CITY OF RICHMOND

REPORT TO COMMITTEE

TO: General Purposes Committee DATE: June 30, 2000

FROM: Chuck Gale, P. Eng. FILE: 5125-01

General Manager, Engineering & Public Works

RE: Joint Emergency Liaison Committee - Annual Report

STAFF RECOMMENDATION

1. That the action statements outlined in Table 2 of the staff report dated June 30, 2000, regarding the Joint Emergency Liaison Committee – Annual Report, be endorsed.

2. That a copy of the staff report be sent to the Joint Emergency Liaison Committee cochairs, Ms. Judy Rogers, City Manager, City of Vancouver, and Mr. Merv Harrower, Director – Provincial Emergency Program.

Chuck Gale, P. Eng. General Manager, Engineering & Public Works

STAFF REPORT

<u>ORIGIN</u>

This report provides an overview and analysis of the Joint Emergency Liaison Committee (JELC) activities, as highlighted in their recent annual report. As part of this, staff have reviewed those JELC recommendations which have municipal implications and provided a summary of anticipated impacts/actions for Richmond to consider or undertake. The JELC has requested that municipalities integrate their recommendations and protocols into municipal operational and response plans.

Background

JELC is among the agencies or committees involved in emergency management in the region. Its focus is on cross-jurisdictional issues and it represents the link between municipalities and the Province. To provide a sense of structure around the issue of emergency management, staff have identified the key players in the attached organization chart, Attachment 1.

JELC was established in the fall of 1996. It was formulated as a result of recommendations from a RAAC subcommittee, struck to review emergency preparedness in the GVRD. It was endorsed by the GVRD Board and the Ministry of the Attorney General and is made up of senior municipal and provincial officials. The GVRD provides the venue for meetings and associated support activities. The Committee is supported by an emergency planning coordinator.

JELC's mandate is:

- ➤ to identify and priortize specific cross jurisdictional issues affecting multiple GVRD municipalities and the Province,
- > to support the development of operational protocols and response strategies which provide an interface among and between municipalities and provincial ministries,
- to support the development of effective programs for testing and monitoring the level of coordination and preparedness between municipalities and provincial ministries,
- ➤ to set priorities for implementation and expenditures which reflect a reasonable, comprehensive, inter-agency program for enhanced emergency preparedness across the region.

JELC is scheduled to complete its mandate in October, 2001.

ANALYSIS

Initial priorities concerning regional emergency planning, response, and recovery issues were established and sub-committees of JELC were struck. Table 1 highlights the priority issues which were identified and the rationale for each:

Table 1 – JELC Priority Issues and Rationale		
Priorities Established	Rationale	
Resource Management	No system exists to identify on a region-wide basis what resources are available, where they are, and how they can be accessed.	
Provision of Water	A major earthquake would likely sever regional and municipal water supply lines. A regional strategy is required to address emergency provision of water for drinking and firefighting.	
Seismic Upgrade of Transportation Routes	Transportation routes need to be prioritized for emergency use and a coordinated strategy is required to identify these routes and define access protocols.	
Structural Assessment of Key Buildings, Structures, and Facilities	A coordinated strategy is needed to assess buildings, bridges, dykes, dams and other facilities during and after a disaster.	
Disaster Debris	A system or strategy is needed to manage disaster debris.	
Hazardous Goods	A system or strategy is needed to manage hazardous goods in a major disaster.	

In addition, two other JELC committees were initially formed to address heavy urban search and rescue and emergency communications. These committees were disbanded since other initiatives were introduced which addressed their issues, those being: the formation of the Vancouver Heavy Urban Search and Rescue team, and the wide area radio system provided through E-Comm.

A complete list of the committee's recommendations relating to these 6 priority issues is contained in Attachment 2. A summary of those recommendations with municipal implications and an action statement for Richmond is provided below:

Table 2 – Summary of Municipal Implications and Action Statement for Richmond		
Priority Issue	Summary of Municipal Recommendations	Action Statement
Resource Management	A list of the types and categories of resources that would be required in the event of an emergency has been developed. It is recommended this be adopted by municipalities, provincial agencies, etc. and that inventories be developed and maintained based on these resource categories.	Emergency Program staff will soon begin developing a resource database for Richmond. The recommended resource types and categories will be evaluated as part of this process.
	Further work is underway through the Ministry of Forests to develop and maintain a system which facilitates the exchange of resource information among municipalities, regional districts and provincial agencies.	The sharing of resource information will be partially addressed through the Regional Emergency Coordination Centre, which is equipped with resource management software. With this software, member agencies can enter resource information which can be shared. The wide-scale sharing of information, as suggested by the JELC committee, can be problematic due to confidentiality and the desire for communities to maintain control over their own resources.
Provision of Water	 That municipalities develop a damage rating system for their water systems, i.e. red, yellow, green, blue. That municipalities undertake a vulnerability assessment of their water systems and develop a coordinated strategy for seismic upgrade of these systems. 	Detailed evaluation of these initiatives is not expected to be undertaken until work begins on the development of Departmental Emergency Plans, scheduled to commence in January, 2001. In the interim, the recommendations from the JELC committee will be reviewed in consultation with Water Department Operations staff.
	That municipalities prepare an emergency response plan for their water systems, using a template prepared by the JELC committee.	

		- Summary of Municipal Implications and Ac	_	
Priority Issue	Su	mmary of Municipal Recommendations	A	Action Statement
Seismic Upgrade of Transportation Routes	A	That municipalities develop disaster response routes which link to the Ministry of Transportation & Highways disaster response routes. These routes would be used in post disaster situations for relocation of affected people and to transport emergency supplies and personnel. That municipalities develop a priority program to seismically upgrade disaster response routes.	>	Disaster response routes are established in all communities throughout the Lower Mainland, except Richmond. This issue was previously considered by Council. Concerns were raised by Council concerning the appropriateness of the program signage and the potential for public confusion in the event of a disaster. As a result, this initiative was not supported and the matter was tabled. Therefore, no further action will be taken by staff on the JELC committee recommendations to establish signed disaster response routes in Richmond. Disaster responder identification will be provided to key Richmond emergency response personnel. This is necessary to ensure that City staff who live in other jurisdictions have access to the disaster response routes to enable them to get to Richmond quickly. It will also allow emergency response personnel to travel to other jurisdictions, as required, in an emergency.
Structural Assessment of Key Buildings, Structures, and Facilities	A A A	That municipalities identify, inventory, and develop a plan to seismically upgrade facilities that will be required to function in the event of an earthquake, i.e. ambulance/fire/police stations, hospitals, operation centres and reception centres, etc. Recommended guidelines for assessing and tagging buildings after a disaster are identified. It is recommended that municipalities with dykes conduct damage potential surveys for dykes, dams and drainage works in their jurisdiction. Also, that they maintain and continually update dyke, dam and drainage works operation and maintenance manuals.	A A A	The identification and inventory of facilities will be undertaken as part of the City's emergency planning process. City Policy 2002 requires that all City building projects which are categorized as emergency reception centres be designed to post earthquake use. To date, the associated costs have prohibited this activity to any large degree. The No. 7 Firehall is currently built to postearthquake standards. Structural upgrades have also been undertaken at the City's Emergency Operations Centre. Building assessment guidelines will be addressed as part of the emergency planning process. A seismic assessment program is currently underway for the City's dykes. This is being done in partnership with UBC and the University of Victoria. The Big Bend dyke assessment is expected to be completed in September. Assessments of other areas throughout the dyke network will follow. With respect to operation and maintenance manuals, the City adheres to the dyke maintenance guidelines as established by the Ministry of Environment, Lands and Parks.
Disaster Debris	>	That municipalities prepare plans to manage debris in the event of a disaster, based on source-separation and the solid waste management hierarchy (reduce, reuse, recycle).	>	Preparation of a Disaster Debris Plan will be incorporated into the Environmental Programs Department work program for 2000/2001.
Hazardous Goods	>	The JELC committee work is still in progress. Their final report will include recommendations to adopt common definitions, response protocols, public information programs and training requirements as it relates to dealing with a land-based and air-borne dangerous goods incident.	>	This information will be reviewed for incorporation in Richmond's emergency planning process when the committee report is received.

In addition, new priorities have been established as follows, for which committees are yet to be formulated:

- Regional Planning (includes review of municipal staff allocation to their home communities)
- Regional Evacuation
- Recovery Planning
- Public Information
- Geographic Information Systems

Staff will continue to participate as part of JELC, evaluate outcomes of the committee reports, and apply relevant recommendations as part of our emergency planning process.

Overall, the JELC committee reports represent a good basis of information from which we can draw in developing our emergency program initiatives. Many of the recommendations are worthwhile. However, given that they involve various agencies and jurisdictions, implementation strategies are not clearly laid out. In addition, the financial impact of these recommendations has not been identified.

It is, therefore, up to each agency to implement those recommendations they consider appropriate and cost-effective based on their emergency planning goals. As a result, it can be expected that these recommendations will be worked on over a long period of time and within established priority areas. Some may not be implemented due to financial or other constraints.

FINANCIAL IMPACT

Initially, JELC was funded entirely by GVRD municipalities. Since 1999, the Province has assumed 50% of the funding. Total annual municipal funding for the JELC initiative is \$65,000. Richmond's share of this cost in 2000 is \$6,200.

Those recommendations to be implemented by Richmond which have minimal or no cost implications will be incorporated as part of our planning process and within current budget provisions. Those initiatives recommended by staff that have significant financial implications will be brought forward to Council through the budget approval process.

CONCLUSION

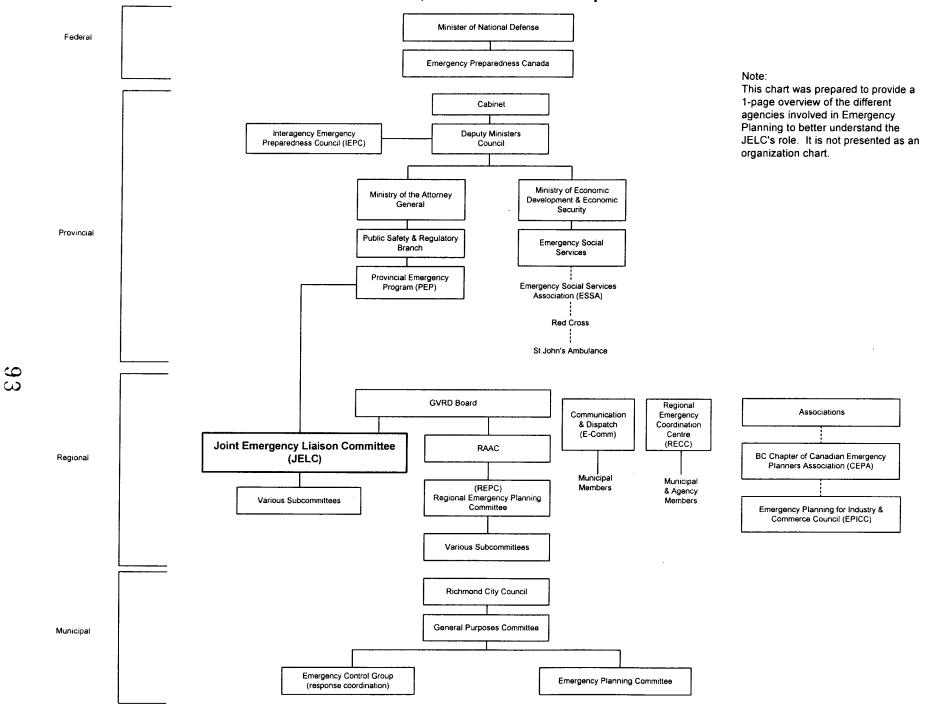
The JELC initiative offers a broader perspective to the challenges which will be faced in the region in the event of an emergency or disaster. The City benefits from the research information prepared by the JELC committees for incorporation into our emergency planning process.

This initiative, coupled with the regional emergency communications and information sharing capability offered by E-Comm and the Regional Emergency Coordination Centre, contributes toward better coordination throughout the region in the event of an emergency or disaster.

Greater emphasis on implementation strategies and an evaluation of the financial impacts of the JELC recommendations would be beneficial. Staff will represent this position through our participation at JELC.

Suzanne Bycraft Emergency Program Manager

Emergency Management Entities Federal, Provincial and Municipal



	JELC WORKING COMMITTEE REPORTS
JELC INITIATIVE	DETAILED RECOMMENDATIONS
Resource Management	THAT the preliminary types and categories of emergency resources as described in the appendix be adopted by the municipalities and provincial agencies.
	2. THAT Municipalities, Regional Districts, Provincial Agencies and other emergency response organizations develop and maintain an inventory or catalogue of resources based on the preliminary lists of categories, including contact names and procedures.
	3. THAT such inventories or catalogues be exchanged between Municipalities, Regional Districts, Provincial agencies, and other response organizations on a regular basis (minimum annually). This exchange should be accessible to all users via CD ROM, Internet linkage disc copies, or printed copies.
	4. THAT the JELC request the Ministry of Forests to develop and maintain a system which facilitates the exchange of the information.
	5. THAT the system developed by the Ministry of Forests become the Provincial standard.
	6. THAT testing of the Web database be continued, including access by suppliers, Municipalities, Regional Districts and Provincial Agencies.
Provision of Water	1. THAT all municipalities, working through REAC, should produce a damage rating system for their water and other facilities.
	2. THAT the City of Vancouver Water Study be distributed to all municipalities via REAC and that all municipalities produce their own vulnerability assessment following the format of the City of Vancouver report.
	3. THAT the water utility emergency planning template, under development by the committee, be distributed to all municipalities via REAC and that all municipalities complete an emergency response plan using the template as a guide.
	4. THAT the GVWD and REAC develop communication protocol and damage rating systems to be used in a disaster between the region and municipalities.
	5. THAT all municipalities together with the GVWD develop a coordinated strategy for the seismic upgrade of all water systems. These activities and related coordination to fall under the mandate of REAC.
	6. THAT the Ministry of Agriculture, Fisheries and Food develop contingency plans for the use of bottling plants and water hauling resources in order to ensure that plants can convert to the bottling of water and that water can be delivered to locations as needed.
	7. THAT the Regional Health Board coordinate the development of emergency plans for water at all hospitals. All hospitals in the Lower Mainland must have emergency plans in place to ensure they can be self-sufficient for water needs for a minimum of 72 hours in the event of a disaster.
	8. THAT for communiqués with the public, the term "Potable Water" be dropped in favour of something more generally understood, such as Drinking Water.

	JELC WORKING COMMITTEE REPORTS
JELC INITIATIVE	DETAILED RECOMMENDATIONS
Provision of Water	9. THAT the GVRD develop a common regional GIS database for water distribution systems at the regional and municipal level; including reception centres, emergency routes and other information, as required.
(cont'd)	10. THAT the GVWD jointly develop with the municipalities a protocol/priority for isolating and restoring service points.
	11. That the REAC Technical Committee develop a Capital Plan and implementation plan related to isolation of water protocol.
Seismic Upgrade of Disaster Response Routes	1. THAT the JELC establish a coordinating agency responsible for the continuing review of disaster response routes. This agency would annually determine changes in the status of relevant disaster response routes, update the disaster response routes map and redistribute new maps to all stakeholders.
	2. THAT the Ministry of Transportation and Highways be assigned to keep the disaster response route map up-to-date under the jurisdiction of the permanent organization set up to respond to an earthquake.
	3. THAT all municipalities set up municipal disaster response routes that link to the MoTH disaster response routes.
	4. THAT municipalities develop an action plan to upgrade the municipal disaster response routes as necessary.
	5. THAT all municipalities adopt the above factors when reviewing exiting routes and when the necessity requires, the designation of new routes.
	6. THAT a by-law be adopted in all municipalities regarding the use of disaster response routes. The wording could be as follows:
	<u>Disaster Response Routes</u> A driver of a vehicle shall not enter a street or highway which has a sign identifying it as a Disaster Response Route and which has additional direction (i.e. Road Closed sign, peace officer, etc.) unless the driver is driving a disaster response vehicle as defined in the British Columbia Motor Vehicle Act and in this section.
	"Disaster Response Vehicle" means
	 a motor vehicle or cycles as defined in Part 3 of the BC Motor Vehicle Act carrying rescue or first aid equipment where there is an urgent emergency justifying a rate of speed in excess of any maximum rate of speed provided for in the Act;
	a motor vehicle driven by a member of a fire department in the discharge of duty;
	a motor vehicle driven by a peace officer in the discharge of duty;
	a motor vehicle carrying emergency equipment, supplies or personnel authorized for disaster response.
	7. THAT PEP develop protocol and procedures with the media to carry public service announcements and other information in the event of a disaster.
	8. THAT municipalities have all municipal disaster response routes seismically assessed.

	JELC WORKING COMMITTEE REPORTS	
JELC INITIATIVE	DETAILED RECOMMENDATIONS	
Seismic Upgrade of Disaster Response Routes (cont'd)	THAT municipalities and MoTH develop a priority program to upgrade disaster response routes.	
	10. THAT municipalities work towards getting redundancy for their municipal disaster response routes.	
	11. THAT PEP monitor the highways grid/routes to ensure municipalities assess routes as and when required due to changes.	
	12. THAT PEP institute a review process (lead by highways) to continually monitor the disaster response routes.	
	13. THAT MoTH develop common standards for the upgrading of provincial and municipal emergency response routes.	
Structural Assessment Committee	THAT the GVRD Board adopt the following protocol for municipal structural assessment and advise the municipalities to commence assessments:	
	 Municipalities identify facilities that will be required to function subsequent to an earthquake. The following facilities should be considered: ambulance stations (provincially owned) emergency hospital facilities fire stations police facilities operations centres (local and regional) emergency reception centres others These facilities should be maintained as post-disaster facilities. 	
	2) Municipalities should establish the characteristics of buildings that will be required to provide temporary services such as emergency shelter, food preparation and service, etc. and maintain an inventory of such facilities. The inventory must be updated annually and distributed to those agencies having need of the information.	
	Municipalities should identify other buildings that have not been assessed but have the characteristics required to serve post-disaster functions. Rapid assessments should then be carried out on these buildings and the initial list updated to reflect these buildings.	
	4) Rapid assessment should be carried out using as a basis the "NRC Guidelines for Seismic Evaluation of Existing Buildings". Alternate methods such as a quick engineering assessment would be acceptable.	
	5) If a required building has had a rapid assessment and appears to be acceptable, an in-depth assessment to the latest building code requirements must then be performed.	
	6) Buildings that are considered vital for post disaster functions, but do not meet the seismic requirements should have a costing exercise carried out to establish costs to upgrade to meet code, and then subsequent upgrades conducted in a timely manner.	

	JELC WORKING COMMITTEE REPORTS	
JELC INITIATIVE	DETAILED RECOMMENDATIONS	
Structural Assessment Committee (cont'd)	7) That the following protocol be adopted by all municipalities and the Provincial Emergency Program:	
	Requesting Volunteer Engineers Local Jurisdictions	
	a) The local jurisdiction should assess the extent and severity of the damage and determine the need for volunteers.	
	b) The type and number of buildings, lifeline facilities or other structures that need an immediate safety assessment need to be identified. First priority should be given to buildings used for emergency operations, care of the sick and injured, lifeline services, and other structures that may pose a threat to large segments of the population, such as dams, dykes, auditoriums, and manufacturing concerns that use or store large quantities of hazardous materials.	
	c) Submit a request for volunteer engineers through official channels (including the RECC) to the PFRC.	
	d) Give name, telephone number, jurisdiction, department, and title of the authorized officer making the request.	
	e) Designate a meeting place and provide directions.	
	f) Jurisdictions are responsible for all costs related to the volunteer engineers.	
	PFRC	
	a) Confirm the estimate of the number and kinds of structures that will require inspection.	
	b) Make sure the jurisdiction knows that it is responsible for the costs of travel, food, lodging, film, and other expenses of volunteer engineers.	
	c) Remind jurisdiction that it must arrange special passes, vehicles, placards, maps, and other operational materials to assist volunteer engineers.	
	d) Request the latest information on the best routes into the disaster area. If surface routes are not open, alternative transportation will be arranged for volunteers.	
	e) Notify jurisdiction when volunteer engineers will be available to provide assistance.	
	THAT the BCBC representative in the PFRC be responsible for allocating volunteer engineers to specific assessment locations in company with a municipal engineer.	
	3. THAT PEP institute a program to ensure all responders, including volunteers carry identification badges.	
	4. THAT the JELC recommend the GVRD Board approve the attached notices, at which time all municipalities will be instructed to use them for future assessments.	

	JELC WORKING COMMITTEE REPORTS
JELC INITIATIVE	DETAILED RECOMMENDATIONS
Structural Assessment Committee (cont'd	5. THAT PEP and all municipalities communicate and emphasize the importance and the meaning of these notices, especially the colour codes, to the public. This activity to take place annually during Emergency Preparedness Week.
	6. THAT the APEGBC recommend all structural engineers registered through the association as volunteers undergo ATCf 20 rapid and detailed training as required.
	7. THAT the Building Officers Association require all building officials to complete ATC 20 rapid assessment course.
	8. THAT the JELC request the APEGBC to maintain and update a volunteer database on an annual basis and forward the information to the agency responsible for maintaining the provincial inventory.
	9. THAT all buildings that do not have a special nature (courts, jails etc.) co-locate the building drawings with the fire panel. Due to their size, these drawings should be reduced in size, but should still be legible.
	10. THAT all buildings that fall under a special category (courts, jails, detention centres etc.) should, on an individual basis, assess the most appropriate place for the location of their building drawings and place them there.
	11. THAT the National Building Association investigate the feasibility of including non-structural restraint components into the NBC.
	12. THAT the National Building Association, working with the emergency management community, develop easy to understand restraint information for the general public.
	13. THAT the JELC request all dyking authorities to conduct damage potential surveys for the dykes and dams in their jurisdiction.
	14. THAT all dyking authorities should review the O&M manuals and develop procedures to ensure that the manuals are continually updated.
	15. THAT all dam owners have a responsibility to ensure that all O&M manuals contain the required earthquake procedures section.
	16. THAT the GVWD and municipal water authorities should include drainage works within dyked areas as part of their seismic assessment programs.
	17. THAT Surrey Regional Water Management office should prepare a prioritized list of dykes and dams based on an assessment of the consequences of failure.
	18. THAT the Ministry of Environment be responsible for ensuring that the owners of sewage lagoons and other hazardous waste containment structures inspect them immediately after an earthquake.
Disaster Debris	THAT the GVRD Board request private agencies to keep their lists of resources up to date, and provide them on an annual basis to the Provincial Emergency Program (PEP), the agency mandated to keep the Resource Database current.
	2. THAT the GVRD Board instruct Municipalities to keep their Resource Databases up to date, and provide them on an annual basis to PEP.
	3. THAT the GVRD Board instruct Municipalities to promote (via regulations and public education) source-separation of disaster debris for the purpose of subsequent recycling, and utilization of alternative disposal methods.

	JELC WORKING COMMITTEE REPORTS
JELC INITIATIVE	DETAILED RECOMMENDATIONS
Disaster Debris (cont'd)	4. THAT the Inter-agency emergency Planning Committee undertake negotiations with Dominion Directory and other producers of telephone books in order to include source separation information in the community information section.
	5. THAT the GVRD Board and the Inter-Agency Emergency Planning Committee provide private agencies and others as required, with the expected debris volumes.
	6. THAT the GVRD Board instruct Municipalities to develop disaster debris plans that take into consideration the estimated disaster debris quantities.
	7. THAT the Inter-agency Emergency Planning Committee instruct the appropriate provincial agencies to develop disaster debris plans that take into consideration the estimated disaster debris quantities.
	8. THAT the GVRD Board instruct Municipalities to use processing, recovery, and recycling facilities in addition to disposal facilities.
	9. THAT the GVRD Board advocates the use of alternate disposal methods.
	10. THAT the GVRD Board instruct the Ministry of Environment, Lands and Parks, the GVRD, and the Municipalities to adopt the protocol for temporary storage sites.
	11. THAT the GVRD Board request Municipalities with closed landfills within their jurisdictions to adopt the closed landfill protocol. Municipalities are also requested to designate specific areas within an active landfill for temporary storage of disaster debris.
	12. THAT the GVRD Board require Municipalities to adopt the protocol for accepting disaster debris at active and closed landfills, open spaces, and sites of collapsed/demolished buildings.
	13. THAT the GVRD Board instruct Municipalities to include the protocol outlined in Term of Reference #7 to all waste removal contracts (including disaster debris removal) that requires contractors to adopt the solid waste management hierarchy.
	14. THAT the GVRD Board instruct Municipalities to prepare contingency plans to address the loss of use of transfer and disposal facilities.
	15. THAT the GVRD Board instruct Municipalities with disposal facilities within their jurisdictions to allow stockpiling of disaster debris, separately in a pre-designated area, during the emergency phase, and to not allow straight disposal.
	16. THAT the GVRD Board instruct Municipalities to reinstate all regulations and disposal restrictions as soon as possible after the emergency phase is over.
	17. THAT the GVRD Board instruct Municipalities to use temporary public drop-off sites only when absolutely necessary (as determined by the magnitude and extent of damage cause by the earthquake event).
	18. THAT the GVRD Board adopt and promote the use of the selection criteria for designating temporary public drop-off sites.
	19. THAT the GVRD Board instruct Municipalities to require contractors to inspect each load of post-earthquake solid waste, especially disaster debris, for any type and quantity of hazardous waste, and to separate it from the remainder of disaster debris at the source to the greatest extent practicable.

	JELC WORKING COMMITTEE REPORTS	
JELC INITIATIVE	DETAILED RECOMMENDATIONS	
Disaster Debris (cont'd)	20. THAT the GVRD Board instruct Municipalities to provide information to residents on how disaster debris will be handled, and, residents responsibilities in the handling and disposal of disaster debris.	
	21. THAT the GVRD Board instruct Municipalities to include the following language related to "on the spot" permits in their emergency response plans and regulations.	
	"On the Spot" Permits "On the spot" permits will only be required during the initial emergency response phase when human life is at stake. Once the emergency phase is over, and the recovery phase sets in, all effort should be made to bring the situation back to normality. All applications for permits will revert to normal processes.	
	The type of "on the spot" permits related to disaster debris management include:	
	 designating an area as a temporary storage for the immediate removal of debris where life is at stake allowing overload vehicles and equipment to pass over roads and bridges as required demolition permits tree-cutting permits storage of disposal bins on public property 	
	22. THAT the GVRD Board instruct Municipalities to include waivers for existing facility authorizations which suspend the requirements of a license or permit under extraordinary circumstances.	
	23. THAT the GVRD Board instruct Municipalities to provide public education information on storage of perishables.	
	24. That the GVRD Board instruct Municipalities to re-instate disposal restrictions as soon as possible after a disaster, if they are lifted during the initial emergency phase.	