2014 – 2019

6 Year Capital Improvement Update

Maple Valley Fire & Life Safety

Six Year Capital Facilities & Equipment Plan

2014-2019

Maple Valley Fire & Life Safety

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1 Executive Summary

This Six-Year Capital Facilities Plan (the "Plan") has been prepared as an update and extension of the Maple Valley Fire & Life Safety (MVF&LS) 2011 – 2030 Master Capital Facilities and Equipment Plan (MCFEP) in compliance with the requirements of Washington's Growth Management Act Chapter 36.70A RCW and Maple Valley Municipal Code 16.70

This Six Year Plan update was prepared using data available through 2013 and is consistent with the long range 2011 to 2030 MVF&LS Capital Facility and Equipment Plan. This Plan is intended to provide an annual look at the progress toward funding and implementation of the 2011 - 2030 Capital Facility and Equipment Plan which was previously adopted by the City of Maple Valley in 2011. The goal of this plan is to forecast the next six years of capital facilities needs and establish an achievable funding plan that incrementally provides the resources necessary to maintain adequate service delivery prior to or concurrently with the impacts of development within the jurisdictions of Maple Valley and Maple Valley Fire & Life Safety.

The underlying premise of this document is that as the community continues to grow, additional resources will be required to adequately meet the growing demand for fire & life safety services. It is assumed that a direct relationship exists between population and demand for services which directly links to a need for resources.

For purposes of this plan, capital improvements are defined as real estate, structures or collective equipment purchases anticipated to have a cost over $15,000 and an expected useful life of at least 5 years.

MVFLS is an independent special purpose district legally formed under Chapter 52 of the Washington Administrative Code that provides fire and rescue services to the District's 55 square miles of urban, suburban and rural area. Services provided are delivered 24 hours per day, 365 days per year through what is known as a "combination" type of fire service, meaning that both paid (48 firefighters and officers) and volunteer (30 firefighters and officers) are utilized to deliver services. Services delivered by MVFLS include; fire suppression, fire prevention and code enforcement, basic life support (BLS) in cooperation with King County Medic 1, and public education in fire prevention and life safety. The urban boundary set on July 6, 1992 remains largely the same in MVFLS. The current service area includes all of the City of Maple Valley as well as surrounding unincorporated areas of King County. Generally MVFLS's service area borders Issaquah to the north, the Cascade foothills to the east, the City of Covington to the west and Black Diamond to the south. Current 2010 population of MVFLS is 43,102[1]

This Plan re-establishes the service level standards adopted by MVF&LS in the MCFEP and evaluates the existing and future fire service delivery capacity. Fire service capacity is evaluated upon the ability of current deployed resources to meet established levels of service with existing resources. Fire stations and fire apparatus are evaluated to determine capacity. A fire station with thee apparatus bays and infrastructure and staffing to support three emergency response units has reserve capacity when only one unit is deployed from that station. Also, a fire resource that meets its

[1] Washington State Office of Financial Management, April 2013

level of service objectives and is reliably available for service at least as often as it is expected to meet its level of service objective also has reserve capacity. MVFLS's goal is to deliver service at the adopted level of service (LOS) 9 times out of 10 or at 90%.

Fire service capacity is also measured against future impacts of growth and the capacity that future growth will erode when built. The following pages will identify the capital needs that have been implemented since adoption of the MCFEP, evaluate historical performance to the adopted standards, project the need for additional resources over the next six years and identify the funding plan to implement the needed resources from 2014 – 2019.

2 Community Growth and Impacts of Growth 2014 – 2020

Between 2010 and 2013 the City of Maple Valley's population grew by more than 16% or 5.3% per year. Population grew from 20,480 in 2010 to 23,910[2] in April of 2013. Total population of MVF&LS between 2010 and 2013 grew from 39,460 to 43,002 for an overall growth rate of approximately 3% per year. Based upon this recent historical growth and continued development plans of Summit Place, growth within MVFLS will continue at approximately 3% each year placing additional burdens on the current MVFLS service delivery system.

Table 1 Six Year Growth Projections

Portion of MVFLS Service Area	Population 2010	Population 2013	Population 2020
City of Maple Valley	20,480	23,910	30,263
Unincorporated King County	18,980	19,192	20,173
Total	39,460	43,102	50,436

As a result of community growth, service area demand measured by total emergency responses has grown from 3,792 in 2010 to 4,042 in 2013. Existing capacity of response resources continues to diminish within the service area of MVF&LS and the City of Maple Valley as a result of the growth experienced between 2010 and 2013 (see Table 1).

3 Current Capital Assets and Resources

Capital resources for MVFLS consist of fire stations, fire apparatus (vehicles used for fire and rescue work), staff vehicles and the related equipment, tools and associated personal protection equipment needed to safely and legally provide fire and rescue services. Current inventories of these resources are listed in Tables 2, 3, and 4 below.

3.1 Fire Stations

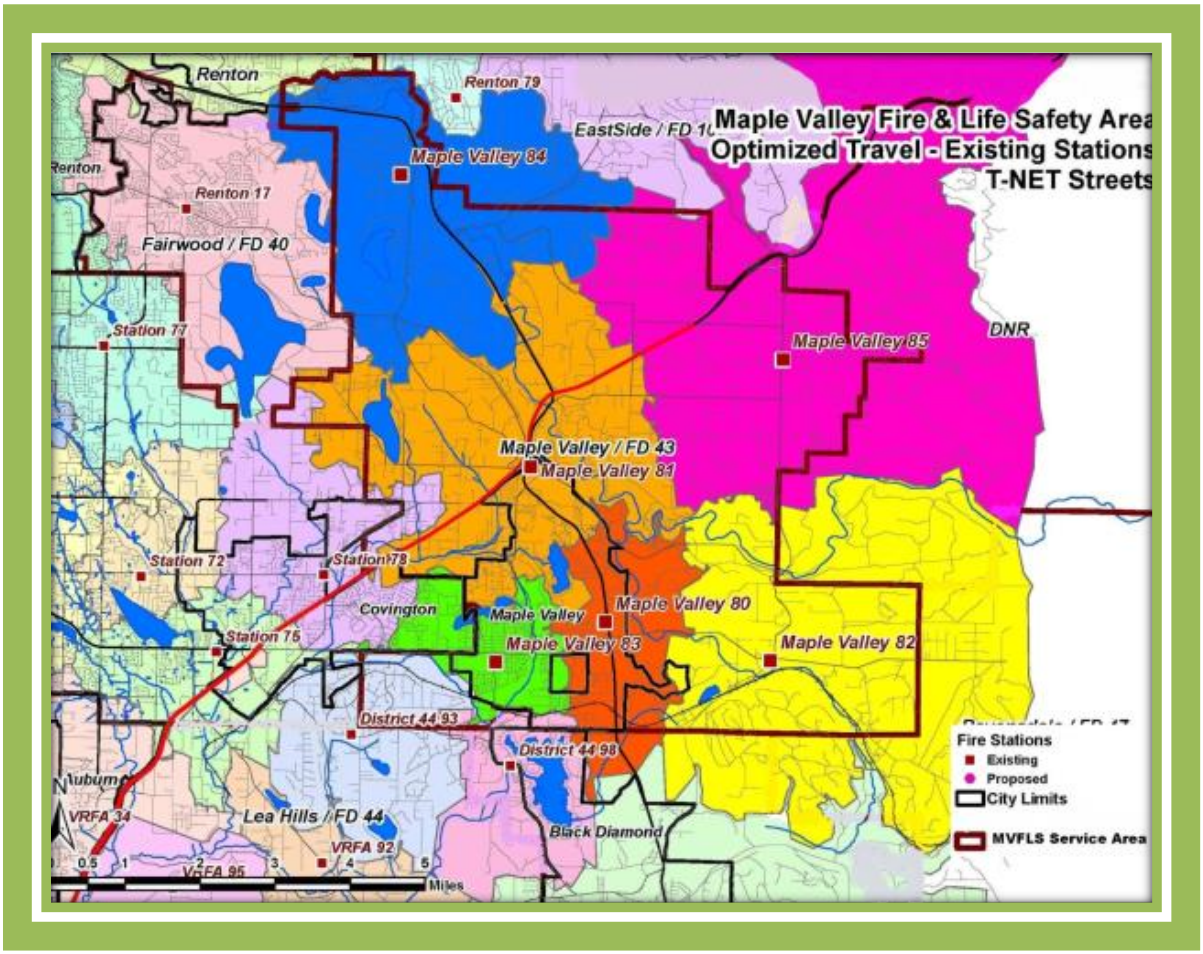
Emergency services are provided from six fire stations located throughout the service area as identified in Table 2 and shown on the map in Exhibit 1. On average the existing six fire stations in operation are 34 years old with an average square footage of 5,076.

[2] From Washington State Office of Financial Management

Table 2: Fire Station Inventory

Fire Station	Location	Size	Acquired	Capacity	Condition	Acres	Dorm Rooms
Career Stations							
Station 80	23775 SE 264th Street	8,985	2002	3.5 bays	Good	0.87	6
Station 81	22225 (22300) SE 231st Street	10,821	1982	7 bays	Fair	1.78	8
Station 83	27250 (27260) 216th Ave SE	2,852	1965	1.5 bays	Good	0.91	4
Sub-total		22,658		12		3.56	18
Volunteer Stations							
Station 82	27519 (27509) Kent Kangley Rd	2,310	1983	2 bays	Fair	1.49	4
Station 84	16855 194th Ave SE	3,000	1965	2 bays	Fair	0.42	4
Station 85	27605 SE 208th	2,240	1983	1.5 bays	Fair	1.07	4
Future 87	24416 SE 216th St.	Land only		0	N/A	3.51	0
Sub-Total		11,694		9.5		16.34	12
Total		**34,352**		**21.5**		**19.90**	**30**

Exhibit 1: MVFLS Service Area Map



3.2 Apparatus and Equipment

3.2.1 Apparatus

MVFLS's current fleet of emergency response vehicles is well maintained but front line fire engines and tenders have an average age of 16.6 years. Engines 82, 84, and 85, have all surpassed their expected front line lifespan. Both tenders 81 and 82 are 28 years old and have also surpassed their expected lifespan as has Brush 81. Six aid units are maintained, two were placed in service in 2013 but despite these two new units the average age is 8.7 years. Four of the six aid units have surpassed their expected life span. The oldest aid unit has been in service for 18 years, more than twice the expected life expectancy.

Table 3: Fire Vehicle Inventory

Station	Engine	Aid Car	Tender	Aerial	Brush	Command	Staff Vehicles	Air Unit	Utility Trailer
Station 80	1	1				2	3	1	
Station 81	2	2	1		1	1	2		1
Station 82		1	1						
Station 83	1	1							
Station 84	1	1							
Station 85	1	1							
Total	**6**	**7**	**2**	**0**	**1**	**3**	**5**	**1**	**1**

3.2.2 Equipment

A full complement of special equipment is necessary for the delivery of fire and rescue services. Special equipment includes all of the equipment within fire stations or carried on fire engines and other apparatus that allow firefighters to safely and effectively deliver services. Table 4 provides a listing of the equipment maintained by MVFLS.

Table 4: Current Equipment Inventory

Existing Special Equipment Inventory	
Fire Equipment	Quantity
Fire Hose	424
Fire Hose Nozzles	63
Rescue Tools	3
Self-Contained Breathing Apparatus (SCBA)	50
IT & Office Equipment	Variable
Mobile Radios	30
Portable Radios	51
Personal Protective Gear	100
Fitness Equipment	12
Defibrillators	15
Breathing Air Compressor	1
Thermal Imaging Cameras	3
Misc. Tools & Equipment	Variable

4 Standards of Service

4.1 Time and Origin of Standards

Time to arrival at the scene of an emergency is critical in the survival of a non-breathing patient and the control of fire growth. The longer it takes for trained fire personnel to arrive at the scene of an emergency, the greater the chance for poor outcomes regarding fire and life loss[3]. As a result, the standards identified herein have been adopted by MVF&LS and are based upon industry best practices. These standards have been cooperatively established by the International City/County Managers Association (ICMA) National Fire Protection Association (NFPA) and the Center for Public Safety Excellence (CPSE) in the 8th edition Fire Service Self-Assessment Manual (FSSAM) published through the CPSE.

4.2 Emergency response

Achievement of drive time standards are influenced by the location of fire service resources. If a service area is located too far from a fire station (poor distribution), it is unlikely that travel time objectives will be met. If distributed resources are over used because of high demand they become "unreliable" to meet additional demand. As a result of units becoming unreliable, units from farther away must respond in the place of the already dispatched home area unit causing increases in arrival times. If too few resources exist, and fire resources from other fire departments are needed to backfill for out of service MVF&LS units, the consequence is extended drive times resulting in increased total response times.

4.3 Benchmark and Baseline Performance

MVF&LS uses the benchmark performance levels established by the CPSE as those levels of service to be achieved as capital facilities and resources are funded, deployed, and staffed. Baseline levels of service represent the minimum expected performance of the CPSE to be meaningful in reducing life and property loss. Agencies operating below baseline performance expectations usually have higher fire losses and lower levels of survival of non-breathing patients encountered during cardiac arrest. The gap between the two performance standards is anticipated to be closed as funding becomes available to implement the resources identified in the 2011 – 2030 MVF&LS Master Capital Plan and this 2014 – 2019 six year portion of that Plan.

MVFLS has established benchmark and baseline performance measures following the guidelines established by the Center for Public Safety Excellence (CPSE) published in their 8th edition of the Commission on Fire Accreditation (CFAI) Fire Service Self-Assessment Manual. Performance expectations have been established for three community risk types, urban, suburban, and rural,[4] with both benchmark and baseline objectives. Benchmark objectives represent industry best practice and baseline objectives are minimum standards capable of limiting the loss of life and property. Agencies performing below baseline standards may be considered in response failure and not eligible for Accredited Agency Status by the CFAI. Performance below benchmark standards can contribute to unnecessary property and life loss.

[3] See sections 7.4 and 7.6 of the Maple Valley Fire & Life Safety Mitigation and Level of Service Policy for additional detail and consequences of long response times.

[4] See section 3.2.1.7 of the 2011-2030 MVFLS Capital Facilities and Equipment Plan.

4.4 Components of Response Performance

There are three components in the measurement of total fire service performance; Alarm Handling, Turnout and Drive time. Alarm handling is completed at Valley Communications Center the dispatch agency available to MVF&LS. Alarm handling is the total time elapsed from the pick-up of a 911 call until enough information is gathered to dispatch appropriate resources. Turnout refers to the total time it takes firefighters to assess dispatch information, discontinue their current task, don appropriate personal protective gear and become safely seat-belted and ready to begin their response. Turnout time ends and drive time begins when the response vehicle begins to move. Drive time ends once the response vehicle arrives at the curbside address of the dispatched incident. When added together, alarm handling plus turnout plus drive time equals total response time.

4.5 Deployment and Measures of Response Resources

Total response time is measured against two deployment practices, distribution and concentration.

4.5.1 Distribution

Distribution refers to how fire stations and resources are distributed around a service area to achieve defined response levels of service (LOS) goals for first units to arrive. Distribution is often referred to the "speed of attack." Achievements of first unit arrival time objectives indicate that fire stations are properly distributed throughout the service area.

4.5.2 Concentration

Concentration refers to the number of resources that can be assembled or "concentrated" at the scene of an emergency. Concentration is often referred to as the "force of attack." Concentration resources need to provide the force or quantity of resources necessary to stop the escalation of an emergency. If an agency cannot distribute and concentrate adequate resources, fire and life loss will be higher when compared to the timely arrival of adequate resources. Washington State in Chapter 52.33 RCW requires performance measures to be established and performed at 90%. If response times of 100 incidents were stacked from quickest to slowest, the time of the 90th incident is the time used to measure service delivery at 90%.

4.5.3 Distribution / First unit to arrive - Service Capabilities:

The first unit arriving at the scene of an emergency staffed with a minimum of 2 firefighters on an Aid Car, or 3 firefighters on an Engine, shall be capable of; establishing command; calling for additional resource; extending appropriate hose line(s); and/or beginning delivery of basic life support and/or rescue services. These operations are done in accordance with Department standard operating procedures while providing for the safety of the general public and responders.

4.5.4 Concentration / Full first alarm – Service Capabilities:

The full first alarm resources arriving at the scene of an emergency staffed with between 5 to 13 firefighters depending upon the incident type, shall be capable of; establishing command; providing an uninterrupted water supply, deploying hose lines for fire control and suppression; complying with the two in-two out law for firefighter rescue; completing forcible entry; controlling utilities and/or rescuing and treating sick, injured or at-risk victims. These operations are done in accordance with departmental standard operating procedures while providing for the safety of the general public and responders.

4.5.5 Benchmark and Baseline Level of Service Objectives:

Table 5 establishes the service level objectives for; Alarm Handling, Firefighter Turnout, and drive times for first units to arrive and full first alarm resource performance. Benchmark levels of service are targeted for attainment as additional resources identified in this Plan and the MCFEP are funded, implemented and staffed. Baseline performance objectives are the minimum levels of service MVFLS is currently capable of achieving.

Table 5: Benchmark & Baseline Level of Service Objectives

Benchmark and Baseline Performance Objectives				
Performance Type	Urban	Suburban	Rural	Performance Factor
Alarm Handling - Benchmark	1:10	1:10	1:10	90% of the time
Alarm Handling - Baseline	1:30	1:30	1:30	90% of the time
Turnout - Benchmark	2:00	2:00	2:00	90% of the time
Turnout - Baseline	2:30	2:30	2:30	90% of the time
Drive Time - First Unit to arrive - Benchmark	4:00	5:00	8:00	90% of the time
Drive Time - First Unit to arrive - Baseline	5:12	6:30	10:00	90% of the time
Drive Time - Full First Alarm - Benchmark	8:00	10:00	14:00	90% of the time
Drive Time - Full First Alarm - Baseline	10:24	13:00	18:12	90% of the time
Total Response Time, "First Unit" - Benchmark	7:10	8:10	13:10	90% of the time
Total Response Time, "First Unit" - Baseline	9:12	10:30	17:00	90% of the time
Total Response Time, Full First Alarm - Benchmark	11:10	13:10	17:10	90% of the time
Total Response Time, Full First Alarm - Baseline	14:24	17:00	22:12	90% of the time

4.5.6 Resource Capacity

Finally, resource capacity is evaluated. The fire service refers to this measure as unit "reliability" which refers to the availability of response units. If an emergency response unit was in its assigned location 24 hours a day and never left, it would have a reliability of 100%. But if an emergency response unit is expected to provide a level of service performance at 90% or 9 times out of every ten requests, that unit must be available or "reliable" for providing service when called upon at least 90% of the time or it will fail in its performance expectation. Unit reliability is often the best predictor of service capacity of deployed units. As workload increases, reliability decreases.

Table 6: Response Unit Reliability Objectives

Minimum RELIABILITY Objectives			
Performance Type	Urban	Suburban	Rural
Minimum Peak Hour Unit Reliability	90%	90%	90%

5 MVF&LS Service Level Performance

5.1 Response Performance Findings

Analysis of MVFLS's historical response data reveals sub-standard performance compared to both benchmark and baseline expectations. Several factors contribute to this current sub-standard performance. First, performance cannot be met during peak hours where unit reliability is below the

expected performance standard of 90%. Second, some areas of MVFLS simply cannot be reached within the adopted time standards because of the excess distance from a fire station and finally, some stations are within timely reach of substandard service areas but the lack of full time staffing at these stations impacts their unit reliability. Emergency response rates for the preceding three (3) years are identified in Table 7 Drive Time Performance of First Units to Arrive or "Distribution". Historical performance is identified in a stop-light, (green, yellow, red) approach. Green indicates the standard was met, yellow indicates performance was within 10 seconds of the standard and red indicates performance was more than 10 seconds off of the standard. Data for this analysis was obtained from emergency response records of MVFLS.

5.1.1 Distribution / First Unit to Arrive Performance

Distribution performance or drive times for first unit arrival are displayed below in Table 7 Drive Time Performance of First Units to Arrive or "Distribution". The actual drive time for first arriving units is compared to both benchmark and baseline standards. The overall trend of the data collected between 2007 and 2009 compared to the data collected from 2010 to 2013 shows increasing drive times of units deployed from Stations 81, 82, 83 and 85. This is likely due to increased traffic congestion and decreasing unit reliability as a result of increasing service demand.

Table 7 Drive Time Performance of First Units to Arrive or "Distribution"

Performance Comparison – Benchmark Verses Baseline										
Performance at BENCHMARK Drive Time Standard							Performance at BASELINE Drive Time			
Station	Year of Measure	Urban	Suburban	Rural	Actual Time		Urban	Suburban	Rural	Actual Time
80	2007 - 2009	4:00	5:00	8:00	5:15		5:12	6:30	10:00	5:15
80	2010 - 2013	4:00	5:00	8:00	5:07		5:12	6:30	10:00	5:07
81	2007 - 2009	4:00	5:00	8:00	5:35		5:12	6:30	10:00	5:35
81	2010 - 2013	4:00	5:00	8:00	6:40		5:12	6:30	10:00	6:40
82	2007 - 2009	N/A	N/A	8:00	8:04		N/A	N/A	10:00	8:04
82	2010 - 2013	N/A	N/A	8:00	8:23		N/A	N/A	10:00	8:23
83	2007 - 2009	4:00	5:00	N/A	6:05		5:12	N/A	N/A	6:05
83	2010 - 2013	4:00	5:00	N/A	6:06		5:12	N/A	N/A	6:06
84	2007 - 2009	N/A	5:00	8:00	10:01		N/A	6:30	10:00	10:01
84	2010 - 2013	N/A	5:00	8:00	10:03		N/A	6:30	10:00	10:03
85	2007 - 2009	N/A	5:00	8:00	9:41		N/A	6:30	10:00	9:41
85	2010 - 2013	N/A	5:00	8:00	9:25		N/A	6:30	10:00	9:25

5.1.2 Concentration / Full First Alarm Performance

MVF&LS has generally relied upon mutual aid resources to fill full first alarm resource assignments for structure fires. 94% of all incidents between 2010 and 2013 required mutual aid resource to deliver full first alarm resources needed for those incidents. Reliance on mutual aid occurs when too few resources exist within a service area to fulfill the full first alarm resource requirements. Because MVF&LS cannot predict availability of, or plan for long term resources of other agencies, it is difficult to present reliable data on the performance of full first alarm units. For planning purposes, MVF&LS can only assemble full first alarm resources reliably for incidents requiring fewer than 10 personnel and cannot achieve benchmark or baseline performance with current resources.

5.1.3 Reliability Performance

Impacts of growth have eroded service levels and reliability since data was collected in 2009. Response resources within the City of Maple Valley have been affected most with Stations 80, 81, and 83 losing the most capacity. It should be noted that the City of Maple Valley is often without fire protection from these three stations during peak demand hours. Service during these times is provided by automatic mutual aid from resources much farther away resulting in increased response times. This trend will continue until additional resources can be deployed.

Table 8 Unit Reliability

Time committed to responses by unit 2007 – 2009 (based on 24 hour day) Compared to 2013					
Unit	Out of Service Minutes per Year	Unit Reliability 2007 - 2009	Unit Reliability 2013	Response Condition 2007 - 2009	Response Condition 2013
A80	35,943	93.16%	93.86%	Yellow	Yellow
A81	55,315	89.48%	89.71%	Red	Red
A84	3,059	99.42%	96.38%	Green	Green
A85	932	99.82%	97.42%	Green	Green
B81	9,381	98.22%	98.27%	Green	Green
E80	12,122	97.69%	93.76%	Green	Yellow
E81	17,622	96.65%	93.86%	Green	Yellow
E82	461	99.91%	Out of Service	Green	Red
E83	19,386	96.31%	94.32%	Green	Yellow
E84	2,210	99.58%	98.05%	Green	Green
E85	2,146	99.59%	91.19%	Green	Yellow

6 Conclusion of Need for Capital Resources 2014 – 2019

Growth within Maple Valley is expected to continue at or close to the rates experienced between 2009 and 2013 resulting in continued erosion of unit reliability leading to the erosion of service capacity which in turn, will lead to steady increasing of total response times unless additional resources can be funded and deployed. Resources necessary to maintain levels of service concurrently with growth within MVF&LS over the next 20 years have been identified in the adopted 2011 – 2030 Capital Facilities & Equipment Plan. Multiple factors[5] were considered in arriving at the resources needed to maintain fire service concurrency through 2030. The following resources have been identified to be funded and deployed over the next 6 years to continue progress toward full implementation of the 2011-2030 Capital Facilities and Equipment Plan.

6.1 Planned Capital Purchases 2011 – 2030

The 2011 – 2030 MVF&LS Capital Facilities and Equipment Master Plan identified the need for more than $38 million in capital investments to maintain fire service concurrency through 2030. This

[5] See Section 3.4.1 of the 2011 – 2030 Capital Facilities & Equipment Plan

6 year plan when completed will achieve approximately 55% of the needed capital investments by the end of 2019. 2020 will mark the halfway point in the 20 year plan.

6.1.1 Progress toward Planned Capital Purchases

As a result of the Great Recession and the uncertainty of the economy, MVFLS delayed planned capital purchases between 2011 and 2013. Instead of spending the planned $2.35 million that was identified, total expenditures during that time were restricted to $408,000 for two new Aid Cars. Developer impact fees funded two thirds of the purchase with Bond funds making up the balance. As a result of this cautious approach, the overall schedule for capital purchases has fallen slightly behind the original schedule.

6.1.2 Planned Capital Purchases 2014 – 2019

The projects included to be funded between 2014 and 2019 include: Construction of a new Station 80 to consolidate existing stations 80 and 83 southward to a new location within the main area of future growth of Maple Valley known as Summit Place. Asset preservation projects include a new roof, new heating ventilation and air conditioning systems and seismic upgrades to preserve the capacity of Station 81 and minimize the risk of earthquake. Various equipment and apparatus purchases are also expected over the next 6 years. The single largest apparatus cost will be a new aerial ladder truck that is necessary to protect the larger commercial and multifamily structures currently in and expected to be built within the City of Maple Valley. Expected capital expenditures are summarized below in Table 9: Six Year (2014-2019) Capital Costing.

Table 9: Six Year (2014-2019) Capital Costing

Six (6) Year Capital Needs							
All Costs in thousands based on 2014 dollars							
Year	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**6 Year Total**
Station Construction	$0	$0	$0	$0	$2,613	$7,838	$10,451
Apparatus	$1,311	$0	$60	$0	$1,083	$0	$2,454
Equipment	$105	$179	$246	$210	$430	$227	$1,397
Asset Preservation	$0	$0	$0	$0	$0	$0	$0
Total in Thousands	$1,416	$179	$306	$210	$4,126	$8,065	$14,302

7 Funding Plan for 2014 – 2019 Planned Capital Purchases

The planned purchases shown in Table 9 will be funded through a variety of methods including annual tax levies, impact fees, and voter approved bond funds. The 6 year funding plan is largely dependent upon voter approved bond funds utilizing bonds from a 2004 bond measure as well as a new bond measure to be placed before voters in 2017. The breakdown between expenses and revenue sources to implement this Plan is found in Table 11. Bond funding makes up approximately 82% of the needed funding followed by taxes at 10%, developer impact fees at 5% and 2% from the sale of MVFLS assets. More than 90% of capital funding will be provided by MVF&LS tax payers through annual tax levies and bond payments.

7.1 Impact Fee Basis

Impact fees are established in the MVF&LS Mitigation and Level of Service Policy in Appendix A, through a formula that looks at service demand by property type. Annually, as capital needs and costs are reviewed, Appendix A of the Mitigation Policy will be adjusted to arrive at current impact fee amounts. The current impact fees per property type are displayed below in Table 10: 2014 Impact Fees. The fees displayed are maximum fees without service capacity adjustments. It is rare that new construction will pay the maximum fee. System Wide C&E represents the cost of capital construction and equipment necessary through 2030 to maintain fire service concurrency with new development. See Appendix A of the MVFLS Mitigation and Level of Service Policy for the policy that outlines fire service capacity adjustments to the base or maximum fee displayed below.

Table 10: 2014 Impact Fees

Level Of Service Formula Calculation

Land Use Type	System wide C&E	Res/Com Split	Usage Factor	ERF Factor	New Dev Share	Projected New Units 2011 - 2030	Impact & LOS Contribution Fee Amount
Residential							
Single Family	$32,628,000	74%	80%	1	18%	2,108 living units	$1,649.35 per house
Multi Family	$32,628,000	74%	20%	1.3	40%	2,108 living units	$1,191.20 per unit
Commercial							
COMM/IND	$32,628,000	26%	70%	2	30%	2,000,000 sq ft	$1.7815 per sq ft
HOSP/MED/CIV/SCH/CHUR	$32,628,000	26%	20%	2	40%	2,000,000 sq ft	$0.6787 per sq ft
ASSISTED CARE	$32,628,000	26%	10%	3	50%	2,000,000 sq ft	$0.6362 per sq ft

Table 11: 6 Year Funding Model

6 Year Cost/Funding Sources for Capital Needs							
Costs based on 2014 (thousands) dollars							
Cost/Funding Source	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**6 Year Total**
Cost of Capital Needs							
Station Construction & Land Purchase	$0	$0	$0	$0	$2,613	$7,838	$10,451
Apparatus	$1,311	$0	$60		$1,083	$0	$2,454
Equipment	$105	$179	$246	$210	$430	$227	$1,397
Asset Preservation	$0	$0	$0	$0	$0	$0	$0
Debt Payment	$0	$0	$0	$0	$0	$0	$0
Sources of Funding for Capital Needs							
Annual Reserve Funds	$250	$40	$175	$85	$850	$100	$1,500
Bond Funds	$1,116	$65	$31	$0	$3,100	$7,315	$11,627
Sale of Surplus Property	$0	$0	$0	$0	$0	$475	$475
Impact/LOS Fees	$50	$74	$100	$125	$176	$175	$700
Summary							
Cost	**$1,416**	**$179**	**$306**	**$210**	**$4,126**	**$8,065**	**$14,302**
Funding	**$1,416**	**$179**	**$306**	**$210**	**$4,126**	**$8,065**	**$14,302**
Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

8 Appendices

8.1 Appendix A: Special Equipment Purchases 2014 -2019

Special Equipment Purchases 2014 - 2019							
Fire Equipment	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**6 Yr Total**
Fire Hose	$0	$0	$160,632	$0	$0	$0	$160,632
Fire Hose Nozzles	$0	$0	$0	$0	$0	$0	$0
Rescue Tools	$0	$0	$0	$0	$101,529	$0	$101,529
SCBA	$0	$0	$0	$0	$172,464	$0	$172,464
IT & Office Equipment	$76,044	$76,044	$76,044	$76,044	$76,044	$76,044	$456,263
Mobile Radios	$0	$0	$0	$3,285	$0	$0	$3,285
Portable Radios	$0	$0	$0	$0	$0	$0	$0
Bunker Gear	$0	$68,212	$0	$130,461	$0	$0	$198,674
Fitness Equipment	$0	$35,197	$0	$0	$0	$0	$35,197
Defibrillators	$0	$0	$0	$0	$0	$70,009	$70,009
Air Compressors	$0	$0	$0	$0	$70,393	$0	$70,393
Thermal Imaging Cameras	$0	$0	$0	$0	$0	$61,050	$61,050
Misc. Tools & Equipemen	$28,764	$0	$8,970	$0	$9,152	$19,986	$66,872
	$104,807	$179,453	$245,646	$209,790	$429,582	$227,088	$1,396,367

8.2 Appendix C: Station Construction Projects

2014 - 2019 Fire Station Land & Construction Costs				
2014 - Thousands of Dollars				
Year of Expense	**Station 80**	**Station 82**	**Station 85**	**Yealy totals**
2014	$0	$0	$0	$0
2015	$0	$0	$0	$0
2016	$0	$0	$0	$0
2017	$0	$0	$0	$0
2018	$2,613	$0	$0	$2,613
2019	$7,838	$0	$0	$7,838
Grand Totals	$10,451	$0	$0	$10,451

8.3 Appendix D: Apparatus Replacement Schedule

Apparatus Replacement Schedule in 2014 Dollars							
Year	Fire Engine	Aid Car	Command	Tender	Ladder Truck	Maintenance	Projected Cost for Year
2014	2	1					$975
2015							$0
2016			1				$60,000
2017							$0
2018					1		$1,082,650
2019							
Total 6 year apparatus costs							**$1,143,625**