

SERVICE REVIEW RECOMMENDATIONS

Rec #	Recommendation	Suggested Timeline	Estimated Cost	Rationale
Section 1 – Capital Regional District & EHT Overview				
1	The CRD work with the EHT Advisory Committee to identify a recruitment strategy for the EHT.	13-24 months	Committee Time	Ensuring that the EHT staffing is at full capacity improves the team response model and overall effectiveness.
2	The CRD consider separating the Team Coordinator from the Contractor to schedule training, recruitment, administrator duties and maintaining training and response records for the EHT.	0-12 months	CRD to determine annual salary	Decreasing the administrative responsibility from the Contractor and revising the Team Coordinator position external to the Contractor will increase records keeping for the CRD.

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Section 2 – Response Capacity				
3	The CRD EHT should focus efforts on response capacity within the CRD, and not look to provide services outside this geographic area.	0-12 months	CRD Staff Time	The capacity does not currently exist, and the systems are not in place for this model to be effective.
4	The CRD should look to incorporate a fulsome approach to data analysis for the CRD EHT. This data should include Dispatch Time, Turn Out Time, overall Response Time, and Incident on-scene time. This will require careful data collection, attention to detail, access to statistical programs and skills in result interpretation.	0-12 months	CRD Staff Time	This recommendation applies what is industry best-practice for fire & emergency services to this specific service delivery area.

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Section 2 – Response Capacity				
5	<p>The CRD should assess the feasibility of entering a relationship with a 3rd-party contractor to support any future CRD EHT model. This 3rd-party contractor could provide specialized technical support remotely, and/or become the designated and recommended incident mitigation service provider. This would allow the CRD EHT to transition site mitigation and clean up, thereby transitioning regional firefighting resources back into service sooner.</p>	0-12 months	CRD/ Advisory Committee Time	<p>This model is based on, yet differs slightly from, the model being used between Nanaimo Fire Rescue and NES.</p>

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6	The CRD should assess the feasibility of leveraging the on-duty firefighting personnel in the Region for initial response. Given the number of personnel required for a Rapid Assessment Team, and the remainder needed for a base-level Technician-Level hazardous materials response, the deployment model could be transitioned to a layered one, with on-duty firefighting staff deploying initially and then requesting off-duty personnel as/when the need requires.	0-12 months	CRD/ Advisory Committee Time	This model incorporates elements used in Vancouver and Surrey, where HazMat Team members at assigned fire stations comprise the initial deployment. Once assessments are complete, additional resources can be requested. This provides a level of certainty with who is coming, how many are responding, and anticipated response times.
7	The CRD should look to engage through RFP process, a fire department in the region interested and able to provide the CRD with an effective EHT. Administrative and operational oversight would be streamlined in this process, allowing the CRD to provide a strategic lens to the support it provides.	13-24 months	RFP to Determine	This model mirrors the relationship in-place on the North Shore of Metro Vancouver, whereby one fire department provides hazardous materials incident response for all three municipalities. It is believed there are fire departments in the CRD with the capacity to provide this service.

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8	Establish an agreed-upon approach that is consistent and clearly communicated across the region regarding team member availability and activation processes and protocols.	0-12 months	CRD/ Advisory Committee Time	To reduce the complexity of deploying the EHT to incidents
9	Research and identify a communications solution to ensure any team member notification or activation is widespread and available to all team members	13-24 months	CRD/ Advisory Committee Time	Technology solutions exist to support this and can also support a dashboard that conveys member availability and response times.
10	Ensure processes and protocols for the dispatching of resources is consistent and clear between both Saanich and Surrey dispatch centers.	13-24 months	CRD/ Advisory Committee Time	To reduce the complexity of deploying the EHT to incidents.

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Section 3 – Administrative Practices				
11	The CRD should review recent HRVA's conducted for the region and/or specific municipalities to ensure the level of service delivery being provided aligns with the hazard and risks identified.	13-24 months	CRD/ Participating Fire Depts Time	It is an accepted premise that the completion of an HRVA assists communities to make risk-based choices that thereby address local vulnerabilities, mitigate hazards, respond to and recover from hazard impacts. Aligning the delivery of hazardous materials incident response to a regional HRVA is a best-practice.
12	The CRD and EHT Advisory Committee should identify which data to collect, and interpret related to the delivery of hazardous materials incident response in the CRD.	0-12 months	CRD/ Advisory Committee Time	The collection of detailed enables informed decision-making and contributes to continuous improvement in the management of the EHT.
Section 4 – Policies, Directives and Operational Guidelines				
13	The CRD to create a working committee with the HazMat Advisory Committee to review the OGs and complete within a 12-month period. The CRD should also develop a Terms of Reference (TOR) for this committee.	0-12 Months	Working Group Time	This ensures that the OGs are current, relevant. The TOR will provide details such as committee members, meeting schedules, etc.

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14	Operational Guideline 1-004. It is suggested that “Feminine Sanitary Napkins” be added to page 7 of the check list in proximity to the coveralls, helmets, and radio vests.	0-12 months	Working Group Time	The responder does not have to remove their hand from the suite to wipe the moisture.
Section 4 – Policies, Directives and Operational Guidelines				
15	NFPA 1072 Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications (2017) and NFPA 472 Standard for Competence of Responders to Hazardous Materials/ Weapons of Mass Destruction Incidents (2018) be incorporated into the training and operations of the CRD EHT.	0-12 months	Working Group Time	Adopting the latest NFPA standards in EHT emergency response operations and operational guidelines ensures compliance to industry standards
16	Operatoinal Guideline 3-001 be revised to clarify the qualifications of the Incident Commander versus the HazMat sector commander.	0-12 months	Working Group Time	The scene IC should have the in-depth knowledge to make informed decisions.

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17	Revise OG 4-004 Incident Response to read, ““The CRD EHT Incident Action Plan (IAP) should undergo thorough discussion, review and approval by the Incident Commander before implementation. This requirement ensures that the IAP aligns with established protocols and is consistent with the overall incident, contributing to the effective and safe management of hazardous materials incidents.”	0-12 months	Working Group Time	As per NFPA 1561, the IC shall be responsible for developing and/or approving an incident action plan.
18	Revise OG 4-004 Incident Response org chart be revised to include two (2) doffers in the warm zone, one (1) doffer in the cold zone and one (1) EHT member in the warm zone to verify the effectiveness of the decon process.	0-12 months	Working Group Time	Based on industry best practices.

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19	Revise OG 4-005 Decontamination Procedures to having civilians remove clothing.	0-12 months	Working Group Time	Industry best practices dictates that the more clothing removed the better, and unless a person is soaked in a penetrating product there is no reason to disrobe completely.
20	Revise OG 4-005 Decontamination Procedures to include the use of a Level 'C' TYVEK suit for patient transfer to BCAS.	0-12 months	Working Group Time	Based upon industry practices.
21	Revise OG 4-007 Personal Protective Equipment to include two (2) twelve inches of ChemTape as part of the Level 'A' and 'B' inventory.	0-12 months	Working Group Time	If the wearer of a Level 'A' or 'B' suit suffers a tear an immediate repair can be made.

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Section 5 – Response Trends and Response Types				
22	The CRD should regularly analyze the call volume and call types and work with the EHT Advisory Committee to identify trends.	0-36 months	CRD/Advisory Committee Time	Conducting this annual review will improve the state of readiness and overall effectiveness of the CRD EHT.
Section 6 – Training				
23	NFPA 1072 (2017) edition and NFPA 472 (2018) edition be adopted and incorporated into the training and operations of the CRD EHT.	0-12 months	CRD Staff Time	Using the latest NFPA standards benefits the CRD and EHT as described in the report.
24	Each community participating in the CRD EHT program conduct a community risk assessment relating to HazMat concerns. These assessments will be used to form the basis for specific training.	13-24 months	Participating Fire Depts Time	The identification of potential hazards will help keep responders safe.

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25	Training in Level A & B suits be incorporated into the "Open Learning" sessions as well as combined with DECON training in the "Skills Maintenance Training."	0-12 months	CRD/Advisory Committee Time	Regular training ensures responders are able to don, doff and use this specialized equipment.
26	The responsibility of decontamination procedures should be assigned to the fire service requesting support.	0-12 months	CRD/Advisory Committee Time	The initial responding FD will be first on scene and can initiate decontamination procedures promptly.
27	The development and delivery of training specifically for chemical properties and behavior be delivered into the "Open Learning" as well as reinforced at the "Skills Maintenance Training" sessions.	13-24 months	CRD/Advisory Committee Time	Understanding chemical properties for HazMat is essential for accurately assessing the risks.

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28	Additional training be provided two (2) times a year over a three-five day period and developed with input from EHT members and derived from Post Incident Action Reports. The first two-three days focused on skills with the remaining two days focused on scenario based learning.	13-24 months	CRD Time	Skills and competency are essential for the specialized skills required at the technical level.
29	Training should be developed and delivered by team members with a 5:1 student/instructor ratio.	0-12 months	CRD to determine costs for extra instructors	More focus on skills during the training can occur.
30	The CRD engage other agencies such as EMS, Police and NGOs to ensure open and transparent communication and work the possibility of incorporating them into the team, which in time could see the team become a CBRNE team.	13-24 months	CRD Staff Time	Engagement and involvement of other agencies often requires expertise from various disciplines.

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Section 7 - Service Agreements & Service Liability				
There are no recommendations for this section.				
Section 8-Finance				
31	Meetings between the CRD and the Contractor to review the annual budget increase for the operational budget. Adjustments should not only meet but exceed inflation rates and account for the notable escalation in equipment costs.	0-12 months	CRD/ Contractor Time	This approach will strengthen the financial resilience of the CRD and enable it to sustain optimal operational effectiveness.
32	Schedule meetings with the CRD Contractor to identify the real costs for the SCBA and Command Vehicle replacement scheduled for 2027.	0-12 months	CRD/ Contractor Time	Engagement in this process is vital to ensure the alignment of CRD five (5) strategies with organizational objectives and to proactively address the escalating costs of equipment and assets.

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33	That the CRD EHT implement an AMP for all hazardous materials response equipment. This should identify projected replacement dates and cost cycles for all hard and soft equipment and consumables. The AMP should be overseen by incorporating the Asset Manager role into the current Team Coordinator role, or other roles as deemed appropriate.	0-12 months	CRD Staff Time	Implementing an Asset Management Plan with a clear structure and oversight helps ensure the availability, safety, and efficiency of hazardous materials response equipment within the CRD EHT
34	A Capital Expenditure Reserve be established with annual contributions. This will ensure the equipment required to support a robust hazardous materials response is funded and available. The amount for the annual contribution should be derived following an assessment of current equipment, lifespan, and expected replacement dates.	0-12 months	CRD Staff Time	It aligns with best practices in emergency response asset management programs.

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35	Fire apparatus (vehicles) required to support the CRD EHT need to be a key aspect of the recommended asset management plan.	0-12 months	CRD Staff Time	When planned for, and properly funded over time, the acquisition of these significant purchases will be more manageable and financially sustainable.
Section 9-Surveys				
36	The CRD form a working group to address recommendations in this report.	0-12 months	CRD/Working Committee Time	A working group will ensure the CRD has an effective EHT and recommendations and resolutions are discussed for the improved efficiency of the EHT.

Supplemental EHT Service Delivery Recommendations

The additional recommendations are provided with the overall goal of moving the delivery of emergency HazMat response within the CRD forward into the future with a strategic focus.

1. **HazMat Advisory Committee:** An opportunity exists to leverage regional stakeholder interest, experience, and expertise to ensure a sustainable hazardous materials capacity in the region. Engagement of key fire service leaders through the formation of sub-committees and/or working groups collaboratively with CRD leadership would bring significant value. Utilizing the sub-committee/working group structure allows more time to focus on specific projects, investigate new areas of work and involve local expertise.
2. **Rapid Assessment Team:** To align with industry best practices, the service delivery model for the EHT should be restructured to facilitate deployment of a RAT to all HazMat incidents. The EHT-RAT should consist of one chief officer and four Technicians able to respond within 30 minutes of notification. This would enhance incident management, resourcing, and mitigation. This approach to be included within whichever option the CRD pursues.
3. **Communications:** The transition to a different service delivery model must be communicated to all CRD fire departments and their municipal governments. Ongoing and regularly scheduled communications and engagement with all stakeholders will serve the EHT well. Over-communication in the realm of emergency services is often a must.
4. **Staffing:** Revise the minimum staffing for the deployed EHT to eight trained HazMat Technicians. This represents the true minimum staffing to cover required positions to perform a standard, 2 in/ 2 out entry. The EHT-RAT would comprise the initial element of this staffing model, which when deployed would only require the addition of four more Technicians. Positions required by regulation or implied responsibilities are:
 - a. 1- HazMat Group Supervisor/ Team Leader/ HazMat Officer
 - b. 1- Assistant Safety Officer HazMat
 - c. 1- Technical Reference/ Science Officer
 - d. 1- Entry Team Leader
 - e. 2- Entry personnel
 - f. 2- Back up personnel