

Mosier Fire District Capital Advisory Subcommittee

Preliminary Report on Apparatus and Facilities

June 10, 2014

Mosier, Oregon



Committee Members

Craig Funk – Subcommittee Chairman
Ken Hudson – Board Representative
Pete Wright – Volunteer Representative
Jim Appleton – Fire Chief Advisory

Prepared by Craig Funk on behalf of the Capital Advisory Subcommittee

Introduction

This is a preliminary report. It is intended to serve as an initial recommendation to the Board of Directors of the Mosier Fire District (MFD) to assist them in making financial decisions leading to the purchase of fire apparatus for fiscal budget year 2014-15. Additional considerations extending beyond FY 2014-15 are included to help the board consider the long term capital needs of the district. The language contained within this report will be compiled into a final report in the future when funding determinations are made regarding fire station construction.

Fire District Dimensions

Mosier Fire District covers a 22 square mile area providing fire suppression, emergency medical services (EMS), rescue of persons and fire prevention activities to its citizens. In total MFD is responsible for the protection of approximately 1400 households in the district with a real market value of \$142 million. The current annual operating budget for the District is \$124,500.

Mission Statement of the Mosier Fire District: Having provided for member safety first, Mosier Fire and Emergency Services protects lives, property, and environment for our customers and neighbors while fostering professionalism, pride and leadership among our members.”

Citizens of Mosier are served by a force of volunteer firefighters who provide emergency services under the direction of a full time paid Fire Chief. The Mosier volunteers have their own association called the Mosier Valley Volunteers.

In calendar year 2013, 87 calls for emergency help were placed to 911 or through other means to request assistance from the Mosier Fire Department. Though Mosier Fire responds to a modest number of emergency calls, the town of Mosier and the surrounding rural areas fall into the high risk category for community safety and requires the highest possible response capability. Unique hazards within the fire district are:

- Extreme wildfire danger to residences and farms due to heavy mixed fuels present in Mosier Valley combined with steep topography, high winds and an arid summer climate.
- A major east-west rail line passes through Mosier carrying highly explosive Bakken Crude Oil in rail cars as well as hazardous materials tankers of all types (rail cars are also known to be a primary cause of wildfire when their wheels lock up and create sparks).
- Seven miles of Interstate 84 pass through Mosier’s Fire District. Millions of vehicles pass through each year at high speed. Significant vehicle crashes involving cars and semi trucks occur with regularity. Roadside brushfires and car fires are common. Hazardous Material spills are always a threat.
- The rolling, often steep topography and sometimes inclement weather in Mosier creates a high potential for motor vehicles rolling into ravines or canyons and for accidents caused by loss of control of vehicles and machinery due to steep grades.

- The remoteness of many rural areas of Mosier Valley requires a quick and nimble response capability to effectively reach citizens.
- The distance of available Mutual Aid help from surrounding fire districts places MFD in a position where it cannot afford to rely on mutual aid to solve its response problems, but must be proactive as a District to protect its citizens.

Recent Consolidation of the Mosier Fire Districts

On August 28th, 2009 a large wildfire started at 9PM in the evening near the microwave relay facility on Hood River Mountain. This fire was soon to be named the Microwave Fire. The conflagration that followed ultimately burned 1,225 acres causing a full evacuation of the City of Mosier as the fire nearly overtook the town. Four structures were lost and by order of the Governor of Oregon nearly 800 firefighters were deployed to the area.

In May of 2010 taxpayers voted to form the Mosier Rural Fire Protection District and the Mosier City Fire Department into one fire district and voted to significantly increase funding for fire protection by approving a new permanent tax rate of \$2.10 per assessed thousand. The current levy rate is \$1.65 per assessed thousand. The language on the ballots gave a directive to the newly formed fire district. A 'yes' vote was to approve the following: "to pay for a fire chief, training officer and fire safety equipment for volunteers and fire and rescue apparatus".



Microwave Fire Complex – August 2010

Capital Reserve Fund

Since taxpayers voted to increase their taxes to better fund the fire department in 2010 the Capital Reserve Fund will soon have accumulated nearly \$300,000.00* earmarked for apparatus and reserves.

*Includes \$95,000.00 in existing reserve funds from the former districts.

Capital Advisor Subcommittee Formation

On November 14th, 2013 the board of the directors of the Mosier Fire District voted to form a standing committee of the Board to study and make recommendations for apparatus purchases to begin replacement of the aging fleet of front line apparatus currently operated by volunteer firefighters. This committee was initially named the Apparatus Subcommittee but soon after the Board changed the scope of the committee to include a feasibility study for construction of a new fire station. The committee's name was then changed to the Capital Advisory Subcommittee (CAS).

The subcommittee is comprised of four individuals: Craig Funk, a 14 year Mosier resident and Deputy Chief for Portland Fire & Rescue (Chair); Ken Hudson a 69 year resident, current board member and past volunteer firefighter; and Pete Wright a 15 year resident, current volunteer firefighter and retired San Diego Fire Engineer. Fire Chief Jim Appleton attends committee meetings as an advisor.

The subcommittee meets monthly or as needed and its current mandate is to continue its work beyond the preliminary phase and make final recommendations on a long term apparatus replacement plan and construction of a fire station.

Capital Advisory Subcommittee Objectives

At its first meeting on December 9th, the Capital Advisory Subcommittee (CAS) adopted the following mission statement along with guiding principles.

Mission Statement: The (CAS) Subcommittee will develop short, medium and long term apparatus plan for Mosier Fire District and take its recommendations to the Mosier Fire District Board.

The following guiding principles were adopted:

1. Strive for consensus.
2. Assess existing apparatus bay accommodations.
3. Evaluate the needs of Mosier Fire District based on existing apparatus condition, run type and call volume.
4. Develop a systematic evaluation of existing apparatus.
5. Recommend National Fire Protection Association (NFPA) compliancy for new purchases and evaluate existing apparatus for NFPA upgrades.
6. Develop a positive perception of Mosier Fire District by (recommending) purchasing of safe, functional equipment.
7. Keep the Mosier Fire District Board informed regularly.
8. Keep the local community informed and give the community an opportunity for input.

The following major benchmarks were met between December 2014 and May 2014:

- A matrix of all existing apparatus was compiled looking at age and miles. All Apparatus with MFD are out of compliance with NFPA by age and function (attachment “A”).
- A first out response model was discussed with the Fire Chief so appropriate apparatus purchase recommendations could be made.
- Monthly reports were made to the MFD Board by representative Ken Hudson.
- The need for a business/response utility vehicle was discussed.
- A purchasing matrix was developed to allow planning for the purchasing of apparatus in incremental steps to minimize debt (attachment “B”). With the exception of Phase 1 which should be completed in FY 2014-15 the CAS has left Phases 2, 3 & 4 undated until a final determination of feasibility of station construction and financing is determined.
- A three year vehicle maintenance cost summary was developed to assess ongoing maintenance costs of existing fire apparatus (attachment “C”).
- A phone conference was convened with a public finance representative to discuss financing options.
- A demonstration of a Type 5/6 Fire apparatus was facilitated by Chief Appleton.
- Public input was taken. Two key recommendations to date from citizens are 1) verify financial stability of any company MFD purchases an apparatus from and 2) ensure options for energy efficiencies and incentives are explored if a station is constructed.

Preliminary Recommendations

The Capital Advisory Subcommittee (CAS) is providing two types of recommendations in this report. The first are broad strategic recommendations to ensure that the citizens and firefighters of the Mosier Community are kept as safe as possible and their property protected. The second are specific recommendations to purchase fire apparatus but are limited to purchases to be made in FY 2014-15 as identified in attachment “B” - Phase 1. Phase 1 was the primary focus of the CAS to ensure that the Board, Budget Committee and Fire Chief could plan adequately for the upcoming budget year. Additional recommendations will be forthcoming from the CAS.

Strategic Recommendations

1. Purchase Apparatus: Since voters dissolved the two fire districts and increased the budget of the Mosier Fire District in 2010, the District has both accumulated and continues to accumulate significant tax revenues into its capital reserve fund. Four years later the District has spent little money to replace apparatus which are old, outdated and reliability has been an issue. After hiring a full time Fire Chief there have been significant improvements including the addition of defibrillators, training and an enhanced response resulting in lower Insurance Service Office (ISO) Ratings for the District which should lower insurance rates for citizens. This success should be built upon by upgrading apparatus to meet the future growth and changing service demands of the Mosier community.

2. Strive for NFPA compliant apparatus: Safety of volunteer firefighters who are citizens who serve their community is paramount. Firefighters should be provided with safe, reliable apparatus to protect Mosier residents and their property. This is the primary responsibility of the MFD Board. Whenever possible, new or new near apparatus should be purchased that are NFPA compliant. When funding does not allow for purchase of new apparatus, upgrading of current apparatus to NFPA standards should be considered. Solely purchasing used apparatus can result in a revolving door of apparatus which have a short life span and increased maintenance costs for taxpayers. New apparatus come with warranties and can expect to serve the District for 25 years. As an example a \$200,000.00 price tag may seem expensive, however over the life of the apparatus it equates to \$8,000.00 a year to provide firefighters and the community with safe reliable fire apparatus.
3. Support a long term apparatus purchase plan: It is understandable and appropriate in a budget limited organization that older apparatus have to exist. In previous years the District(s) have been resourceful and creative maintaining a fleet of fire apparatus on very limited budgets. Since MFD had been endowed with a significant increase in spending dollars the MFD Board should strive to provide the community with newer front line apparatus for primary response and financially plan for replacement of frontline apparatus as they age and are moved to “reserve status”. NFPA recommends that no front line apparatus be older than 15 years of age and no reserve apparatus be older than 25 years. Currently the newest apparatus in the District is 15 years old and the oldest apparatus is 38 years old. The *average* age of Mosier Fire District apparatus is 26.6 years.
4. Plan for space to house apparatus. New apparatus are much larger than their predecessors due to increased requirement from agencies such as OSHA, NFPA and changes in emissions systems. Investigation of a new station should continue and consolidation of stations and number of apparatus managed by the District should be carefully considered.
5. Continue the Capital Advisory Subcommittee: Since the Capital Advisory Subcommittee serves at the pleasure of the Board it is useful to the Board to utilize this format to seek tangible recommendations without burdening the Directors with additional workload.

Specific Recommendations

The Capital Advisory Subcommittee makes the following purchasing and surplus recommendations for fiscal year 2014-15.

Recommendation #1: Purchase a Type 5/6 Structural Response Engine Cost: \$150,000 to \$225,000

Rationale: Mosier Fire District’s response area is diverse and includes everything from city response areas with hydrants to remote addresses in narrow and isolated canyons. A

traditional Class 1 Engine cannot meet the demands of all areas topography and weather. A smaller more compact first out engine that retains the pump capacity and a water tank capacity similar to its larger Class 1 counterpart brings significant advantages. While being small and agile, it can respond to EMS calls and fire calls. As the first due apparatus at structure fires it can be supplied by a water tender, pump up to 1,500 gallons per minute (GPM) and support several firefighting hose lines. Four wheel drive capability will allow access in inclement weather and the larger water tank will prove useful on large truck fires on Interstate 84.

Purchase options: The Board should purchase this apparatus new to ensure maximum service life as well as provide the District the opportunity to order the vehicle to exact specifications. An alternative is to purchase a used apparatus. If purchased used, a vehicle should not exceed five years of age and if found should be carefully evaluated to determine whether it meets the necessary performance criteria needed for adequate fire suppression capabilities, ISO ratings and firefighter safety.



Type 5/6 Fire Engine

**Recommendation #2: Purchase a used or build a water tender to replace Tender 85.
Cost: \$50,000 to \$75,000**

Rationale: Mosier Fire District has an urgent need for a fire service water tender that is reliable, NFPA compliant and easy to operate for volunteer firefighters. Water Tenders in the fire service account for a high number of volunteer injuries and fatalities due to loss of control and rollovers. Two such fatalities have occurred in Oregon in the last 20 years. MFD should order an up to date water tender with an automatic transmission, a properly baffled water tank for stability, a strong brake package and a reliable pump. A used tender purchase should be a precursor to a future new tender purchase that will set in motion a rotation of apparatus that ensures maintenance of a more modern, reliable, safe and lower maintenance fleet of apparatus for the community.

Purchase options: The District may opt to either buy a cab and chassis or have it outfitted as a tender by a qualified company or opt to buy a tender that has been restored or built by a reputable company. Costs can be offset by proceeds from sales of surplus apparatus.



2000 Gallon Single-Axle Water Tender

**Recommendation #3: Purchase a used 4-Wheel Drive SUV or Pick-up Type Vehicle
Cost: \$8,000 to \$15,000***

Rationale: A small passenger vehicle of the right configuration can be indispensable to the Mosier Fire District. Virtually all fire departments retain at least one such vehicle. As compared to other fire apparatus, mile for mile it is cost effective to operate a SUV type vehicle and leave primary response apparatus in Mosier when the Fire Chief needs to attend to business outside of Mosier. This vehicle also provides a way for volunteers to get to classes and drills in a vehicle that is insured by the District. Such a vehicle can stand as an EMS duty vehicle and be kept at a volunteer firefighter's residence remote from town with medical equipment and an Automatic External Defibrillator (AED) ready for response to rural areas, which can save lives. Lastly these types of fire vehicles are set up to carry extra equipment such as spare Self Contained Breathing Apparatus (SCBA) bottles, EMS equipment, maps, rescue equipment and serve as a platform for Incident Command.

Purchase Options: Such a vehicle can easily be obtained in used condition as larger fire departments quickly rotate through these vehicles. A vehicle no older than ten years old should be sought. The City of Portland rotates out of these types of vehicles regularly. This winter the City of Portland offered 2007 Chevrolet Suburban's with 75,000 miles fully equipped with response lights to other fire departments at a cost of \$10,000.00. Those not taken by fire departments were stripped and sold at auction to the public for nearly double the fire department price. Future opportunities may be available this coming year for Mosier to acquire one of these vehicles; however the type of vehicle desired must be the determining factor for what is purchased.

*Recommendation #3 received a majority vote of the CAS, but the committee did not reach full consensus. A list of “pro’s and con’s” for this type of vehicle is located in attachment “D”.



Fire Staff Vehicle

Recommendation #4: Surplus Water Tender 85 and Brush 81*
Cost Recovery: + \$20,000 (estimated)

Rationale: With the recommendations for purchasing newer apparatus, older apparatus should be rotated out of the district as they represent a liability to the District both in safety, lack of compliance and maintenance costs. As mentioned above proceeds from sales can offset some costs associated with new purchases.

*Brush 81 slide in pump unit to be retained.

Recommendation #5: Weigh the spending of the Capital Reserve Fund

Excessive taxpayer monies retained by the MFD do little good to provide citizens with value for their tax dollars unless invested back into the community in the form of tangible purchases such as fire apparatus. With that in mind two options are presented:

Option 1: Spend up to \$150,000.00 on Phase 1 purchases. This will lower the annual debt service required for apparatus financing and allow future budget funds to be allocated for long term apparatus planning and purchases.

Option 2: Finance all or nearly all of Phase 1 purchases. This will increase the debt service demand to the annual budget and restrict future apparatus monies; however it will allow the District to retain reserve funds to place toward a new fire station. Current financing interest rates are favorable; however, loans must be amortized over a maximum of 10 years bringing higher debt service demands as compared to building loans which can be paid off over a much longer period of time.

Conclusion

As outlined in Attachments “A”, “B” & “C” replacement needs for apparatus are significant. The need for properly stored apparatus must also be factored in. Ultimately

unless alternate funding can be identified the Mosier Fire District Board may have to choose between the amount invested in apparatus purchases and the need for funding a fire station. Regardless of the Board's decisions; protection of the community and safety of firefighters must be the primary consideration.

Attachment - "A"

MOSIER FIRE APPARATUS AGE & MILEAGE NFPA

Fire departments should seriously consider the value (or risk) to firefighters of keeping fire apparatus older than 15 years in first line service. NFPA 1901 (Standard for Fire Automotive Apparatus) 2009 Edition

Apparatus that are not manufactured to NFPA fire apparatus standards or that are over 25 years old should be replaced. NFPA 1901 2009 Edition. The following apparatus within Mosier Fire District fall within this criteria.

Eng. #	Year	Make	Yr. purchased	Purchase Amt.	Miles
+25 E87	1982	GMC fire Engine (E-One)	2000	\$11,500.00	35,000
+25 E86	1982	Ford fire engine (Pierce)	2009	\$10,000.00	35,000
+25 E84	1984	International fire engine (HME)	2009	\$9,000.00	39,000
+25 B80	1987	Chevy diesel brush truck (improvised)	leased		
+25 B84	1987	Chevy brush truck, old ODF engine	leased		64,000
+25 B86	1978	Chevy brush truck, old ODF engine	1997	\$1,500.00	86,000
+25 T88	1984	International water tanker	2007	\$25,000.00	80,000

It is recommended that apparatus greater than 15 years old that have been properly maintained and that are still in serviceable condition be placed in reserve status and upgraded in accordance with NFPA 1912 (Standards for Apparatus Refurbishing) NFPA 1901 2009 Edition.

+15 B81	1998	Dodge p/u (\$11,200) with tank/pump unit (\$15,300)	2006	\$26,500.00	257,000
+15 BT85	1995	Ford water tanker (2,000 miles on rebuilt engine)	2002	\$18,000.00	2,000

The following apparatus are within NFPA 1901 standards for front line standards by age. Note, however, within one year this apparatus technically will be classified by NFPA as recommended for reserve status.

+1- 15 B82	1999	Dodge p/u (\$13,500)with tank/pump unit (\$19,400)	2005	\$32,900.00	163,000
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NFPA 1901 Footnotes

In the fire service, there are fire apparatus with 8 to 10 years of service that are simply worn out. There are also fire apparatus that were manufactured with quality components, that have had excellent maintenance, and that have responded to a minimum number of incidents that are still in serviceable condition after 20 years. Most would agree that the care of fire apparatus while being used and the quality and timeliness of maintenance are perhaps the most significant factors in determining how well a fire apparatus ages.

Contained within the 1991 edition of the fire department apparatus standards were requirements for such items as fully enclosed riding areas with reduced noise (dBA) levels to keep crew members safe and informed, seats and seat belts for all crew members riding on the apparatus, fail-safe door handles so the sleeve of a coat did not inadvertently catch a handle and open a door, and signs requiring everyone to be seated and belted. Also included were increased battery capacity to ensure starting under most conditions; improved warning lights, including intersection lights for increased visibility; removal of all roof-mounted audible warning devices to reduce hearing problems; a flashing light in the cab to warn if a cab or body door is open; a backup alarm; an automatic transmission to make it easier to drive (unless the purchaser has a specific reason for a manual transmission); auxiliary braking systems; and reflective striping.

Attachment - "B"

MOSIER APPARATUS & STATION FINANCIAL SPREADSHEET

	Purchase/Disposal Date	Cost	Down Payment 0%	Annual Debt Svc.* <small>*if 100% financed</small>
Phase 1				
Purchase Type 5 or 6 Brush Unit	07/2014	200,000.00		22800
Replace T85 with used single-axle tender	07/2014	50,000.00		5700
Purchase used SUV-District EMS SUV	07/2014	10,000.00		Pay cash
Surplus T85	Upon delivery of new tender	-15,000.00		
Surplus B81	Upon delivery of new T-5/6	-5,000.00		
TOTAL:		240,000.00		
Phase 2 - Tentative				
Replace T88 w/ custom 2000 gallon tender		165,000.00		18810
Initiate Station New Construction - \$800,000	07/2015	800,000.00		40128
Local contribution – down payment on station	TBD			0.00
Surplus T88 when replacement available		-15,000.00		
TOTAL:		950,000.00		
Phase 3 - Tentative				
Order Frontline Engine		400,000.00		45600
Surplus two engines	Upon delivery of new engine	-15,000.00		
TOTAL:		385,000.00		
Phase 4 - Tentative				
Purchase brush rig		50,000.00		5700
Surplus B84, B86, B82	Upon delivery of brush rig	-8,000.00		
TOTAL:		42,000.00		
TOTAL DISTRICT DEBT:		1,617,000.00		

Capital Fund	Date	District Debt Limit	Unlevied tax	Bond election
\$250,000.00	Current	\$1,800,000.00	\$45,000.00	\$800,000.00
\$50,000.00	FY 2014-2015			
\$50,000.00	FY 2015-2016			
\$50,000.00	FY 2016-2017			
\$50,000.00	FY 2017-2018			
\$50,000.00	FY 2018-2019			
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\$500,000.00	5 YEAR OUTLOOK			

Attachment - "C"

Sheet1

MOSIER FIRE DISTRICT

Vehicle Maintenance Summary 7/1/2010 – 12/31/2013

<u>Date</u>	<u>Maintenance Description</u>	<u>Cost</u>
B80 (old City brush rig, 1980 Chevy diesel, improvised)		
07/20/13	Parts – replacement reel motor	\$259.35
09/18/10	Parts – Pump motor carb and ignition rebuild	\$559.42
	SUBTOTAL B80	\$818.77
	B80 KNOWN PROBLEMS 12/13: (none)	
B81 (1999 white Dodge, 255-gal slip-in w/foam)		
08/19/12	Replace pump battery	\$52.96
01/08/11	Rewire emergency console	\$1,000.00
12/26/10	Replacement batteries, installed	\$209.90
11/29/10	Cleaning, de-mousing	\$50.00
11/18/10	Oil change	\$66.99
	SUBTOTAL B81	\$1,379.85
	B81 KNOWN PROBLEMS 12/13:	
	-- 260K miles	
	-- Transmission failing (\$3,500)	
	-- Emergency console and vehicle rewiring (no est.) CRITICAL SAFETY ISSUE	
	-- Overloaded (GVW 11,000 lbs) CRITICAL SAFETY ISSUE	
B82 (1998 grey Dodge, 255-gal slip-in w/foam)		
11/04/13	Service light bar	\$126.25
11/01/13	Labor – remove pump battery and rewire motor	\$107.50
09/30/13	Replace pump low-pressure kill switch, main gauge	\$430.00
05/22/13	Replace ABS control unit	\$945.00
04/12/13	Oil change	\$177.97
06/16/12	Replacement pump battery	\$58.69
02/27/12	Rims for snow tires (2 x used)	\$100.00
10/02/11	Service transmission and brakes	\$875.67
06/11/11	Replacement road tires (4 x used, unmounted)	\$300.00
05/13/11	Install used summer tires	\$195.50
12/11/10	Snow tires, new x 4, installed; includes 2 used rims	\$925.68
11/11/10	Replacement batteries, installed	\$219.90
11/11/10	Diagnose turbo problem	\$90.00
10/04/10	Replace turbo	\$1,222.39
	SUBTOTAL B82	\$5,774.55
	B82 KNOWN PROBLEMS 12/13:	
	-- Transmission needs looked at (intermittent lurching)	
	-- New summer tires (\$1,000)	
	-- Overloaded (GVW 11,000 lbs) CRITICAL SAFETY ISSUE	
	-- Minor electrical issues (blower fan switch, lighter)	

B84 ("The Low Rider", 1987 Chevy, ODF engine, PTO)

10/30/13	Oil change	\$35.99
09/10/12	Brake repair	\$70.50
07/21/12	Parts – replacement thermostat	\$7.35
04/09/12	Replacement tires (front x 2)	\$478.54
02/23/12	Rebuild carb	\$218.77
08/07/11	Replace hose reel master coupling	\$445.00
07/07/11	Parts – clutch slave cylinder	\$148.30
05/19/11	Replace exhaust and muffler	\$239.00
05/30/11	Replace throttle gasket	\$106.18
04/23/11	Replace clutch master cylinder	\$171.67
02/24/11	Replacement tires (rear x 2)	\$525.44
02/12/11	?	\$171.80
01/08/11	Tune up	\$219.77
SUBTOTAL B84		\$2,838.31

B84 KNOWN PROBLEMS 12/13:

- Front end: spring bushings, rotors, steering box (\$1,500)
- Motor: Cracked manifolds (\$600)

B86 (1978 Chevy, ODF engine, PTO)

11/15/13	Wheel replacement (bent rim)	\$76.17
10/07/13	Replace slip shaft	\$517.00
08/11/13	Replacement battery	\$99.95
12/19/12	Oil change	\$47.98
05/07/12	Replace drive bearings	\$1,126.09
07/02/11	Ignition wiring short	\$146.81
05/01/11	Replace engine	\$3,643.48
01/08/11	Tow	\$169.00
11/29/10	Cleaning, de-mousing	\$50.00
SUBTOTAL B86		\$5,876.48

B86 KNOWN PROBLEMS 12/13:

- New tires (\$1,000)

E84 ('84 4 x 4 Int'l H&W type 3, 500 gal, non-CAFS foam)

12/23/13	Labor: replace RPM sensor for pump governor	\$290.00
11/21/13	Parts – replacement pump gov. tach and sensor, lights	\$198.00
11/21/13	Labor – pump governor tach replacement, lights wiring	\$220.00
11/15/13	Battery replacement	\$344.85
11/07/13	Labor – install battery tender	\$85.00
11/04/13	Install rebuilt pump governor; fix wiring short rear lights	\$266.25
11/09/13	Parts – alternator, regulator, battery tender, posts	\$1,070.87
11/01/13	Labor – alternator, regulator, battery tender, posts	\$257.50
07/25/13	Diagnose pump governor problem	\$182.50
03/22/12	Service and overhaul pump governor	\$755.00

Sheet1

09/27/11	Parts – Pump governor servo and control unit rebuilt	\$580.00
	Parts and labor – rebuild all pump valves 2009 – 2010	\$8,000.00
	SUBTOTAL E84	\$12,249.97

E84 KNOWN PROBLEMS 12/13:
 -- Foam unit leaks (\$500 minor overhaul)
 -- Replace tires (\$3500)
 -- Low gearing (slow but sure-footed)

E86 (green 1982 Ford Pierce type 1, 750 gallon)

12/23/13	Check pump transmission and shift gear	\$150.00
11/23/13	Parts – pump shift gear pivot pin and shim sets	\$161.00
11/23/13	Labor – pump transmission and shift gear	\$1,900.00
11/15/13	Parts for pump transmission rebuild	\$2,400.00
11/07/13	Labor – install battery tender	\$85.00
11/04/13	Replace tank fill valve	\$667.25
08/10/13	Brake adjustment	\$85.00
07/25/13	Diagnose pump governor problem	\$182.50
12/04/12	Coolant	\$44.37
11/11/12	Transmission fluid, filter, and service	\$327.52
11/15/12	Replacement batteries, installed	\$432.30
03/22/12	Mobile service – flat tire repair	\$174.61
12/03/11	Rebuild pump discharge drain valve	\$320.00
11/16/11	Labor – rebuild pump valves	\$450.00
11/02/11	Parts – pump valves	\$995.50
09/02/10	Replace main air tank	\$985.83
	SUBTOTAL E86	\$9,360.88

E86 KNOWN PROBLEMS 12/13:
 -- No built-in foam capability
 -- Not 4WD
 -- Replace tires (\$3,500)

E87 (the Minipumper, 1982 GMC E-One type 1, 500 gallon)

12/23/13	Labor – replace duster cap, check pump shift indicator	\$360.00
12/23/13	Parts – duster cap for pump transmission	\$300.00
11/21/13	Labor – pump shift lever and lights	\$120.00
11/04/13	Rebuild pump primer handle	\$126.25
10/15/13	Parts – pump valve repair kits	\$488.00
01/30/12	Rebuild pressure relief valve	\$990.00
11/15/12	Replacement batteries, installed	\$382.94
11/30/12	Radio rewiring	\$88.00
11/29/10	Service transmission and brakes	\$273.54
	SUBTOTAL E87	\$3,128.73

T85 (red 1995 Ford, 1,900 gallon water truck)

11/30/13	Speedometer sending unit	\$189.92
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Sheet1

11/15/13	Replacement batteries	\$344.85
11/01/13	Labor – battery replacement, replace connectors	\$257.50
11/29/10	Cleaning, de-mousing	\$50.00
SUBTOTAL T85		\$842.27

T85 KNOWN PROBLEMS 12/13:
 -- Needs automatic transmission (\$4 - 10,000)
 -- No drafting capability

T88 (white 1984 4 x 4 Int'l, 1,800 gallon water truck)

11/01/13	Labor – remove pump battery and rewire motor	\$107.50
10/23/13	Parts – hose reel motor	\$69.85
08/06/13	Hose reel couplings, installed	\$170.00
06/28/13	Replacement front tires, installed	\$1,025.44
06/14/13	Reroute front bumper plumbing for new tire size	\$650.00
06/10/13	Reposition transmission filter for plumbing reroute	\$149.76
06/30/12	Replacement rear tires, installed	\$2,113.84
06/16/12	Replacement pump battery	\$58.69
SUBTOTAL T88		\$4,345.08

T88 KNOWN PROBLEMS 12/13:
 -- Tank is beginning to rust inside; need larger pump filter (no estimate)
 -- Replace pump fuel tank (no estimate)
 -- Pump undersized for >1.75-inch hose
 -- Fully-loaded, overweight by 4,500 lbs. **CRITICAL SAFETY ISSUE**

OTHER

05/17/12	Parts – fluids, lube and filters for engines and tenders	\$609.47
05/17/12	Parts – fluids, lube and filters for engines and tenders	\$707.46
04/19/12	Labor – fluids, lube and filters for engines and tenders	\$2,506.00
07/07/11	Surplus brush rig – oil change	\$86.87
06/03/11	Surplus brush rig – brake master cylinder	\$114.96
03/04/11	Surplus brush rig – oil change	\$86.97
SUBTOTAL OTHER		\$4,111.73

GRAND TOTAL \$49,346.77

Summary encompasses only vehicle and pump repairs and maintenance. Does not include inspection, equipment, or operating costs.

“Known problems” encompasses only mechanical, operational, and safety deficiencies. Does not include age, equipment deficiencies or upgrades towards NFPA compliance, such as full-harness seat belts or lighting. Also does not include structural/cosmetic issues such as bodywork and rusted/worn paint. A complete NFPA 1912 level-2 vehicle-only overhaul for E84, for instance, is estimated at about \$45,000. Add another \$5 -10K for equipment to bring E84 up to NFPA and ISO standards.

Attachment - "D"

MOSIER FIRE DISTRICT

Utility/Command Vehicle Pros and Cons

Assumes a 5 – 7-year-old 4x4 full-sized SUV [Charles Young alternative: Subaru wagon?], Fire District livery, with emergency lights, radio(s), seating for at least five, storage for turnouts and SCBA with multiple spare bottles, tow package

May 2014

CONS:

- Capital expense
- Operating costs
- Maintenance liability
- Potential for use outside of mission
- We've gotten by without it
- Potential for perception as frivolous or a waste of money

PROS:

- All-weather/all-terrain vehicle for emergency response without tying up apparatus
 - On-duty rig during sub-freezing weather November to March
 - Allows multiple on-duty personnel during mild weather:
 - one apparatus per zone for fire and EMS
 - B82 west of Morgensen
 - B81 east of Morgensen
 - one non-apparatus District-wide for EMS only (Utility/Command Vehicle)
 - Mobile command and support on any incident (extra SCBA bottles, rehab supplies, batteries/charging, traffic control, etc.)
 - Crew transport for extended incidents
 - Instantly identifiable when approaching traffic control or other exclusion zones (e.g. fire or evacuation perimeter) and time-sensitive stops (ICP briefings, logistics errands)
 - Towing Fire District trailer and generator
- All-weather/all-terrain vehicle for non-emergency use
 - Transporting District personnel and equipment to training, meetings, maintenance, and other FD business inside or outside District
 - Protects employees and Volunteers from personal liability while on Fire District business, vs. using their personal vehicles
- Limits wear and tear on personal vehicles and is one of the few "perks" we can offer Volunteers
- Perception of Fire District professionalism
 - Volunteer pride/community good will
 - Recruiting/retention
- Consistent with Fire District statement of values