



**REPORT TO PLANNING AND PROTECTIVE SERVICES COMMITTEE
MEETING OF WEDNESDAY, APRIL 25, 2018**

SUBJECT **Cost Analysis of a Regional Fire Dispatch Model for the Capital Regional District**

ISSUE

At the December 13, 2017 Capital Regional District (CRD) Board meeting, staff were directed to review the potential for a Regional Fire Dispatch model as per the following recommendations:

THAT staff be asked to:

- 1. Provide an analysis of the feasibility of co-locating 911 with police and fire dispatch in the new purpose-built centre, or within Saanich Emergency Services Building.*
- 2. Provide advice on the process required to establish a regional fire dispatch centre and a corresponding governance model.*
- 3. Consult with municipal staff to identify issues that will need to be addressed to create a regional fire dispatch centre and governance model.*

Additionally, staff were directed to facilitate a meeting with Victoria, Saanich, Langford and E-Comm to explore models for the unification of fire dispatch services within the region.

Staff presented the requested feasibility report at the April 11, 2018 CRD Board meeting and were directed to undertake a cost analysis of the potential regional fire dispatch service out of the Saanich and CRD facilities.

BACKGROUND

Please refer to the Planning and Protective Services Committee Regional Fire Dispatch report of March 23, 2018 for a fulsome background on the regional fire dispatch concept.

Based on that input from the dispatch focus group, the required components of a regional fire dispatch centre were determined based on full participation of all agencies to be as follows:

- Post disaster facility with seamless back-up at another site in case of systems failure;
- Have four work stations for operations and access to additional workstations for training and major events;
- Compliant with National Fire Protection Association (NFPA) standards for fire dispatch including staffing, training, facility, radios, technology, computer aided dispatch (CAD and records management);
- Staffing ratio of between 1:8,000 and 1:12,000 of dispatchers to annual call volume based on a range of service expectations (3 dispatchers 24/7); and
- Must meet NFPA performance standards and metrics.

IMPLICATIONS

Financial Implications

The consolidation of fire dispatch services into a regional service delivery model would create a number of economies of scale in the areas of staffing, technology, facilities and administration resulting in best value for tax dollars. Staff completed a high level analysis of a unified service operated within one of the facilities in the region and determined that there would be direct cost savings over having three fire dispatch providers in the region. The savings would result from a decrease in staffing

requirements as there are currently four dispatchers on duty 24/7 in the region to manage the combined annual call volume of 28,000 of the three dispatch centres. It is anticipated that a consolidated regional fire dispatch service would require up to three dispatchers 24/7 with some potential staffing variations during peak time hours. Administrative overhead and supervision costs would also decrease with a consolidation of fire dispatch as there would be fewer workstations, less equipment, common information technology and support, as well as fewer back-up service arrangements. Indirect and future investment would also decrease, especially in consideration of next generation technology due to the fact that only one site would need upgrading.

Recently, the municipalities of Esquimalt, Sidney, North Saanich, View Royal, and Colwood went to an RFP process and have indicated that they are going to Surrey for fire dispatch services.

Table 1 shows the cost impact of consolidating fire dispatch for the whole region. Table 2 shows cost impact of consolidating the remaining parts of the region less the five municipalities that went to RFP. It is important to note that there is a decrease in dispatch staffing requirements for the Table 2 calculations.

Table 1

Projected Fire Dispatch Costs for Region - All

Current 2018	Saanich FD 2019	Variance	CRD FD 2019	Variance
\$3,236,681	\$2,819,000	-13%	\$2,386,879	-26%

Table 2

Projected Fire Dispatch Costs for Region - Less 5 RFP Agencies

Current (Adjusted) 2018	Saanich FD 2019	Variance	CRD FD 2019	Variance
\$3,156,880	\$2,474,200	-22%	\$1,791,870	-43%

Specific cost projections for Saanich and CRD are attached as Appendix A and Appendix B respectively. Saanich Fire Dispatch uses a weighted cost allocation model based on call volume and population while CRD Fire Dispatch costs are apportioned based on population per Bylaw 3854.

A significant component of the cost difference between the systems is due to the technological costs associated with Saanich's agreement with E-Comm for CAD and RMS support which for 2019 will be approximately \$490K.

This analysis shows that there would still be a significant benefit to consolidating fire dispatch in the region even with the five municipalities contracting directly with Surrey. Table 3 shows the respective cost allocations for participating agencies for the various models for comparison.

Table 3 – Consolidated Cost Allocation

Participants	Population	2017	2018	SFD All Agencies 2019	CRD All Agencies 2019	SFD Less 5 2019	CRD Less 5 2019
Colwood	16,859	\$89,390	\$135,500	\$109,000	\$106,423		
Victoria	85,792	\$715,000	\$715,000	\$712,400	\$541,567	\$768,700	\$495,461
Central Saanich	16,814	\$104,776	\$166,200	\$132,000	\$106,139	\$142,400	\$97,103
Esquimalt	17,655	\$96,308	\$195,700	\$154,500	\$111,448		
Langford	35,342	\$248,073	\$274,617	\$239,100	\$223,099	\$257,800	\$204,105
Saanich	114,148	\$1,329,632	\$909,500	\$731,500	\$720,566	\$788,300	\$659,221
Oak Bay	18,094	\$109,390	\$197,300	\$155,900	\$114,219	\$168,300	\$104,495
North Saanich	11,249	\$88,700	\$88,700	\$69,200	\$71,010		
Metchosin	4,708	\$33,047	\$35,432	\$37,600	\$29,720	\$41,200	\$27,189
Sidney	11,672	\$49,746	\$113,500	\$87,300	\$73,680		
View Royal	10,408	\$63,923	\$135,400	\$107,100	\$65,701		
Highlands	2,225	\$15,618	\$17,308	\$13,700	\$14,045	\$15,000	\$12,850
Sooke	13,001	\$91,257	\$99,922	\$108,100	\$82,070	\$116,600	\$75,083
JDF	4,860	\$34,113	\$37,012	\$34,900	\$30,679	\$38,300	\$28,067
SSI	10,557	\$74,102	\$79,791	\$78,800	\$66,642	\$85,000	\$60,968
SGI	4,732	\$33,215	\$35,799	\$47,900	\$29,871	\$52,600	\$27,328
		\$3,176,290	\$3,236,681	\$2,819,000	\$2,386,879	\$2,474,200	\$1,791,870

Note: Victoria Fire Dispatch costs based on available 2017 numbers.

Operations Implications

A regional fire dispatch model could potentially decrease response times and improve public safety by having responders on scene faster despite municipal boundaries. A singular dispatch could enable supplementary agreements to dispatch the closest responder to the call versus the designated department for a specific area or enable improved mutual aid responses between communities through automatic aid policies. Assistance could be immediately dispatched from a single site which decreases delays, errors, and compatibility issues versus having calls transferred to and from another dispatch centre to make requests.

When municipalities enter into an automatic aid agreement for fire services they benefit from the combined resources of all municipalities participating and receive credit to their municipality when looking at the resourcing for fire protection requirements. This can impact issues such as number of firefighters required, number of specialty vehicles such as ladder trucks (which can cost \$1.6 to \$2.2 million each), training costs, purchasing etc. Additionally, there are potential savings that residents and businesses may receive from insurance rates due to the increased level of fire protection that an automatic aid regional system provides. An automatic aid system would not be as effective and beneficial if not inclusive of all regional services.

Technology

Computer Aided Dispatch (CAD)

Both the Saanich Fire Dispatch and the CRD Fire Dispatch utilize CAD systems that are NFPA compliant. Saanich uses Intergraph while CRD uses FDM. Both platforms are compatible with additional software applications to enhance service capability such as station alerting (Locution,

Phoenix G2, etc.), emergency event software (i.e., E2MV), and are compatible with Records Management System (RMS) software. Both CAD systems provide direct linkage with BC Emergency Health Services (EHS) dispatch CAD for incident sharing. Calls from 911 public service answering points and police dispatch are transferred by phone to the fire dispatch systems.

RMS

Both the Saanich and CRD Fire Dispatch services utilize the FDM records management software for fire service related records keeping and can employ all FDM modules as required.

It is important to note that the technological costs will fluctuate based on the technology needs identified by the individual service, such as mobile CAD, as well as currently unknown costs of the move to next generation telecommunications equipment.

Intergovernmental Implications

The establishment of a regional fire dispatch service that meets the needs of all fire departments in the region aligns with the regional initiatives to improve service and gain efficiencies through consolidation of services.

Governance of a regional fire dispatch system would depend somewhat on the model chosen. To realize the greatest efficiency and value the preferred governance model would be a combined service with an in-region contractor.

CONCLUSION

The consolidation of fire dispatch services into a regional service delivery model could potentially decrease response times and improve public safety and would create a number of economies of scale in the areas of staffing, technology, facilities and administration resulting in best value for tax dollars.

RECOMMENDATION

That the Planning and Protective Services Committee recommends to the Capital Regional District Board:

That this report be received for information.

Submitted by:	Shawn Carby, CD, BHSc, MAL, Senior Manager Protective Services
Concurrence:	Kevin Lorette, P.Eng., MBA, General Manager Planning & Protective Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

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Attachments: Appendix A – Saanich Fire Dispatch Costing
Appendix B – CRD Fire Dispatch Costing