

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

Total Costs

The costs for this proposed project encompass the use of equipment and personnel necessary to perform a fuels reduction treatment on approximately 160 acres or 200 parcels and perform forest health treatments of mistletoe removal and ladder fuel reduction on 400 trees. The total cost of treatment is \$1,322,714.67. The federal share of 75 percent of the total costs amounts to \$992,036.00 and the required 25 percent match equals \$330,678.67. TMFPD match with equipment will be around \$270,939.67 with an additional match cost for SHPO surveying at an estimated \$55,000 and \$4,739.00 Pre Award Cost. Total match costs \$330,678.67.

The non-federal cost percentage will be the absorbed cost of mechanical equipment used on the project that is TMFPD owned. This will include but not limited to the hourly cost, daily cost, mileage, and fuel rates associated with the implementation of the project. All equipment and personnel used in this project are part of the recently created TMFPD's Division of Wildland/Fuels. This project's work is planned to take place mostly on privately owned land or HOA owned parcels. There might be some areas where implementation could take place on County or Federal lands.

The staging area currently is the TMFPD Lemmon Valley station. The station is home to the Wildland/Fuels staff and equipment. Equipment will travel to and from the station to the location to be treated.

Pre-Award Costs

This cost of \$4,739.40 covers the cost of a Crew boss wage for the development of the Benefit Cost Analysis (BCA) and gathering of data for this project. The costs include building the BCA and supporting documentation, as well as assisting the Truckee Meadows Fire Protection District (TMFPD) in the creation of the application. Table 1 depicts the details of these costs.

Table 1: Pre-Award Costs Detail

Pre-award	Consultant	\$/Hr.	# Hrs.	Total Cost
1	BCA and Application Development	90	52.66	\$4,739.00

Phase 1

Project Supervision Personnel Costs

The crew boss's position's an hourly wage of \$59.49. This position will work to collect environmental surveying, work with contracts for SHPO surveying and Washoe county GIS for mapping sensitive areas.

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

Time for the project is expected to be 20 days to complete the project surveying for the usual 10-hour day of work. This position is responsible for ensuring all surveying is complete, buffers are created for sensitive areas, and all processes are met before proceeding with work. The SHPO survey will be conducted by a contractor. All costs for the survey will be match cost by TMFPD of a max of \$55,000. Table 2 summarizes the supervisions costs for this project.

Table 2 :Personnel Supervisory Costs

Environmental Studies				
Position	\$/HR	Hrs./Day	# Days	Subtotal Sup
Crew boss	\$59.49	10	20	\$11,898
Subtotal				\$11,898

Table 3: Estimated SHPO Surveying through Vendor.

SHPO	Vendor Cost:	Total Cost
1	Estimated SHPO Surveying Cost through Vendor	\$55,000

Phase 2

Personnel (Crew and Equipment Operator)

Three tasks are involved with this project. 1. The supervisor (crew boss) for the entire project. 2. The mechanical fuels reduction equipment operation consists of the heavy equipment operator and the assistant. 3. The hand crew (3 crew members, 1 wildland engine operators, and 1 squad boss). 4. The training and equipment that is needed for the mistletoe reduction and the ability to safely and confidently climbing and prune trees using a rope system.

Project Supervision Personnel Costs

The crew boss's position's an hourly wage of \$59.49. This position will supervise the masticator work and the hand crew treatment spending roughly the same amount of time with each squad. TMFPD currently has six active squads split between two crew bosses. Time for supervision of the project is expected to be 140 days to complete the project for the usual 10-hour day of work. This position is responsible for the completion of the treatment of the 160 acres and 400 trees treated on private lands according to the treatment plan. The person directs the mechanical fuels reduction staff activities, as well as those of the hand crew team to make sure the treatment is performed efficiently and completely

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

along with the safety, training, planning, and ensuring the accomplishments of the tree climbing for the reduction of mistletoe are met. Table 2 summarizes the supervisions costs for this project.

Table 4 :Personnel Supervisory Costs

Supervision				
Position	\$/HR	Hrs./Day	# Days	Subtotal Sup
Crew boss	\$59.49	2071		\$111,332.00
Subtotal				\$111,332.00

Mechanical Fuels Reduction Equipment Operation Personnel Costs

The personnel for this task consist of one crew member, one heavy equipment operator under the supervision of the crew boss. The crew member's day is 10-hours at a rate of \$32.34/Hour. The heavy equipment operator and the crew member will drive the pick-up to the worksite and return to the staging area daily. Their tasks are:

- Crew member: Supporting with the heavy equipment operator to implement the treatment plan. The crew member will join the heavy equipment operator and ensure the terrain is flagged accordingly for the use of the masticator, among other tasks related to the masticator's performance.
- For the heavy equipment operator, the hourly salary is \$53.52 during a 10-hour day, for the estimated duration of the project (170 days). This position's main responsibility is the safe operation of the skid steer, track chipper, chip trucks and wheeled chippers allowing the necessary treatment of the vegetation.

Table 5: Personnel Costs for Mechanical Fuels Reduction

Mechanical Fuels Reduction (MFR)				
Position	Personnel/HR	Hrs./Day	# Days	Subtotal MFR
Heavy Equipment Operator	\$53.52	10	170	\$107,040.00
Crew Member	\$32.34	10	70	\$48,510.00
Subtotal				\$155,550.00

Hand Crew Personnel Costs

The third set of personnel costs involved with this proposed project includes the work done by the hand crew in locations near to structures, fences, in terrain not suited for the masticator and tree climbing and pruning. The team consists of one Squad Boss, Wildland Engine Operator and 3 Crew Members. The Team is experienced in this work and has been active in implementing treatment to NV Energy right-of-way locations in the same area along with other grant work.

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

Table 6: Personnel costs for Hand Crew Treatment

Hand Crew				
Position	Personnel/Hr.	Hrs./Day	# Days	Category Subtotal
Squad Boss	\$56.79	10	260	\$170,370.00
Wildland Engine Operator	\$46.36	10	260	\$162,260.00
Crewmember 1	\$32.34	10	260	\$97,020.00
Crewmember 2	\$32.34	10	260	\$97,020.00
Crewmember 3	\$32.34	10	260	\$97,020.00
Subtotal				\$623,690.00

The table below is a summary of the three types of Personnel costs. There is a 27% possible wage increase calculated in the total cost. This 27% possible wage increase, or buffer is for any increase in COLAs, wages, incentive pay, retirement, health insurance cost and workman's comp insurance. If wages don't rise over the course of the grant an additional 27% will go direct into the treatment of additional acres or mistletoe treatments.

Table 7: Total Costs for Personnel

TOTAL PERSONNEL	
Tasks	Task Subtotal
Supervision	\$111,332.00
Mechanical Fuels Reduction	\$155,550.00
Hand Crew	\$623,690.00
27% Increase cost	
Total Personnel	\$878,674.00

Training and Climbing Equipment

1. Training

TMFPD has several staff that are fluent in Arborist work or tree climbing for conifer health and treatments. TMFPD would contract out to an accredited climbing academy to train 30 students of TMFPD personnel to safely and confidential do aerial climbing off a single and/or double rope techniques. Training will also include aerial rescue for the safety of the crew while performing climbing treatments.

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

Table 8: Training Cost for Tree Climbing

TOTAL PERSONNEL	
Tasks	Courses
Course training – Climber Ops	\$9,000.00
Course training – Aerial Rescue	\$9,000.00
Total Personnel	\$18,000.00

2. Climbing Equipment

TMFPD will be purchasing climbing equipment for the extent of the project. This equipment is imperative for the capabilities of performing arial pruning and removal of mistletoe along with the proper safety equipment to perform these tasks. Examples of the equipment that will be purchased is as follows: climbing helmets, pole saws, hand saws, climbing harnesses, ascenders, rope runners, equipment bags, wire cord lanyards, tree gaffs, carabiners, cambium savers, throw rope, climbing rope, slings, pulleys, lowering devices, rigging blocks, and climbing chain saws. With the equipment purchased there will be enough to support 8 full equipment climbers with 2 full aerial rescue kits.

Table 9: Climbing Equipment purchasing cost:

TOTAL Equipment	
Equipment	Climbing
Climbing Equipment and Saws	\$83,464.00
Total Personnel	\$83,464.00

Table 10: Total Costs I

TOTAL FEDERAL COST	
Tasks	Task Subtotal
Supervision	\$111,332.00
Mechanical Fuels Reduction	\$155,550.00
Hand Crew	\$623,690.00
27% Increase cost	
Climbing Training	\$18,000.00
Climbing Equipment Purchasing	\$83,464.00
Total Personnel	\$992,036.00

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

Non-Federal Share

Equipment

1. Equipment

TMFPD's non-federal share of the 25% will consist of the potential accrued cost of the use of TMFPD owner mechanical equipment for the entirety of the project. This cost will include pick up rates, mileage, engine hours, chain saws, chip truck rates, wheeled chipper rates, track chipper rates and mastication rates. The coverage will also include fuel costs and replacement parts of chipper knives, masticator teeth, and other consumable fluids/parts. These pieces of equipment will be used to remove vegetation and material/ biomass from project sites.

Table 11: Equipment Costs for total treatment

Hand Crew									
Item	Cost/ Hr.	Cost/ Day	Cost/ Mile	# of Hrs.	# of Days	# Miles	Mileage \$	Equipment \$	Equipment Subtotal
Pick-up Truck X 3		\$101	\$0.58		297	12000	\$6072.00	\$29,997.00	\$36,069.00
Wheeled Chipper		\$260			280			\$60,300	\$60,300
Type 5 Engine	\$260			285				\$74,100	\$74,100
Chip Truck	\$79.00				250			\$19,750	\$19,750
Track Chipper	\$176			220				\$38,720	\$38,720
Masticator	\$168			250				\$42,000	\$42,000
Subtotal									\$270,939.67

The sum of the costs for the Equipment category is shown in the table below.

Table 12: Equipment Total Costs

TOTAL EQUIPMENT	
Item	Total
Total Equipment	\$270,939.67

Final Cost Summary

Table 9 below summarizes the expected costs, by category, to implement the proposed project.

Budget Narrative

HMGP-FM-5448 Joy Lake Fire

Fuels Reduction & Defensible Space

Table 13 - Final Project Costs

TOTAL COSTS BY CATEGORY		
Category		Total
Training and Climbing Equipment	Personnel	\$890,572
	Purchasing	\$101,464.00
	Total Costs	\$992,036.00