

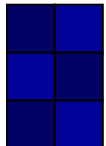
District of Summerland

Fire Department

Master Plan 2008 – 2017



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District of Summerland

Fire Department

Master Plan 2008 - 2017

<u>Index</u>	<u>Page</u>
Executive Summary	3
Introduction	12
Background: Summerland Fire Department	12
• Mission Statements	12
○ District of Summerland	
○ Fire Department	
• Core Services	13
• Service Delivery Data	13
• Capital Assets & Staff Resources	17
• Regulatory, Bylaw & Policy Framework	18
• Partnerships	19
Future Requirements & Challenges to be Met	20
Recommendations	27
• Operations	27
• Fire Prevention, Investigation & Public Education	35
• Training	38
• Organization Structure & Service Delivery	40
Appendices	42
• <u>Appendix A:</u> Response Time Maps	43
• <u>Appendix B:</u> Fire Department Survey Findings	44
• <u>Appendix C:</u> Participants - Master Plan 2008 – 2017	45
• <u>Appendix D:</u> Role of Consultant	46

District of Summerland

Fire Department

Master Plan 2008 - 2017

Executive Summary

Master Plan 2008 – 2017: Introduction

The purpose of the Summerland Fire Department Master Plan 2008 – 2017 is to provide a goal oriented framework for the cost-effective and efficient provision of fire and rescue services to the District of Summerland.

The Master Plan strives to meet current and anticipated emergency response, staffing levels, fire prevention, staff training, public education, vehicle and facility requirements over the ten year period, and to establish a foundation for service delivery beyond the ten year period.

The Master Plan is a “living document” that strives to meet anticipated community growth projections through a modified service delivery model, while remaining open to actual data-driven adjustments during the term of the Master Plan.

The vision of the Master Plan 2008 – 2017 is customer-focussed in providing core services to residents by way of an enhanced composite fire and rescue service. Establishment of defined response time targets for urban, suburban and rural neighbourhoods provides specific service delivery expectations through performance measures.

The Master Plan strengthens response times and direct public education services through additional Career fire fighters. Provision of services is augmented with enhanced staff training to further develop and maintain standard and specialized knowledge and applied skills to safely meet service level targets.

As a multi-purpose document, the Master Plan supports and enables

- Ten (10) year Capital Plan and annual Capital Budget development
 - Facility replacement planning and scheduling beyond the term of the Master Plan
 - Vehicle replacement planning and scheduling
- Operating Budget development
 - Ten (10) year Staffing Plan
 - Identifies partial off-set staff cost savings
- Staff training to meet technical knowledge and skill requirements
- Enhanced training program based on program-level gap analysis
- Annual Work Plan development, inclusive of objectives and performance measures
- Performance reporting of services delivered compared to performance targets supporting enhanced Annual Reports congruent with provisions in the Community Charter
- Continuous service improvement initiatives based on performance data analysis

General Context

The Master Plan is congruent with both the District of Summerland and Fire Department Mission Statements. The Master Plan includes a confirmation of core services provided to the community. The Master Plan builds on current strengths, notably cost-effective service delivery, an environment welcoming initiative, and committed staff and Auxiliaries.

The Master Plan provides a long term vision for fire and rescue services to a potentially growing community. The Summerland Hills, Summerland Vista, and the Jersey Lands developments would add an anticipated 1,115 dwelling and 650 tourist/commercial units, 215 dwelling units, and 691 dwelling units, respectively for about 4,600 residents over a 15 – 20 year period.

Downtown and lower town developments would add a further 300 dwelling units downtown, 308 dwelling units at Wharton Street, and ~200 dwelling units in the lower town. In total, this translates into about 1,800 residents. If all developments proceed, community growth would be in the 50% range over 15 – 20 years, a large increase over the 1.0% average annual growth rate of the past 10 years.

The Master Plan strives to meet regulatory requirements and seeks to meet or work towards non-mandatory standards and best practices of professional bodies such as the National Fire Protection Association (NFPA) and Fire Underwriters Survey (FUS). Service delivery protocols and best practices are adapted, where appropriate, to meet Summerland's specific requirements, remaining mindful of fiscal realities.

The Master Plan considers the Fire Department's organization, role, assets and staffing for responding to incidents. The Master Plan builds-on overall community response capacity over the ten year period through addressing current capital asset and staffing requirements, and proposes recommendations to meet current and anticipated future requirements.

The Master Plan builds on the historical and ongoing valuable contribution and commitment of Auxiliaries as paid-on-call responders to work with Career fire fighters. As a composite fire and rescue service, the community benefits from a coordinated mix of Career and Auxiliary fire fighters and carries this tradition and service into the future.

The Master Plan references capital and operating budget implications of addressing facility, vehicle and staffing requirements. Other recommendations in the Master Plan are best suited to inclusion in the department's Annual Work Plan; these recommendations are contained in the body of the Master Plan.

The Master Plan is built on performance indicators, notably response time targets for rescue and interior attack at fires. Performance indicators are identified for fire prevention inspections, fire investigations, public education, and training. Performance indicators provide a quantitative performance-based commitment from Fire Department to meet defined targets.

Objectives of the Fire Department Master Plan 2008 - 2017

The objectives of the Master Plan are as follows

- **Response Time Targets & Response Zones:** To establish Council support for measurable emergency response time targets for urban, suburban and rural response zones, inclusive of turnout and travel times
- **Enabling Resources:** To establish resource plans and budget projections for facilities, vehicles and staff that enable supported response time targets to be predictably met
- **Risk Management:** To ensure services provided meet regulatory requirements, seek to meet non-regulatory risk management assessment requirements, and strive towards value-adding non-mandatory standards outlined by professional bodies
- **Fire Prevention:** To ensure timely and high quality inspection services are provided at approved frequency intervals to minimize incident occurrence, and apply “lessons learned” from fire investigations to enhance inspection and public education activities
- **Public Education:** To promote public awareness and encourage risk management behaviours through provision of education opportunities supportive of public and personal safety for topic-specific areas of risk (e.g. Wildland urban interface)
- **Staff Training:** To ensure Officers and Career and Auxiliary fire fighters maintain current and appropriate levels of knowledge, skills, and hands-on experience to safely and effectively perform position-specific, standard and specialized responsibilities
- **Emergency Program:** To provide leadership and overall coordination to the District’s Emergency Program, inclusive of Emergency Social Services
- **Public Safety Bylaws & Policies:** To recommend bylaws, bylaw amendments, and policies for Council approval that cost-effectively improve public safety and minimize incident severity through education and where necessary, enforcement
- **Innovation:** To support an environment that encourages cost-effective continuous service improvement through analysis of actual performance data to performance targets and adopting or adapting best practices
- **Organization Structure & Succession Planning:** To ensure senior staff resources are sufficient to lead and participate in service delivery, provide coverage, and enable succession planning
- **Master Plan Currency:** To amend 10-year Master Plan components in instances where actual service delivery data warrants adjustment
- **Strategic Management:** To establish a comprehensive strategic management framework that guides development of the department’s annual work plan, operating budget, capital budget for facilities and vehicles, and staff resource plans. While the Master Plan timeframe is 10 years, a foundation is established for service delivery beyond 10 years.
- **Fiscal Constraint Realities:** To seek to match resource increases commensurate with anticipated community growth, remaining mindful of service delivery requirements, response time targets, and fiscal realities

Methodology for Master Plan Development

The process methodology used in developing the Master Plan included

- Reference to provisions of regulatory bodies and/or legislation such as, WorkSafeBC, Fire Services Act, and the BC Fire and Building Codes
- Reference to recommended standards of professional bodies; National Fire Protection Association (NFPA), Canadian General Insurance’s Fire Underwriter’s Survey (FUS)

- Best practices from other fire departments' Strategic/Master Plans, notably Abbotsford, Kamloops, Salt Spring Island, Vernon and Cranbrook
- Data analysis of historical service level experience
- Survey sample of similar municipalities regarding staffing complements and cost of fire service compared to the consolidated assessed property value (Survey - Appendix B)
- Staff and Council involvement is as follows
 - The Fire Department's Management Team, Career fire fighters, two Auxiliary fire fighters, the Mayor, and a Councillor were interviewed to identify what worked well, what does not work well, opportunities and suggestions for improvement, and outcomes sought in the Master Plan (Participants - Appendix C)
 - Extensive involvement of the Fire Chief and Assistant Fire Chief in developing the Master Plan, facilitated and written by Rick Taylor, Principal, Results Management Services (Role of Consultant – Appendix D)
 - Meetings with the Chief Administrative Officer, Director of Finance & Deputy Administrator, and District Planner
 - Master Plan presentation to Council

Summary of Recommendations

Recommendations in the Master Plan are presented in two categories, one Principle Recommendation and core Operational Recommendations. Additional recommendations in the body of the Master Plan will be addressed in the Fire Department's Annual Work Plans and within current budget allocations.

Recommendations were developed within the context of ensuring flexibility to match implementation to actual community growth and recognizing fiscal realities associated with other municipal funding requirements. Additionally, the recommendations approach service delivery from the perspective of performance measurement.

Principle Recommendation

The principle recommendation from which other recommendations flow is establishment of emergency response zones and corresponding response time targets for each zone. Response time targets move from current response times closer towards the recommended response times outlined by the National Fire Protection Association (NFPA) over the term of the Master Plan. WorkSafeBC staffing requirements supporting rescue and interior attack for fire suppression would be met on a timelier basis.

- **Establish Response Time Zones**
Establish three (3) response zones with defined response time targets for each zone
 - Urban Zone: Central downtown commercial and residential core
 - Suburban Zone: Intermediate areas between the urban core and rural areas
 - Rural Zone: Distant, more sparsely populated areas and difficult to access wildland areas
- **Establish Response Time Targets Matched to Zones**
Each response zone is assigned a response time target that corresponds generally to the geographical area. This approach provides response times matched to more densely populated areas which have a correspondingly higher risk to persons and property. Fire

Hall location and staffing complement and configuration are the means to minimize response times and maximize geographical coverage.

Recommended response time targets approach the National Fire Protection Association (NFPA 1710) standards and best practices that communities can strive to achieve and maintain. While NFPA standards are neither mandated nor legally required, they do represent standards recommended by subject matter experts based on a broad and deep body of knowledge and experience.

Response time “targets” are targets and not implied guaranteed service levels. Response times can be adversely affected by other incidents in progress, weather, road conditions, construction, and incident location (e.g. terrain, access). WorkSafeBC regulation 31.23 identifies mandatory staffing requirements for building entry during fires.

Response Time Targets to Incidents by Zone – By Phase

Zone Name	Summerland Fire Department Target Response Times*	NFPA Response Standard*
<u>Urban Zone</u> Downtown commercial & residential core	<u>Phase I:</u> 1 st Engine (2 staff) in 6 minutes, plus 2 Auxiliaries in 6 minutes 90% of the time (7am - 7pm) <u>Phase II:</u> 1 st Engine (1 staff) in 6 minutes, plus 3 Auxiliaries in 6 minutes 90% of the time (7pm - 7am)	1 st Engine 90% of the time in 5 minutes (4 staff) 1 st Alarm Assignment 90% in 9 minutes (15 staff)
<u>Suburban Zone</u> An intermediate standard responsive to topography & distance travelled	<u>Phase I:</u> 1 st Engine (2 staff) in 10 mins., plus 2 Auxiliaries in 10 minutes 90% of the time (7am - 7pm) <u>Phase II:</u> 1 st Engine (1 staff) in 10 minutes, plus 3 Auxiliaries in 10 minutes 90% of the time (7pm - 7am)	NFPA presents minimum response times for <u>urban & rural areas only</u> ; 9 minutes is an intermediate selection
<u>Rural Zone</u> Distant, more sparsely populated areas and difficult access wildlands	<u>Phase I:</u> 1 st Engine (2 staff) in 16 mins., plus 2 Auxiliaries in 16 minutes 80% of the time <u>Phase II:</u> 1 st Engine (1 staff) in 16 minutes, plus 3 Auxiliaries in 16 minutes 90% of the time (7pm - 7am)	1 st Engine (6 staff) & 1 st Alarm Assignment 80% of the time in 14 minutes (12 staff)

*Response times include 1 minute Turnout time for Career fire fighters. 6 minutes has been used for Auxiliary fire fighters from page-out time to arrival at incidents

Turnout times have a major impact on total response times. Turnout time is the time elapsed from receipt of a page-out to the time the fire fighter arrives at the Fire Hall, dons protective equipment, assembles on the vehicle, and leaves the Fire Hall.

The NFPA Turnout time standard for Career fire fighters at the Fire Hall is 1 minute. The standard for Auxiliary fire fighters is 6 minutes. The average Turnout time for Summerland Auxiliaries is 5 minutes 45 seconds (2007 data), a good record. The “lost” ~5 minutes makes recommended target response times not achievable under the current staffing and Auxiliary reporting location model.

Core Recommendations

To enable performance-based service levels to be met, the resource requirements are as follows

- **Facilities**

The existing Fire Hall is recommended to be replaced on the existing RCMP site. The RCMP site is owned by the District and remains a central location for the new fire hall. A central location avoids adverse impacts on travel times made from a distant location. Revenue generating options could be available to minimize the cost of the new fire hall through innovative development of the existing fire hall site.

It is recognized that the RCMP site is a desirable site for alternative uses. Should this site not be available, a downtown site with good arterial road access should be considered.

It is projected that with the implementation of staffing recommendations in the Master Plan, that there will not be a need for a satellite fire hall in or near the Summerland Hills development during the term of this Master Plan, substantially saving facility, vehicle and staffing costs.

The facility recommendations are as follows

- **2017 – Design Drawings & Permits:** Complete design drawings and permits for the replacement Fire Hall on the RCMP site or an alternate downtown site
- **2018 – 2022 - Construct Replacement Fire Hall:** Within this timeframe construct the replacement Fire Hall and seek higher value uses for the existing Fire Hall site
- **Proposed Public Works Yard:** Should the Public Works Yard be constructed at or near the Water treatment Plant, space for training is requested. The space is for a trailer, washroom access, working fire hydrant, and props (e.g. old car).

While not anticipated for the duration of this plan, existing municipal properties in the Trout Creek and Summerland Hills areas should be identified and set aside as possible future satellite fire hall sites (i.e. 20+ years).

- **Vehicles**

Replacement lifecycles for Fire Department vehicles are recommended to be consistent with Canadian General Insurance (CGI) Fire Underwriter's Survey (FUS) lifecycle standards for smaller municipalities. Smaller municipality status extends the lifecycle for vehicles from 15 years to 20 years. Vehicles can be held in reserve for up to 10 additional years and still be credited for fire insurance purposes.

The recommended replacement schedule is as follows

- **Engines:** 20 years for front line
- **Engine/Tele-Squirt:** 20 years for front line
- **Mini-Pumper (CAF):** 20 years for front line
- **Water Tenders:** 20 years for front line
- **Bush Truck:** 20 years for front line
- **Command & Support Vehicles:** 12 years (non-FUS)

Specific vehicle replacement recommendations are as follows

- Replace Engine #5 in 2008 with an Engine/Tele-Squirt vehicle to provide enhanced fire suppression to high rise buildings as part of the scheduled vehicle replacement program. Retain Engine #5 in reserve until 2012 (i.e. 30 years) to meet the FUS requirement for a combined fleet 3,000 gallons/minute capacity (currently 1,165 g/m) thereby strengthening the District's fire insurance rating.
- Replace Engine #2 in 2012. Retain Engine #2 in reserve for 10 years to continue the fire insurance rating.
- Amend command and support vehicle replacement lifecycles from 15 years to 12 years to ensure reliability; proportionally adjust annual reserve contributions

The Engine/Tele-Squirt selection was based on maximizing the functionality and cost-effectiveness of the Engine with high-rise fire suppression capability. An aerial/platform vehicle would require significant additional staffing and training.

Within this context, vehicles replaced over the term of the Master Plan (Estimated cost of outfitted vehicles in 2008 dollars) are as follows

- **2008 – Engine #5 (1982):** Replace with Engine/Tele-Squirt \$750,000. Replacement of Engine 5 was required in 2002.
- **2009 – Pick-up Truck & Command Vehicle (1995):** Replace with pick-up \$45,000
- **2010 – Command Vehicle (1997):** Replace with pick-up \$45,000
- **2012 – Engine #2 (1992):** Replace with Engine \$600,000
- **2015 – Rescue Vehicle (1995):** Replace with Rescue \$500,000

- **Staffing**

Staffing recommendations seek to achieve five (5) goals

- Maintain the current FUS rating for insurance purposes
- Increase the combined Turnout and Travel time “reach” to suburban and rural areas with improved response times for all response zones
- Increase the predictability and life safety associated by having an increased number of fully trained and experienced fire fighters on-site at an incident
- During the time frame of this Master Plan, eliminate the need for a satellite fire hall and on-site vehicles in or near the Summerland Hills area as that community achieves substantial or full build-out. This eliminates the challenges and cost of building and staffing a satellite fire hall.
- Establish two phases of staffing recommendation implementation during the 10-year period that seeks to match the second phase of staffing implementation to actual community growth in population and property assessment

To achieve these goals, the Turnout time differential between Auxiliary and Career fire fighters is estimated to be reduced by 5 minutes through changes to incident reporting procedures for Auxiliary fire fighters. With updated Operating Guidelines, paged Auxiliary fire fighters would proceed directly to the incident in most instances.

It is important to note that Auxiliary fire fighters are typically paged on an all shift basis; this number is reduced by those Auxiliary fire fighters not available during daytime hours. Updated Operating Guidelines would address proximity and reporting procedures.

The combined Turnout and Travel time reduction acts to improve response times within Summerland's recommended target times. The "reach" is significantly improved as illustrated in response time maps (Appendix A).

Staffing recommendations, by phase, are as follows

○ **Phase I (Enhanced day time response)**

Completion of Phase I results in two (2) Career fire fighters in the existing Fire Hall seven (7) days/week from 7:00 am – 7:00 pm. This staffing complement enables a 1 minute Turnout time from the Fire Hall. Paged Auxiliary fire fighters would proceed directly to the incident during these daytime hours.

- **2009 – Career Fire Fighter:** Create one (1) additional Career fire fighter position
- **2010 – Career Fire Fighter:** Create one (1) additional Career fire fighter position
- **2011 – Career Fire Fighter:** Create one (1) additional Career fire fighter position (Vacation coverage; cost partially offset by reducing the part time budget)

Note: Full Phase I implementation only begins once all three (3) additional Career fire fighters are in place to enable full coverage seven (7) days/week from 7:00 am – 7:00 pm.

To implement Phase I, 10 additional staff turnout kits are required in 2009. In addition, 3 staff turnout kits would be required in each of 2010, 2011, and 2012. The kits enable those Auxiliary fire fighters who can respond during the day time, ease of access to their staff turnout kit.

○ **Phase II (Enhanced night time response)**

Completion of Phase II results in one (1) Career fire fighter in the Fire Hall seven (7) days per week from 7:00 pm – 7:00 am. At full implementation of Phase II, Career/Auxiliary fire fighter Turnout times of 1 minute would be in place 24/7. As before, paged Auxiliary fire fighters would proceed directly to the incident.

- **2014 – Career Fire Fighter:** Create two (2) additional Career fire fighter positions
- **2015 – Career Fire Fighter:** Create one (1) additional Career fire fighter position

Note: Full Phase II implementation begins once all three (3) Career fire fighters are in place to enable full coverage seven (7) days/week from 7:00 pm – 7:00 am.

Auxiliaries remain highly valued as an integral component of fire suppression response. Auxiliaries would be called-out for incidents requiring more than two fire fighters. It is anticipated some Auxiliaries may apply for new Career fire fighter positions.

Summary of Core Recommendations: Facilities, Vehicles & Staff Cost Projections (2008 dollars unadjusted for future value)

Initiative	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<u>Facilities</u>	\$0	Secure new Fire Hall site. training ground & potential satellite sites	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Fire Hall Design & Permits \$100,000
<u>Vehicle Replacement</u>	Tele-Squirt (Replace Engine #5) \$750,000	Pick-up & Command \$45,000	Pick-up & Command \$45,000	\$0	Engine #2 \$600,000	\$0	\$0	Rescue #6 \$500,000	\$0	\$0
<u>Staffing</u>	\$0	1 Fire Fighter (Daytime) \$65,000	1 Fire Fighter (Daytime) \$65,000	1 Fire Fighter (Daytime)* \$65,000 (Vacation cost offset) \$52,000	\$0	\$0	2 Fire Fighters (Night time) \$130,000	1 Fire Fighter (Night time) \$65,000	\$0	\$0
New Staff Kits (One time)	\$0	\$3,500	\$3,500	\$3,500	\$0	\$0	\$7,000	\$3,500	\$0	\$0
Auxiliary Staff Kits (One time)	\$0	\$35,000	\$10,500	\$10,500	\$10,500	\$0	\$0	\$0	\$0	\$0

* The salary cost increase in 2011 is the net difference between the salary costs of 1 Career Fire Fighter (\$65,000) offset by the elimination of the part-time budget (\$13,000) for vacation coverage

Introduction

The purpose of the Summerland Fire Department Master Plan 2008 – 2017 is to provide a goal oriented framework for the cost-effective and efficient provision of fire and rescue services to the District of Summerland.

The Master Plan strives to meet current and anticipated emergency response, staffing levels, fire prevention, staff training, public education, vehicle and facility requirements over the ten year period, and to establish a foundation for service delivery beyond the ten year period.

The Master Plan is a “living document” that strives to meet anticipated community growth projections through a modified service delivery model, while remaining open to actual data-driven adjustments during the term of the Master Plan.

The vision of the Master Plan 2008 – 2017 is customer-focussed in providing core services to residents by way of an enhanced composite fire and rescue service. Establishment of defined response time targets for urban, suburban and rural neighbourhoods provides specific service delivery expectations through performance measures.

The Master Plan strengthens response times and direct public education services through additional Career fire fighters. Provision of services is augmented with enhanced staff training to further develop and maintain standard and specialized knowledge and applied skills to safely meet service level targets.

Background: Summerland Fire Department

District of Summerland Mission Statement

To support a safe and healthy community with a sustainable economy, to conserve farm, forest and ranchland, and protect natural resources, fish and wildlife habitat. We will support development and change if it enhances and improves Summerland’s small town character, friendly ambience, and rural nature.

Fire Department Mission Statement

To proudly protect lives and property by providing prompt, skillful, cost-effective fire protection and life safety services

To fulfill this Mission, the Fire Department adheres to the following principles

- We will take GREAT risks to save your life
- We will take MINIMAL risks to save your property
- We will take NO risks for the lives or property that are already lost

Core Services

To fulfill their Mission, the Fire Department provides the following core and supporting services

- **Emergency Response:** Fire suppression, motor vehicle accidents and specialized rescue and life safety services (e.g. Auto extrication)
- **Fire Prevention:** Fire prevention inspections of public buildings, fire investigations, pre-incident planning, and development application plan review
- **Public Education:** Education services to specific target groups in the community (e.g. Schools, seniors) and public awareness of wildland interface fire risk reduction (e.g. FireSmart)
- **Training:** Career and Auxiliary training: Basic Fire Fighter Certificate, NFPA 1001 and specialized skills
- **Emergency Program Coordination:** Development of Summerland’s Emergency Program, inclusive of preparedness, response, and incident coordination
- **Administrative & Operational Support:** Vehicle and equipment maintenance, Operating Guidelines, public services, and administrative support

Service Delivery Data

Service level volumes are provided for 2003 through 2007 to provide reference data on historical experience and to identify trends as one basis for recommendation development.

- **Emergency Response Volumes**

Response Type/Year	2003	2004	2005	2006	2007
Fire Alarm – All Types	35	33	40	50	38
Ambulance Assist	1	3	4	9	7
Burning Complaints	22	18	22	22	19
Carbon Monoxide Alarm	1	3	3	2	3
Elect./Mechanical Failure	3	3	0	1	3
Fire – Campsite	3	17	10	14	9
Fire – Chimney	9	13	8	6	5
Fire – Dollar Loss	11	11	18	11	8
Fire – Electrical	1	0	1	1	4
Fire – Grass, Forest	34	14	12	17	26
Fire – Motor Vehicle	5	10	6	8	3
Fire – No Dollar Loss	16	18	2	4	5
Hazmat/Chemical Spills	2	2	2	0	0
Mutual Aid	2	0	1	1	3
Motor Vehicle Accidents	21	27	24	23	29
Natural Gas Leak	6	4	8	6	2
Public Service	11	7	7	15	10
Rescue/Non-MVA	2	4	1	2	0
Response/Investigations	28	18	27	33	33
Total	213	205	196	225	207

- **Emergency Response Times**

Response time standards are comprised of two stages

- Turnout (Dispatch page time to leaving fire hall): 1 minute for Career staff on site at the fire hall; the Auxiliary fire fighter Turnout time standard is 6 minutes
- Travel (Fire Hall to incident): The number of minutes for Travel time varies with the zone designation

- **Actual Response Times - *Targeted Urban Zone (Time includes “Turnout Time”)**

Date & Time of Call	Address	Summerland Actual Response Times (2007)	Summerland Target Response Time 6 min. 90% of time met – Y/N	NFPA Response Standard* 5 min. 90% of time – Y/N
2007/12/04 14:28	12803 Atkinson Rd.	6 min.	Yes	No
2007/06/14 17:22	14203 Rosedale Ave.	6 min.	Yes	No
2007/07/28 13:19	14002 Highway 97	7 min	No	No
2007/02/22 15:54	12803 Atkinson Rd.	7 min.	No	No
2007/08/30 16:27	9700 Brown St.	7 min.	No	No
2007/04/03 13:57	10601 Mitchel Ave.	8 min.	No	No
2007/07/08 15:58	11200 Walters Rd.	8 Min.	No	No
2007/11/10 17:02	11004 Victoria Rd. S	9 min.	No	No
2007/09/03 10:55	9685 Highway 97	10 min.	No	No
2007/06/23 16:38	3919 Landry Cres.	11 min.	No	No
2007/05/31 19:22	8200 Peach Orchard Rd.	11 min	No	No

*Urban Zone properties are within 5 minutes travel time from the Fire Hall. The data represents a sample of actual incidents illustrating response times to a variety of locations.

The Urban Zone target response time is currently met 20% of the time.

Note: A table for current Urban response times has not been provided as the current turnout time from the Fire Hall is 5 minutes and 45 seconds. Essentially, there is almost no travel time that occurs within the combined turnout and travel time 6 minute target.

- **Actual Response Times - *Targeted Suburban Zone (Time includes “Turnout Time”)**

Date & Time of Call	Address	Summerland Actual Response Times (2007)	Summerland Target Response Time 10 min. 80% of time – Y/N	NFPA Response Standard* 14 min. 90% of time – Y/N
2007/08/25 09:59	7519 Fiske St.	10 min.	Yes	No
2007/02/08 18:29	3812 Gale Pl.	11 min.	No	No
2007/07/14 10:15	8211 Front Bench Rd.	11 min.	No	No
2007/02/15 13:13	4200 Highway 97	14 min.	No	No
2007/08/26 13:49	17400 Highway 40	15 min.	No	No
2007/07/28 21:40	17400 Highway 40	20 min.	No	No

*Suburban Zone properties are within 9 minutes travel time from the Fire Hall. The data represents a sample of actual incidents illustrating response times to a variety of locations.

The Suburban Zone target response time is currently met 16% of the time.

Currently overall, response times approach the NFPA standard response times for initial response in the rural and remote areas, however they do not meet approach the standard for urban and suburban areas. The required number (4) of experienced fire fighters required to be onsite for an interior attack during a structure fire is not reliably available within response time targets, thereby limiting response action.

The District would virtually fall into the Urban and Suburban response zones on implementation of the new response time targets, excluding Garnet Dam and difficult to access wildland areas.

Understandably, Auxiliary and off-duty staff is at a time disadvantage since they must leave their location when paged (if available), travel to the Fire Hall and don protective equipment. The NFPA Auxiliary Turnout time standard is 6 minutes. Meeting this target is dependent on incident location, time of day, and Auxiliary and location.

Response times are tracked using FDM tracking software supplemented with time trials. Response time maps illustrating the geographical area covered by Fire Hall for Urban, Suburban and Rural Response Zones are in Appendix A.

- **Fire Prevention Inspections**

Fire prevention inspections are completed by the Assistant Fire Chief and two (2) Career fire fighters during their scheduled shifts in accordance with approved frequencies for each building use category. Re-inspections are performed until deficiencies are corrected. The two Chief Officer’s follow-up with property owners that repeatedly fail to correct deficiencies.

Fire Prevention Inspection Category Descriptions (2008)

Occupancy Class	Description	Properties To Inspect	Inspection Frequency	Required Inspections
Group A	Churches, Community Halls, Arenas, Restaurants	60	Bi-annually	120
Group A2	Schools, Licensed Establishments	13	Tri-annually	36
Group B	Care Institutions, Nursing Homes	8	Tri-annually	24
Group C	Hotels, Motels, Apartments	44	Bi-annually	88
Group D	Offices, Banks, Professional Svcs.	86	Annually	86
Group E	Retail Outlets	74	Annually	74
Group F1	Industrial – High Hazard	15	Bi-annually	30
Group F2	Industrial – Medium Hazard	51	Annually	51
Group F3	Industrial – Low Hazard	74	Annually	74
Total		345		583

Number of Fire Prevention Inspections Required & Completed

Inspection Category	2003 Required /Done	2004 Required /Done	2005 Required /Done	2006 Required /Done	2007 Required /Done
Group A	140/125	146/100	150/62	156/77	156/123
Group B	18/18	20/16	22/11	24/9	24/12
Group C	90/79	95/76	96/75	80/81	88/95
Group D	82/78	82/73	86/78	86/71	86/94
Group E	74/84	74/71	74/65	74/76	74/88
Group F	134/128	140/78	140/71	140/106	146/136
Site Insp.	0	41/41	64/58	84/84	42/42
Priv. Hydrant	n/a	n/a	n/a	n/a	50/21
Total	538/512	598/455	633/420	644/504	666/611

The above table indicates the number of inspections performed annually by occupancy category compared to required inspections. Business license inspections are included in Inspection category totals. Recording of private fire hydrant inspections changed in 2007. Inspections completed can be greater than inspections required due to re-inspections.

Note: Data presented in the “Number of Fire Prevention Inspections Required & Completed” table will be collected for 2008 and beyond to reconcile corporate property records with Fire Department property records, separate Business License inspections, and track re-inspections.

• **Fire Investigation Volume & Dollar Loss Fires**

Year	# Incidents	Total Loss (\$)	# OFC Reports	% OFC Reports on Time
2003	213	\$333,369	9*	100%
2004	205	\$293,390	39	50%
2005	197	\$347,369	36	30%
2006	225	\$808,950	41	40%
2007	207	\$72,700	43	10%

Office of the Fire Commissioner reporting procedures in 2004 require reports for all fires.

- **Public Education**

Public education programs and demonstrations are offered to adults, youth and children in a wide range of fire safety topics. Public education programs are largely reactive to requests.

Public Education Participation Events

Program Name	2003	2004	2005	2006*	2007
FireSmart	0	0	0	16	0
Pre-school	0	2	5	6	6
Grade School	2	9	14	10	0
Youth Groups	0	0	0	0	0
Community Groups	3	0	6	8	5
Seniors	2	1	0	1	0
Juvenile Fire Setters	2	2	1	1	0
Fire Extinguisher Demo	0	2	1	2	1
Fire Hall Tour Pre-School	11	20	15	30	12
Fire Hall Tours – Other	5	3	12	16	2
Home Safety Inspections	0	0	0	3	1
Evacuation Drills	0	2	5	14	7
Public Education – Misc.	1	0	0	3	1
Fire Alarm & Monthly Checklist training	0	0	0	0	3
Total	26	41	59	110	38

* The number of Public Education events was unusually high in 2006; at that time the Fire Department had a full time Office Assistant & Public Education Coordinator position.

Capital Assets & Staff Resources

Fire Department fulfils its' Mission through facilities, vehicles and staffing

- **Existing Fire Hall**
 - The Fire Hall was built in 1963 and has had two additions to accommodate Fire Department and ambulance vehicles, and is located close to the Municipal Hall
- **Vehicles**
 - Engine #5 (E-5): 1982 International
 - Engine #2 (E-2): 1992 Pierce
 - Rescue (R-6): 1995 Freightliner
 - Mini-Pumper (Compressed Air Foam) (MP-3): 1999 Ford F-550
 - Water Tender (WT-4): 2000 Freightliner
 - Bush Truck (T-7): 2002 Ford F-550
 - Pick-up Truck & Command Vehicle (V-349): 1995 Chevy Pick-up
 - Command Vehicle (V-390): 1997 Explorer
- **Fire Hall Staffing**
 - Fire Chief
 - Assistant Fire Chief
 - 2 Career fire fighters & fire prevention inspectors
 - 30 Auxiliary fire fighters

Regulatory, Bylaw & Policy Framework

The Fire Department relies on several provincial regulations and codes, and on District bylaws and policies to ensure public safety. Council passes bylaws enforced by the Fire Department and/or Bylaw Enforcement. A bylaws' primary effectiveness is achieved through public awareness and encouraging adherence to bylaw provisions.

- Fire Services Act: Outlines responsibilities and authorities of the Office of the Fire Commissioner (OFC) and their Local Authorities, including public building fire prevention inspections and fire investigations
- Fire Department Act: Provides direction on the two platoon system and hours of work
- Emergency Program Act: Outlines responsibilities for development of an Emergency Program and Emergency Social Services
- Workers Compensation Act: Among other provisions, specifies on-site staffing minimums during interior fire suppression attacks (Part 31). Bill C45 is a criminal code amendment indicating potential employer consequences for negligence.
- BC Fire Code: Outlines fire prevention and enforcement responsibilities
- BC Building Code: Specifies life safety building code requirements related to fire prevention and loss minimization in buildings other than single family dwellings; this is accomplished through building plan review
- Fire & Life Safety Bylaw #2421: Establishes the Fire Department, outlines Fire Chief responsibilities, and provides specific requirements for permits, inspections, open air burning, campfires, fireworks, and enforcement
- Fire Limit Area Bylaw # 2000-114: Establishes building sprinkler requirements
- Subdivision & Development Services Bylaw #99-004: Input on subdivision applications for access, egress, turning radius, water supply to hydrants, hydrant location, road grade and width, and wildland interface
- Restrictive Covenants: Requirements for appropriate roofing material, siding, screening of eaves, professional Foresters report for hazard analysis, and decks and openings to minimize combustible material accumulation on new developments located within wildfire hazard rating high and extreme. Requirements for properties for which buildings do not meet the driveway access requirements of the Subdivision & Development Services Bylaw #99-004.
- Council Policies:
 - Fire Hydrant Installations #800.1
 - Minimum Fire Inspections #800.2
 - Paid On-Call Fire-fighter and Officer Remuneration #800.3
 - Vehicle and Firefighter Hourly Call-Out Rate #800.4
 - Emergency Response Outside Municipality #800.5

Additionally, there are standards of professional bodies

- National Fire Protection Association (NFPA): A North American association that provides a comprehensive set of non-mandatory standards for the fire service
- Canadian General Insurance (CGI): CGI conducts Fire Underwriter's Survey (FUS) assessments for municipal fire insurance ratings, and provides fire protection recommendations to improve insurance ratings
- Underwriter's Laboratories of Canada (ULC): Maintains and operates laboratories and a certification service for the examination, testing and classification of devices, constructions, materials and systems to determine their relationship to life, fire and property hazards.

Underwriters' Laboratories of Canada also develops and publishes standards, classifications and specifications for products having a bearing on fire, accident or property hazards.

Partnerships

The Fire Department has established partnerships are as follows

- Ministry of Forests: Local Governments and Fire Protection Program Standard Operating Guideline
- Provincial Emergency Program (PEP): Reimbursement rate for Regional Road Rescue (i.e. Auto Extrication (Jaws)) outside the District of Summerland Municipal boundary approximately one-half the distance to Peachland, Penticton, and Princeton from Summerland
- Mutual Aid Agreements: Mutual aid agreements are in place with
 - City of Penticton
 - District of Peachland
 - Thirteen (13) Regional District of Okanagan-Similkameen (RDOS) communities through the Fire Protection Mutual Aid Agreement
 - Town of Oliver
 - Town of Osoyoos
 - Town of Princeton
 - Hedley Improvement District
 - Oliver Fire Protection District
 - Osoyoos Rural Fire Protection District
 - Anarchist Mountain Fire Protection District
 - Kaleden Fire Protection District
 - Keremeos and District Fire Protection Service
 - Naramata Fire Protection Service
 - Okanagan Falls Fire Protection Service
 - Tulameen and District Fire Protection Service
 - Willowbrook Fire Protection Service

Future Requirements & Challenges to be Met

Predictably, as past challenges are met, new challenges arise. For the Fire Department, these challenges are driven by the potential of significantly increased community growth associated with several large developments planned or approved.

Fire prevention activities correspondingly increase with community growth. Consequently, adequate resources in facilities, vehicles and staffing that address increasing volumes and requirements follow. Addressing emerging issues also drives service delivery initiatives.

Summerland Growth & Patterns of Growth

Population estimates begin with the 2006 Census baseline data supplemented with anticipated population increases associated with approved development applications. Residential population increases at the rate of 2.3 persons per dwelling unit.

The Master Plan provides a long term vision for fire and rescue services to a potentially growing community. The Summerland Hills, Summerland Vista, and the Jersey Lands developments would add an anticipated 1,115 dwelling and 650 tourist/commercial units, 215 dwelling units, and 691 dwelling units, respectively for about 4,600 residents over a 15 – 20 year period.

Downtown and lower town developments would add a further 300 dwelling units downtown, 308 dwelling units at Wharton Street, and ~200 dwelling units in the lower town. In total, this translates into about 1,800 residents. If all developments proceed, community growth would be in the 50% range over 15 – 20 years, a large increase over the 1.0% average annual growth rate of the past 10 years.

Dwelling unit projections do not include smaller developments which, if approved and constructed over the term of the Master Plan would further increase population projections.

District of Summerland Population Projection

2001 Census	2006 Census	2007 BC Stats	Growth 2006/2001	Projected 2017*	% 2017/2008	Projected 2027**
10,723	10,828	11,563	1.0%	14,750	22.9%	17,500

*Assumes 50% build-out of Summerland Hills, Summerland Vista, Jersey Lands, Downtown & Lower Town developments in 10 years

**Assumes 100% build-out of Summerland Hills, Summerland Vista, Jersey Lands, Downtown & Lower Town developments in 20 years

Approval of the updated Official Community Plan (OCP) is anticipated by mid-2008. The Master Plan seeks to respond to evolving patterns of community growth and anticipated growth for the ten year period and beyond. The Master Plan seeks to be congruent with growth patterns already underway and the vision of encouraged growth patterns in the OCP. The Master Plan recognizes that approximately 85% of the properties in Summerland are residential with the remainder being commercial, institutional, and industrial.

While developers typically hope for a quick build-out, actual absorption is speculative over a 10-20 year time horizon. Phasing emergency response services must be sufficiently flexible to respond more or less quickly to fluctuations in the rate of dwelling unit absorption.

While development trends in several British Columbia communities indicate increased second home construction, this is not a significant trend in Summerland. Second homes are usually unoccupied, yet generate tax revenue and require Fire Department and other municipal services. As a recreational destination, visitor populations create a seasonal risk factor.

Population projections, anticipated patterns of growth, and the rate of growth are by their nature, based on assumptions. The task is to identify the approximate point in time the Fire Department facility construction and increased staffing are required to meet response time targets.

Operational Requirements & Challenges

Operational requirements and challenges directly impact the Fire Departments' service delivery efficiency and effectiveness.

Response Volumes

The total number of emergency response calls has been essentially unchanged over the 2003 through 2007 time period. Response volumes and the requirement for other core services such as inspections and public education are correlated with community growth in population, dwelling units and commercial development. The anticipated growth, once realized, translates into higher future emergency response volumes and the provision of other services.

Response Time Comparisons to Standards

Response times are positively or adversely affected by facility location, vehicle availability and location, and staff complement at facilities or elsewhere. Response time guidance is affected by regulatory requirements (e.g. WorkSafeBC) and by recommended, non-mandatory standards of professional bodies (e.g. NFPA).

The Fire Department does not have established and supported response time targets in place. Actual Turnout and Travel time data is accessible from FDM to be tracked.

Current and projected response time issues are as follows

- The Turnout time standard for Career staff is 1 minute; the Turnout time standard for Auxiliaries is 6 minutes (NFPA). Actual Summerland Auxiliary average Turnout time is 5 minutes and 45 seconds, a good response within NFPA standards.
- The approximate 5 minutes longer Auxiliary fire fighter Turnout time is lost Travel time restricting the time sensitive "reach" to distant locations

Response Time Maps in Appendix A provide data from FDM actual response and time trial data. Time trials assumed the standard 1 minute Turnout time. The maps translate data into a visual representation of the capacity to respond within response time targets for each response zone.

Fire Hall Status

The existing Fire Hall was built in 1963 and has had two additions to accommodate additional Fire department ambulance service vehicles. While the Fire Hall location is in the downtown core and can respond to emergencies in the central area of the community well, the location is not ideal for the long term. Fire Hall location is typically preferred to be on or very near an arterial road away from schools and heavier downtown traffic.

The majority of other concerns are space related

- Classroom space is insufficient for effective training of up to 30 Auxiliary fire fighters; two desks and storage cabinets are also in this space
- Emergency response office and meeting space is insufficient; the ham radio centre is located in a small meeting room
- Office and storage space for Emergency Social Services is insufficient
- Beyond the term of the Master Plan, space will be increasingly necessary for
 - Male and female washrooms and change rooms
 - Live-in accommodation for some Auxiliaries available for night time response
- The Fire Chief's office is the first point of contact for the arriving public; work is frequently interrupted
- Parking for Auxiliary fire fighters is inadequate. Auxiliaries often park in business parking lots or park at a distance; Turnout time is increased. Safety is compromised in the rush of vehicles to get to the Fire Hall, park and enter the building.
- The current Fire Hall does not have space for any on-site outside training

The existing Fire Hall location in the core of the downtown is ideally suited for residential, commercial or a residential/commercial mix redevelopment consistent with the draft OCP directions. Opportunities exist to meet the long term needs in a new Fire Hall and re-use the existing Fire Hall site for more value-adding and compatible downtown uses. There may well be financial opportunities for the existing Fire Hall site that offset new Fire Hall costs.

Vehicle Status

The District has an established Fire Department vehicle replacement reserve in place. However, there are several current and emerging issues regarding the reserve

- Engine #5 is 6 years overdue for replacement and is awaiting replacement in 2008, funding access permitting. Reserve funds are not predictably kept for Fire Department vehicle replacement. Getting behind on vehicle replacement compounds future vehicle replacement funding requirements. The District may want to consider establishing a separate contingency reserve for unexpected high cost expenditures.
- Assuming Engine #5 replacement proceeds in 2008, the vehicle replacement reserve will be nearly completely depleted. The department's annual contribution rate to the reserve was decreased by 36% from \$75,000 to \$48,000 and will be inadequate to fund future high cost replacements. Future vehicle purchases will require supplemental funding.
- Replacement vehicles are purchased in the United States and have benefited from a strong Canadian dollar more than offsetting the impact of rising steel prices on new vehicle costs. The already insufficient annual vehicle replacement reserve contribution will be under further pressure if the U.S. dollar strengthens.

- The advent of high rise buildings requires an upgrade in vehicle type for fire suppression. Composite Engine/Tele-Squirt vehicles can serve two purposes; perform as an Engine and/or use in high rise fire suppression. An aerial vehicle which has limited Engine capability can likely be avoided during the term of the Master Plan with current high rise development expectations. If required due to changing development, acquisition could be timed to coincide with Engine #2 replacement to minimize cost.
- The replacement lifecycle for command and light vehicles is currently 15 years, longer than is typically found for many fire and rescue services.

Operational Services

The Master Plan addresses a number of current and emerging challenges

- **Auxiliary Fire Fighters**

The contribution of Auxiliary fire fighters is substantial; fire and rescue services could not be delivered to the community without their contribution and commitment. However, as communities grow and needs evolve, commonly encountered issues arise

- The challenge of attracting and retaining Auxiliary fire fighters given increased time commitments for training and anticipated increased response volume during the term of the Master Plan will occur. The turnover rate is 8-10% annually.
- Summerland is a predominantly residential community. It is common for the employed to work out of the District. The following data illustrates availability compared to response requirements
 - There are 30 Auxiliary fire fighters positions, 8 of which are recent hires on one-year probation and in the process of completing Basic Fire Fighter training. The 8 probationary Auxiliaries are limited in the duties performed at an incident. Career and experienced Auxiliaries rely on fully trained and experienced team members for public and personal safety.
 - Of the present 29 Auxiliaries, 16 (55%) have less than 3 years experience; 8 (28%) have less than 6 months experience
 - 14 Auxiliaries (47%) are unavailable for daytime response
 - 1 (25%) of the 4 Auxiliary shift Captains is unavailable for daytime response due to employment outside the District
 - 70% of emergency response calls occur in the daytime (7:00am – 7:00pm) based on a 5 year average, when only 14 (53%) of Auxiliaries and 3 (75%) of Auxiliary Captains may be available to respond due to their work location being within or close to Summerland
 - Based on a data sample (July 1, 2007 – April, 2008), 39 - 40% of Auxiliaries paged actually respond depending on the time of day
 - The Turnout time standard for Career staff is 1 minute; the Turnout time standard for Auxiliaries is 6 minutes (NFPA). Actual Auxiliary Turnout time is 5 minutes and 45 seconds, a good response within NFPA standards
 - The approximate 5 minutes longer Auxiliary fire fighter Turnout time is lost Travel time restricting the time sensitive “reach” to distant locations
- As the community grows, Auxiliary call-out will be increasingly required to meet higher call volumes. Response is unlikely to reliably meet higher call volumes as some employers react to frequent loss of employees for response.

- A challenge is the considerable commitment required for training at a minimum of 90 hours/year completed one evening per week for 2.5 hours/week. Training hours increase as regulatory and prudent safety training requirements evolve.
- Auxiliary fire fighters respond to all types of incidents. They perform a prescribed range of responsibilities at the incidents, generally leaving decisions requiring higher level training and more experience to Career fire fighters.

As communities grow, the composite mix of Career and Auxiliary fire fighters necessarily evolves towards increased Career fire fighter complements. The valuable contribution of Auxiliary fire fighters continues and is integral to incident response. The factors outlined above give cause to consider the ideal mix of Career and Auxiliary fire fighters match to response requirements.

- **Fire Prevention Inspections**

Fire prevention inspection completion ranges from 8% (2007) to 22% (2006) not completed in accordance with the inspection frequency table. Inspections are currently completed by the two (2) Career fire fighters and when required by the (2) Chief Officers. The Fire Department's four (4) career staff completes the majority of non-emergency response core services.

Additional observations follow

- Some inspection training has been completed to ensure high quality inspections are performed; completion of the remaining training programs is required
- There is insufficient follow-up on owners/tenants who do not rectify deficiencies
- Management reports on outstanding inspections could be generated from FDM for use in inspection management and to ensure complete records of inspections for risk management purposes

- **Fire Investigation**

The Office of the Fire Commissioner requires fire incident investigations be conducted within 3 days of the incident and a report be submitted. Even though the number of fire incident investigations remains relatively constant, timelines in meeting report submission have eroded from 100% on time in 2003 to 10% on time in 2007.

- **Public Education**

With the exception of a Fire Alarm Reduction program currently being developed, Public Education program implementation has been largely reactive, not proactive.

A Public Education Plan is not in place. The full range of Public Education programs have not been offered nor are all target groups being adequately served. The volume of sessions offered has not been strong in the past 5 years and has eroded recently. The number of Public Education events was unusually high in 2006; at that time the Fire Department had a full time Office Assistant & Public Education Coordinator position. Participation is now lower, due to the lack of resources available to develop and delivery the program.

- **Pre-Incident Planning**

Pre-incident plans are developed for large scale and/or complex properties having higher than normal risk factors. Pre-incident plans are used during fire suppression for efficient service delivery and staff safety. Pre-incident plans are in states of completion as follows

- 60 pre-incident plans are prepared in paper format
- 58 of 60 paper format pre-incident plans are partially completed in digital format
- 80 pre-incident plans remain to be started and completed

- **Training Program**

The training program is well established for Basic Fire Fighter and Fire Fighter I & II courses. Fire Fighter I & II courses are optional but encouraged for Auxiliary fire fighters. There are training gaps in the Basic Fire Fighter program for some of the senior Auxiliary fire fighters and Auxiliary Captains required to be addressed.

There are training gaps in two other types of training programs required to be addressed

- **Certification Training:** Career and Auxiliary fire fighters receive training and skill practice in a number of topics to ensure knowledge and skills levels are current
- **Specialized Training:** Training is provided for special situations such as hazardous materials, confined space rescue, and low angle rescue

Auxiliary fire fighters train at weekly evening sessions, 50 weeks/year for 2.5 hours/week and on some weekends. Required attendance is set at 36 sessions/year; some Auxiliaries training attendance is below this limit. Poor and spotty attendance leads to a lower quality of knowledge and practice skill development.

Annual Training Hours - Career & Auxiliary Fire Fighters

Year	Practice Nights	Additional Training Sessions	Career Fire Fighter Shift Training*	Total Training Sessions	Total Training Hours
2003	41	8	0	48	158
2004	40	14	0	54	247
2005	42	11	0	53	260
2006	48	24	0	72	343
2007	50	55	93	198	495

* Career fire fighter shift training began in 2007

- **Wildland Interface**

Portions of the residential community border on wildlands and have potential for wildland interface fires. Topography, wind, and dry summer climatic conditions contribute to the risk. Expanding development into and adjacent to, wildland areas further increases the risk. Increased public education initiatives are an area of increasing need to involve the community in risk mitigation activities.

The Forest Practices Act clearly defines that the District is fully responsible for the suppression and related cost for extinguishment of wildland fires within the District with the exception of crown land.

Significantly highly rated lands are as follows

- Extreme Hazard Rating – 1,459 Hectares
- High Hazard Rating – 3,479 Hectares
- Moderate Hazard Rating – 113 Hectares

- **Organizational Structure**

The Fire Department is managed by a Fire Chief and an Assistant Fire Chief. These Officers combined with two Career fire fighters provide the leadership and delivery of all core services and all administrative and maintenance support. Service level gaps are inevitable as all functions cannot be performed up to standard with this number of staff.

Examples include

- Insufficient senior Officer capacity to fully develop, implement, and administer the Inspection Program, Public Education Program, Training Program, complete fire investigation reports on time, and provide the emergency preparedness awareness component of the Emergency Program
- Some programs require more substantial development and implementation not possible with one Assistant Fire Chief in addition to the above programs, Operations planning and service delivery, fully develop pre-incident plans, enhance Auxiliary staffing, training, and retention, and coordinate, develop and maintain departmental Operating Guidelines
- Insufficient senior Officer coverage on a 24/7 basis and during vacation and other absences; Career fire fighters take on Assistant Fire Chief and at times Fire Chief responsibilities when one or both senior Officers are absent
- Insufficient senior Officers are in place to enable effective succession planning and career development

- **Development Application Review**

Development of several high rise buildings in the downtown and lower town is beginning to occur. The Fire Department's approach to fire suppression in these building and required response vehicle complement differs from low rise buildings. The Fire Department reviews Development Permit and Building Permit plans and seeks risk reduction building features that mitigate risk as part of the approval process.

As development expands onto hillsides, development application input is increasingly important to ensure adequate road width, accessible road grades, and fire hydrant spacing and location enable emergency response. Enhanced risk mitigation as part of land development permit approval processes is one means to reduce risk.

- **Greta Ranch, North Beach & Faulder**

In the event the Regional District of Okanagan-Similkameen (RDOS) submits a formal request for coverage of these communities, the District of Summerland should consider the implications of the request within the context of ensuring protection for the District of Summerland as the highest priority. Consideration of a hypothetical, unspecified request is premature and beyond the scope of the Master Plan at this time.

Recommendations

Recommendations for each core service provided by the Fire Department follow provision of background information on each core service.

Operations

The goal of any emergency response service is to provide sufficient staff, vehicles and equipment on a timely basis and take action to minimize adverse impacts on people and property. This applies to fire suppression, motor vehicle accidents and other types of emergencies to which the Fire Department responds.

The Fire Department does not have formal response time targets currently in place. While response time statistics are available to monitor performance formal response time targets have not been established nor Council support sought.

The Fire Department is staffed by a composite model providing defined emergency response services to Summerland and regional road rescue services on a fee for service basis.

Background

The following background synopsis and illustrative emergency response information is provided to establish a context for recommendation development.

- **Structure Fires**

Most fires within buildings develop in a predictable fashion, unless accelerated by highly flammable material. Ignition, or the beginning of a fire, starts the sequence of events. It may take some minutes or even hours from the time of ignition until flame is visible. This smoldering stage is very dangerous, especially during times when people are sleeping, since large amounts of highly toxic smoke may be generated.

Typically, once flames appear, the sequence accelerates rapidly. Combustible material adjacent to the flame heats and ignites which in turn heats and ignites other adjacent materials if sufficient oxygen is present. As the objects burn, heated gases accumulate at the ceiling of the room. Some of the gases are flammable; all are highly toxic.

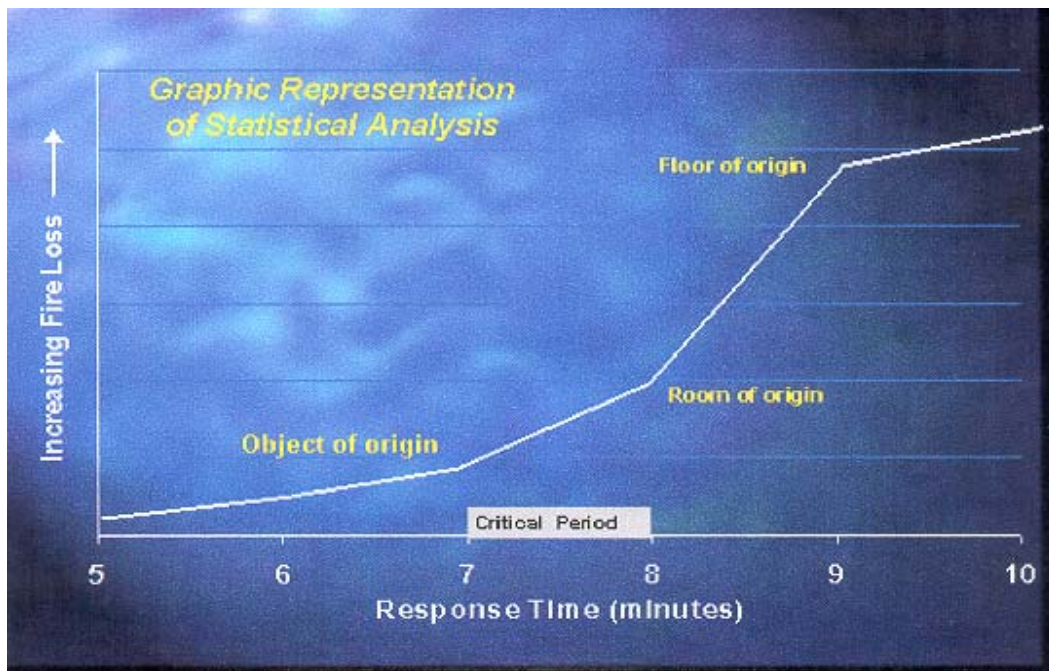
Fire continues to spread quickly, soon flammable gases at the ceiling reach ignition temperature and flame-over occurs. Subsequently, flashover occurs where all contents ignite due to the extreme heat. Damage caused by the fire is significant and the environment within the room no longer supports life. Flashover usually occurs five to eight minutes from flame appearance in typically furnished and ventilated buildings.

It is important to control a fire before damage to the structural building frame occurs. Materials used to construct buildings today are often less fire resistant than heavy structural skeletons of older frame buildings. Roof trusses and floor joists are commonly made with lighter materials more easily weakened by fire. Light weight roof trusses fail after five to seven minutes of direct flame contact. Depending on adjacent flammable materials, plywood I-beam joists can fail after as little as three minutes of flame contact, creating a very dangerous environment for fire fighters.

In addition, the contents of buildings today have much greater potential for heat production than in the past. The widespread use of synthetics in furnishings and other building contents rapidly accelerate fire spread and increase the amount of water needed for fire control. The early application of water is essential to a successful outcome.

The time and temperature relationship provides direct guidance to the need to achieve response time targets. The shorter the time period between ignition and fire suppression, the lower the risk of injury, potential for loss of life, and value of property loss.

The following graphic illustrates the typical pattern of fire spread, related to time.



Beginning with ignition and concluding with the application of water, the time required for each of the six steps in the response cycle varies. The Fire Department' Operating Guidelines directly influence the last three steps

- Detection: Detection happens by way of automated fire alarm system or by public emergency calls
- Reporting & Dispatch: The initial call is taken at the 911 dispatch centre in Kelowna and then passed on to Penticton Fire Dispatch. The dispatcher identifies the correct fire location and pages Career and Auxiliary fire fighters, as required
- Turnout: Career fire fighters don personnel protective equipment and assemble on the responding vehicle. Auxiliary fire fighters travel from their work, home or other location to the Fire Hall, don personnel protective equipment and assemble on the responding vehicle(s). The vehicle then leaves the Fire Hall.
- Travel: This is the longest phase of the process as distance, road conditions, weather, time of day, and topography are major factors

- Set-up: Once fire fighters arrive on the scene, fire vehicles is positioned, hose lines laid-out, additional equipment assembled, and certain preliminary tasks performed before entry is made to the structure and water is applied.

As is apparent by this sequence of events, ensuring efficient Turnout and Travel times are a significant challenge. Turnout time for on-site Career fire fighters is obviously much quicker than for Auxiliary fire fighters not located at the Fire Hall.

- Motor Vehicle Accidents

The action taken within the first hour after a motor vehicle accident can be key to survival. Within this one hour, injured people need to be at a critical care facility to save lives, reduce suffering and enhance recovery. Two factors must be completed prior to patient transportation. First, the patient is stabilized prior to movement to prevent further injury or death. Second is extrication, a time consuming methodical process of removing the damaged vehicle from around the patient. To carefully cut, spread, pry and pull a vehicle apart without moving the injured person takes knowledge, skill and time.

Recommendations: Operations

The principle recommendation is to divide the District of Summerland into three response zones and establish quantifiable response time targets for each response zone. Decisions on facilities, vehicles, staff and organization are proposed to support achievement of these response time targets. As well, facility and staffing recommendations are matched to anticipated community growth and patterns of that growth.

Establishment of response time targets is, among a number of attributes, consistent with the principles of performance management based on identified performance indicators. Response time targets are also consistent with provisions of the Community Charter that promote performance measurement, and sound management practices.

Specifically, the principle recommendation is as follows

- **Establish Response Time Zones**

Establish three (3) response zones with defined response time targets for each zone

- **Urban Zone**: Central downtown commercial and residential core
- **Suburban Zone**: Intermediate areas between the urban core and rural areas
- **Rural Zone**: Distant, more sparsely populated areas and difficult to access wildland areas

- **Establish Response Time Targets for each Zone**

Establish response time targets that approach the National Fire Protection Association (NFPA 1710) standards and best practices that communities can strive to achieve and maintain. While NFPA standards are neither mandated nor legally required, they do represent standards recommended by subject matter experts based on a broad and deep body of knowledge and experience.

Response time “targets” are targets and not implied guaranteed service levels. Response times can be adversely affected by other incidents in progress, weather, road conditions or construction, and the location of the incident (e.g. terrain, access). WorkSafeBC regulations provide mandatory staffing requirements for building entry during a fire.

Response Time Targets by Zone

Zone Name	Summerland Fire Department Target Response Times*	NFPA Response Standard*
<u>Urban Zone</u> Downtown commercial & residential core	<u>Phase I:</u> 1 st Engine (2 staff) in 6 minutes, plus 2 Auxiliaries in 6 minutes 90% of the time (7am - 7pm) <u>Phase II:</u> 1 st Engine (1 staff) in 6 minutes, plus 3 Auxiliaries in 6 minutes 90% of the time (7pm - 7am)	1 st Engine 90% of the time in 5 minutes (4 staff) 1 st Alarm Assignment 90% in 9 minutes (15 staff)
<u>Suburban Zone</u> An intermediate standard responsive to topography & distance travelled	<u>Phase I:</u> 1 st Engine (2 staff) in 10 mins., plus 2 Auxiliaries in 10 minutes 90% of the time (7am - 7pm) <u>Phase II:</u> 1 st Engine (1 staff) in 10 minutes, plus 3 Auxiliaries in 10 minutes 90% of the time (7pm - 7am)	NFPA presents minimum response times for <u>urban & rural areas only</u> ; 9 minutes is an intermediate selection
<u>Rural Zone</u> Distant, more sparsely populated areas and difficult access wildlands	<u>Phase I:</u> 1 st Engine (2 staff) in 16 mins., plus 2 Auxiliaries in 16 minutes 80% of the time <u>Phase II:</u> 1 st Engine (1 staff) in 16 minutes, plus 3 Auxiliaries in 16 minutes 90% of the time (7pm - 7am)	1 st Engine (6 staff) & 1 st Alarm Assignment 80% of the time in 14 minutes (12 staff)

*Response times include 1.0 minute Turnout time for Career fire fighters. 6.0 minutes has been used for Auxiliary fire fighters from page-out time to arrival at Urban zone incidents

Response time guidelines provided by the NFPA are based on the time/temperature relationship and the fire propagation curve. Simply put, the sooner the response team responds to a fire, the lower the risk of injury or death and the lower the property loss.

- **Core Enablers Supporting Response Time Achievement**

Achievement of response time targets is made possible by the appropriate allocation of resources, namely, facilities, vehicles and staff

- **Facilities**

The existing Fire Hall is recommended to be replaced on the existing RCMP site. The RCMP site is owned by the District and is a central location well-suited for the new fire hall. A central location avoids travel time erosion from a distant location. Revenue generating options could be available to minimize the cost of the new fire hall through innovative development of the existing fire hall site.

It is recognized that the RCMP site is a desirable site for other alternate uses. Should this site not be available, then an alternate downtown site with good arterial road access should be considered.

The facility recommendation was developed by exploring possible avoidance of a satellite fire hall. It is projected that combined with the implementation of staffing recommendations there will not be a need for a satellite fire hall in or near the Summerland Hills development during the term of this Master Plan. This is a substantial saving in facility, vehicle and staffing costs.

The facility recommendations are as follows

- **2017 – Design Drawings & Permits:** Complete design drawings and permits for the replacement Fire Hall on the RCMP site or an alternate downtown site at an estimated cost of \$100,000
- **2018 – 2022 - Construct Replacement Fire Hall:** Within this timeframe construct the replacement Fire Hall and seek higher value uses for the existing fire hall site
- **Proposed Public Works Yard:** Should the Public Works Yard be constructed at or near the Water Treatment Plant, space for training is requested. The space is for a trailer, washroom access, working fire hydrant, and props (e.g. old car).

○ **Vehicles**

Replacement lifecycles for Fire Department vehicles are recommended to be consistent with Canadian General Insurance (CGI) Fire Underwriter's Survey (FUS) lifecycle standards for smaller municipalities. Smaller municipality status extends the lifecycle for vehicles (i.e. vehicles) from 15 years to 20 years. Vehicles can be held in reserve for up to 10 additional years and still be credited for fire insurance purposes.

The recommended replacement schedule is as follows

- **Engines:** 20 years for front line
- **Engine/Tele-Squirt:** 20 years for front line
- **Mini-Pumper (CAF):** 20 years for front line
- **Water Tenders:** 20 years for front line
- **Bush Truck:** 20 years for front line
- **Command & Support Vehicles:** 12 years (non-FUS)

Specific vehicle replacement recommendations are as follows

- Replace Engine #5 in 2008 with an Engine/Tele-Squirt vehicle to provide enhanced fire suppression to high rise buildings as part of the scheduled vehicle replacement program. Retain Engine #5 in reserve until 2012 (i.e. 30 years) to meet the FUS requirement for a combined fleet 3,000 gallons/minute capacity (currently 1,165 g/m) thereby strengthening the District's fire insurance rating.
- Replace Engine #2 in 2012 with an Engine. Retain Engine #2 in reserve for 10 years to continue the fire insurance rating.
- Amend command and support vehicle replacement lifecycles from 15 years to 12 years to ensure reliability; proportionally adjust annual reserve contributions

The Engine/Tele-Squirt selection was based staffing, space requirements, training requirements and on maximizing the functionality and cost-effectiveness of Engine with external high-rise fire suppression capability.

A Tele-Squirt vehicle is a compact rated aerial vehicle that operates and responds like a pumper. The vehicle provides a versatile first-out unit to handle both rescue and fire suppression operations. Technically, a Tele-Squirt has restricted ladder tip weight, limited rescue capabilities, and is excellent as an elevated master stream device. Capacity is rated at 500 lbs, with ladder length options – 50', 65', 75'. One (1) fire fighter is required to set up and operate this vehicle.

An aerial/platform vehicle requires additional staffing not included in this report, adequate space requirements in a new fire hall, extensive training requirements and would be used infrequently and serves a small portion of the overall population at this time.

An aerial/platform vehicle is larger, has improved rescue capabilities, with a master stream device. This vehicle requires specialized training and upgrading to class 3 drivers licenses. Capacity is rated at 1,000 lbs with ladder length options of 85' – 100.' Two (2) fire fighters are required to set up and operate this vehicle. This vehicle will not fit in current fire hall due to overall length.

The development application review process for Development Permits and Building Permits allows for input from the Fire Department on building design measures that reduce fire risk and support internal fire suppression.

Re-consideration of acquiring an aerial/platform vehicle may be required over the 10 year period or beyond this period, depending on the uptake of increased building height and the number of high rise buildings constructed.

Within this context, vehicles replaced over the term of the Master Plan (Estimated cost of outfitted vehicles in 2008 dollars) are as follows

- **2008 – Engine #5 (1982):** Replace with Engine/Tele-Squirt \$750,000
- **2009 – Pick-up Truck & Command Vehicle (1995):** \$45,000
- **2010 – Command Vehicle (1997):** \$45,000
- **2012 – Engine #2 (1992):** \$600,000
- **2015 – Rescue Vehicle (1995):** \$500,000

○ **Staffing**

Staffing recommendations support attainment of response time targets within the context of safety in three components.

First, there is creation of sufficient Career fire fighter positions over the term of the Master Plan to enable in Phase I, two (2) Career fire fighters to be at the Fire Hall 7 days/week from 7am to 7pm and in Phase II, one (1) Career fire fighter to be at the Fire Hall 7 days/week from 7pm to 7am This Career staffing

complement combined with the Auxiliary complement enables Turnout time to achieve the 1 minute target to reduce the overall response time and minimize injury and loss.

Second, Auxiliary fire fighter reporting procedures to the Fire Hall following a page would be changed such that the reporting location can be the incident site. Operating Guidelines would be updated to ensure effective implementation. The reporting location change means that the Turnout time for Auxiliary fire fighters occurs concurrent with the combined Turnout and Travel times for responding Career fire fighters.

Third, the response team assembled at the incident site would include from 7am to 7pm, two (2) Career fire fighters and two (2) or more Auxiliary fire fighters, as required. From 7pm to 7am one (1) Career fire fighter and off-duty or Auxiliary fire fighters would be paged, as required.

Safety and service delivery would be enhanced as the training and experience of Career fire fighters is known. Auxiliary fire fighters arriving at the site would be assigned responsibilities commensurate with their training and experience.

Staffing recommendations seek to achieve five (5) goals

- Maintain the current FUS rating for insurance purposes
- Increase the combined Turnout and Travel time “reach” to suburban and rural areas with improved response times for all response zones
- Increase the predictability and life safety associated by having an increased number of fully trained and experienced fire fighters on-site at an incident
- During the time frame of this Master Plan, eliminate the need for a satellite fire hall and on-site vehicles in or near the Summerland Hills area as that community achieves substantial or full build-out. This eliminates the challenges and cost of building and staffing a satellite fire hall.
- Establish two phases of staffing recommendation implementation during the 10-year period that matches staffing complement increases to the highest response time volume first (daytime) followed by the night time

To achieve these goals, the Turnout time differential between Auxiliary and Career fire fighters is estimated to be reduced by nearly 5 minutes through changes to incident reporting procedures for Auxiliary fire fighters. With updated Operating Guidelines, paged Auxiliary fire fighters would proceed directly to the incident in most instances.

Auxiliary fire fighters are typically paged on an all shift basis; this number is reduced by Auxiliary fire fighters not available during daytime hours. Updated Operating Guidelines would address proximity and reporting procedures.

The combined Turnout and Travel time reduction acts to improve response times within Summerland's recommended target times. The "reach" is significantly improved as illustrated in response time maps (Appendix A).

Staffing recommendations are presented in two phases to distribute cost increases and enable Phase II to be timed to correspond to community growth. Phase I is the highest priority as 70% of emergency response calls occur during the daytime.

Staffing recommendations, by phase, are as follows

o **Phase I (Enhanced day time response)**

Completion of Phase I results in two (2) Career fire fighters in the existing Fire Hall seven (7) days/week from 7:00 am – 7:00 pm. This staffing complement enables a 1 minute Turnout Time from the Fire Hall. Paged Auxiliary fire fighters would proceed directly to the incident during these daytime hours.

- **2009 – Career Fire Fighter:** Create one (1) additional Career fire fighter position at an estimated cost of \$65,000 and one time staff turnout kit of \$3,500
- **2010 – Career Fire Fighter:** Create one (1) additional Career fire fighter position at an estimated cost of \$65,000 and one time staff turnout kit of \$3,500
- **2011 – Career Fire Fighter:** Create one (1) additional Career fire fighter position at an estimated cost of \$52,000 and one time staff turnout kit of \$3,500 (Vacation coverage cost partially offset by reducing the budget \$13,000)

Note: Full Phase I implementation only begins once all three (3) additional Career fire fighters are in place to enable full coverage seven (7) days/week from 7:00 am – 7:00 pm.

To implement Phase I, 10 additional staff turnout kits are required in 2009. In addition, 3 staff turnout kits would be required in each of 2010, 2011, and 2012. The kits enable those Auxiliary fire fighters who can respond during the day time, ease of access to their staff turnout kit.

o **Phase II (Enhanced night time response)**

Completion of Phase II results in one (1) Career fire fighter in the Fire Hall seven (7) days per week from 7:00 pm – 7:00 am. At full implementation of Phase II, Career/Auxiliary fire fighter Turnout times of 1 minute would be in place 24/7. As before, paged Auxiliary fire fighters would proceed directly to the incident.

- **2014 – Career Fire Fighter:** Create two (2) additional Career fire fighter positions at an estimated cost of \$65,000 and one time staff turnout kit of \$7,000
- **2015 – Career Fire Fighter:** Create one (1) additional Career fire fighter position at an estimated cost of \$65,000 and one time staff turnout kit of \$3,500

Note: Full Phase II implementation begins once all three (3) Career fire fighters are in place to enable full coverage seven (7) days/week from 7:00 pm – 7:00 am.

Auxiliaries remain highly valued as an integral component of fire suppression response. Auxiliaries would be called-out for incidents requiring more than two fire fighters. It is anticipated some Auxiliaries may apply for new Career fire fighter positions.

Fire Prevention Inspection, Investigation & Public Education

Fire prevention is the proactive action taken to reduce the probability of fire occurring and keeping to a minimum the human impact and property loss when a fire does occur. Fire Prevention is a group of inter-related proactive services that seeks to minimize adverse fire-related events.

Fire prevention is comprised of several services

- Inspections
- Fire Investigation
- Public Education
- Pre-incident planning
- Development application review

Specific background information is provided on each service group leading to recommendations

- **Fire Prevention Inspections**

The Fire Department groups fire prevention inspections by property occupancy use categories. Highly used public use buildings are inspected most frequently. Career fire fighters complete inspections during daytime shifts. Re-inspections occur until deficiencies are corrected. In cases where deficiencies remain uncorrected, the Assistant Fire Chief pursues enforcement action up to and including legal action.

- **Fire Investigations**

The Assistant Fire Chief is responsible for fire investigations whether completed personally or by Career fire fighters. Under the Fire Services Act, the Fire Department is required to investigate the cause, origin and circumstances of all fires within three (3) days after the fire and submit a report to the Office of the Fire Commissioner (OFC). The actual length of time to complete investigations can range from hours to days depending on the nature and complexity of the event.

Inspectors must be sufficiently trained to OFC standards at the Fire Investigation I level for fire investigation. Lessons learned from fire investigations provide input to the property inspection and public education programs.

- **Public Education**

Public education lectures, programs, tours, and demonstrations are typically offered to adults, youth and children in a wide range of standard Public Education programs on fire safety topics including wildland interface fire risk reduction, FireSmart, general fire safety, and Juvenile Fire Setters, to name a few topics.

Public Education service delivery offerings have been few due to staffing levels and workload. A recent initiative in progress is a False Alarm Awareness program designed to reduce false alarm response calls. Given the nature of Summerland's dry summer conditions, an increased emphasis through a variety of initiatives is required to enhance public safety and reduce risk.

- **Pre-incident Planning**

Pre-incident planning involves site-specific emergency response plan development for larger and/or more complex commercial, multi-family, industrial, and institutional structures. Pre-incident plans assist fire fighters respond effectively with reduced risk by referencing plans and an understanding of the nature and use of each property.

- **Development Application Review**

Development applications received by Planning and Building often require Fire Department' input on Development Permits, Rezoning, Subdivision, and Building Permit (except single/two family dwellings) applications to ensure access, adequate road widths and grades, fire hydrant location, turning radius, turning radius, Fire Code, Building Code, NFPA Code compliance, and other input topics.

Recommendations: Fire Prevention, Investigation & Public Education

Recommendations for fire prevention follow

- **Fire Prevention Inspection**

As part of the department's Annual Work Plan in 2008

- Career fire fighters complete training programs to ensure inspection quality is achieved and maintained
- Distribute the inspection workload beyond the current Career fire fighters as new positions are filled
- Initiate enforcement action on problem premises and those inspections where repeated re-inspections do not result in compliance with inspection requirements
- Provide owner/tenant inspection brochures and self-administered checklists
- Provide the private owners' fire hydrant checklist of servicing requirements
- Update work processes and Operating Guidelines, as required
- Assistant Fire Chief responsibilities are updated to include
 - Provides and/or coordinates fire prevention inspection training to ensure inspection quality and thoroughness
 - Maintains an up-to-date data base of properties to be inspected
 - Monitors inspection completeness and quality
 - Tracks re-inspections
 - Generates monthly FDM performance reports of actual verses planned inspections for follow-up
 - Provides follow-up on cases of non-compliance

- **Fire Investigation**

As part of the department's Annual Work Plan in 2008

- Career fire fighters complete Fire Investigation I training (NFPA 1033)
- Ensure linkage of lessons learned from investigations to inspections
- Ensure linkage of lessons learned from investigations to public education

Public Education

As part of department Annual Work Plan in 2009

Complete implementation of the Fire Alarm Awareness program in 2009

- Implement an increased number of Public Education events as new Career fire fighters are hired
- Encourage FireSmart initiatives and initiate increased public information initiatives regarding wildfire risk reduction
- Provide wildfire risk assessments using FireSmart criteria to private homeowner and neighborhood requests for risk reduction advice

- **Incident Pre-Planning**

Incident pre-planning is underway and will be completed as follows

- Complete updating existing 60 pre-incident plans currently in paper to digital format in 2008
- Complete the new and remaining 80 pre-incident plans in 2009 and 2010

- **Development Application Review**

Continue Fire Department input on development applications generally, and particularly, on high rise developments

Training

Training is provided to Career and Auxiliary fire fighters consistent with regulatory and NFPA requirements. Training is theory-based with tests administered, and skill-based through practice in training simulations. There are several training categories

- **Basic Fire Fighter Training:** Career and Auxiliary fire fighters receive training courses that meet legislated training requirements
- **Fire Fighter I & II:** Career firefighters complete these programs as mandatory requirements; Auxiliary fire fighters complete these courses at their option
- **Certification Training:** Career and Auxiliary fire fighters receive training and skill practice in a number of topics to ensure knowledge and skills levels are current
- **Specialized Training:** Career and Auxiliary fire fighters receive training for special situations such as hazardous materials, confined space rescue, and low angle rescue
- **Auxiliary Training:** Auxiliary fire fighters train at weekly evening sessions, 50 weeks/year for 2.5 hours/week and on some weekends. Required attendance is 36 sessions, or 90 hours/year. Some Auxiliaries do not meet this threshold and follow-up is required.
- **Operating Guidelines:** Instruction in new or updated Operating Guidelines

Due to the diverse nature of fire fighter responsibilities and the associated occupational risk, it is important that fire fighters receive training that provides and maintains the necessary skills to safely and efficiently perform their duties. Bill C45 requires employers to protect employees through training, equipment, and personal protective equipment. The consequences of negligence may include charges being laid against the employer.

Training is important from a legal perspective. Actions of the fire service are being subjected to increased legal scrutiny. It is through well-developed training programs that meet mandatory legislated requirements and professional standards, that liability claims are minimized.

Annual Training Sessions & Hours

Year	Practice Nights	Additional Training Sessions	Career FF Shift Training*	Total Training Sessions	Total Training Hours
2003	41	8	0	48	158
2004	40	14	0	54	247
2005	42	11	0	53	260
2006	48	24	0	72	343
2007	50	55	93	198	495

* Career fire fighter shift training began in 2007

Specialized training’s standards are outlined in NFPA 1670 with guidelines on the numbers of fire fighters required in each discipline and the levels within those specialties.

Specialized Training: Number of Staff Required & In Place by Training Level

Specialty Training	<u>Awareness Level:</u> Need/Have	Training Gap	<u>Operations Level:</u> Need/Have	Training Gap	<u>Technician Level:</u> Need/Have	Training Gap
Hazmat	32/27	5	10/4	16	2/0	2
Confine Space	32/3	29	10/0	20	2/0	2
Low Angle Rescue	32/2	30	10/0	20	2/0	2

* The difference between “Need” and “Have” identifies the Training Gap

Specialized Training: Number of Certifications Required & Certifications Held

Specialty Training (Certification)	# Fire Fighters Requiring Cert.	# Fire Fighters Holding Cert.	Training Gap
Air Brake Endorsement	32	18	14
Drive Smart Driver Training	32	31	1
Emergency Scene Traffic Control	32	22	10
Emergency Vehicle Operator	24	13	11
Fire Service Evaluator	3	1	2
Fire Inspector I	3	1	2
Fire Inspector II	3	0	3
Fire Investigator I	4	2	2
Fire Investigator II	4	2	2
Fire Officer I	3	2	1
Fire Officer II	3	0	3
Fire Safety Educator I	4	3	1
Fire Service Instructor	9	9	0
Fire Fighter I & II – NFPA 1001	13	4	6
First Aid – Level I	32	24	8
First Aid – Level III	4	3	1
Forestry Suppression - S100	32	20	12
Incident Command 100	32	31	1
Incident Command 200	20	14	6
Incident Command 300	4	2	2
Incident Safety Officer	12	12	0
Intro. to Emergency Mgmt.	32	8	24
JIBC Auto Extrication	32	5	27
JIBC Basic Fire Fighter	18	0	18
Live Fire I	32	20	12
Live Fire II	32	23	9
Local Ass’t to Fire Commissioner	4	4	0
Strategies & Tactics	32	13	19

Recommendations: Training

Recommendations for training follow as part of Annual Work Plans

- **Basic & NFPA 1001 Training Program:**
 - Complete Auxiliary Basic Training Programs by the end of 2009 for all Auxiliaries.
 - Encourage NFPA 1001 completion for Auxiliary fire fighters, particularly potential candidates for Career fire fighter positions
- **Specialized Training Programs:**
 - Complete the Awareness Level training in Hazmat, Confined Space and Low Angle Rescue in 2008
 - Complete the Operations Level training in Hazmat, Confined Space and Low Angle Rescue in 2009
 - Complete the Technician Level training in Hazmat, Confined Space and Low Angle Rescue in 2010
- **Certification Training:** Complete 25% of Certification training courses in each of 2008, 2009, 2010 and 2011
- Increase opportunities for Career fire fighters to practice skills with coaching provided
- Continue live burn practice opportunities to further develop hands-on skills
- The Assistant Fire Chief responsible for training
 - Develop the Training program schedule
 - Coordinate implementation related to priorities and budget
 - Develop an Auxiliary fire fighter weekly training and periodic practice drill attendance Operating Guideline
 - Monitor and manage Auxiliary fire fighter evening session attendance requirements
 - Manage Career fire fighter training and certification program
 - Develop a municipal staff training program for fire and life safety

Organizational & Service Delivery

There are two organizational and service delivery recommendations

- **Organization Structure**

Future consideration should be given to the creation of an additional Assistant Fire Chief responsible for Fire Prevention activities (i.e. Inspections, Investigations, Public Education, development application review, and fire fighting when required) when community growth and emergency response volumes has grown sufficiently to warrant increased management support. That may occur be in the later stages of this Master Plan or early stages of the next Master Plan.

When the time is appropriate, the new Assistant Fire Chief position would enable

- Sufficient senior level capacity for the new Assistant Fire Chief to fully develop and implement the Inspection Program, Public Education Program, and emergency preparedness awareness component of the Emergency Program
- Assume some responsibilities from the existing Assistant Fire Chief , namely procurement, development application review, and FireSmart program awareness and assessment activities

- Enable the existing Assistant Fire Chief to focus on and enhance Operations planning and service delivery, develop and implement a comprehensive Training Program for Career and Auxiliary fire fighters, fully develop pre-incident plans, manage Auxiliary staffing and retention, and coordinate, develop and maintain departmental Operating Guidelines
 - Enable the Fire Chief to focus on leadership, planning, overall management responsibilities, Senior Management Team, budgets, Council, Risk Management, and the Emergency Program
 - Improve senior staff coverage on a 24/7 basis and during absences
 - Enhance succession planning capacity and career development
- **Greta Ranch, North Beach & Faulder**
In the event the Regional District of Okanagan-Similkameen (RDOS) submits a formal request for coverage of these communities, the District of Summerland will weigh the implications of the request within the context of ensuring protection for the District of Summerland as the highest priority. Consideration of a hypothetical unspecified request is premature and beyond the scope of the Master Plan at this time.

Appendices

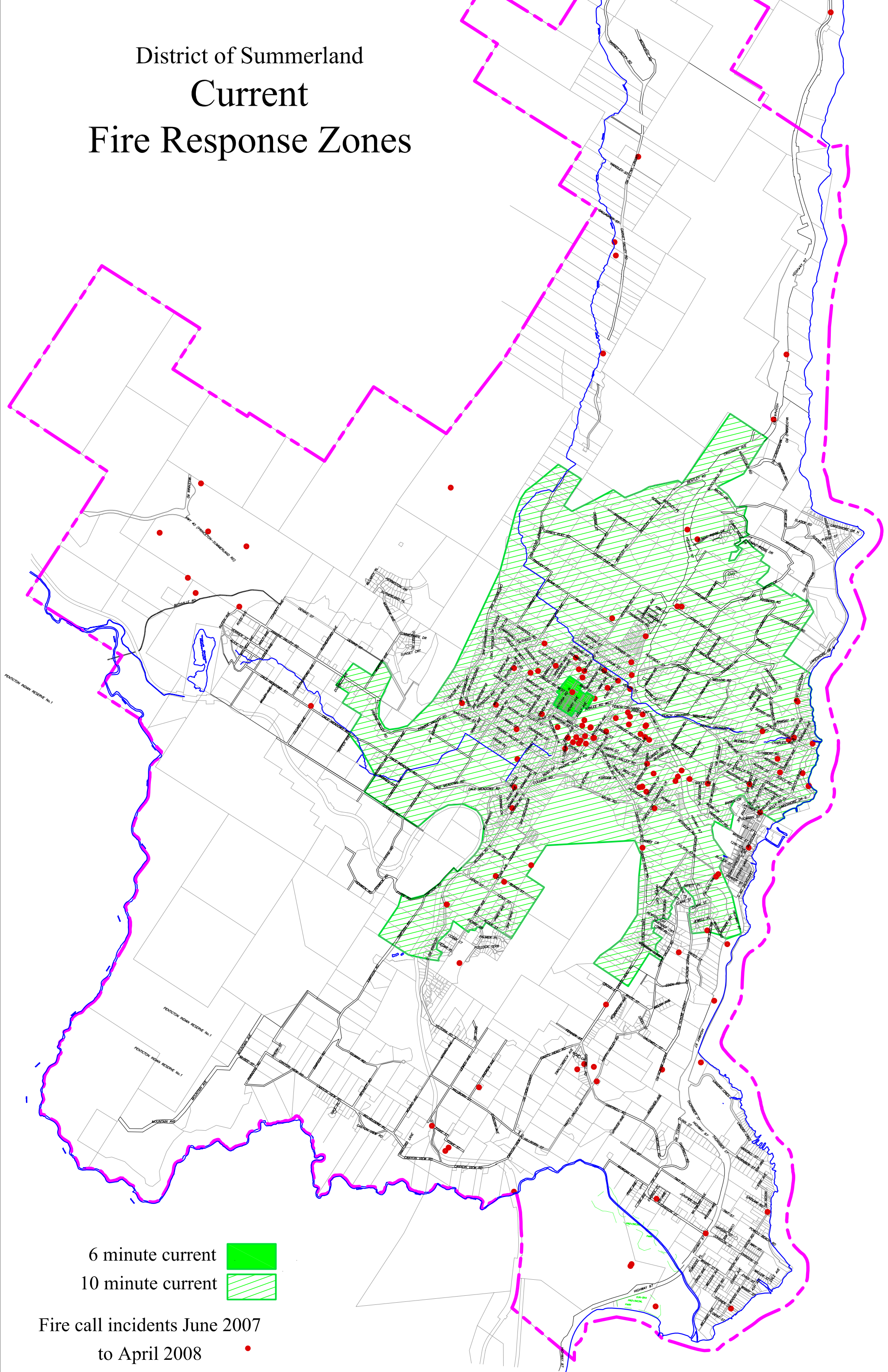
- Appendix A: Response Time Maps
- Appendix B: Fire Department Survey Findings
- Appendix C: Participants - Master Plan 2008 – 2017
- Appendix D: Role of Consultant



Appendix A


Response Time Maps

- Current Response Times
- Proposed Response Times at Full Build-out

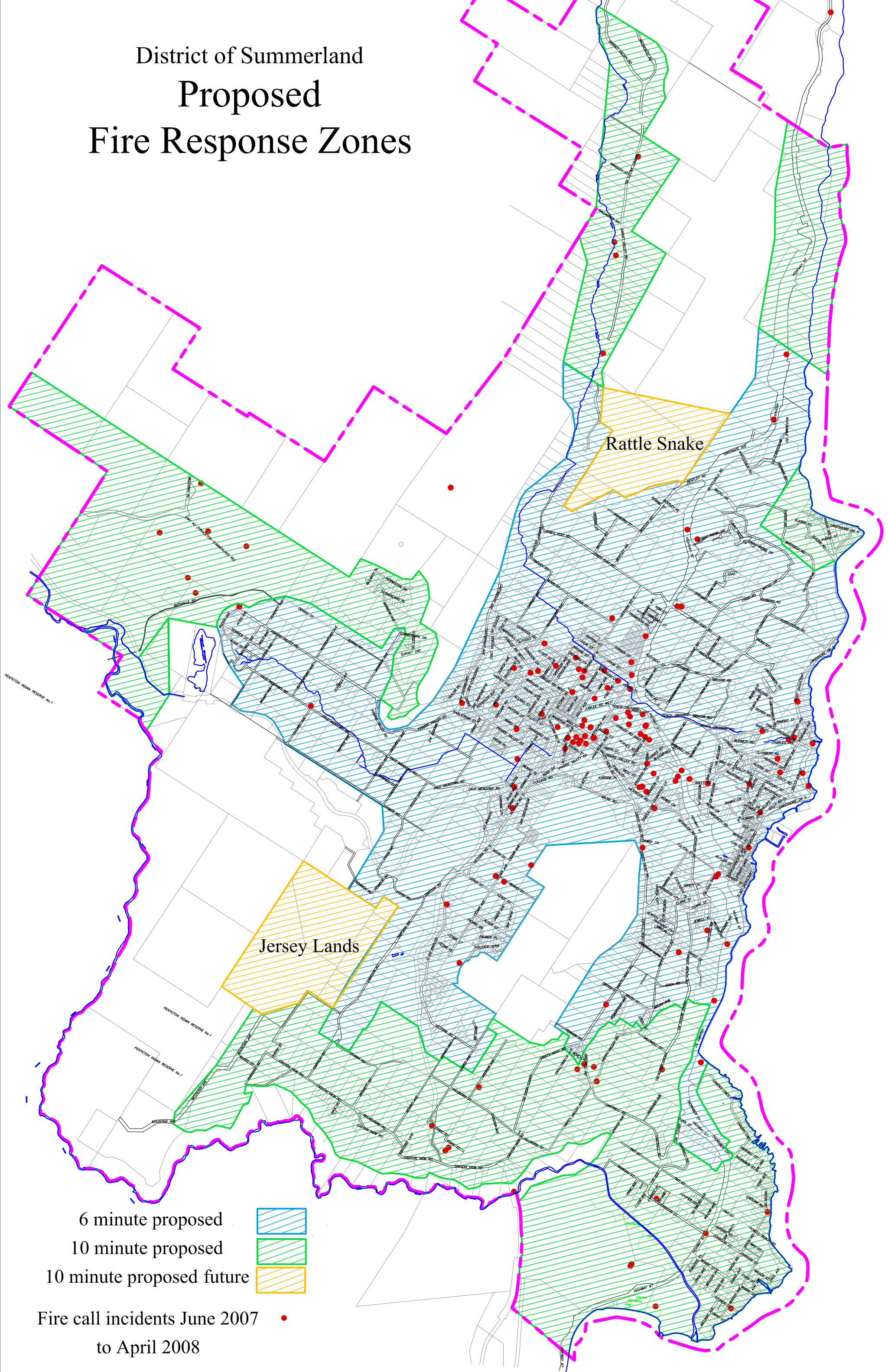
District of Summerland Current Fire Response Zones



6 minute current 
10 minute current 

Fire call incidents June 2007
to April 2008 

District of Summerland Proposed Fire Response Zones



6 minute proposed
10 minute proposed
10 minute proposed future

Fire call incidents June 2007
to April 2008

Appendix B

Fire Department Survey Findings (as of March 13, 2008)

Municipality/ Survey Findings	Summerland	Nelson	Revelstoke	Salmon Arm	Salt Spring	Lake Country
2007 BC Stats	11,563	9,914	7,627	17,257	~10,000	9,606
Population Contract Service Area	0	~3,000			0	0
Area Sq. Miles	27.8 sq miles	4.75 sq miles	25 sq miles	84 sq miles	78 sq miles	47 sq miles
# of fire halls	1	1	1	4	3	3
2008 Operating Budget 2008	534,125	1,265,714	998,850	1,000,000	840,000	780,700
Revenue from Service Area	0	85,000	60,000	142,615	0	160,000
Cost per \$1,000 assessed property value	0.26	.55	0.89	.10	.47	.35
# of calls 2007 (not including FR)	207	676	132	298	511	337
# of calls 2007 First Responder	0	174	0	0	240	301
Fire Chief	1	1	1	1	1	1
Deputy Chiefs	0	1	0	0	1	0
Assistant Chiefs	1	0	0	3	1	2
Support Staff F.T.E.	0	.5	1	0	1	1
Career Fire fighters	2	10	5 + 1 (May 08)		3	
Dispatchers	0	0	0	4 Career 3 Relief	0	0
Total Career Staff	4	12.5	8	8	7	4
Auxiliaries/ Paid on Call	29 1 vacant	21 4 vacant	29 3 vacant	74	35	51 14 vacant

Appendix C

Participants: Master Plan 2008 – 2017

Name	Position Title	Type of Involvement
Lloyd Miskiman	Fire Chief - Fire Department	Project Manager & Support, Project Team, all components
Glenn Noble	Assistant Fire Chief - Fire Department	Project Team, all components
Rob Robinson	Career Fire Fighter & Inspector	Interview
George Pugh	Career Fire Fighter & Inspector	Interview
Rick Leardo	Auxiliary Fire Fighter & Shift Captain	Interview
Duncan Dube	Auxiliary Fire Fighter	Interview
David Gregory	Mayor	Interview
Bruce Hallquist	Councillor	Interview
Don DeGagne	Chief Administrative Officer	Interview, meetings
Ken Ostraat	Director - Finance & Deputy CAO	Interview, meetings
Gordon Morley	District Planner & Approving Officer	Interview, meeting
Council	Master Plan Presentation	Workshop
Rick Taylor	Principal - Results Management Services	Consultant

Appendix D

Role of the Consultant

The consultant was retained to facilitate development of and write the Master Plan 2008 – 2017 with Summerland’s Fire Department Management Team supplemented with input from other staff and Council. The consultant is a process consultant, rather than technical fire and rescue services consultant, relying on service level data, survey data collection, cost projections, mapping, and regulatory and fire services technical knowledge provided by the Management Team.