 4" pipe	1	EA.	\$	3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub-total																\$ 1,816,524	
Administrative overhead																\$ 98,826	
Total																\$ 1,907,350	
Shealar Lake Trailhead	2008																
Traffic control barriers	indefinite	rock		some EA.													no heavy maintenance required
Roads and parking - Pave	20	Asphalt	29944	SqFt.	\$	3	\$ 89,832	\$ 104,140	\$ 120,727	\$ 139,953	\$ 162,247	\$ 188,088	\$ 218,046	\$ 252,775	\$ 293,035	\$ 455,282	
Roads and parking - reseal	5	Slurry seal	29944	SqFt.	\$	1	\$ 29,944	\$ 34,713	\$ 40,242	\$ 46,652	\$ 54,082	\$ 62,696	\$ 72,682	\$ 84,258	\$ 97,678	\$ 404,269	
Roads - striping	5	paint	100	LFL	\$	0.66	\$ 66	\$ 77	\$ 89	\$ 103	\$ 119	\$ 138	\$ 160	\$ 186	\$ 215	\$ 1,067	
Parking - striping	5	paint	6	EA.	\$	12	\$ 72	\$ 83	\$ 97	\$ 112	\$ 130	\$ 151	\$ 175	\$ 203	\$ 235	\$ 1,185	
Restrooms	50	Concrete	0	EA.	\$	18,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No restroom
Entry signs	10	wood	2	EA.	\$	2,400	\$ 4,800	\$ 5,565	\$ 6,451	\$ 7,478	\$ 8,669	\$ 10,050	\$ 11,651	\$ 13,507	\$ 15,658	\$ 42,429	
Singboards	10	wood	1	EA.	\$	600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 5,304	
Regulatory sign - ie. HC accessible	10	metal	1	EA.	\$	150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 1,326	
Dumpsters pad at each restroom	20	Concrete (5'X8')	0	SqFt.	\$	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Dumpsters provided by refuse company
Entry gate	20	welded 4" pipe	1	EA.	\$	3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub total																\$ 930,080	

AREA/DESCRIPTION	MAINT FREQ.	MATERIAL	QTY	UNIT	COST UNIT	TOTAL COST (2002)	2008	2013	2018	2023	2028	2033	2038	2043	Total @ 40 yr. cost	NOTES
Administrative overhead															\$ 46,504	
Total															\$ 976,584	
Lake Margaret Trailhead	2008															Slight road erosion due to equestrian use trail no heavy maintenance required
Traffic control barriers	indefinite	rock	some	E.A.												
Roads and parking - Pave	20	Asphalt	14580	Sq.Ft.	\$ 3	\$ 43,740	\$ 50,707	\$ 58,783	\$ 68,145	\$ 78,999	\$ 91,582	\$ 106,168	\$ 123,078	\$ 142,682	\$ 221,681	
Roads and parking - reseal	5	Slurry seal	14580	Sq.Ft.	\$ 1	\$ 14,580	\$ 16,902	\$ 19,394	\$ 22,715	\$ 26,333	\$ 30,527	\$ 35,389	\$ 41,026	\$ 47,561	\$ 196,813	
Roads - striping	5	paint	810	L.Ft.	\$ 0.66	\$ 535	\$ 620	\$ 718	\$ 833	\$ 966	\$ 1,119	\$ 1,298	\$ 1,504	\$ 1,744	\$ 8,802	
Parking - striping	5	paint	7	E.A.	\$ 12	\$ 84	\$ 97	\$ 113	\$ 131	\$ 152	\$ 176	\$ 204	\$ 236	\$ 274	\$ 1,383	
Restrooms	50	Concrete	0	E.A.	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No restroom at trailhead
Entry signs	10	wood	1	E.A.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 21,214	
Singboards	10	wood	1	E.A.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 5,304	
Regulatory sign - ie. HC accessible	10	metal	1	E.A.	\$ 150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 1,326	
Dumpsters pad at each restroom	20	Concrete (5'X8')	0	Sq.Ft.	\$ 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No dumpster at trailhead
Entry gate	20	welded 4" pipe	1	E.A.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub total															\$ 475,781	
Administrative overhead															\$ 23,789	
Total															\$ 499,570	
Allen's Camp Trailhead	2008															Facility Locked/site map unavailable -all figs.estimated
Traffic control barriers	indefinite	rock	some	E.A.											\$ -	No heavy maint. Required
Roads and parking - Pave	20	Asphalt	3080	Sq.Ft.	\$ 3	\$ 9,240	\$ 10,712	\$ 12,418	\$ 14,396	\$ 16,688	\$ 19,347	\$ 22,428	\$ 26,000	\$ 30,141	\$ 46,830	
Roads and parking - reseal	5	Slurry seal	3080	Sq.Ft.	\$ 1	\$ 3,080	\$ 3,571	\$ 4,139	\$ 4,799	\$ 5,563	\$ 6,449	\$ 7,476	\$ 8,667	\$ 10,047	\$ 41,576	
Roads - striping	5	paint	800	L.Ft.	\$ 0.66	\$ 528	\$ 612	\$ 710	\$ 823	\$ 954	\$ 1,106	\$ 1,282	\$ 1,486	\$ 1,722	\$ 8,693	
Parking -striping	5	paint	8	E.A.	\$ 12	\$ 96	\$ 111	\$ 129	\$ 150	\$ 173	\$ 201	\$ 233	\$ 270	\$ 313	\$ 1,581	
Restrooms	50	Concrete	0	E.A.	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No restroom at trailhead
Entry signs	10	wood	1	E.A.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 21,214	
Singboards	10	wood	1	E.A.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 5,304	
Regulatory sign - ie. HC accessible	10	metal	1	E.A.	\$ 150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 1,326	
Dumpsters pad at each restroom	20	Concrete (5'X8')	0	Sq.Ft.	\$ 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Dumpsters provided by refuse company
Entry gate	20	welded 4" pipe	1	E.A.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub-total															\$ 145,783	
Administrative overhead															\$ 7,289	
Total															\$ 153,072	
Martin Meadows Overflow Camping Area	2013															primitive, dispersed camp space
Water system line (source to site)	20	3" galvanized pipe	0	L.Ft.	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	no water at site
Water system line (internal distribution)	20	pvc 3/4" - 2"	0	L.Ft.	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	no water system
Water risers	10	1" galvanized	0	E.A.	\$ 800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	no risers
Traffic control barriers	indefinite	rock	0	E.A.	\$ 200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	no heavy maint. Required
Roads and parking - Pave	20	Asphalt	25280	Sq.Ft.	\$ 3	\$ 75,840	\$ 87,919	\$ 101,923	\$ 118,156	\$ 136,975	\$ 158,792	\$ 184,084	\$ 213,403	\$ 247,393	\$ 158,792	reconstructed 2008
Roads and parking - reseal	5	Slurry seal	25280	Sq.Ft.	\$ 1	\$ 25,280	\$ 29,306	\$ 33,974	\$ 39,385	\$ 45,658	\$ 52,931	\$ 61,361	\$ 71,134	\$ 82,464	\$ 333,978	seal every 5 years
Roads - striping	5	paint	1500	L.Ft.	\$ 0.66	\$ 990	\$ 1,148	\$ 1,330	\$ 1,542	\$ 1,788	\$ 2,073	\$ 2,403	\$ 2,786	\$ 3,229	\$ 15,152	
Parking -striping	5	paint	20	E.A.	\$ 12	\$ 240	\$ 278	\$ 323	\$ 374	\$ 433	\$ 503	\$ 583	\$ 675	\$ 789	\$ 3,673	
Foot paths	5	compact, grade	1000	L.Ft.	\$ 2	\$ 2,000	\$ 2,319	\$ 2,688	\$ 3,116	\$ 3,612	\$ 4,188	\$ 4,858	\$ 5,628	\$ 6,524	\$ 30,610	
Restrooms	50	Concrete	2	E.A.	\$ 18,000	\$ 36,000	\$ 41,734	\$ 48,381	\$ 56,087	\$ 65,020	\$ 75,376	\$ 87,381	\$ 101,299	\$ 117,433		(2) new cement HC access restrooms recently installed
Entry signs	10	wood	1	E.A.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	
Singboards	10	wood	1	E.A.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 3,879	
Regulatory sign - ie. HC accessible	10	metal	2	E.A.	\$ 150	\$ 300	\$ 348	\$ 403	\$ 467	\$ 542	\$ 628	\$ 728	\$ 844	\$ 979	\$ 1,940	
Entry gate	20	welded 4" pipe	1	E.A.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	
Sub-total															\$ 582,801	
Administrative overhead															\$ 29,140	
Total															\$ 611,941	
Horse Canyon Trailhead	2008															Locals refer to it as "Cowboy camp"
Traffic control barriers	indefinite	rock	30	E.A.	\$ 200	\$ 6,000	\$ 6,956								\$ 6,956	could use 30 boulders to define spaces, reduce impacts
Roads and parking - Pave	20	Asphalt	8459	Sq.Ft.	\$ 3	\$ 25,377	\$ 29,419	\$ 34,105	\$ 39,537	\$ 45,834	\$ 53,134	\$ 61,597	\$ 71,407	\$ 82,781	\$ 128,614	
Roads and parking - reseal	5	Slurry seal	8459	Sq.Ft.	\$ 1	\$ 8,459	\$ 9,806	\$ 11,268	\$ 13,179	\$ 15,278	\$ 17,711	\$ 20,532	\$ 23,802	\$ 27,594	\$ 114,187	
Roads - striping	5	paint	480	L.Ft.	\$ 1	\$ 317	\$ 367	\$ 426	\$ 494	\$ 572	\$ 663	\$ 769	\$ 891	\$ 1,033	\$ 5,216	
Parking -striping	5	paint	15	E.A.	\$ 12	\$ 180	\$ 209	\$ 242	\$ 280	\$ 325	\$ 377	\$ 437	\$ 506	\$ 587	\$ 2,964	
Restrooms	50	Concrete	0	E.A.	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No restroom at trailhead

AREA/DESCRIPTION	MAINT. FREQ.	MATERIAL	QTY.	UNIT	COST UNIT	TOTAL COST (2002)	2008	2013	2018	2023	2028	2033	2038	2043	Total 40 yr. cost	NOTES
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 16,168	No entry signs
Signboards	10	wood	2	EA.	\$ 600	\$ 1,200	\$ 1,391	\$ 1,613	\$ 1,870	\$ 2,167	\$ 2,513	\$ 2,913	\$ 3,377	\$ 3,914	\$ 16,807	
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 19,259	currently no gate
Sub-total															\$ 303,970	
Administrative overhead															\$ 15,199	
Total															\$ 319,169	

Recommended EID Heavy Maintenance Sites

Ferguson Point Picnic Area																
2013																
Water system line (source to site)	20	3" galvanized pipe	500	LFL	\$ 16	\$ 8,000	\$ 9,274	\$ 10,751	\$ 12,464	\$ 14,449	\$ 16,750	\$ 19,418	\$ 22,511	\$ 26,096	\$ 16,750	estimate distance from source
Water system line (internal distribution)	20	pvc 3/4" - 2"	750	LFL	\$ 16	\$ 12,000	\$ 13,911	\$ 16,127	\$ 18,696	\$ 21,673	\$ 25,125	\$ 29,127	\$ 33,766	\$ 39,144	\$ 25,125	estimated by pacing risers
Water risers	10	1" galvanized	4	EA.	\$ 800	\$ 3,200	\$ 3,710	\$ 4,301	\$ 4,985	\$ 5,780	\$ 6,700	\$ 7,767	\$ 9,004	\$ 10,439	\$ 20,690	currently capped & without gravel basin
Traffic control barriers	indefinite	rock	OK	EA.												no heavy maintenance cost
Roads and parking - Pave	20	Asphalt	4600	SqFt.	\$ 3	\$ 13,800	\$ 15,998	\$ 18,546	\$ 21,500	\$ 24,924	\$ 28,894	\$ 33,496	\$ 38,831	\$ 45,016	\$ 28,894	
Roads and parking - reseal	5	Slurry seal	4600	SqFt.	\$ 1	\$ 4,600	\$ 5,333	\$ 6,182	\$ 7,167	\$ 8,308	\$ 9,631	\$ 11,163	\$ 12,944	\$ 15,005	\$ 67,095	
Roads - striping	5	paint	200	LFL	\$ 0.66	\$ 132	\$ 153	\$ 177	\$ 206	\$ 238	\$ 276	\$ 320	\$ 371	\$ 431	\$ 2,020	
Parking - striping	5	paint	8	EA.	\$ 12	\$ 96	\$ 111	\$ 129	\$ 150	\$ 173	\$ 201	\$ 233	\$ 270	\$ 318	\$ 1,469	
Foot paths	5	compact, grade	1100	LFL	\$ 2	\$ 2,200	\$ 2,550	\$ 2,957	\$ 3,428	\$ 3,973	\$ 4,606	\$ 5,340	\$ 6,190	\$ 7,176	\$ 33,671	
BBQ grills	15	Steel	8	EA.	\$ 400	\$ 3,200	\$ 3,710	\$ 4,301	\$ 4,985	\$ 5,780	\$ 6,700	\$ 7,767	\$ 9,004	\$ 10,439	\$ 14,784	
Picnic tables	15	wood	8	EA.	\$ 750	\$ 6,000	\$ 6,956	\$ 8,063	\$ 9,348	\$ 10,837	\$ 12,563	\$ 14,564	\$ 16,883	\$ 19,572	\$ 27,720	
Restrooms	50	stone block	2	EA.	\$ 18,000	\$ 36,000	\$ 41,734	\$ 48,381	\$ 56,087	\$ 65,020	\$ 75,376	\$ 87,381	\$ 101,299	\$ 117,433		New block 4 holers
Dumpsters pad at each restroom	20	Concrete (5'X8')	40	SqFt.	\$ 3	\$ 120	\$ 139	\$ 161	\$ 187	\$ 217	\$ 251	\$ 291	\$ 338	\$ 391	\$ 251	Dumpsters provided by refuse company
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	
Signboards	10	wood	1	EA.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 3,879	
Regulatory sign - ie. HC accessible	10	Steel	2	EA.	\$ 150	\$ 300	\$ 348	\$ 403	\$ 467	\$ 542	\$ 628	\$ 728	\$ 844	\$ 979	\$ 1,940	
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	Recommended - none currently scheduled
Sub-total															\$ 262,762	
Administrative overhead															\$ 13,138	
Total															\$ 275,901	
Sandy Cove Picnic Area																
2013																
Water system line (source to site)	20	3" galvanized pipe	0	LFL	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	none
Water system line (internal distribution)	20	pvc 3/4" - 2"	1200	LFL	\$ 16	\$ 19,200	\$ 22,258	\$ 25,803	\$ 29,913	\$ 34,677	\$ 40,201	\$ 46,603	\$ 54,026	\$ 62,631	\$ 40,201	estimated by pacing risers
Water risers	10	1" galvanized	2	EA.	\$ 800	\$ 1,600	\$ 1,855	\$ 2,150	\$ 2,493	\$ 2,890	\$ 3,350	\$ 3,884	\$ 4,502	\$ 5,219	\$ 10,345	1 HC accessible
Traffic control barriers	indefinite	rock	OK	EA.												no replacement maintenance cost
Roads and parking - Pave	20	Asphalt	18480	SqFt.	\$ 3	\$ 55,440	\$ 64,270	\$ 74,507	\$ 86,374	\$ 100,131	\$ 116,079	\$ 134,567	\$ 156,001	\$ 180,847	\$ 116,079	
Roads and parking - reseal	5	Slurry seal	18480	SqFt.	\$ 1	\$ 18,480	\$ 21,423	\$ 24,836	\$ 28,791	\$ 33,377	\$ 38,693	\$ 44,856	\$ 52,000	\$ 60,282	\$ 249,458	
Roads - striping	5	paint	640	LFL	\$ 0.66	\$ 422	\$ 490	\$ 568	\$ 658	\$ 763	\$ 884	\$ 1,025	\$ 1,189	\$ 1,378	\$ 5,702	
Parking - striping	5	paint	21	EA.	\$ 12	\$ 252	\$ 292	\$ 339	\$ 393	\$ 455	\$ 528	\$ 612	\$ 709	\$ 822	\$ 3,402	
Foot paths	5	compact, grade	1100	LFL	\$ 2	\$ 2,200	\$ 2,550	\$ 2,957	\$ 3,428	\$ 3,973	\$ 4,606	\$ 5,340	\$ 6,190	\$ 7,176	\$ 33,671	
BBQ grills	15	Steel	5	EA.	\$ 400	\$ 2,000	\$ 2,319	\$ 2,688	\$ 3,116	\$ 3,612	\$ 4,188	\$ 4,855	\$ 5,628	\$ 6,524	\$ 9,240	
Firerings	15	Steel	3	EA.	\$ 400	\$ 1,200	\$ 1,391	\$ 1,613	\$ 1,870	\$ 2,167	\$ 2,513	\$ 2,913	\$ 3,377	\$ 3,914	\$ 5,544	3 existing rings
Picnic tables	15	wood	5	EA.	\$ 750	\$ 3,750	\$ 4,347	\$ 5,040	\$ 5,842	\$ 6,773	\$ 7,852	\$ 9,102	\$ 10,552	\$ 12,233	\$ 17,325	
Restrooms	50	stone block	2	EA.	\$ 18,000	\$ 36,000	\$ 41,734	\$ 48,381	\$ 56,087	\$ 65,020	\$ 75,376	\$ 87,381	\$ 101,299	\$ 117,433	\$ -	New stone block restrooms
Dumpsters pad at restroom	20	Concrete (5'X8')	40	SqFt.	\$ 3	\$ 120	\$ 139	\$ 161	\$ 187	\$ 217	\$ 251	\$ 291	\$ 338	\$ 391	\$ 251	Dumpsters provided by refuse company
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	
Signboards	10	wood	1	EA.	\$ 600	\$ 600	\$ 696	\$ 806	\$ 935	\$ 1,084	\$ 1,256	\$ 1,456	\$ 1,688	\$ 1,957	\$ 3,879	
Regulatory sign - ie. HC accessible	10	Steel	1	EA.	\$ 150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 970	
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	Recommended - none currently scheduled
Sub-total															\$ 519,540	
Administrative overhead															\$ 25,977	
Total															\$ 545,517	
Silverlake Campground - West																
2013																
Water system line (source to site)	20	3" galvanized pipe	1000	LFL	\$ 16	\$ 16,000	\$ 18,548	\$ 21,503	\$ 24,927	\$ 28,898	\$ 33,500	\$ 38,836	\$ 45,022	\$ 52,193	\$ 33,500	From Silver Lake West
Water system line (internal distribution)	20	pvc 3/4" - 2"	2500	LFL	\$ 16	\$ 40,000	\$ 46,371	\$ 53,757	\$ 62,319	\$ 72,244	\$ 83,751	\$ 97,090	\$ 112,554	\$ 130,482	\$ 83,751	Some replaced pieces and PVC in campground
Water risers	10	1" pvc pipe w/gal. faucet	11	EA.	\$ 800	\$ 8,800	\$ 10,202	\$ 11,826	\$ 13,710	\$ 15,894	\$ 18,425	\$ 21,360	\$ 24,762	\$ 28,706	\$ 56,897	Faucet, pipe, concrete, gravel
Roads and parking - Pave	20	Asphalt	97892	SqFt.	\$ 3	\$ 293,676	\$ 340,451	\$ 394,676	\$ 457,538	\$ 530,412	\$ 614,892	\$ 712,829	\$ 826,364	\$ 957,982	\$ 614,892	roads - 91008, Camp site spurs - 32960 sq ft.
Roads and parking - reseal	5	Slurry seal	97892	SqFt.	\$ 1	\$ 97,892	\$ 113,484	\$ 131,559	\$ 152,513	\$ 176,804	\$ 204,964	\$ 237,610	\$ 275,455	\$ 319,327	\$ 1,293,267	roads - 91008, Camp site spurs - 32960 sq ft.
Roads - striping	5	paint	3094	LFL	\$ 0.66	\$ 2,042	\$ 2,367	\$ 2,744	\$ 3,181	\$ 3,688	\$ 4,276	\$ 4,957	\$ 5,746	\$ 6,661	\$ 31,253	
Parking - striping	5	paint	3	EA.	\$ 12	\$ 36	\$ 42	\$ 48	\$ 56	\$ 65	\$ 75	\$ 87	\$ 101	\$ 117	\$ 551	

AREA/DESCRIPTION	MAINT. FREQ.	MATERIAL	QTY.	UNIT	COST UNIT	TOTAL COST 2002	2008	2013	2018	2023	2028	2033	2038	2043	Total 40 yrs. cost	NOTES
Foot paths	5	compact, grade	3250	LFL	\$ 2	\$ 10,500	\$ 12,172	\$ 14,111	\$ 16,359	\$ 18,964	\$ 21,985	\$ 25,486	\$ 29,546	\$ 34,251	\$ 160,702	3.0 foot width
BBQ grills	15	Steel	43	EA.	\$ 400	\$ 17,200	\$ 19,940	\$ 23,115	\$ 26,797	\$ 31,065	\$ 36,013	\$ 41,749	\$ 48,398	\$ 56,107	\$ 79,464	
Firerings	15	Steel	43	EA.	\$ 400	\$ 17,200	\$ 19,940	\$ 23,115	\$ 26,797	\$ 31,065	\$ 36,013	\$ 41,749	\$ 48,398	\$ 56,107	\$ 79,464	
Picnic tables	15	wood	43	EA.	\$ 750	\$ 32,250	\$ 37,387	\$ 43,341	\$ 50,244	\$ 58,247	\$ 67,524	\$ 78,279	\$ 90,747	\$ 105,201	\$ 148,994	
Restrooms (6-one unit, 5-two unit)	50	concrete	6	EA.	\$ 18,000	\$ 108,000	\$ 125,202	\$ 145,143	\$ 168,260	\$ 195,060	\$ 226,128	\$ 262,144	\$ 303,897	\$ 352,300		All replaced 2008 under redevelopment
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	On Hwy
Signboards	10	wood	2	EA.	\$ 600	\$ 1,200	\$ 1,391	\$ 1,613	\$ 1,870	\$ 2,167	\$ 2,513	\$ 2,913	\$ 3,377	\$ 3,914	\$ 7,759	Just inside entry
Regulatory sign - ie. HC accessible	10	metal	6	EA.	\$ 150	\$ 900	\$ 1,043	\$ 1,210	\$ 1,402	\$ 1,626	\$ 1,884	\$ 2,185	\$ 2,532	\$ 2,936	\$ 5,819	None
Dumpsters pad at each restroom	20	Concrete (5'X8')	240	SqFL	\$ 3	\$ 720	\$ 835	\$ 968	\$ 1,122	\$ 1,300	\$ 1,508	\$ 1,748	\$ 2,026	\$ 2,349	\$ 1,508	At each restroom
Trash cans (accessible & bear proof)	15	Steel	6	EA.	\$ 1,175	\$ 7,050	\$ 8,173	\$ 9,475	\$ 10,984	\$ 12,733	\$ 14,761	\$ 17,112	\$ 19,838	\$ 22,997	\$ 37,571	One at each restroom facility
Food storage containers (bear proof)	15	Steel	43	EA.	\$ 1,200	\$ 51,600	\$ 59,819	\$ 69,346	\$ 80,391	\$ 93,195	\$ 108,039	\$ 125,247	\$ 145,195	\$ 168,321	\$ 238,391	One per campsite
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	One entry
Sub-total															\$ 2,892,256	
Administrative overhead (5%)															\$ 144,613	
Total															\$ 3,036,869	
Woods Creek Fishing Access 2013																
Traffic control barriers	Indefinite	rock	30	EA.	\$ 200	\$ 6,000	\$ 6,956	\$ 8,063							\$ 8,063	
Roads and parking - Pave	20	Asphalt	28032	SqFL	\$ 3	\$ 84,096	\$ 97,490	\$ 113,018	\$ 131,019	\$ 151,887	\$ 176,078	\$ 204,123	\$ 236,635	\$ 274,324	\$ 176,078	
Roads and parking - resal	5	Slurry seal	5		\$ 1	\$ 28,032	\$ 32,497	\$ 37,673	\$ 43,673	\$ 50,629	\$ 58,693	\$ 68,041	\$ 78,878	\$ 91,441	\$ 378,399	
Roads - striping	5	paint	800	LFL	\$ 1	\$ 528	\$ 612	\$ 710	\$ 823	\$ 954	\$ 1,106	\$ 1,282	\$ 1,486	\$ 1,722	\$ 8,081	
Parking - striping	5	paint	29	EA.	\$ 12	\$ 348	\$ 403	\$ 468	\$ 542	\$ 629	\$ 729	\$ 845	\$ 979	\$ 1,135	\$ 5,326	
Restrooms	50	Concrete	2	EA.	\$ 18,000	\$ 36,000	\$ 41,734	\$ 48,381	\$ 56,087	\$ 65,020	\$ 75,376	\$ 87,381	\$ 101,299	\$ 117,433	\$ -	replaced in reconstruction
Entry signs	10	wood	1	EA.	\$ 2,400	\$ 2,400	\$ 2,782	\$ 3,225	\$ 3,739	\$ 4,335	\$ 5,025	\$ 5,825	\$ 6,753	\$ 7,829	\$ 15,517	
Signboards	10	wood	3	EA.	\$ 600	\$ 1,800	\$ 2,087	\$ 2,419	\$ 2,804	\$ 3,251	\$ 3,769	\$ 4,369	\$ 5,065	\$ 5,872	\$ 11,638	
Regulatory sign - ie. HC accessible	10	metal	1	EA.	\$ 150	\$ 150	\$ 174	\$ 202	\$ 234	\$ 271	\$ 314	\$ 364	\$ 422	\$ 489	\$ 970	
Fencing	none		0	LFL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Dumpsters pad at each restroom	20	Concrete (5'X8')	0	SqFL	\$ 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Dumpsters provided by refuse company
Entry gate	20	welded 4" pipe	1	EA.	\$ 3,800	\$ 3,800	\$ 4,405	\$ 5,107	\$ 5,920	\$ 6,863	\$ 7,956	\$ 9,224	\$ 10,693	\$ 12,396	\$ 7,956	
Sub total															\$ 612,029	
Administrative overhead															\$ 30,601	
Total															\$ 642,631	

ROUTINE OPERATIONS AND MAINTENANCE PROBABLE COSTS

ITEM NO.	AREA/DESCRIPTION	LABOR	SUP. SERV.	TOTAL COST	BEGIN DATE	NOTES
	Caples Lake Dam Trailhead				2008	
	Routeen cleaning					
	Routeen repairs					
	Litter pick-up					
	Maint. of signboards					
	Vegetation maintenance					
	Labor and benefits	\$2,500		\$2,500		
	Toilet pumping		\$1,050	\$1,050		3 pumps @ \$350 ea
	Trash removal		\$1,764	\$1,764		\$126 wks @ 14 weeks
	Trash bin rental		\$105	\$105		\$30 mo. @ 3.5 months
	Sub Total	\$2,500	\$2,919	\$5,419		100 Days@ \$25/Day
	Administrative Overhead 5%			\$271		
	Total Cost			\$5,690		
	Caples Lake Boat Launching Facility				2013	
	Routeen cleaning					
	Routeen repairs					
	Litter pick-up					
	Maint. of signboards					
	Vegetation maintenance					
	Annual maintenance	\$500	\$500	\$1,000		
	Labor and benefits	\$5,000		\$5,000		
	Toilet pumping		\$1,050	\$1,050		3 pumps per season
	Trash removal		\$1,764	\$1,764		\$126 week @ 14 weeks
	Trash bin rental		\$105	\$105		\$30 mo. @ 3.5 months
	Sub Total	\$5,500	\$3,419	\$8,919		
	Administrative Overhead			\$396		
	Total Cost			\$9,315		
	Less Income (boat launch fees)			\$7,000		1400 launches @ \$5.00
	Net Cost for operations			\$2,315		
	Hwy 88 Information Kiosk				2008	
	Routeen cleaning					
	Routeen repairs					
	Litter pick-up					
	Maint. of signboards					
	Vegetation maintenance					
	Annual maintenance	\$150	\$150	\$300		
	Labor and benefits	\$500		\$500		
	Sub Total	\$650	\$150	\$800		
	Administrative Overhead			\$25		
	Total Cost			\$825		
	Echo Lakes Trailhead & Upper Parking Lot				2008	
	Litter pick-up					
	Maint. of signboards					
	Vegetation maintenance					
	Annual maintenance	\$250	\$250	\$500		Painting
	Labor and benefits	\$5,000		\$5,000		100 Days@ \$50/Day
	Toilet pumping		\$500	\$500		Once season @ \$500
	Trash removal		\$1,064	\$1,064		\$76 @ 14 weeks
	Trash bin rental		\$123	\$123		\$35 mo. @ 3.5 months

	Sub Total	\$5,250	\$1,937	\$7,187		
	Administrative Overhead			\$359		
	Total Cost			\$7,546		

Work Sheet 16

CAPLES LAKE DAM TRAILHEAD ROUTINE OPERATIONS AND MAINTENANCE

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$5,690	\$171	\$5,861	
	2003	\$5,861	\$176	\$6,037	FERC License Issued
	2004	\$6,037	\$181	\$6,218	
	2005	\$6,218	\$187	\$6,404	
	2006	\$6,404	\$192	\$6,596	
	2007	\$6,596	\$198	\$6,794	
Year to Start	2008	\$6,794	\$204	\$6,998	
	2009	\$6,998	\$210	\$7,208	
	2012	\$7,208	\$216	\$7,424	
	2011	\$7,424	\$223	\$7,647	
	2012	\$7,647	\$229	\$7,876	
	2013	\$7,876	\$236	\$8,113	
	2014	\$8,113	\$243	\$8,356	
	2015	\$8,356	\$251	\$8,607	
	2016	\$8,607	\$258	\$8,865	
	2017	\$8,865	\$266	\$9,131	
	2018	\$9,131	\$274	\$9,405	
	2019	\$9,405	\$282	\$9,687	
	2030	\$9,687	\$291	\$9,977	
	2031	\$9,977	\$299	\$10,277	
	2032	\$10,277	\$308	\$10,585	
	2033	\$10,585	\$318	\$10,903	
	2034	\$10,903	\$327	\$11,230	
	2035	\$11,230	\$337	\$11,567	
	2036	\$11,567	\$347	\$11,914	
	2037	\$11,914	\$357	\$12,271	
	2038	\$12,271	\$368	\$12,639	
	2039	\$12,639	\$379	\$13,018	
	2040	\$13,018	\$391	\$13,409	
	2041	\$13,409	\$402	\$13,811	
	2042	\$13,811	\$414	\$14,225	
	2043	\$14,225	\$427	\$14,652	
Total Cost 2008 through 2043				\$269,794	

NOTES:

1. O & M cost factored by 3% annual average inflation over 40 years life of FERC License.

Work Sheet 17

CAPLES LAKE LAUNCH RAMP ROUTINE OPERATIONS AND MAINTENANCE

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$2,315	\$69	\$2,384	
	2003	\$2,384	\$72	\$2,456	FERC License Issued

	2004	\$2,456	\$74	\$2,530
	2005	\$2,530	\$76	\$2,606
	2006	\$2,606	\$78	\$2,684
	2007	\$2,684	\$81	\$2,764
	2008	\$2,764	\$83	\$2,847
	2009	\$2,847	\$85	\$2,933
	2012	\$2,933	\$88	\$3,021
	2011	\$3,021	\$91	\$3,111
	2012	\$3,111	\$93	\$3,205
Year to Start	2013	\$3,205	\$96	\$3,301
	2014	\$3,301	\$99	\$3,400
	2015	\$3,400	\$102	\$3,502
	2016	\$3,502	\$105	\$3,607
	2017	\$3,607	\$108	\$3,715
	2018	\$3,715	\$111	\$3,826
	2019	\$3,826	\$115	\$3,941
	2030	\$3,941	\$118	\$4,059
	2031	\$4,059	\$122	\$4,181
	2032	\$4,181	\$125	\$4,307
	2033	\$4,307	\$129	\$4,436
	2034	\$4,436	\$133	\$4,569
	2035	\$4,569	\$137	\$4,706
	2036	\$4,706	\$141	\$4,847
	2037	\$4,847	\$145	\$4,993
	2038	\$4,993	\$150	\$5,142
	2039	\$5,142	\$154	\$5,297
	2040	\$5,297	\$159	\$5,455
	2041	\$5,455	\$164	\$5,619
	2042	\$5,619	\$169	\$5,788
	2043	\$5,788	\$174	\$5,961
Total Cost 2013 through 2043				\$94,651

NOTES:

1. O & M cost factored by 3% annual average inflation over 40 years life of FERC License.

Work Sheet 18

HWY 88 KIOSK ROUTINE OPERATIONS AND MAINTENANCE

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$825	\$25	\$850	
	2003	\$850	\$25	\$875	FERC License Issued
	2004	\$875	\$26	\$901	
	2005	\$901	\$27	\$929	
	2006	\$929	\$28	\$956	
	2007	\$956	\$29	\$985	
Year to Start	2008	\$985	\$30	\$1,015	
	2009	\$1,015	\$30	\$1,045	
	2012	\$1,045	\$31	\$1,076	
	2011	\$1,076	\$32	\$1,109	
	2012	\$1,109	\$33	\$1,142	
	2013	\$1,142	\$34	\$1,176	
	2014	\$1,176	\$35	\$1,212	
	2015	\$1,212	\$36	\$1,248	
	2016	\$1,248	\$37	\$1,285	
	2017	\$1,285	\$39	\$1,324	
	2018	\$1,324	\$40	\$1,364	

2019	\$1,364	\$41	\$1,405
2030	\$1,405	\$42	\$1,447
2031	\$1,447	\$43	\$1,490
2032	\$1,490	\$45	\$1,535
2033	\$1,535	\$46	\$1,581
2034	\$1,581	\$47	\$1,628
2035	\$1,628	\$49	\$1,677
2036	\$1,677	\$50	\$1,727
2037	\$1,727	\$52	\$1,779
2038	\$1,779	\$53	\$1,833
2039	\$1,833	\$55	\$1,888
2040	\$1,888	\$57	\$1,944
2041	\$1,944	\$58	\$2,002
2042	\$2,002	\$60	\$2,063
2043	\$2,063	\$62	\$2,124

Total Cost 2008 through 2043

\$39,118

NOTES:

1. O & M cost factored by 3% annual average inflation over 40 years life of FERC Liscense.

Work Sheet 19

Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
2002		\$7,546	\$226	\$7,772
2003		\$7,772	\$233	\$8,006 FERC Liscense Issued
2004		\$8,006	\$240	\$8,246
2005		\$8,246	\$247	\$8,493
2006		\$8,493	\$255	\$8,748
2007		\$8,748	\$262	\$9,010
2008		\$9,010	\$270	\$9,281
2009		\$9,281	\$278	\$9,559
2012		\$9,559	\$287	\$9,846
2011		\$9,846	\$295	\$10,141
2012		\$10,141	\$304	\$10,445
2013		\$10,445	\$313	\$10,759
2014		\$10,759	\$323	\$11,082
2015		\$11,082	\$332	\$11,414
2016		\$11,414	\$342	\$11,756
2017		\$11,756	\$353	\$12,109
2018		\$12,109	\$363	\$12,472
2019		\$12,472	\$374	\$12,847
2030		\$12,847	\$385	\$13,232
2031		\$13,232	\$397	\$13,629
2032		\$13,629	\$409	\$14,038
2033		\$14,038	\$421	\$14,459
2034		\$14,459	\$434	\$14,893
2035		\$14,893	\$447	\$15,339
2036		\$15,339	\$460	\$15,800
2037		\$15,800	\$474	\$16,274
2038		\$16,274	\$488	\$16,762
2039		\$16,762	\$503	\$17,265
2040		\$17,265	\$518	\$17,783
2041		\$17,783	\$533	\$18,316
2042		\$18,316	\$549	\$18,866
2043		\$18,866	\$566	\$19,432

\$357,796

Work Sheet 20

DISPERSED PATROL/OPERATIONS AND MAINTENANCE PROJECTS

	Year	Estimated Cost	3 Percent Inflation	Adjusted Cost	Comments
	2002	\$97,065	\$2,912	\$99,977	
Add Litter Control		\$300	\$9	\$309	10 hrs x 1days x 2 lakes @ \$15/hr.
Year to start	2003	\$100,286	\$3,009	\$100,286	Year FERC Liscense Issued
	2004	\$100,286	\$3,009	\$103,295	
	2005	\$103,295	\$3,099	\$106,393	
	2006	\$106,393	\$3,192	\$109,585	
	2007	\$109,585	\$3,288	\$112,873	
	2008	\$112,873	\$3,386	\$116,259	
	2009	\$116,259	\$3,488	\$119,747	
	2012	\$119,747	\$3,592	\$123,339	
	2011	\$123,339	\$3,700	\$127,039	
	2012	\$127,039	\$3,811	\$130,850	
	2013	\$130,850	\$3,926	\$134,776	
	2014	\$134,776	\$4,043	\$138,819	
	2015	\$138,819	\$4,165	\$142,984	
	2016	\$142,984	\$4,290	\$147,273	
	2017	\$147,273	\$4,418	\$151,691	
	2018	\$151,691	\$4,551	\$156,242	
	2019	\$156,242	\$4,687	\$160,930	
	2030	\$160,930	\$4,828	\$165,757	
	2031	\$165,757	\$4,973	\$170,730	
	2032	\$170,730	\$5,122	\$175,852	
	2033	\$175,852	\$5,276	\$181,128	
	2034	\$181,128	\$5,434	\$186,561	
	2035	\$186,561	\$5,597	\$192,158	
	2036	\$192,158	\$5,765	\$197,923	
	2037	\$197,923	\$5,938	\$203,861	
	2038	\$203,861	\$6,116	\$209,977	
	2039	\$209,977	\$6,299	\$216,276	
	2040	\$216,276	\$6,488	\$222,764	
	2041	\$222,764	\$6,683	\$229,447	
	2042	\$229,447	\$6,883	\$236,330	
	2043	\$236,330	\$7,090	\$243,420	
Total Cost 2003 through 2043				\$5,014,566	

NOTES:

1. Includes Upcountry Hwy 88 Unit, Silver Fork/South Fork Unit, Pyramid Creek Unit, and Lake Aloha/Exho Lakes Unit
2. Tasks include: site policing, site maintenance, trail maintenance, sign maintenance, site monitoring, litter collection, and boat patrol (new service) at Caples and Silver Lakes
3. 2002 budget figures provided by USFS.
4. Assumes 100 day operating season
5. O & M cost factored by 3% annual average inflation over 40 years life of FERC Liscense.